

# STRATEGIC FORESIGHT: SCENARIO PLANNING

A TRAINER'S MANUAL



---

The Asian Productivity Organization (APO) is an intergovernmental organization committed to improving productivity in the Asia-Pacific region. Established in 1961, the APO contributes to the sustainable socioeconomic development of the region through policy advisory services, acting as a think tank, and undertaking smart initiatives in the industry, agriculture, service, and public sectors. The APO is shaping the future of the region by assisting member economies in formulating national strategies for enhanced productivity and through a range of institutional capacity building efforts, including research and centers of excellence in member countries.

#### APO members

Bangladesh, Cambodia, Republic of China, Fiji, Hong Kong, India, Indonesia, Islamic Republic of Iran, Japan, Republic of Korea, Lao PDR, Malaysia, Mongolia, Nepal, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, and Vietnam.

---



# STRATEGIC FORESIGHT: SCENARIO PLANNING

A TRAINER'S MANUAL



**Strategic Foresight: Scenario Planning (A Trainer's Manual)**

Polchate Kraprayoon served as the volume editor.

First edition published in Japan  
by the Asian Productivity Organization  
1-24-1 Hongo, Bunkyo-ku  
Tokyo 113-0033, Japan  
[www.apo-tokyo.org](http://www.apo-tokyo.org)

© 2019 Asian Productivity Organization

All rights reserved. None of the contents of this publication may be used, reproduced, stored, or transferred in any form or by any means for commercial purposes without prior written permission from the APO.

Cover illustration © Dr. Santhi Kanoktanaporn, Nirindh Sudhakorn, and Management System Certification Institute (Thailand)

Designed by Convert To Curves Media Private Limited

# CONTENTS

LIST OF TABLES	IV
LIST OF FIGURES	IV
FOREWORD	V
INTRODUCTION	1
SECTION 1: THINKING ABOUT THE FUTURE	3
SECTION 2: INTRODUCTION TO SCENARIO PLANNING	6
SECTION 3: ESTABLISHING A PROJECT	9
SECTION 4: DRIVING FORCES	13
SECTION 5: BUILDING BLOCKS	18
SECTION 6: SCENARIO FRAMEWORKS	21
SECTION 7: STORYTELLING	24
SECTION 8: IMPLICATIONS, OPTIONS, AND INDICATORS	27
SECTION 9: COMMUNICATING SCENARIOS	30
SECTION 10: PRACTICAL CONSIDERATIONS	31
SECTION 11: PREPARING AND FACILITATING SCENARIO WORKSHOPS	34
SECTION 12: GLOSSARY AND FURTHER READING	40
REFERENCES	44
APPENDIX	45

# LIST OF TABLES

**Table 1:** VUCA terms and definitions ..... 5

**Appendix Table 1:** Example design document ..... 45

# LIST OF FIGURES

**Figure 1:** Learning passport format..... 2

**Figure 2:** Hermann Moll’s 1701 map of California ..... 3

**Figure 3:** Forecasting, or planning for one future, versus scenario planning,  
or looking at a range of futures ..... 7

**Figure 4:** Mont Fleur scenarios ..... 7

**Figure 5:** The seven-step scenario-planning process ..... 8

**Figure 6:** The contextual and transactional environment ..... 13

**Figure 7:** The building blocks of scenarios..... 18

**Figure 8:** A 2 × 2 matrix ..... 22

**Figure 9:** The iceberg model ..... 25

**Figure 10:** Placing bets across the scenario matrix ..... 28

**Figure 11:** Strategy development process ..... 33

**Figure 12:** Ertel and Solomon’s core principles for the design process ..... 35

# FOREWORD

For the APO's 20 member governments, the decision-making and planning environment has shifted dramatically since the organization's founding in 1961. Long-term drivers like globalization, climate change, shifting demographics, and technological progress have accelerated the pace of change and produced many sudden, momentous shocks. In an environment marked by volatility, uncertainty, complexity, and ambiguity, it is difficult for member governments to develop robust, responsive strategies to meet their national goals.

The APO embarked on a transformation journey in 2017 to become a world-leading, "future-ready" international organization. Part of this effort is improving the value of services offered to member governments. It is crucial to maximize the impact of the APO by focusing its work on the national level.

In line with this effort, the APO has developed a Strategic Foresight Initiative as part of its many capability-building programs. This helps member governments develop future-ready national plans and policies by building strategic foresight capability. Strategic foresight, the organizational capacity to think systematically about the future to inform decision making today, is a proven method for dealing with a difficult environment. By thinking about possible and plausible futures, foresight and scenario development allow organizations and the people within them to hold strategic conversations about risks and opportunities, develop shared visions, and produce robust strategies. The APO aims to be a leading enabler of strategic foresight by familiarizing member governments with the best in foresight practices and scenario development.

The APO has taken measures to ensure that this initiative is progressively structured and builds on itself over time. To achieve the goals of the Strategic Foresight Initiative, a shift toward creating learning organizations within the entire APO community is required. Within member governments, this means investing in and encouraging civil servants to acquire knowledge and practice anticipatory thinking at every level of public administration, from front-line service delivery to top-level decision making.

This capability-building program is designed to be carried out in three distinct phases. The first is raising awareness of strategic foresight among heads of national productivity organizations and introducing principles of strategic foresight to development planners in member governments. The second phase consists of training-of-trainers workshops to create a pool of competent strategic foresight practitioners and trainers who can independently lead scenario development exercises and propagate

foresight knowledge in their countries. The final phase is intended to embed strategic foresight into the national strategy and development policies of member governments.

This trainer's manual was developed as a resource as part of the second phase of the Strategic Foresight Initiative. Training sessions in this phase focus on the facilitation, communication, and other auxiliary skills necessary to lead scenario development. By developing capable strategic foresight trainers, the Secretariat aims to build up strategic foresight capacity in member governments, so they may better shape the future of their countries. This manual is intended for participants who have passed and qualified as foresight trainers by going through the APO's foresight program and fulfilling the associated requirements.

Leading scenario planning and strategic foresight practitioner and facilitator Jonathan Star, of Scenario Insights LLC and formerly of the Global Business Network, jointly developed the manual with the APO Secretariat. It will help foresight trainers and consultants to understand scenario planning and provide guidance on undertaking it. This manual provides easy-to-follow instructions on delivering scenario planning training and should be used alongside the PowerPoint presentations and training sheets included.

I am pleased to present *Strategic Foresight: Scenario Planning (A Trainer's Manual)* and related materials and sincerely appreciate all who worked to produce it. The APO Secretariat hopes that these materials will be used to promote foresight planning practices.



***Dr. Santhi Kanoktanaporn***

Secretary-General

Tokyo

June 2019



# INTRODUCTION

**T**his training manual is a reference to accompany the slide deck on Training of Trainers on Strategic Foresight and Scenario Planning delivered in a course in Bangkok, 12–16 November 2018. The purpose of this manual is to equip workshop participants and other APO professionals to continue their work in scenario planning and also to train others in the technique and associated tools.

The report is structured according to the main elements of a strategic foresight/scenario process and mirrors the structure of the Bangkok slide deck. Throughout the report, there are a number of call-out boxes that describe different skills/techniques that are helpful in scenario work. The structure of the manual/training is based largely on the scenario development techniques taught and practiced at the Global Business Network (GBN), a scenario consulting and training organization that worked with hundreds of organizations from 1987 to 2012. It is divided into the following main sections:

1. Thinking about the Future
2. Introduction to Scenario Planning
3. Establishing a Project
4. Driving Forces
5. Building Blocks
6. Scenario Frameworks
7. Storytelling
8. Implications, Options, and Indicators
9. Communicating Scenarios
10. Practical Considerations
11. Preparing and Facilitating Scenario Workshops
12. Glossary and Further Reading
13. References
14. Appendix: Example Design Document and Worksheets

For steps 3–9, I have included descriptions of the process for a typical client, in this case a retail organization selling hardware and home improvement services.

## **Key Skills: Call-out Boxes**

- Introductions and Icebreakers
- Minimizing Bias in Scenario Research
- Brainstorming
- Conducting Scenario Interviews
- Creating Powerful Scenarios
- Storytelling Devices
- What Makes a Great Meeting?

## INTRODUCTIONS AND ICEBREAKERS

It is important to set the right context for scenario work. A scenario facilitator should have a good grasp of how to set the tone for a workshop. The Introduction session can be an important way to help achieve this.

A typical introduction exercise involves going around the room, allowing everyone to say their name, their affiliation, and maybe one short comment on what they hope to get out of the workshop. This is standard practice. However, there are a number of other possible variants of introductions:

- “In Three Words”: Each participant is asked to explain the work that they do in only three words. This is a fun exercise and ensures that introductions can be completed in a short time.
- Spectrum: This is an exercise that allows participants to self-identify based on their preferences. Start with asking people to go to part of the room based on whether they prefer:
  - Aisle vs Window (on a plane)
  - Tea vs Coffee
  - Lark vs Owl
  - Cat vs Dog
  - You can then ask more relevant questions like: are you optimistic vs pessimistic about the future?
- Partner Introductions. For large groups, it is good to get people standing and moving around by asking them to connect with a partner whom they do not know well. They share their views on a question (e.g., your hopes for the session). After five minutes of conversation, ask participants to find a new partner, and then tell the new partner what the first partner told him/her. As a facilitator, you can explain that this signals that the session is about listening to others.
- Learning Passports (Figure 1): This is an individual activity where people are given a postcard. They write down something notable about themselves as well as two or three things that they want to get out of the course. Then the facilitator should ask people to read out what they wrote on the cards.

**FIGURE 1**

### LEARNING PASSPORT FORMAT

Name: _____	Share 1–2 things about your role: _____ _____
Draw Something Important to you: <div style="border: 1px dashed black; height: 100px; width: 250px;"></div>	What are your objectives for this workshop: _____ _____ _____

**Source:** APO. Scenario Planning and Strategic Foresight

## SECTION 1

# THINKING ABOUT THE FUTURE

In explaining the rationale for this course/training, it is important to acknowledge the fundamental reason for using foresight and scenarios: We all want to better understand the future to make smarter decisions today. This means that we need to think differently and challenge our own assumptions about the world.

It is often helpful to begin with some vivid stories or examples. The GBN often used a story called the “Map Rap” (Figure 2):

This 1701 map of North America was made by Dutch cartographer Hermann Moll. You may notice it looks a bit different. California is depicted as an island. Moll based this map on reports from Spanish explorers, who traveled up the west side of the Americas to the tip of today’s Baja Peninsula. On earlier maps, everything to the north was drawn correctly as one great land mass,

**FIGURE 2**

**HERMANN MOLL'S 1701 MAP OF CALIFORNIA**



Source: New York Public Library. <https://digitalcollections.nypl.org/items/4eb08660-1f4c-0133-e930-58d385a7b928>

terra incognita. Around 1635, the Spanish sailed north to Puget Sound. Being good Cartesians, they connected the northern and southern points and the Island of California was born.

This would only be a historical curiosity were it not for the missionaries who would land near today's Monterey and go inland to bring the word of God to the American Indians. Relying on Moll's map, the missionaries disassembled their boats, packed them on mules, hauled them across California, up the Sierra Nevada and down the other side, only to find a beach that went on and on and on. They finally realized that they were in the middle of the desert (Nevada). They wrote to the mapmakers. "There is no Island of California. Your map is wrong!" The mapmakers replied: "No. You are in the wrong place. The map is right!" The Spanish finally changed their maps in 1685; Moll continued to defend his Island of California until 1721.

The point is, if you get your facts wrong, you get your map wrong. If you get your map wrong, you do the wrong things. Once you believe a map, it is very, very hard to change. Everyone has deeply ingrained maps, especially successful executives. However, the map that got them to the top is unlikely to be the map they need for the future. Scenario planning is about challenging those powerful maps and forcing people to ask themselves difficult and often painful questions about how the future might be different from the recent past.

### Global Business Network

An element of IBM's history also provides a good example of how existing mental maps can be problematic. Back in the late 1970s, IBM forecast the market for a new product area of personal computers for the decade ahead. They were very precise in their estimation. But they were also very wrong. The actual number was 25 million, about 100 times their original estimate. There was no opportunity for IBM to have conceived of that new market, and as a result they made a series of business errors that cost them dearly, including licensing the operating system, thus allowing Microsoft to grow and become dominant.

There are many more examples of people tied into their existing mental models and therefore missing a very big development. It is often useful to ask participants about a notable prediction that went wrong.

So why is thinking about the future so difficult for people and organizations? We can outline three reasons:

- We live in VUCA conditions (volatile, uncertain, complex, and ambiguous; Table 1). These are characteristics that typify the business, political, and technology environment that most organizations must exist in today and will almost certainly describe the world in the future.
- As humans, we have biases that constrain our thinking. For example, when we look for information, we give more weight to data confirming our prior beliefs, or are readily available, or that we have come across recently. When we assess the possibilities of the future, these biases mean that we are often too confident in our views and our perspectives are too narrow.
- We rely on limited tools like predictions and forecasts to assess the future, but these tools tend to provide a narrow, single point of view, which is dangerous in a VUCA world.

TABLE 1

## VUCA TERMS AND DEFINITIONS

VUCA	Definition
<b>Volatility</b>	The situation is unexpected or unstable and may be of unknown duration, but it is not necessarily hard to understand; knowledge about it is often available. <b>Example:</b> Prices fluctuate after a natural disaster takes a supplier offline.
<b>Uncertainty</b>	Despite a lack of other information, the situation's basic cause and effects are known. Change is possible but not a given. <b>Example:</b> A competitor's pending launch of a new product and its effect on the market.
<b>Complexity</b>	The situation has many interconnected parts and variables. Some information is available or can be predicted, but the volume or nature of it can be overwhelming or difficult to process. <b>Example:</b> Business being done in many countries, all with unique regulatory environments, tariffs, and cultural values.
<b>Ambiguity</b>	A multitude of different perspectives and viewpoints, cause-and-effect confusion, inability to correctly interpret events and situations. No precedents and "unknown unknowns." <b>Example:</b> Immature or emerging markets, new products outside of core competencies.

As a result, many responses to future uncertainty are incorrect. Sometimes we find ourselves in denial about change. Our reaction is to look for simple solutions, or just to ignore what is happening. Sometimes we are paralyzed by the prospect of uncertainty. In these cases, organizations fail to make convincing decisions to prepare for the future. Surprises and uncertainty are common, and leaders and organizations need coping mechanisms to allow them to act, even when they know the world is uncertain.

Because of these difficulties, a set of tools and methodologies has emerged to help people and organizations deal with future uncertainty. Collectively, this discipline is known as strategic foresight. There are many tools in the strategic foresight practitioner's toolkit including horizon scanning, experiential futures, Delphi forecasting, backcasting, causal layer analysis, etc. (see Jackson [1] for a full survey of foresight techniques). However, our focus in this manual is on one of the most common, comprehensive, fundamental approaches: scenario planning.

Practicing strategic foresight can create the conditions for effective policymaking and strategy formulation within organizations. More broadly, futures thinking can be understood as "an immune system for our civilization" by allowing us to think of future possibilities before they have arrived [2].

## SECTION 2

# INTRODUCTION TO SCENARIO PLANNING

This section introduces scenario planning, one of the most common, comprehensive approaches to strategic foresight. There are many definitions of scenarios and scenario planning. The following was offered by Peter Schwartz, who was Chairman of the GBN and Head of Group Planning at Royal Dutch Shell.

