THE FUTURE IS OURS

THE FUTURE IS

OURS

Strategic Foresight toolkit – making better decisions

This toolkit does not intend to replace organisational procedures for risk management. Please consult your own organisational policies to ensure compliance.

Some names in photo captions have been changed to protect identities.

Contents

WHAT IS STRATEGIC FORESIGHT?

Strategic foresight is an approach used to enable organisations to react quickly to changes in their operating environment and to manage uncertainty systematically.

It was first used by the military around the second world war and pioneered in the private sector by Royal Dutch Shell during the 1970s oil crisis.

The approach is now extensively used in the private and public sectors to support strategising or planning.

The central idea of strategic foresight is to avoid making perfect predictions of the future but instead to consider a range of potential scenarios or possible futures.

This approach:
• seeks to make assumptions and biases apparent
• allows organisations to stress test decisions against a range of potential future outcomes
• supports organisations to prepare for the future, take advantage of emerging opportunities and mitigate potential risks.

Foresight tools can use hard evidence or exploit creativity and imagination. They may be based on insights from a pool of experts or tap into collective thinking and promote participation. Each approach has different benefits.*

In this toolkit we compile techniques that combine evidence and creativity and are mostly participatory in nature. We prioritise techniques that can help teams or organisations to create collective wisdom and embed learning in decision-making.

2 A heading
Introduction

Disruptive forces – the climate crisis, the digital revolution and mass migration among them – are driving change at greater speed than ever before.

The challenges are immense. But the potential opportunities are unrivalled. If we can learn to understand the forces that are driving the future, and deal systematically with uncertainty, we have the chance to deliver a better future, for children and for us all.

This toolkit offers twelve workshops that your teams can use to help you wrestle with challenging conundrums. They will help you make better and more resilient decisions today to shape the future you want to realise.

The workshops are tailored from tools that are widely used in strategic foresight work by organisations within the sector. Working with the School of International Futures, we selected and adapted tools to serve the particular needs of Save the Children and our partner organisations.

In doing so, we aim to help our sector to engage with the uncertainty of the future – not only to navigate it, but to make strategic choices to shape a better future. We operate in environments characterised by great uncertainty which we cannot control. If our assumptions are wrong, if we miss the signals, we will fail. How well we adjust has consequences for those we serve around the globe.

Future thinking is particularly important for organisations serving children.

The impacts of malnutrition or lack of education on the long-term prospects of children, communities and countries cannot be overstated. Government action or inaction, and the policies they implement or fail to put in place, can have consequences for future generations. We can use strategic foresight to strengthen our case for pushing children's rights up the priority list.

We need to manage uncertainty – and tap into our collective wisdom to unpack the implications of current trends, imagine the effect of disruptive forces and consider potential future events and scenarios.

Here are four tips to help you.

Tip 1 Be open to a range of possible futures

Regular and effective horizon scanning that looks at current trends is only the start. We may be able to run statistical models to forecast the future when events are slow moving and relatively predictable (demographic trends, for example). But don't stop there. Some events are less predictable (such as conflict or volatile events converging at the same time). Disruptive forces could occur at any time, dramatically changing the direction of trends – through the emergence of so-called wildcards. A foresight analysis recognises that the future is often not a linear continuation of the past. Don't make the mistake of simply projecting current trends into the future or basing your strategy on only the most likely scenario.

The best analyses not only assess current trends and projections, but recognise that trends can change course, and pay special attention to disruptors or enablers that could change the whole game.

So the key is to consider the range of probable, possible and preferred futures ahead. Four techniques in this toolkit will help you do that: 2x2 Scenarios, Archetypes, Branch Analysis and Visioning.

Tip 2 Pay attention to weak signals

We often become aware of trends only when they are well established. Agile organisations identify emerging innovations as well as risks that may become dominant in the future. The key is to identify and understand the *drivers of change*, the distinctive forces that will shape our world.

It's common to talk about *megatrends* or *tectonic changes*. But other, smaller, drivers could also have a significant impact in our own operating environment.

Problems occur when organisations are slow to notice drivers of change, or unable to form a collective understanding of their implications or agree on what actions to take. Decision-making that is based on faulty assumptions about the future can leave teams unprepared to adjust or capitalise on emerging opportunities. In the worst cases, they may fail to mitigate risks, with potentially catastrophic consequences.