*“Scenarios are stories about the ways that the world might turn out tomorrow... that can help us recognize and adapt to changing aspects of our current environment.”*

Scenario planning as a formal methodology started in the late 1960s. It was first used by military planners to assess the risks of nuclear war, and thus to minimize the chances of such events ever occurring. In the commercial world, the oil industry was the first to use scenario planning. Planners at Royal Dutch Shell, led by the pioneering Pierre Wack, recognized the shift from stability to turbulence in the industry as a result of oil nationalism. They realized that conventional ways of planning would be insufficient in times of uncertainty and crisis and therefore developed scenario planning as a tool. By imagining different, surprising futures, Shell was better prepared than its competitors to navigate the turbulence of the oil crises of the 1970s. In the decades that followed, organizations in all industries and disciplines started using the technique.

The following outlines some of the main benefits from using scenarios.

**Scenarios help organizations avoid the traps of prediction:** Instead of planning for one future, scenarios help organizations plan for a range of futures, even those that seem unlikely from the current vantage point (Figure 3).

**Scenarios help organizations make sense of complexity:** Instead of seeing changes in the world as a confusing mix of events, scenarios enable us to cluster related developments into possible stories, allowing us to see powerful patterns and structures.

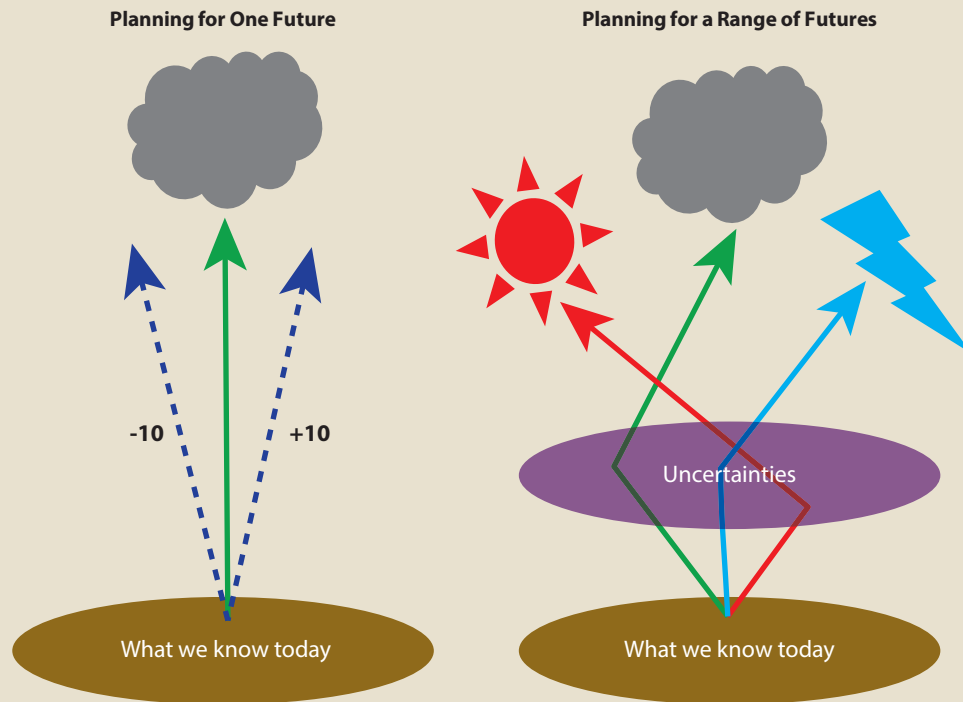
**Scenarios can help generate ideas and set strategy:** As an example, a large US automaker created scenarios to help imagine the vehicles that would be popular in the decade ahead. It used a matrix to create four different stories of the future based on varying fuel prices and different aspects of demand. These four different stories helped the automaker focus its strategy on fuel efficiency (an important element of most scenarios) and also design new concepts that led to the development of SUVs and minivans.

**Scenarios can help bring groups together and set a common vision:** The most famous example of this is South Africa’s Mont Fleur scenarios created in the early 1990s (Figure 4). South Africa was emerging from the apartheid regime. During a year-long process, stakeholders in South African society created four scenarios about the future of the nation. Three of the stories were cautionary tales about how things could go wrong, but one was a vision about how, by working together, the nation could recover.



FIGURE 3

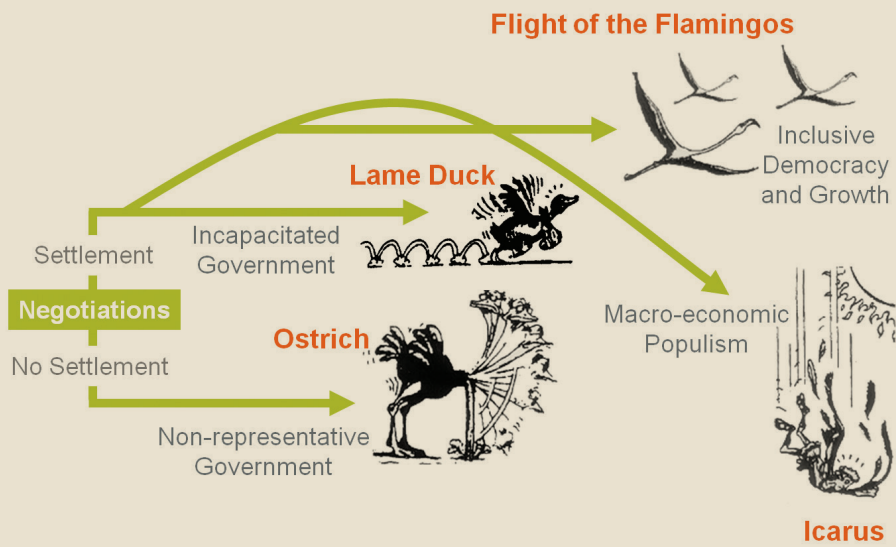
FORECASTING, OR PLANNING FOR ONE FUTURE, VERSUS SCENARIO PLANNING, OR LOOKING AT A RANGE OF FUTURES



Source: APO. Scenario Planning and Strategic Foresight

FIGURE 4

MONT FLEUR SCENARIOS



Source: Pieter le Roux, Vincent Maphai, et al. The Mont Fleur Scenarios. Deeper News 1991; 7(1):9. <https://reospartners.com/wp-content/uploads/old/Mont%20Fleur.pdf>

All scenario work should be based around three fundamental principles:

**Outside-in thinking:** Organizations and industries should think about the “bigger picture” or the contextual environment of social, technological, economic, political, and environmental forces that are likely to shape the organization in the years to come.

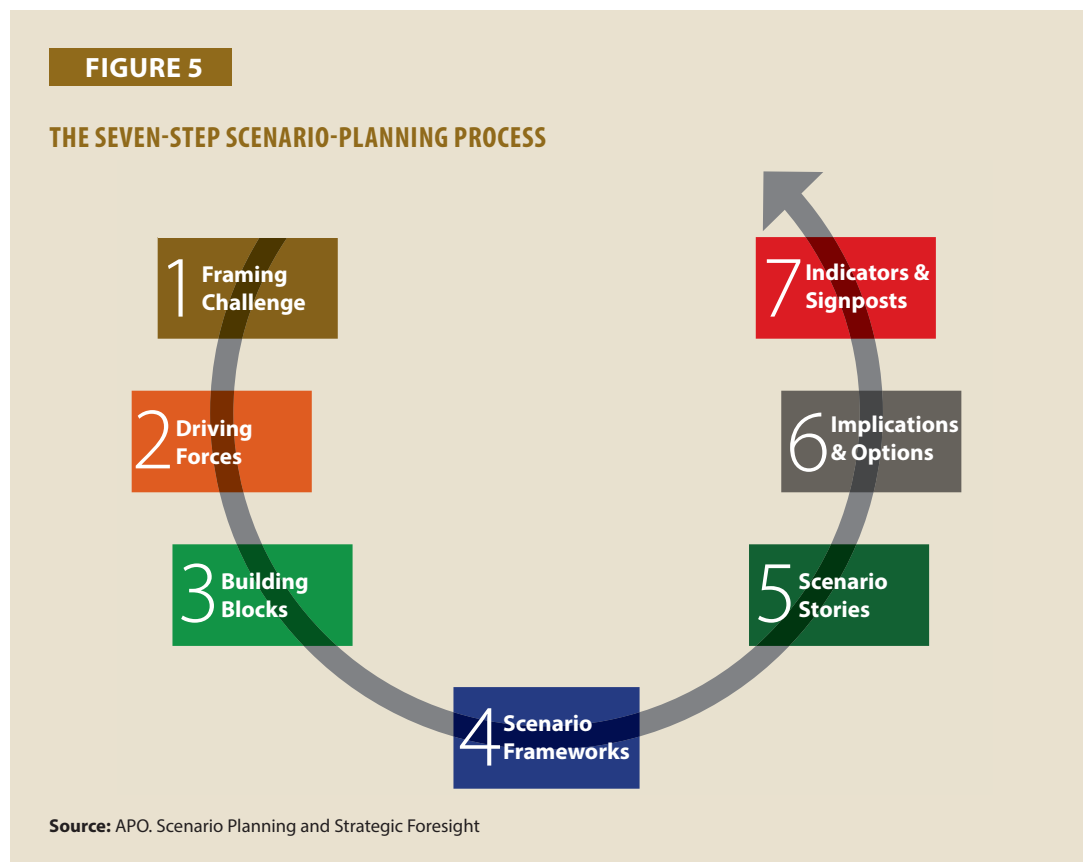
**Encourage diverse perspectives:** Scenario work should be based on a range of different points of view, hearing from established and new voices that express their opinions on the future.

**Take the long view:** Even though decisions or plans might be required for the next one to five years, scenarios encourage us to focus a longer-term lens on the nature of change happening around us.

There are many different methods to create scenarios, but most follow a recognizable pattern. In our approach, we use a seven-step process as follows (Figure 5):

1. Establishing a Project
2. Driving Forces
3. Building Blocks
4. Scenario Frameworks
5. Storytelling
6. Implications and Options
7. Indicators and Monitoring

The following sections broadly follow the same structure.





## SECTION 3

# ESTABLISHING A PROJECT

At the beginning of a scenario project, there are three main areas of work to consider and undertake:

1. Discuss and define the goals, scope, and focus of the project.
2. Identify the participants and perspectives that are needed to inform the work.
3. Design the engagement process and structure required to do the work in the available time.

### Goals, Scope, and Focus

It is important to spend time at the beginning of a project figuring out the overall objective of the work. What is the deliverable? What change do we want to see as a result of this work? It is worthwhile asking the basic question: Why have we chosen to use scenarios? Sometimes there might be other foresight (or strategy) tools that are better suited to the problem.

As we go into more detail, it is useful to distinguish between a **strategic challenge** and a **framing/focal question**.

A strategic challenge is anything that an organization needs to solve or decide upon. Sometimes a challenge can be very focused, e.g., a particular decision about whether an oil company should build a pipeline. Sometimes it can be very broad like setting a vision for the future of the organization 20 years ahead. It can also be something that lies in between, such as testing whether a current strategy is on track, or looking for new growth opportunities in the years ahead.

Leadership teams grapple with these strategic challenges all the time. What makes scenario planning different is the fact that leaders look to the outside, to the future, and to diverse perspectives before attempting to find solutions to the strategic challenge. Thus, a scenario-planning project must articulate a framing or focal question on the area or issues that we want the scenarios to shed light upon.

Examples of strategic challenges and framing questions are shown below:

**Strategic challenge:** What is the growth strategy for a food company over the next five years?

**Framing question:** What will people's eating habits be in 2030?

**Strategic challenge:** What policies should we adopt by 2023 that will help us prepare for job disruption from technology?

**Framing question:** How will technological change affect labor markets by 2030?

Conversations about the appropriate framing question are an important part of the early stages of a scenario process. Framing questions are hard to get right, and many scenario groups make mistakes

that result in a flawed or overly narrow scenario investigation. The following provides a few examples of errors in framing questions:

Embedded assumptions:

- How will PR China and India work together on climate change over the next 20 years? (Maybe they won't work together. Instead, ask: How might PR China and India address climate change over the next 20 years?)
- How might industrial activity damage natural landscapes over the next 50 years? (Maybe industrial activity could improve natural landscapes. Instead, ask: How might industrial activity affect natural landscapes over the next 50 years?)

Too broad/ambitious:

- What communications technology will be prevalent in 2040? (This is unlikely to create scenarios that are particularly relevant for many clients. The time scale is too far into the future, and the scope [global] is too broad. Instead ask: What communications technology will be prevalent in PR China in 2025?)

Focused on the client:

- What should be our 2025 alternative energy strategy? (This is more of a strategic challenge, as it describes something that the organization needs to decide upon. A better framing question might be: What will be the landscape for alternative energy in 2030?)

Because framing questions are hard to get right and easy to get wrong, I often recommend to clients that they articulate a “preliminary” framing question to get started on the project. Often, this is a general or simple characterization, such as: What will our business environment look like in 2030? Then, once the research is underway (and maybe even at the first workshop), the team members can discuss whether they need to make the framing question more specific.

## Participants and Perspectives

In the first stages of a scenario process, it is also important to decide who should be involved in this work. Clearly, this depends upon the overall goals and focus of the project. It is useful to consider three different categories of participants:

**Stakeholders:** It is essential to engage people who will make decisions as a result of the scenarios or can otherwise make change happen (or prevent it from happening). Typically, a key group of stakeholders is the leadership team or board of an organization. For a broader issue (e.g., future of a region, etc.), stakeholders might include people from the community.

**Knowledge holders:** The process will need to draw on people who have expertise in the issues pertinent to the scenarios. These might be people inside or outside the organization. While it is essential to have knowledge holders involved, scenario work requires us to treat such expertise with care. Scenarios are based on the idea that we do not know what the future holds. Ideally, knowledge holder participants (experts) should be willing to open their minds and challenge their own assumptions and mental maps about the issue. This shift can be helped by the third category.

**Curious and creative individuals:** Scenarios rely on diverse perspectives, so curious and creative people should always be part of the process. This could include young people new to the organization/issue, or from a different business unit, or even from a completely different discipline.

It is ideal if each of these three groups can be represented in face-to-face scenario meetings. If that is not possible, the scenario project plan should ensure that the perspectives of these groups are brought into consideration. This can be done by communicating the results of interviews, or surveying people for their views beforehand, or having people participate in the workshop via videoconference.



## Project Engagement and Structure

The final piece to get started on a project is designing the engagement process and structure. Scenario projects typically run for many weeks or months, so a project designer must think about how to construct the work for maximum effectiveness. How long should the project last? How much time should be allocated to each stage? Which parts of the process will require face-to-face meetings compared with other modes of collaboration such as webinars or conference calls? When should a smaller “core team” get together to push forward the work between the main workshops?

The answers to these questions, and thus the precise design of a scenario engagement, will depend on the details of the first two elements of this section: goals and scope; and required participants and perspectives. More specifically, scenario designers should consider:

- When a decision/deliverable is required
- What kind of burden of proof/level of information is required by decision makers
- When participants are available
- Which elements of the process can be outsourced/taken offline for a core team or consultants to handle

The result of all these considerations should be a project plan, describing the main elements of the work to take place over time. During our training course in November, groups developed a project plan for an imaginary scenario project on the future of transportation.

## Client Example

In our scenario case example, our client is a mid-sized hardware retail store chain selling do-it-yourself (DIY) and home improvement products and services to consumers. The senior management team (along with the board) wants to undertake a scenario-planning exercise to better understand their long-term growth opportunities, especially when faced with an uncertain housing market, increased competition from large retail chains, and changes in its customer base.

The senior management team and board are clear about the strategic challenge of how to grow the business in a sustainable fashion over the next five years. To think carefully about this growth, they settled on a general framing question: What will the future of hardware retailing look like in the next 10 years?

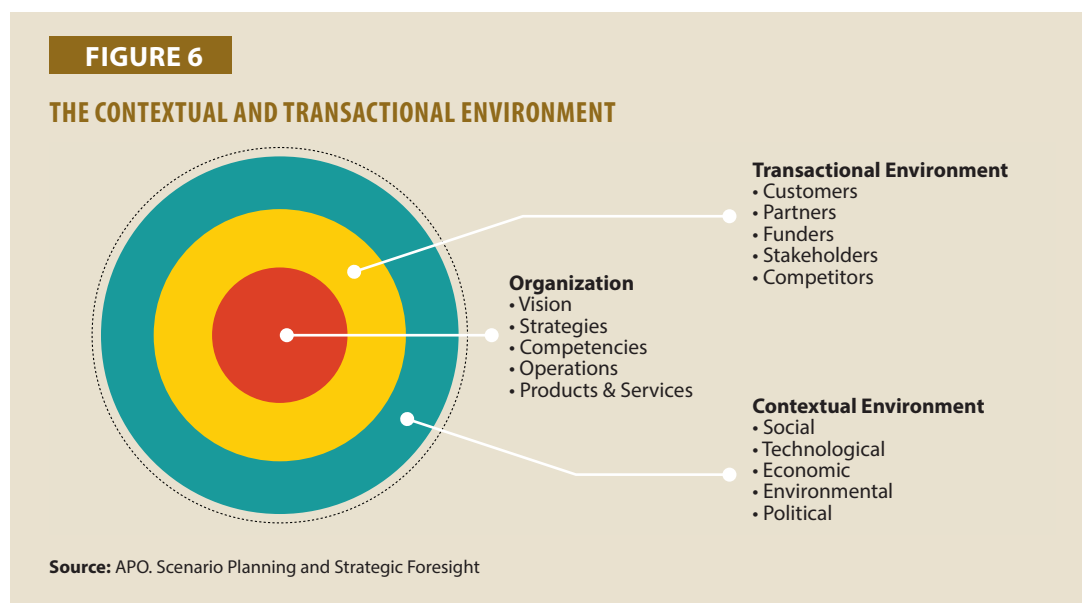
The company decided to engage an external consultant to facilitate the project. The consultant works in close collaboration with the Director of Strategy, who reports directly to the Chief Executive. The Director of Strategy forms a core team, comprising senior managers from supplier relations, marketing, finance, and retail operations. The external consultant suggests a general design for the project that is scheduled to be completed in four months. The core team is responsible for industry-level research, scheduling meetings, and recruiting client participants for the workshops.

## SECTION 4

# DRIVING FORCES

After establishing each of the basic elements of your scenario process, the next step is to conduct desk research into those forces that could shape the future of the issue under investigation.

This research should encourage “outside-in” thinking, ensuring that the work assesses the contextual environment around the strategic challenge and framing question (Figure 6). What changes in society, technology, economy, politics, and the environment have the potential to reshape the issue under consideration? In addition, scenario work should also look at factors that might be a particular concern to an organization like changing customer behavior, new competitors, different funding regimes, etc.



The Internet provides easy access to a substantial amount of information to help investigate driving forces. It can be useful to identify a small number of classic trends sources (such as the US National Intelligence Council, or the WEF Global Risks Report) to begin the research. It is also worth looking at the output of “trend-watching” firms (these organizations conduct proprietary work for clients but will often publish more general findings as marketing and profile-building materials). Another useful source is commercial organizations that have futures units that regularly publish their work (such as Arup, Ford, Shell). Depending on the subject being discussed, it is also worth searching for TED talks, articles, and books that focus on the futures/foresight aspects of particular issues. Finally, the organization Shaping Tomorrow provides a very useful compendium of trends about future issues, using artificial intelligence (AI) as a way of searching for, summarizing, and categorizing information.

While desk research is necessary to identify the main driving forces, it is worthwhile speaking to stakeholders, outsiders, and experts who can stretch our thinking about future possibilities. These conversations should be structured around a series of open-ended questions (see the call-out box on Conducting Scenario Interviews). It is good practice to interview some thinkers who are outside the typical domain of most scenario participants. At the GBN, the organization established and maintained a network

of 150 “remarkable people” who were asked to contribute to various scenario projects. They were asked not because of their specific expertise in the subject area, but because they were people who could make analogies and connections with things that they had experienced in other industries or contexts.

There are some other principles that should be noted when conducting scenario-based research:

- Think like a journalist, rather than a conventional researcher or a data analyst. This means follow interesting story lines rather than always relying on data. Remember that you are looking to the future, so the data might not yet be readily apparent.
- As your scenarios are meant to describe the future a decade ahead, it is worth looking at what lead users or adopters are doing today. This is what trend-watching firms do.
- Online surveys and crowdsourcing are useful to gather ideas quickly from large numbers of people, especially if there is little time to conduct many interviews.
- Don't worry about being comprehensive. You will never have enough time to read everything, but ensure that you have covered a wide variety of topics among your potential driving forces.

At the end of the scenario research phase, the scenario project should have a large, diverse number of ideas for driving forces. The following pages provide more detail on two key skills often needed in this phase: interviewing and brainstorming.

#### **MINIMIZING BIAS IN SCENARIO RESEARCH**

There is a well-established literature that demonstrates how human decision makers have cognitive biases that limit our ability to think broadly about uncertain issues. Our brains like to take shortcuts, and so we often exhibit biases such as:

- Confirmation bias, or only looking for (or prioritizing) information that confirms our existing beliefs
- Availability bias, or prioritizing information that is obvious, visible, and readily available over harder-to-find sources
- Recency bias, or prioritizing information that we have recently experienced

There is a real danger that scenario researchers will fall into these traps as they look for information, so it is vitally important to be aware of this risk. Scenario research should be deliberately structured and designed to actively minimize these biases. Here are some tips and hints for this:

- Force yourself (and your team) to read nontraditional sources. If you are trained in economics, then branch out to read about some trends in sociology, technology, or psychology. Possessing a “learners’ mindset” is a valuable position to take.
- Look for articles, trends, and evidence that present a counterargument to conventional wisdom. For example, there have been countless articles in recent years about the emergence of AI, automation, and autonomous vehicles. What arguments are being made to suggest that self-driving cars might not be popular in 10 years’ time? When presenting trends, try to also present some evidence for the countertrends.
- Take account of history. In futures research, there is a temptation to prioritize recent

**CONTINUED TO NEXT PAGE**



## CONTINUED FROM PREVIOUS PAGE

“up-to-date” articles because they provide the most recent articulation of a particular technology, for example. But there is real value in also providing a historical perspective that might be more instructive about how behavioral change happens.

- Interview people from varied places and disciplines to ask them how they view a particular phenomenon. Our default is to seek out experts to tell us about a particular trend or driving force, but others might hold very different views. Maybe the prospects for autonomous vehicles are perceived very differently in large Indian cities compared with Silicon Valley.

## Brainstorming

Scenario research is often conducted by a core team that presents the results of the ideas to a workshop. During our training workshop, we were unable to replicate this, so we encouraged each group to brainstorm a long list of potential driving forces. Brainstorming is a very useful tool for generating ideas. The following provides some pointers and key tips for doing it well.

### BRAINSTORMING

Brainstorming is used as a group technique to help generate a lot of ideas in a short space of time. In scenario work, it is important that the group generates a diverse range of potential driving forces (at a minimum, ensure that the list covers the STEEP categories).

Brainstorming is a high-energy, quick-moving exercise. Because of this, it is sometimes helpful to start by asking people to spend three to five minutes in silence, writing down a few ideas to start. Then the brainstorming can begin by asking each person to contribute one or two of his/her own ideas before asking for “open outcry.”

Groups should not spend much time evaluating each suggestion. A brainstormed list should contain many items that can be assessed and prioritized later.

Sometimes it is helpful to change the dynamic of a brainstorming exercise halfway through in order to keep people fresh and able to think of new ideas. This might mean showing a quick video, changing seats, grabbing a snack, or taking a walk.



## CONDUCTING SCENARIO INTERVIEWS

Interviews are useful ways of capturing information about driving forces. They can also be used earlier in the scenario process to help identify the strategic challenge and framing question. It is beneficial to conduct interviews with stakeholders, experts, and curious, creative individuals.

The main feature of scenario interviews is open-ended questions. We want interviewees to think about their answers, rather than knowing immediately what to say. It is important to prepare well for these interviews. Approach each interview with a list of questions but be flexible and willing to ask supplementary questions to follow areas of particular interest.

Tell people that you are recording/taking notes, but that their comments will not be directly attributable to them.

If the interview is focused on identifying driving forces of change, then the following questions are most useful:

**Looking back:** Over the past decade, what have been the most notable developments in your industry? Which trends surprised you most?

**Oracle:** If I could answer any question for you about the future, what would you want to know about your industry, your environment, or the world?

**Predetermined:** Could you name and describe the biggest unstoppable trends that will affect this issue/your organization?

**Wildcard:** What low-probability events could happen to completely reshape the landscape?

**Good and bad scenario:** How might a bad (or good) scenario actually evolve for your organization in the coming decade?

If the interview is also designed to gain a better understanding of the strategic challenges and the dynamics facing an organization, then use the following questions for stakeholders:

**Historian:** As it plans for the future, what does this company need to forget? What must it remember?

**Therapist:** As you think about your organization's future, what keeps you awake at night? What do you most hope for?

**Decision maker:** What are the one or two critical strategic decisions on the immediate horizon?

**Legacy:** How would you like this company to be thought of by a future generation?

**Closer:** What should I have asked you that I didn't?

Take notes on (or record) each interview. It is useful to create an interview summary document that captures the main themes that emerge from the series of interviews. Use quotations (with no attribution) to bring the ideas to life and reflect the language of the interviewees.



## Client Example

The external consultant and the client core team share the responsibility for undertaking research on driving forces. The external consultant focuses on researching some of the contextual forces, i.e., broad trends that will affect the economy, society, and technology in the decade ahead. The core team is focused more on industry dynamics, i.e., what's happening with the competition, how the customer landscape is changing, and the regulatory aspects like building permits, store locations, etc.

Much of this work is done via desk research, but this is supplemented by a set of interviews. The external consultant and the core team conduct eight interviews with members of the senior leadership team and the board. They also arrange and conduct seven interviews with outsiders, as follows:

- A local professor who is expert in the dynamics of the regional economy
- A retail analyst from an investment bank
- An associate professor of psychology who studies the consumer behavior of millennials
- The director of strategy of the National Homebuilders Association
- An author and journalist who has just written a book about the prospects for traditional retailers in an age of e-commerce
- A CEO of an NGO that advocates for sustainable consumption
- A national historian who studies changes in consumer behavior in times of geopolitical tension

At the end of the research phase, the consultant and core team produce a research summary document that contains their desk research and the important details from the internal and external interviews. This document is then distributed to participants who will attend the scenario-building workshop.

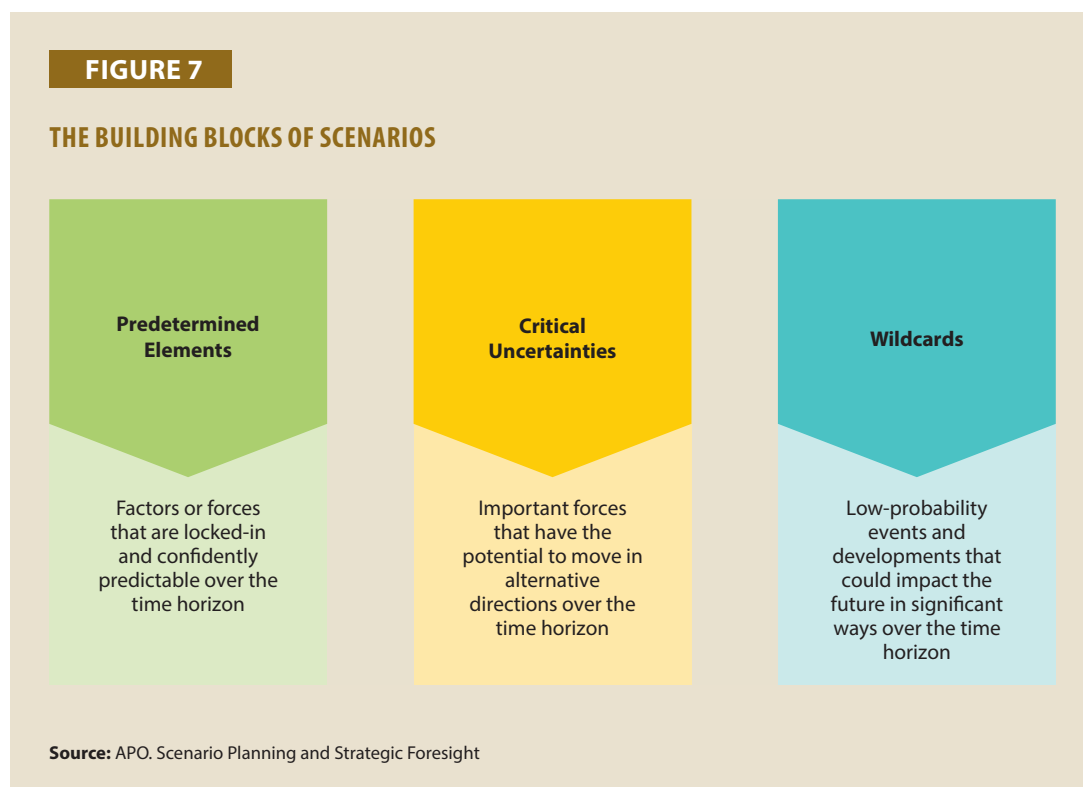
## SECTION 5

# BUILDING BLOCKS

Once you have identified a list of potential driving forces that will shape the future of your issue, we should look at those forces in more detail. One way to categorize these is to divide them into three main areas (Figure 7):

- Predetermined elements
- Critical uncertainties
- Wildcards

Predetermined elements are factors for which we can predict with high levels of confidence how they will play out across the time horizon of the scenarios. It is helpful to think about predetermined factors as forces that are “already in the pipeline” or locked in. Most often, trends in demographics provide the best examples of powerful predetermined elements. For example, we generally know how many people over 65 there will be in a particular country 10 years from now. In a VUCA world, there are very few factors that are truly predetermined. During workshops, groups will often select more predetermined elements than is justified. Even with a factor like “connective technologies,” while more advances in this area are a given, there is tremendous uncertainty about the pace, extent, or impact of these changes.



The future can sometimes be shaped by one-off events. If these are low-probability episodes, then we often call them “wildcards.” Examples include major cyberattacks or natural disasters. These can be useful as elements of scenario stories, but they should not form the main building blocks of scenarios.

Once we have accounted for predetermined elements and wildcards, the forces that are left are, by definition, uncertain. We now need to assess which of the forces are most important or impactful regarding the future of our framing question. Those factors that are of high importance and high uncertainty are called “critical uncertainties.”

## Prioritizing Critical Uncertainties

There are many ways for groups to identify the key critical uncertainties. In our training session, we asked groups to vote to identify them. With a small group of five or fewer, it is often better to simply hold a conversation to decide which areas of uncertainty to take forward.

Once a rough area, or “cloud” of uncertainty, has been defined, the next step is to be precise about the nature of the uncertainty. This happens by describing the issue that is uncertain in the form of a double-arrowed axis. The two stages are:

- Define the variable that is uncertain on an axis.
- Identify different potential future outcomes/endpoints on each side.

When labeling axes and outcomes, it is often best to be simple and straightforward. Keep the future endpoints/outcomes symmetrical or opposite in terms of meaning. Don’t make the dimensions difficult to understand, as ease of communication is key. Don’t make the dimensions too extreme, because you need your scenarios to be plausible.

At the end of this stage of the process, you should have identified a small handful of critical uncertainties that can be represented by an axis with endpoints.

## Client Example

The hardware company convened a workshop to review the research and begin constructing a scenario framework. There were 20 attendees from the company (including the Director of Strategy and the core team), plus three external guests drawn from the interviews (the psychology professor, the e-commerce author, and the Homebuilders Association CEO). The purpose of this workshop was to discuss a small number of the most important driving forces/uncertainties and then select two critical uncertainties to form the preliminary scenario framework.

The consultant and core team had designed the workshop so that participants could cover a diverse range of important driving forces. Each of these issues was discussed in detail and assessed in terms of its importance to the strategic challenge and their uncertainty. They highlighted eight different issues:

1. Future economic conditions
2. Societal role of homes

3. Sustainable technologies (e.g., alternative energy)
4. Consumer attitudes toward sustainability
5. Geopolitical stability
6. New distribution models
7. e-Commerce dynamics
8. Shifting generational preferences

Although all of these factors were deemed important, the group decided that 1 and 2 were the most important uncertainties and they felt that these issues were sufficiently different from each other that, when combined, they would make a good, diverse matrix.

## SECTION 6

# SCENARIO FRAMEWORKS

The next step is to use these critical uncertainty axes to build scenario frameworks.

A scenario framework clearly plays a very important role in any scenario project. Scenarios are devices to broaden our thinking about multiple future possibilities so that we are not relying on a single forecast. To do this, scenarios are most useful when they “travel as a set” of three to five stories that have a relationship to each other. This is the role of the scenario framework.

There are many different ways to create multiple scenarios that have a relationship to each other. Frameworks can be as simple as identifying 1) a future that is better than today, 2) a future that is worse than today, and 3) adding one more, such as a future that is weirder than today.

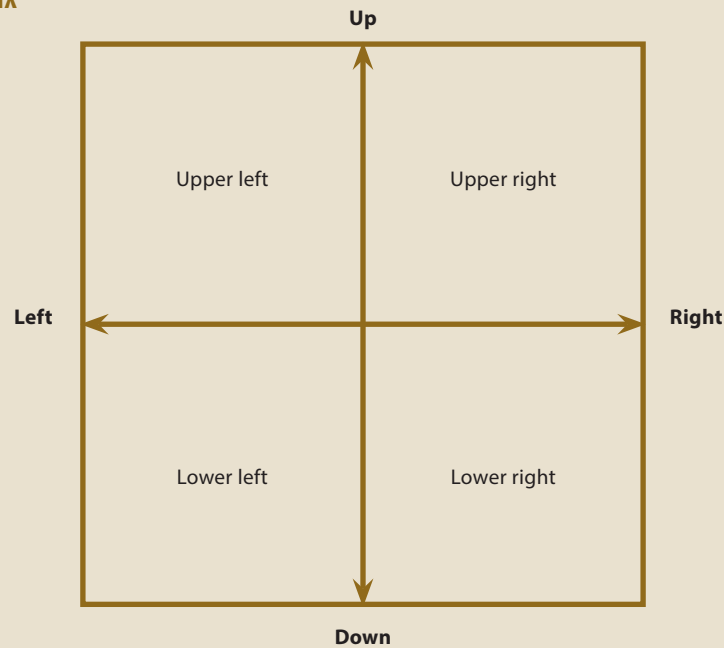
J.A. Dator at the Research Center for Futures Studies, University of Hawaii, uses four scenario archetypes for most of the work that he does. For any issue, Dator characterizes four modes of future possibility [3]:

- Growth (a continuation of today)
- Constraint (where the growth scenario comes up against limits)
- Collapse (current system breaks down)
- Transformation (where we see a new system rising after a collapse)

There are other ways to create scenarios including incremental or “official future”-based scenario creation. This starts by describing the expected/“no surprise” future. Once we have articulated what this base-case future might be and the forces that underpin it, we can then ask the question: How could we be wrong? We do this by manipulating a few key variables or uncertainties in order to create one, two, or three alternatives to the official future.

Another creation method is inductive scenarios. Here, we create scenarios by writing stories without much structure “from the bottom up.” This is a good exercise for creative people as it leaves a lot of room for imagination and allows for more nuanced storytelling. However, it is also tough to facilitate, especially for groups who are not experienced scenarists.

After a brief tour of other methods, our focus will return to the most common and recognizable method of creating a framework: the deductive or matrix-based approach. This approach is based on determining two critical uncertainties that are then combined to form a  $2 \times 2$  matrix (Figure 8). The four quadrants that result provide the basis for four divergent scenarios. The advantage of the  $2 \times 2$  matrix are numerous. It can be created via a coherent step-by-step process, it is easiest to communicate, and it is the most useful to help track changes over time. Some people dislike the matrix because it can be seen as too simplistic or reductive, however.

**FIGURE 8****A 2 × 2 MATRIX**

There are a few important tips to consider when constructing a  $2 \times 2$  matrix:

- Try many combinations without getting too locked in on one solution.
- Test to see if you can quickly envisage concepts that describe each quadrant (we often call this a “high concept” or a scenario title).
- Quickly check whether each quadrant provides a scenario that appears plausible, challenging, relevant, divergent, and/or memorable.
- Ensure that the two selected uncertainties are not co-dependent (this will ensure that the scenarios are divergent).

**CREATING POWERFUL SCENARIOS**

- **Plausible:** We can imagine the scenario playing out in some fashion within the time horizon (note that plausibility is not the same as probability).
- **Challenging:** The scenario forces us to test our own assumptions about the world and the futures that we assume might happen.
- **Relevant:** The scenario highlights some developments that are meaningful for our organization/group and therefore would lead us to make some changes.
- **Memorable:** The scenario is described vividly (typically using a story) and makes an emotional impact on the group.
- **Divergent:** As a set, the four scenarios are clearly distinct from each other, describing very different possible future worlds.

## Client Example

In the client workshop, the participants discussed the two most important driving forces and decided upon the “ends of axes” that best captured the specific uncertainty that mattered for their business.

**Future economic conditions:** Ends of axes were growing/stable ⇔ declining/volatile.

**Societal value of homes:** Ends of axes were shelter and security ⇔ lifestyle and values.

Combining these uncertainties provided four quadrants in a scenario matrix:

Growing economy/Shelter and security creates a scenario called **Safety Rules**, a world where climate change, the needs of seniors, and a sense of collective responsibility for future generations make efficiency and safety top priorities.

Growing economy/Lifestyle and values creates a scenario called **My Home Is My Castle**, a world where tech advances, open markets, and a booming economy allows many people to customize and upgrade their homes in diverse ways.

Declining economy/Lifestyle and values creates a scenario called **Feng Shui**, a world where an economic slowdown prompts communities to shift toward conservation, simple lifestyles, and communal and multigenerational living.

Declining economy/Shelter and security creates a scenario called **Scared Simple**, a world where an economic downturn leads to social strife and isolation, so that security is a top priority and simple fixes are the norm.

## SECTION 7

# STORYTELLING

Once we have a scenario framework, we can outline the basic elements of each of our scenarios. But to achieve the criteria identified above, more work needs to be done to put more detail into the scenario concepts. This is achieved via storytelling.

Scenarios are designed to help us think differently about the future and to inspire change and action. To achieve this, it is important that these scenarios be memorable. To do this, we need to think differently about the way in which we communicate about possible futures.

Most of the time, organizations communicate via data, charts, and graphs. In scenario work, it is important to add another dimension to communication by using storytelling.

We know that our brains are wired for stories. Narratives are how we have made sense of the world throughout history. When stories are told, they often create fresh perspectives and enable us to see new possibilities. Stories can simplify complex situations and can effectively convey the meaning of information. They have a high emotional impact and can be an impetus for groups to take action.

In our training course, groups constructed stories by imagining possible headlines, events, and developments that might happen as the years of the scenario unfold. They wrote a series of them on Post-It Notes and then combined the best together in order to form a vivid description of the endpoint of the scenario and a coherent story of how we moved from today to that future. In a regular scenario exercise, there is more time for stories to be developed further (usually by an editor or dedicated scenario writer). In such cases, a writer might employ some of the following techniques.

### STORYTELLING DEVICES

There are lots of different techniques for storytelling. In terms of scenarios we often include:

- Characters (they can be fictional or real-life) who “live in” and experience the scenarios.
- Plot development, by ensuring that the story has a beginning, middle, and end that flow together. This can be achieved by using a timeline of headlines/developments in each of the years of the scenario.

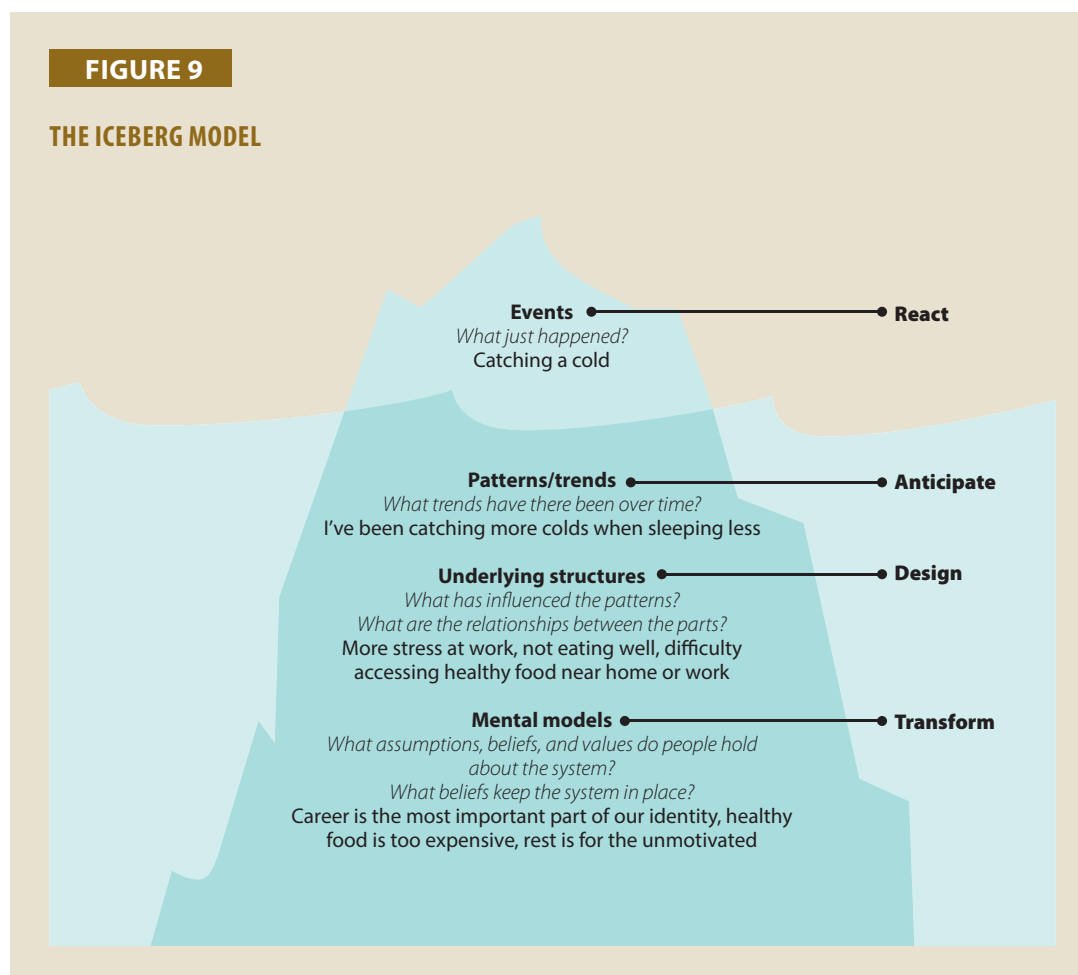
When writing a scenario, it is often helpful to think of a frame or device that will connect well with the audience. The most common approach is to write the scenario from the perspective of an objective journalist in 2030, who is telling the story of how the industry/issue has changed over the past decade. Other devices could be:

- Someone retiring from a job in 2030, giving a retirement speech, and reflecting on his/her career over the previous 20 years.
- The story of a long-distance relationship told through emails as two professionals find their careers changing over time.
- A scene from a bar in 2030, as locals tell stories about how the world was different 15 years ago, and how much has changed in recent years.



When constructing scenarios (and telling their stories), it is also important to acknowledge the three different levels of storyline that are occurring (Figure 9):

- Events: those things that we can readily see and experience (above the surface).
- Trends: patterns that are revealed over time by the events.
- Structure: less visible, powerful, organizing structures and systems that control the scenario.



Inexperienced scenario writers focus mostly on events. Skilled writers use events but also weave in the less visible trends and structures to make a powerful impact.

## Client Example

Following the scenario-building workshop, each scenario team was responsible for developing the story of their scenario. To do this, the external facilitator provided them with a framework for their ideas. They were asked to highlight some descriptive phrases that applied to their scenario and then write a 500-word summary of the scenario, telling the experiences of an “emblematic consumer” who embodies some of the main themes of their scenario. The chosen emblematic consumers were:

- Safety Rules: a 60-year-old retired schoolteacher who is concerned about the environment.

- My Home Is My Castle: a 30-year-old technology executive buying her first home.
- Feng Shui: a multigenerational household trying to save money and live sustainably.
- Scared Simple: a 45-year-old construction worker who struggles to find regular employment.

By telling the story of the scenario through the lives of these consumers, the participants were able to make the broad scenario themes much more relevant for their business challenges and opportunities.

The scenario teams worked with a writer/editor for two weeks to complete the scenario descriptions. Once complete, the scenario facilitator completed a full scenario summary document, providing details of the conversations at the scenario-building workshop, and a compilation of the each of the scenarios that the teams had created. This was sent out to participants for reading before a second workshop.

## SECTION 8

# IMPLICATIONS, OPTIONS, AND INDICATORS

Up until now, we have described the steps required to create a set of scenarios. This section focuses on how to use a set of scenarios once created. The specific questions and exercises for this stage depend on the overall purpose of the project. There are a number of potential applications of scenario work:

- Testing (or “wind tunneling”) an existing strategy to assess whether it is suitable against future uncertainty.
- Generating new ideas for inclusion in a new or revised policy or strategy.
- Identifying risks for inclusion in a risk management strategy.
- Aligning with a vision for shaping the organization.

No matter the application, this step usually involves returning to the strategic challenge that was identified earlier in the process and then generating ideas about how to address it.

The first stage is to identify the implications of each scenario for the organization or strategic challenge. Implications are the specific threats or opportunities that each scenario presents. For example, this might mean considering what forms of competition might emerge in each scenario (usually a threat), or which new sets of consumers might become more influential (an opportunity). Identifying implications should be done for each scenario in turn.

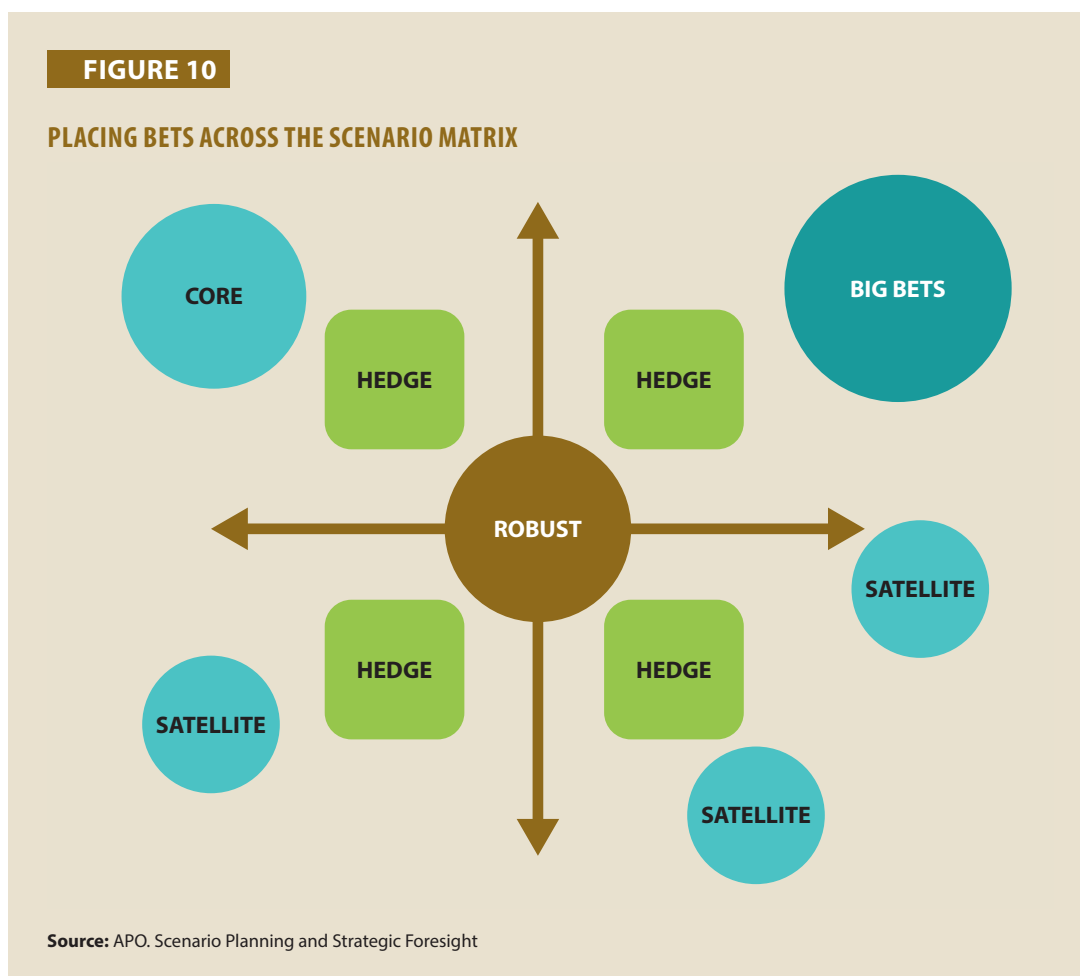
The next element is to identify options or actions that the organization could/should take if it imagined that a specific scenario would unfold. For example, if there is an implication about a new competitor entering the market, then what should our organization do now to minimize that threat? This is a brainstorming-type exercise that needs to be done for each of the scenarios in turn.

When this is done, groups should review all the options/actions that have been generated in each scenario. Groups often generate dozens of options for each scenario. The important next step is to decide on which of these options should be pursued further. There are a number of ways for organizations to construct a strategy based on a scenario matrix. Sometimes we call this “placing bets across a matrix” (Figure 10).

- Sometimes the same option makes sense to undertake in numerous scenarios. In this case, we call this a robust option. Identifying robust options is valuable as it is typically a low-risk strategy in situations of high uncertainty.
- A very different strategy is to identify and select an option/action that works well in one scenario

but would be dangerous or incorrect in other scenarios. We call this a focused or big-bet option. This approach is sometimes used by organizations that are comfortable with taking on high levels of risk or feel that they have enough influence in their field to be able to shape the future to their liking.

- At other times, organizations will choose not to commit in any way and instead adopt a hedge or “wait-and-see” approach by selecting options from each scenario quadrant. Only when the future becomes clearer will they decide to commit more resources to succeed in a particular scenario.
- Most commonly, organizations will choose some kind of hybrid approach, often called “core/satellite.” The organization focuses the most attention on succeeding in one scenario (the core) but maintains some investments and experiments in other scenarios (satellites), which positions them effectively if the future moves in a different direction.



Using scenarios allows organizations to balance between commitment, focus, and flexibility. Following a robust or big-bet approach demonstrates a commitment to particular courses of action. Wait-and-see or core-satellite approaches means that organizations see more value in shifting course as conditions change.

In order to assess whether conditions are changing, it is often useful to identify a set of indicators and signposts for each scenario. These are key developments and dynamics that we would already

see (or would be likely to see) if a particular scenario were playing out. Organizations that adopt these systems are attuned to subtle changes in the business or policy environment and can therefore respond or anticipate substantive changes more quickly than competitors.

## Client Example

The second major workshop was attended by all client participants. (The external guests from the first workshop did not attend.) The focus of the conversations was on the specific challenges and opportunities that the business might face in the next decade.

The first set of exercises gave participants the chance to identify what each scenario means for different aspects of the business landscape, including:

- What do homes look like?
- What does retailing look like?
- What does hardware look like?

The second set of exercises asked participants to identify a series of options that the business might consider to encourage growth over the next decade and therefore address the strategic challenge. Some of these options were specific to individual scenarios, for example:

- Safety Rules: Full life cycle products, material disposal services, energy conservation.
- My Home Is My Castle: Increase AI product offerings and virtual experience showrooms.
- Feng Shui: High-end tool sharing, refurbishing and restoration supplies.
- Scared Simple: Storage and emergency supplies, security/insurance partnerships.

Participants were also asked to think about a small number of robust options that would work in each scenario. They identified the following as important:

- Maintain/grow urban presence.
- Invest in products for seniors.
- Continue to cultivate an online community.

The workshop finished with a recap of the range of ideas generated by the group and a plenary conversation about the most important ideas to prioritize and present to the full board and senior management team.

## SECTION 9

# COMMUNICATING SCENARIOS

For scenarios to be effective in generating ideas or provoking valuable conversations, they need to be communicated effectively. Sometimes a scenario framework has an important message to convey, for example, about the nature of change and some of the incorrect assumptions that an organization is currently holding. At other times, the main purpose of scenarios is to engage a group of people in important conversations about the future.

As with any effective communication effort, the most important aspect is to understand your audience and anticipate their interests, hopes, and fears. When we communicate, we often focus on “what we want to say” rather than “what the audience needs to hear.” For scenario work, it is important to understand what the audience is looking for and what will interest them in the material that you deliver. If scenarios are to have an effect, they need to challenge preconceived ideas. This is a difficult thing to achieve and it will only work if, in Pierre Wacks’s memorable phrase, scenarios somehow “get into the mindsets of managers.”

Scenarios can be communicated in conventional fashion via written documents or presentations. However, it is often worthwhile to invest more time in making the scenario communication more impactful and memorable. Many scenario projects use videos to summarize their stories. Other use graphic imagery, such as cartoons or icons. Sometimes, in order for a group to “experience” living in a scenario, organizations create an immersion room that possesses characteristics of that future. Scenarios can also be communicated through live performances, and many organizations have used theater groups to write scripts and perform scenes from the scenarios.

### Client Example

The scenario exercise was reviewed and discussed at the next full board meeting. The Director of Strategy and the core team presented a short summary of the scenarios and then spent more time on the suggested actions. This led to a detailed discussion about growth opportunities and what actions to take right now. The board agreed to push forward on the robust options and to invest in a number of new experimental areas.

The Director of Strategy also led a discussion about how the scenario exercise had shifted the mindset of many senior leaders. They looked at potential competitors in a different way and realized that sustainability and climate change were likely to prompt a new set of demands. They also realized that future success would require new partnerships with designers, tech specialists, community policing, etc. Finally, they realized that the overall process had encouraged a far more holistic and integrated assessment of risks and opportunities. Without the scenario approach, each different department (e.g., finance, marketing, operations, merchandising) would have developed its own strategy in isolation from the others.

## SECTION 10

# PRACTICAL CONSIDERATIONS

The earlier sections describe a step-by-step approach to creating and using scenarios. The technique can be valuable in one-off engagements, but scenario work is most useful when applied and institutionalized in an ongoing fashion across an organization. Effective, ongoing scenario thinking helps ensure that organizations:

- Identify new growth opportunities before they become mainstream.
- Spot and manage risks so that strategies are more robust and surprise-proof.
- Develop a learning-oriented, adaptive, creative mindset.

Scenario planning is a practice. It takes time and experience for individuals and organizations to become proficient at doing this work. This section describes some of the important elements to bear in mind when applying scenario thinking in your organization.

### Which Are the Most Effective Organizations Undertaking Scenario Work?

The most effective proponents of ongoing scenario work include Royal Dutch Shell (the commercial pioneers of the process) and the Government of Singapore. In the past, many other organizations such as UPS, Morgan Stanley, IBM, Motorola, and Ford developed a cluster of expertise in scenarios and strategic foresight. For most of these organizations, scenarios have been one tool in a wider strategy or strategic foresight toolkit. For example, Singapore's Center for Strategic Foresight developed an approach called Scenario Planning Plus which integrates a core scenario-planning approach with other foresight techniques such as horizon scanning and causal layered analysis.

In most cases, scenario work is undertaken by large organizations. They are typically leaders in their field or market but are now facing challenges that they have not previously had to deal with (e.g., new competition, new technology, changes in regulations). Smaller, newer organizations tend not to use scenarios as frequently. New entrepreneurial startups are more focused on making a success of their business; if the external environment changes, they will adjust when they need to. However, smaller organizations can still benefit from scenario thinking, even if it is not worth engaging in an extensive scenario exercise. All organizations can benefit from considering “what if?” and imagining the new threats and opportunities that might result.

### What Characterizes Effective Scenario Organizations?

In my experience, there are four important constituencies that a successful scenario organization needs to build or access:

- **Talented providers:** People who become expert and experienced in designing and facilitating scenario-planning conversations and engagements.

- **Sophisticated consumers:** Executives and decision makers who recognize the value of bringing multiple perspectives to an issue rather than simply looking for a single answer.
- **Enthusiastic supporters:** A broad range of people willing and eager to contribute to and engage in scenario/future-type work.
- **Pragmatic connectors:** People and systems with the ability to track indicators, adjust to plans, and adjust strategies accordingly.

These constituencies do not appear immediately. They grow over time, usually driven by a small number of committed individuals who advocate and evangelize for the use of scenarios (or foresight more generally). The interest is built through actually conducting scenario work that makes a difference in the organization but it should also be accompanied by other actions, such as offering training courses, or an external speaker series, or a regular scanning process.

### How Should Scenarios Relate to Ongoing Planning Processes?

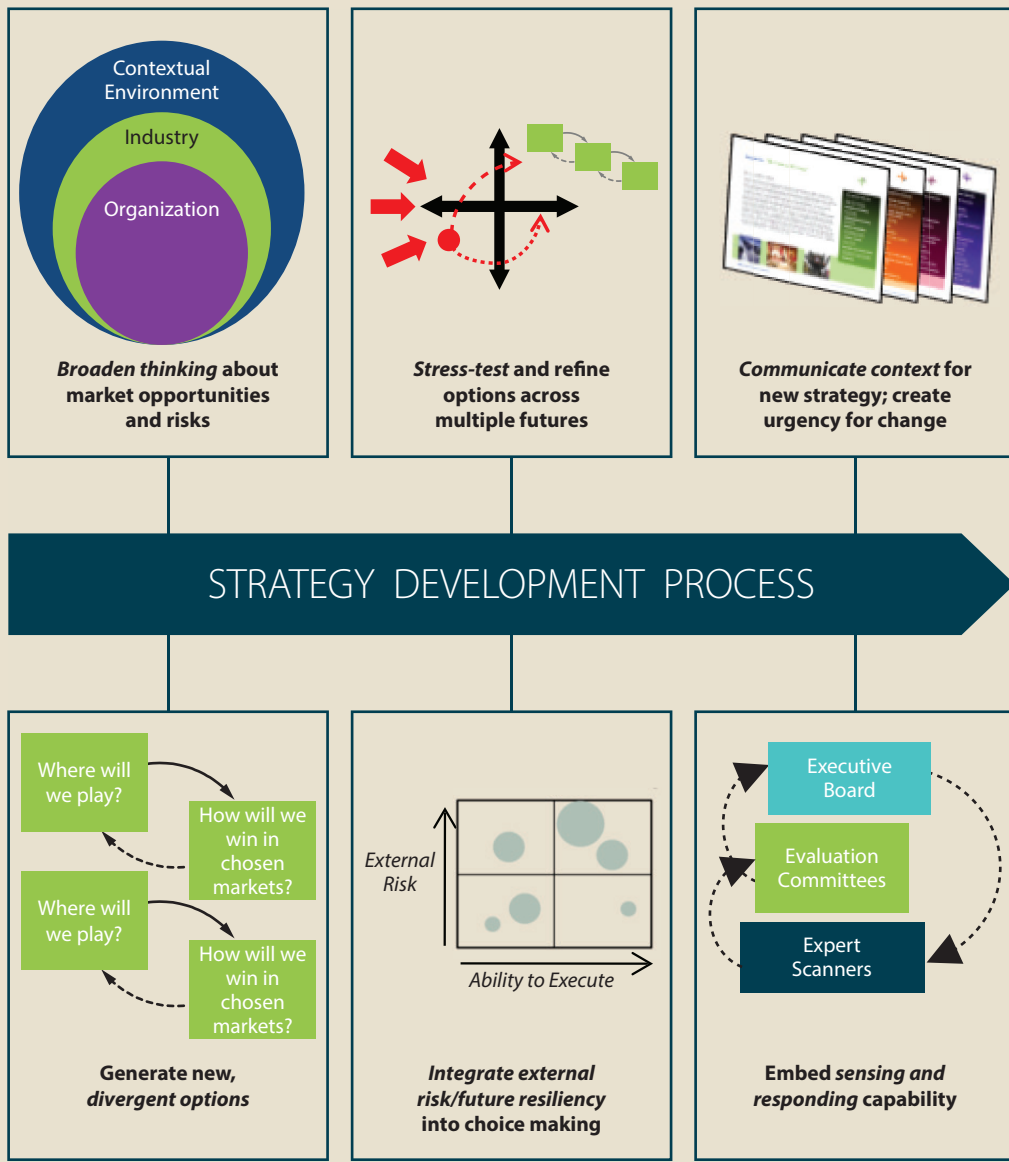
Scenario planning is not a replacement for an organization's existing planning process. Instead, it should be seen as a complement or enhancement. Done well, scenario work should have the flexibility to connect with ongoing planning processes at various points, for example (Figure 11):

- As a way of broadening thinking about opportunities and risks (taking things further than regular SWOT analysis).
- As a device to generate more divergent options for consideration in a new strategic plan.
- As a way of testing (or wind tunneling) an existing strategy to check if it is well positioned to succeed in the future.
- As a way to help organize a scanning system so that the organization is looking coherently for signs of change.
- As a device to communicate the importance or urgency of a shift in strategy (i.e., we are not paying enough attention to this future development).



FIGURE 11

STRATEGY DEVELOPMENT PROCESS



Source: APO. Scenario Planning and Strategic Foresight

## SECTION 11

# PREPARING AND FACILITATING SCENARIO WORKSHOPS

The most important elements of a scenario project are face-to-face meetings, typically workshops, where people collaborate to make progress on the engagement. Successful scenario engagements require effective meetings where participants feel that they have been able to contribute and the overall process has moved forward. Further, scenario work is challenging and can make people uncomfortable.

In such circumstances, it takes great skill to navigate a group through a confusing and challenging set of conversations to reach a new understanding. Accordingly, designing and facilitating scenario workshops is an extremely valuable skill to possess. This section provides some guidance and tips for how to design a workshop (i.e., prepare in advance) and how to facilitate a workshop (i.e., run a meeting in real time).

### WHAT MAKES A GREAT MEETING?

These five elements provide a simple checklist for meeting designers to follow.

**A meeting arc:** Each session should build off the last and together help participants move toward a desired outcome.

**Distinctive, challenging perspectives:** Created by bringing new, unfamiliar voices into the conversation.

**Interactivity and engagement:** People learn in different ways, most notably through playing and co-creating, not through listening to presentations.

**Integrated environment:** Our physical surroundings provide a very powerful frame for the conversations that follow.

**Powerful preparation and aftercare:** The experience is not confined to just the workshop but starts well before attendees arrive and builds on the outcomes.

**Source:** APO. Scenario Planning and Strategic Foresight

### Tips for Preparing for and Designing a Workshop

“Designing” a workshop means arranging many different aspects of a meeting, for example, the agenda, speakers, participants, discussion topics, materials, room layout, etc., to achieve the desired outcomes.

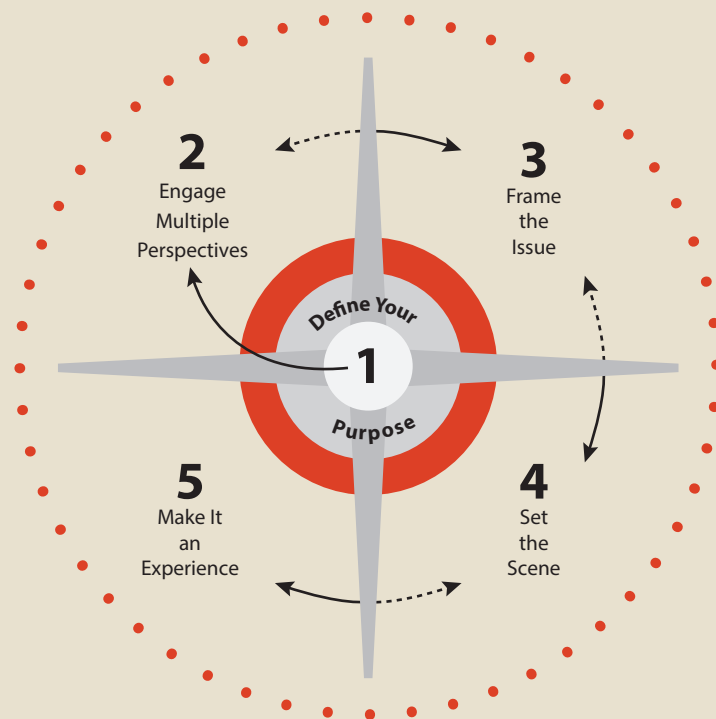
There is no single workshop design that fits every situation. It is clear that a workshop in the early stages of a scenario process (e.g., for assessing and identifying driving forces) will be quite

different from one toward the end (e.g., for identifying strategic options and making decisions). However, there are some common principles that should be followed:

- If you are responsible for organizing and facilitating a workshop, then you should ensure that you have a full say in the advance preparation and design of the session.
- Create a detailed “design document” and keep updating it as you prepare for the session. This document should be structured in the same way as an agenda, explaining the details of each of the elements of a workshop, from the start of the day (e.g., introductions), right through to the end (e.g., closing comments). This document should be constantly updated as you decide upon different elements of workshop. It should not be shared publicly with participants but is only for the benefit of the organizing team. A sample design document is included as an appendix to this manual.
- Consider these five core principles to ensure a “well-designed” workshop (Figure 12) [4]:
  1. Define your purpose: Develop a clear sense of the desired outcome of the workshop. Don’t just think about your objectives but consider what the participants and the group as a whole are looking to get out of it. It is important to understand the purpose of a workshop within

**FIGURE 12**

**ERTEL AND SOLOMON’S CORE PRINCIPLES FOR THE DESIGN PROCESS**



Reproduced with permission from Ertel and Solomon [4].

the context of the overall scenario engagement. Not everything has to be (or can be) achieved within one session, so plan accordingly.

2. Engage multiple perspectives: As discussed earlier, this is a central principle of scenario work. Most commonly, this means ensuring that the invited participants represent a range of backgrounds, opinions, etc. However, you should also consider how to bring perspectives into the conversation in ways that do not involve in-the-room participants (e.g., through premeeting reading or a Skype video conversation).
  3. Frame the issues: It is often difficult for participants to understand the various issues that are in play during a scenario exercise. This is why a framework (e.g., a scenario matrix) can be so helpful. It helps bring coherence to different pieces of information. Even at earlier stages of scenario work (i.e., before a matrix has been created), it is helpful to consider how to frame issues (e.g., using STEEP categorization).
  4. Set the scene: This is about much more than just finding a venue for a meeting. A well-designed meeting means making thoughtful choices about all aspects of the environment (e.g. seating arrangements, food choices, meeting location, visual elements).
  5. Make it an experience: A powerful workshop is not just about the practical and intellectual needs of the scenario work. It should also take account of the emotional and psychological needs of participants. This means designing so that people can engage their analytic and creative skills using both structured and unstructured formats.
- Learn as much as you can in advance about your workshop participants. It is critical to understand as much as you can about your group, in particular:
    - Total number of people (this will determine whether or not to use breakout groups, etc.).
    - Organizational roles and responsibilities of participants.
    - Current pressing issues (internal and external) facing participants.
    - General demographics such as age, gender, etc.
  - It is important to select and provide a packet of reading material in advance of a scenario workshop. Remember not to overburden participants with too much advance reading. Busy people will appreciate a suitably curated set of materials to read. Typically, this might involve the following:
    - A short article that introduces the concept of scenario thinking.
    - A summary of desk research about important driving forces.
    - A summary of interview responses, where you get the main messages across in the interviewees' own words (i.e., by including unattributed quotations).
    - Links to videos or podcasts that shed light on the subject to be discussed at the workshop.

## Tips for Room Setup

For an interactive workshop, the best seating arrangements are those that enable participants to see each other clearly and to get up and move around as they wish.

- The preferred setup is several small round tables (for groups of up to eight people) that allow for plenary (whole-group) conversations and smaller table-focused discussions. Ensure that the tables are not arranged too closely together, otherwise conversations from other tables can be distracting.
- If room size allows, it is also valuable to have a separate, additional space for chairs in theater style facing a screen, especially if some parts of the workshop require presentations.
- The two worst setups for interaction to be avoided if possible are long, “boardroom-style” tables or only “classroom-style” seating in rows.
- To create a space that is flexible, try to make sure that furniture (especially chairs) are portable, either on wheels or light enough to move around.

If possible, hold a workshop in a room with plenty of natural light. This is important for energizing groups. If natural light is not available, then ensure that the meeting room has very high ceilings. Any room that feels cramped or is difficult to move around in is likely to lead to a low-energy, suboptimal outcome.

It is useful for groups to be able to use wall space to post worksheets or flipcharts. If wall space is insufficient, then try to access some large foam core boards that can be used in place of a wall.

Go offsite if at all possible. This minimizes the danger of participants going back to their office desks at breaks. More generally, it is helpful in getting participants out of their regular day-to-day routine and mindset. A memorable venue is more likely to lead to memorable scenarios and conversations.

## Equipment Requirements

At a minimum, a workshop room will need an LCD projector and screen, a flipchart easel (plus pad) for each breakout group/table, plus one or two additional flipcharts for the main front-of-room facilitator.

Other required supplies should include sticky Post-It Notes in various sizes and colors, small dot stickers, fine-point marker pens, larger flipchart markers, a roll of strong white paper tape, and various other supplies such as scissors, etc.

On many occasions, small group work can be conducted on flipcharts. Sometimes, it is helpful to create templates or worksheets in advance. These are large sheets of paper (I usually design them to be 36 inches × 24 inches, or approximately 90 × 60 cm) containing questions and spaces for groups to write in their ideas and responses. In scenario workshops, we use preprinted worksheets for many of the steps. See the Appendix for the worksheets used in the November scenario training. Once completed, these worksheets can be taken to be transcribed or digital photos can be taken to record the ideas.

## Tips for Facilitation

Facilitating a scenario workshop takes time and practice. There is more to it than simply organizing or chairing a meeting. Facilitators need to manage a number of things happening at the same time. It involves a lot of effort and cognitive processing power to simultaneously think about:

- Time, e.g., are we sticking close to the timing of the agenda?
- Process, e.g., do people understand the process and the steps involved?
- Content, e.g., are we discussing the important subjects and issues in valuable ways?
- Energy, e.g., are people getting too quiet, or are their contributions tailing off?
- Group dynamics, e.g., are people working well together by contributing but also leaving others space to contribute?

Getting this balance right in real time can be helped if you invest in preparation. By knowing the process and the people in advance, you will have more time to focus on the issues and content. Having said this, there are a few tips that can help you facilitate a scenario workshop effectively.

- Ensure that participants know the fundamental aspects of the workshop. Provide an outline of an agenda (with high-level timing), a process map, and a set of desired outcomes. These can be shown on a PowerPoint slide, but it is often helpful to have them posted permanently on a flipchart so you can point to it at any point during the conversations.
- Suggest some ground rules and have the group comment on, modify, or add to them.
- Prepare good instruction slides for each step of the process or phase.
- Create a recognizable process map and refer to it often. Explain to participants where they are in the process and why this step is helpful for what is to come.
- Be flexible with timing. I think that it is good practice to start and end on time and to honor the posted lunch break times (in case people have arranged meetings). But apart from that, I often adjust timings based on reading the room and the quality of discussion. If things are going well, allow some sessions to extend beyond the agenda time.

There are a few other tips that help make scenario workshops a better experience for participants. As a facilitator, I believe that your most important role is to be an advocate for participants. What do they need in order to contribute at this point in the process? Accordingly, bear the following in mind:

- Always schedule a “second thoughts” slot at the start of each morning of a workshop. Scenario conversations can be complex, and participants might come back on day 2 or 3 with a new idea or perspective in their mind. A second thoughts slot gives them the chance to explain their new ideas.

- Leave spaces for energy boosters, such as games or walks outdoors. Sometimes, show a short video to break up a presentation or to reset a group conversation. For those in the November Bangkok workshop, remember the “tube-balancing” exercise!
- Vary the pace and style of the workshop by using many different styles of discussion, including quiet reflection time, paired conversations, small groups, and plenary discussions.
- Look to alternate the high-energy, divergent-thinking exercises with more focused, analytical exercises involving prioritization and choice.

## SECTION 12

# GLOSSARY AND FURTHER READING

### Glossary

The following provides a simple set of definitions of key scenario terms.

**Actions:** The actual strategic or tactical behaviors you choose to pursue in light of all your scenario thinking, e.g., what will you do?

**Critical uncertainties:** Unpredictable forces, such as public opinion or the state of the economy, that will have a big impact on the contextual environment and/or market conditions with highly uncertain or unknown outcomes in the planning time frame.

**Driving forces:** Forces of change outside the organization that will shape future dynamics in predictable and unpredictable ways.

**Early indicators:** Signs of potentially significant change that you can monitor in order to determine if a particular scenario is beginning to unfold.

**Framing question (or focal issue):** The strategic issue that has caused the scenario exercise to be undertaken, and/or a question developed through company interviews, analysis, and participant discussion to give the scenario development a specific focal point.

**Implications:** Those conditions, i.e., needs, threats, and opportunities, suggested by each scenario that are meaningful for the strategic issue.

**Mental map:** Assumptions that in aggregate become a framework for how a person or group interacts with the world and the business environment.

**Official future:** The explicit articulation of a set of commonly held beliefs about the future environment that a group, organization, or industry implicitly expects to unfold.

**Options:** In scenario analysis, “options” represent a field of strategic choices derived from a set of implications, e.g., what could you do?

**Predetermined element:** Factors for which we can predict with high levels of confidence how they will play out across the time horizon of the scenarios.

**Scenarios:** Compelling, relevant, and challenging stories about futures which you construct from combinations of critical uncertainties, predetermined elements, and wildcards.

**Scenario framework:** A structure for developing and communicating stories of the future, created from a combination of critical uncertainties.



**Scenario planning:** A technique that uses provocative stories about the future to change the minds and actions of a group of people so that they are better prepared for tomorrow.

**Strategic challenge:** A particular problem or opportunity that an organization is looking to address. This could be a specific choice or decision (e.g., should we build a pipeline?) or a requirement to devise a new strategy or vision.

**Strategic foresight:** A discipline and set of techniques for dealing with uncertainty and anticipating change. It involves understanding trends, developments, and how issues unfolding today could affect an organization into the future.

**Strategic conversation:** Any conversation in an organization in which the competitive environments, current behavior, or future worlds/behaviors are being discussed in a way that illuminates what could happen and what the organization will do.

**Vision:** A clear statement about the future that an organization is striving to achieve. It can focus on organizational transformation or an external change in the world.

**Wildcard:** An unexpected event, like a revolutionary discovery or global epidemic, that could require a change in strategy. Wildcards help identify new uncertainties and different strategies.

## Further Reading

There are countless books, articles, and websites that you can access to learn more about all aspects of scenario planning and strategic foresight. The following is a small selection of material that I have found most useful for scenario work during my career. I have divided the materials into a few sections.

### Overview/Textbooks

Schwartz P. *The Art of the Long View*; 1991 (widely seen as the most accessible, seminal introduction to scenario planning).

van der Heijden K. *Scenarios: the Art of Strategic Conversation*, 2nd edition; 1998 (van der Heijden offers a more detailed treatment of scenarios, especially their use in strategy work).

Chermack T.J. *Scenario Planning in Organizations*; 2011 (a useful practical guide for undertaking and sustaining effective scenario work).

Wilkinson A., Ramirez R. *Strategic Reframing: The Oxford Scenario Planning Approach*; 2016 (offers the most recent and advanced thinking about scenarios and aims to put the discipline on a solid academic footing).

Marshall A. *Strategic Foresight: A New Look at Scenarios*; 2009 (a good summary that combines process insights with a focus on mega trends such as demographics, energy and the environment, and technology).

Wade W. *Scenario Planning: A Field Guide to the Future*; 2012 (a nicely designed overview containing accessible examples).

### Organizational Uses of Scenarios

HBS case: Morgan Stanley Japan; 28 February 2002 (describes Morgan Stanley's extensive use of scenarios).

HBS case: Strategic planning at UPS. 16 November 2005 (describes UPS's history in applying scenarios).

Wilkinson A., Kupers R. Living in the futures. Harvard Business Review May 2013 (draws a small number of powerful lessons from Royal Dutch Shell's longstanding experience with scenarios).

### Foresight

RAHS Singapore. Decisions in a Complex World: Building Foresight Capabilities; 2010 (an edited summary of a 2010 symposium that covers advanced thinking in foresight and scenarios).

Jackson M. A Practical Foresight Guide—Methods. Shaping Tomorrow; 2011 (an online resource that describes and explains dozens of different strategic foresight techniques to complement scenario work).

Bishop P., Hines A., Collins T. The current state of scenario development. Foresight 2007; 9(1) (a well-researched overview of various foresight techniques and approaches to scenario creation).

### Design and Facilitation

Ertel C., Solomon L.K. Moments of Impact: How to Design Strategic Conversations that Accelerate Change; 2014 (a thoughtful, accessible, practical guide that will improve how you approach meetings).

Senge P. et al. The Fifth Discipline Field Book: Strategies and Tools for Building a Learning Organization; 1994 (a highly regarded summary containing practical ideas for facilitating dialogue, discussions, and exercises).

### Key Articles

Wack P. Uncharted waters ahead. Harvard Business Review, 1985; 9.

Wack P. (1985): Scenarios—shooting the rapids. Harvard Business Review 2005; 11 (a set of HBR articles putting together Wack's key insights and lessons from his pioneering scenario work at Royal Dutch Shell).

Gustke C. Scenarios: All the options. Conference Board Review 2009; January/February (a short, accessible article that describes how various organizations engage in scenario work).

Konno N., Nonaka T., Ogilvy J. Scenario planning: The basics. World Futures 2014; 70 (co-written by the original designer of GBN's Developing and Using Scenarios training program, a straightforward guide to the concepts and best practice techniques of scenario work).

Schwartz P., Ogilvy J. Plotting your scenarios. In: Fahey and Randall. Learning from the Future; 1998 (a comprehensive article full of good advice and practical tips for producing great scenario work).

### Guidebooks and Miscellaneous

Global Business Environment, Shell International. *Scenarios: An Explorer's Guide*; 2003 (a process guide to scenarios produced by the most famous exponent of the technique).

US National Park Service. *Using Scenarios to Explore Climate Change: A Handbook for Practitioners*; 2013 (a detailed, in-depth approach to each step of the scenario process, with particular emphasis on the uncertainties of climate change).

Center for Strategic Futures, Public Service Division, Prime Minister's Office, Singapore. *Strategic Planning in Singapore* (contains four separate articles that describe how Singapore pioneered the use of scenarios and strategic foresight).

### Futures Trends

US National Intelligence Council. *Global Trends: Paradox of Progress*; 2017 (an extensive summary of global trends for two decades ahead, created from the perspective of what matters most to US security).

World Economic Forum. *Global Risk Report*; 2018 (a detailed research- and survey-based compilation of current and future risks concerning business leaders around the world).

### Examples of Scenario Reports/Outputs

Mont Fleur scenarios. GBN Deeper News (a report on one of the most famous and influential scenario projects ever undertaken). Access at:  
<https://reospartners.com/wp-content/uploads/old/Mont%20Fleur.pdf>.

Rockefeller Foundation. *Scenarios for the Future of Technology and International Development* (a good example of a well-researched, extensive scenario report). Access at:  
<http://www.nommeraadio.ee/meedia/pdf/RRS/Rockefeller%20Foundation.pdf>.

Radical Ocean Futures—Science Based Stories about Our Future Oceans (an innovative, beautifully illustrated example of a set of scenario stories about what could happen to the world's oceans in the form of scenarios created via inductive sci-fi story-building techniques). Access at:  
<https://radicaloceanfutures.earth/stories-about-our-future-oceans>.

Shift: The Commission on Work, Workers and Technology (a good example of how an important public policy issue can be informed and illustrated by the use of a scenario framework). Access at:  
<https://shiftcommission.work/>.

# REFERENCES

- [1] Jackson M.A. Practical Foresight—Methods. Shaping Tomorrow; 2011.
- [2] Cascio J. Futures Thinking—The Basics. FastCompany.com; 2009.
- [3] Dator J.A. Advancing Futures. 2002. Westport, CT: Praeger Publishers; 2002.
- [4] Ertel C., Solomon L.K. Moments of Impact: How to Design Strategic Conversations that Accelerate Change. New York: Simon & Schuster; 2014.

# APPENDIX

## APPENDIX TABLE 1

### EXAMPLE DESIGN DOCUMENT

Scenario-building Workshop, LOCATION, Monday, 15 October		
Time	Session Details	Notes
08:00	Preparation and planning meeting <ul style="list-style-type: none"> <li>• Time to review the final agenda and ensure that the room is set up correctly and all materials are in place</li> </ul>	Core team
08:45	Participants arrive <ul style="list-style-type: none"> <li>• Make sure that tea/coffee and snacks are available</li> <li>• Name badges and notepads available at reception desk</li> <li>• Slide containing table assignments up on screen</li> </ul>	
09:00	Welcome/introductions Director of Strategy welcomes everyone, sets the context for the session, then hands over to facilitator <ul style="list-style-type: none"> <li>• Round-the-room introductions:</li> <li>• Use the “in three words” exercise</li> </ul>	Participants seated at round tables of 5–6 in main room with 2 large boards set up in room to capture key thoughts on driving forces
09:20	Recap and overview of process <ul style="list-style-type: none"> <li>• Reminder of the overall process to date</li> <li>• Updates from recent meetings and from online discussions</li> <li>• Agenda for this workshop</li> <li>• Discussion re: hopes and concerns for this workshop</li> </ul>	Facilitator to create slide deck for presentation Flipchart available for recording (core team members available as scribes)
09:45	Summary of research <ul style="list-style-type: none"> <li>• Core team members present a summary of the research phase <ul style="list-style-type: none"> <li>o Who did we interview?</li> <li>o What sources did we use?</li> <li>o What main themes emerged?</li> </ul> </li> </ul> <p>Ensure that there is at least 10 minutes at the end of the presentation for questions.</p>	Core team to prepare presentation
10:30	Break	
10:45	Scanning the future: Contextual trends Speakers: <ul style="list-style-type: none"> <li>• Professor of Regional Economics</li> <li>• Chair of Sustainability NGO</li> </ul> <p>Each speaker has 20 minutes to present ideas on driving forces shaping the future.</p> <p>At 11:25, group discussion (at round tables in main room):</p> <ul style="list-style-type: none"> <li>• Most important/surprising?</li> <li>• How might these trends shape our industry?</li> <li>• What specific critical uncertainties emerged?</li> <li>• What important contextual trends were missing?</li> </ul> <p>At 12:00, reports/questions for speakers</p> <p>Facilitator records important take-aways on large board in front of room.</p>	Discuss how to handle panel/speakers
12:30	Lunch	

CONTINUED TO NEXT PAGE

## CONTINUED FROM PREVIOUS PAGE

Time	Session Details	Notes
13:30	<p>Scanning the future: Industry trends</p> <p>Speakers:</p> <ul style="list-style-type: none"> <li>• Retail Analyst</li> <li>• Chair of Homebuilders Association</li> </ul> <p>Each speaker has 20 minutes to present ideas on driving forces shaping the future.</p> <p>At 14:10, group discussion (at round tables in main room):</p> <p>Most important/surprising?</p> <p>How might these trends shape our industry?</p> <p>What specific critical uncertainties emerged?</p> <p>At 14:45, reports/questions for speakers</p> <p>Facilitator records important take-aways on large board in front of room.</p>	Reallocate participants to new table groups
15:30	Break	
15:45	<p>Review of driving forces</p> <p>Facilitator summarizes the driving forces that emerged in the Contextual trends and Industry trends sessions.</p> <p>Plenary discussion to clarify any issues with these driving forces.</p> <p>Are there any others to add?</p>	<p>Plenary discussion</p> <p>Core team members record important additional items on flipcharts</p>
16:30	<p>Explanation of scenario-building process</p> <p>Scenario introduction:</p> <ul style="list-style-type: none"> <li>• Facilitator explains</li> <li>• Examples of scenarios</li> <li>• Criteria for scenarios</li> <li>• Process of building a 2 × 2 scenario matrix</li> </ul> <p>Each table chooses 2 uncertainties to combine and quickly creates a candidate matrix.</p> <p>Brief, informal report out on candidate matrices, moving to each table for each report.</p>	Return to morning table groups
17:30	Adjourn	

## Tuesday, 16 October

08:30	<p>Overnight reflections</p> <p>Gives a chance for groups to “check in”: Any reflections on yesterday? What are the hopes for today?</p>	Set up in plenary discussion at front of room
09:00	<p>Review of candidate matrices</p> <p>Table groups review their candidate matrices from previous afternoon:</p> <ul style="list-style-type: none"> <li>• Do they make sense?</li> <li>• Is there a different matrix to explore?</li> <li>• Can we add any further details?</li> <li>• Include descriptions of “high concepts” and key themes for each scenario</li> </ul> <p>Plenary</p> <ul style="list-style-type: none"> <li>• Report on each group’s refined scenario set</li> </ul>	Allocate according to previous day table groups
11:00	Break	
11:15	<p>Plenary selection of scenario set</p> <ul style="list-style-type: none"> <li>• Begin by identifying any predetermined elements</li> <li>• Facilitator reviews all the candidate matrices and outlines the similarities and differences between each</li> <li>• Conversation aimed at combining different ideas into a single matrix</li> <li>• Selection of final matrix and first-draft scenario titles</li> </ul>	<p>Selection of final matrix achieved through conversation/discussion</p> <p>If this is difficult, offer the group 2 or 3 alternatives and get a vote on their preference</p>

CONTINUED TO NEXT PAGE

## CONTINUED FROM PREVIOUS PAGE

Time	Session Details	Notes
12:30	Lunch	
13:15	<p>Scenario development</p> <ul style="list-style-type: none"> <li>• Facilitator explains the importance of storytelling to scenarios</li> <li>• Show video examples of storytelling</li> <li>• Provide structure for exercise</li> </ul> <p>Participants choose which scenario to work on (see notes).</p> <p>At 13:45, scenario teams begin their story-building exercise (using headlines, etc.) and start completing the worksheet.</p>	<p>Write names of scenario titles on separate flipcharts and post on walls</p> <p>Participants asked to choose the scenario they want to work on, writing their names on the flipchart sheet with that scenario title (no more than 7 names allowed on any sheet)</p>
15:15	<p>Afternoon break and walk</p> <p>Ask participants to pair up with someone from a different scenario team and go for a 15-minute walk.</p> <p>Participants should talk about the emerging scenario that they are working on and any challenges that the group is having.</p> <p>Can you learn anything from your partner in a different scenario group?</p>	<p>If the weather is good, encourage people to go outside for fresh air</p>
15:45	<p>Scenario development (cont.)</p> <p>Scenario teams reform: Did any new ideas emerge after the break?</p> <p>At 16:15, each group should review progress: Is more needed to make the scenario plausible, relevant, challenging?</p> <p>Each scenario team reports for no more than 5 minutes:</p> <ul style="list-style-type: none"> <li>• Key elements of the story so far</li> <li>• What more needs to happen?</li> </ul> <p>After presentations, hold a plenary discussion:</p> <ul style="list-style-type: none"> <li>• Are the scenarios divergent enough?</li> <li>• What important story elements are we missing?</li> </ul>	<p>This is the crucial session for the scenario writers; they will use this work to craft coherent scenario narratives from the ideas</p>
17:15	<p>Next steps</p> <p>Plenary discussion:</p> <ul style="list-style-type: none"> <li>• Communication and agreement on next steps in the process</li> <li>• What tasks are participants being asked to do?</li> </ul>	
17:30	Adjourn	Evening reception & drinks available

APPENDIX 2: WORKSHEETS

STEP 1. ESTABLISHING A PROJECT

What is the **strategic challenge**  
(internal/within your control)?

What is the **framing question**  
(external/outside your control)?

What is the **time horizon** for your  
scenarios?

STEP 2. DRIVING FORCES

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

13.

14.

15.

16.

17.

18.

19.

20.

21.

22.

23.

24.

25.

26.

27.

28.

29.

30.

31.

32.

33.

34.

35.

36.

37.

38.

39.

40.

41.

42.

43.

44.

45.

46.

47.

48.

49.

50.

51.

52.

53.

54.

55.

56.

57.

58.

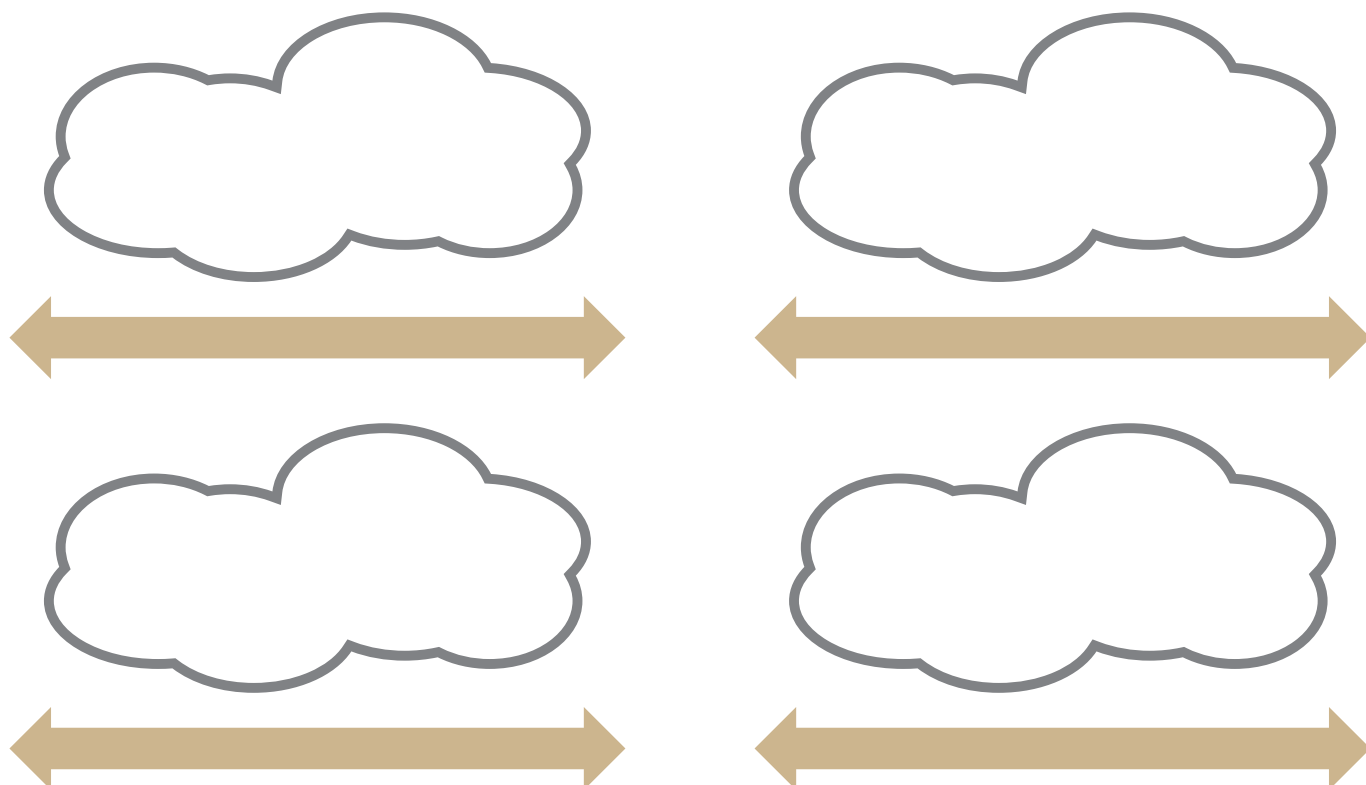
59.

60.

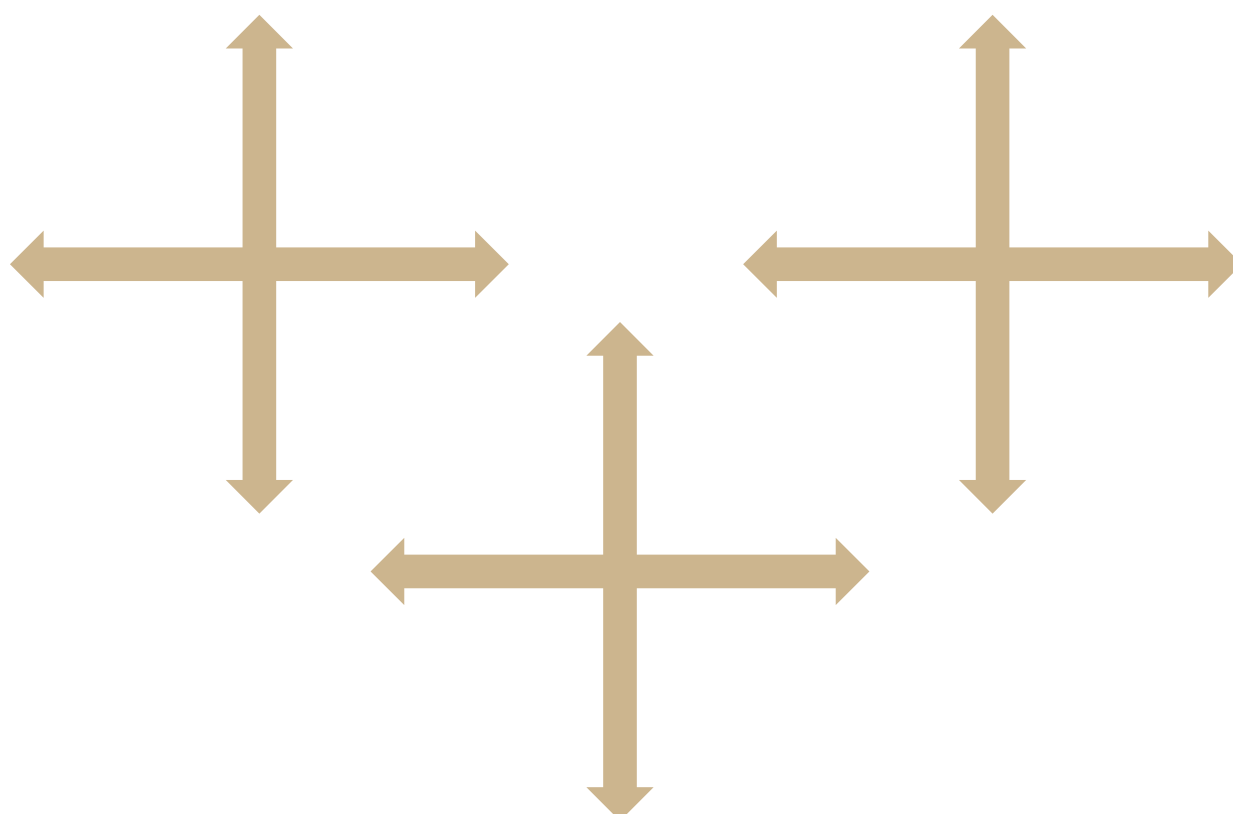
SOCIAL – TECHNOLOGICAL – ECONOMIC – ENVIRONMENTAL – POLITICAL



### STEP 3. CRITICAL UNCERTAINTIES

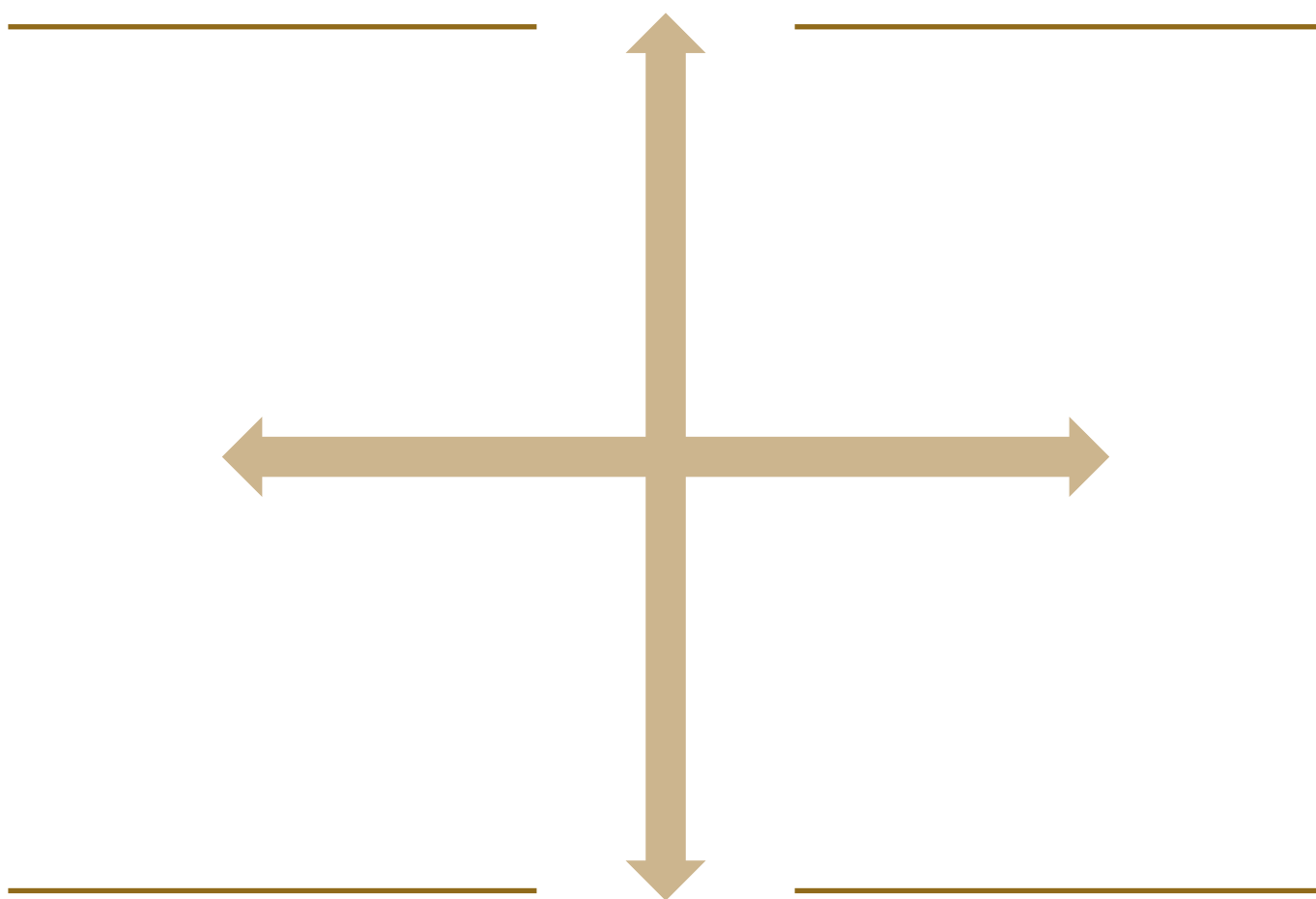


### STEP 4A. TESTING SCENARIO FRAMEWORKS

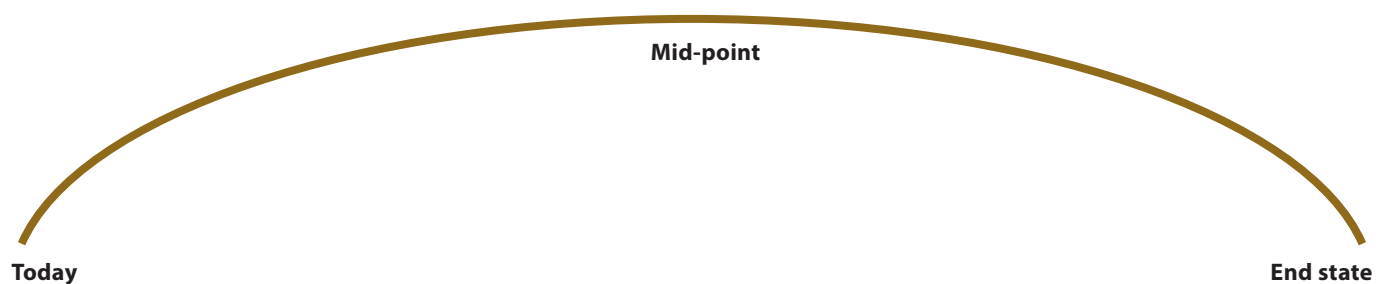


DESCRIBE A HIGH CONCEPT FOR EACH QUADRANT. ARE THE SCENARIOS PLAUSIBLE, CHALLENGING, RELEVANT, DIVERGENT?

STEP 4B. SELECTED SCENARIO FRAMEWORK

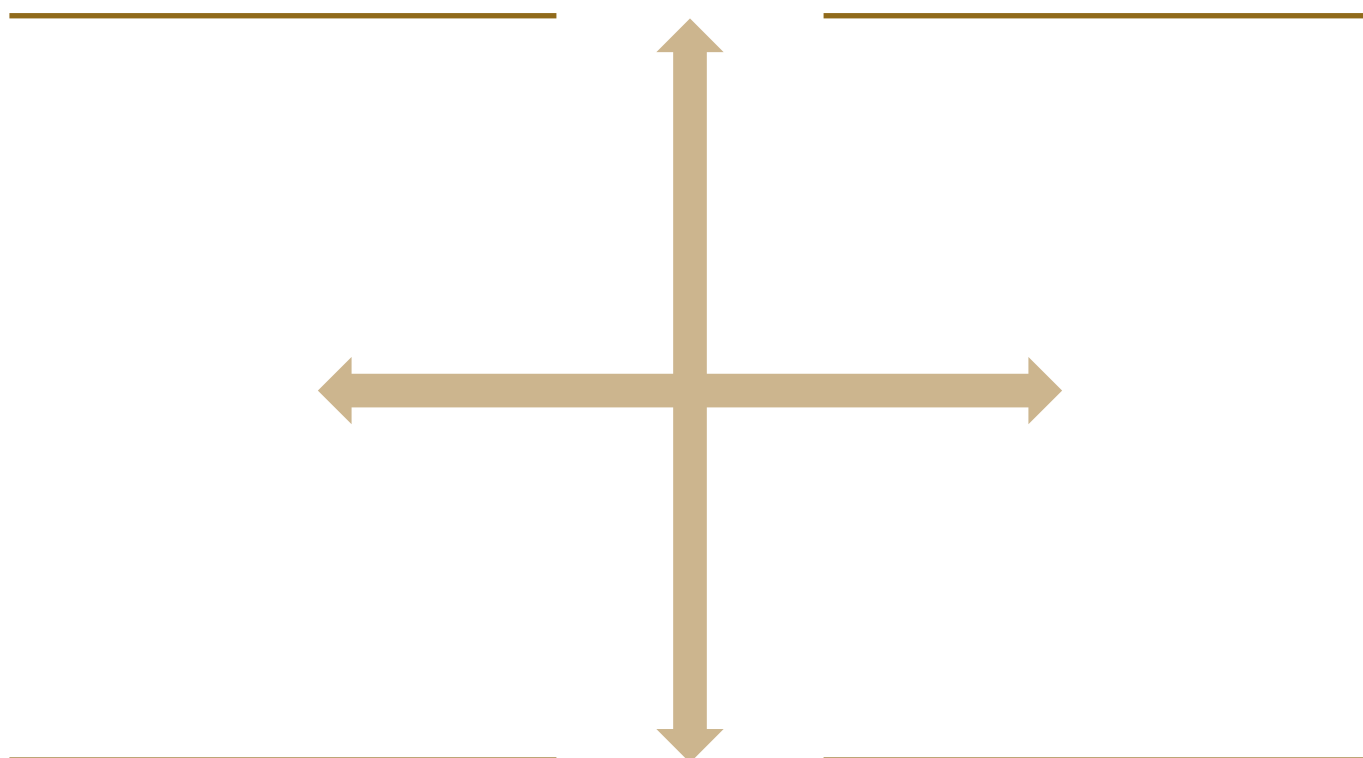


STEP 5. SCENARIO STORYTELLING

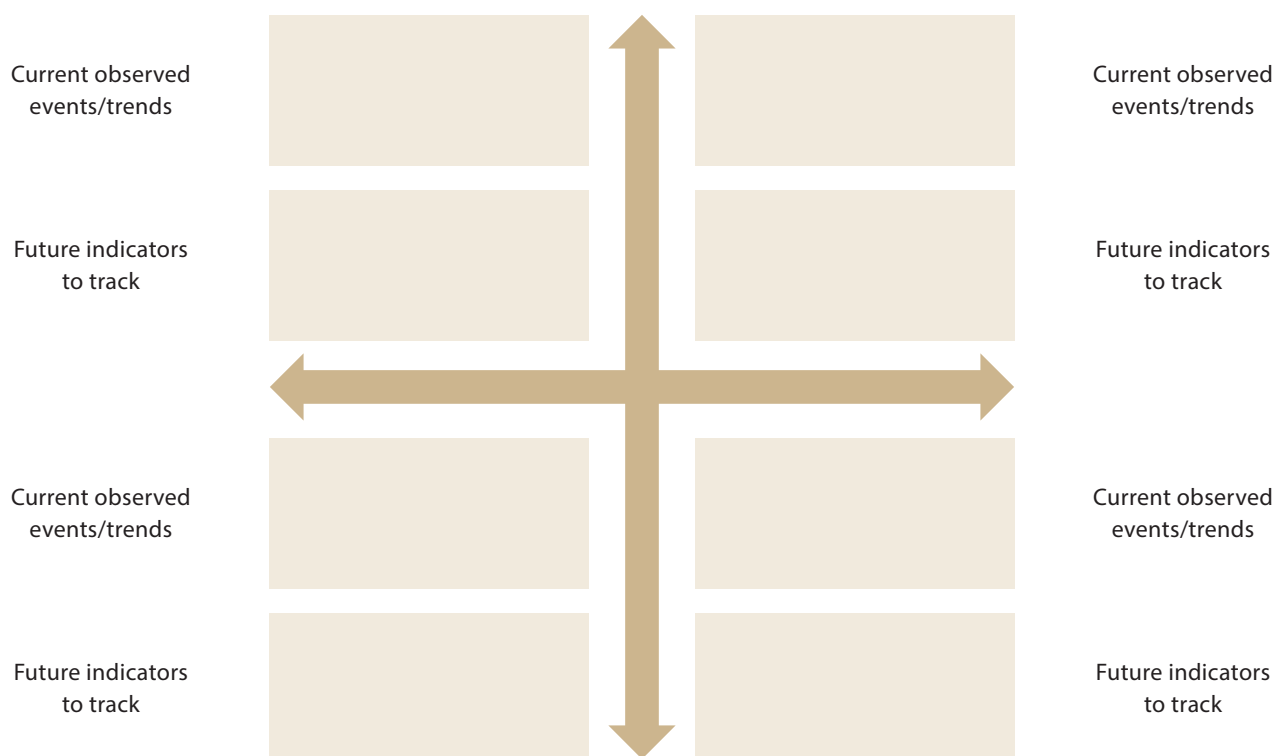


WHAT HEADLINES WOULD WE READ IN THE NEWSPAPER/ONLINE THAT ARE INDICATIVE OF THIS SCENARIO PLAYING OUT?

## STEP 6. IMPLICATIONS AND OPTIONS



## STEP 7. INDICATORS



STEP 8. REFLECTIONS

HOW HAS YOUR THINKING CHANGED?

Framing  
question

"Old"  
assumptions

New  
beliefs

Issues/areas to  
learn more about

# SUSTAINABLE PRODUCTIVITY

THE NEW FRONTIER FOR PRODUCTIVITY

**Bangladesh**  
**Cambodia**  
**Republic of China**  
**Fiji**  
**Hong Kong**  
**India**  
**Indonesia**  
**Islamic Republic of Iran**  
**Japan**  
**Republic of Korea**  
**Lao PDR**  
**Malaysia**  
**Mongolia**  
**Nepal**  
**Pakistan**  
**Philippines**  
**Singapore**  
**Sri Lanka**  
**Thailand**  
**Vietnam**