Some of the tools in this kit can be used to explore key drivers of change, understand their implications and consider appropriate actions. Driver Mapping helps teams to systematically identify drivers in different spheres and identify which could have greater impact and which are more unpredictable. Verge taps into the group's imagination to explore drivers of change through a human lens. Futures Wheel can then help teams to unpack the implications of a given event or scenario, to move beyond the obvious and challenge their assumptions. Finally, SWOT brings the focus back into the organisation or team by exploring the strengths, weaknesses, opportunities or threats a future event may reveal.

Tip 3 Practise foresight regularly

Many organisations have failed due to lack of strategic vision, becoming obsolete or being surprised by change. The best take time to think systematically about the future implications of current trends.

The key is to methodically unpack the insights emerging from horizon scanning, and make sure your organisation does not miss what should have been obvious. This is where various foresight tools are useful. It is like doing regular exercise – you see progress even if only by repetition!

The techniques in this toolkit can be used by any team during their strategising or planning. Teams can use any tool to generate collective wisdom and exercise the foresight muscle – in workshops or at team meetings, retreats or in any other space.

The participatory nature of the tools allows learning to emerge by tapping into multiple views and perspectives, which may not happen in more constrained settings.

Tip 4 Integrate and embed insights

A brilliant analysis won't deliver change on its own. A key part of strategic foresight is embedding change.

Strategic foresight is also about risk mitigation, building resilience, investing in new capabilities, testing new business models or approaches, and advancing new research for development and innovation. And it's about something we often forget: the power of imagination.

One helpful approach is to look at different scenarios. They do not need to be real – after all, they're not predictions. But they should challenge our biases and assumptions and stimulate us to think outside the box.

The last four tools in this kit will help you understand the implications of various scenarios or potential future events. Use Backcasting to work out what needs to happen for a particular scenario or desired future to emerge, identify the signals you need to monitor and prepare your response to various outcomes. Wind Tunnelling can stress test strategies or approaches, identifying which are more resilient to various potential futures or indeed how to adjust your approaches to increase the chances of success. Three Horizons is a useful technique to navigate the transition between an operating model that is in decline and an emerging one. Use it to consider the transition between the present and a future scenario and decide how to navigate it. And Roadmap can help you create a plan that defines the major steps or milestones needed to move towards your vision or preferred future.

The future is not written yet. To be agents of change, we need understand the forces that are driving the future. We hope this toolkit will help you do that.

HOW TO USE THE TOOLKIT

- **The menu** The table on the next page lists all 12 tools with a brief description of each one. This is the first place to start. A tool can be used independently, or in conjunction with each other.

- **A snapshot** If you need a little more information, the first page of each tool provides a more detailed summary of what it is, how it works, when to use it, what output you get from it, and next steps.

- **The technique** The rest of the chapter explains the tool in detail, explaining more about the background, step-by-step instructions on how to facilitate a workshop, a brief facilitator guide, where to look for further information, and a set of sample templates to run the workshop.

Not sure where to start?

- **At the start of a project** Use the Explore tools to understand the key drivers, or implications of the issues on your radar, and to identify gaps in your thinking.

- **Looking to build agility, resilience, or understand how you can mitigate risk?** Use one of the Create alternative futures tools to create scenarios and your preferred future and understand how they might come about.

- **At the end of a project** Test your plans and strategies in a set of scenarios, or use SWOT, Futures Wheel or Verge to explore the implications. In this phase you could use tailored scenarios or borrow relevant scenarios from elsewhere.

Some considerations

- **Who to involve** What you get out of the workshops will depend on who is in the room. Bringing together diverse groups with different experience and viewpoints is key to avoiding groupthink. Consider inviting external contributors to widen the

perspective. Build a common understanding of the future with partners by holding joint workshops. And remember, "if everyone is thinking alike, then somebody isn't thinking" as US Army General George S. Patton used to say.

• **How long to spend** The time you invest in each tool should depend on factors such as participants' previous foresight experience, their awareness of contextual factors, and what you want to get from the workshop. The times suggested for each tool are just a guide and you should judge what is right for your group.

• **How many participants** The number can be scaled according to the context and specificities of your project. Workshops can range from a handful of people to several dozen.

The tools in action

We have produced a companion to this toolkit which summarises how the tools have been put into practice in various contexts. This is available on request.

STRATEGIC FORESIGHT TOOLS IN A NUTSHELL

STEEP

Driver Mapping

Explore the drivers, emerging issues and wildcards that are the building blocks of the future

–8 people

Verge

Futures Wheel SWOT

2x2 Scenarios Archetypes

Branch Analysis Visioning

Backcasting

Wind Tunnelling Three	Explore the strengths and w an idea, strategy, organisatio the opportunities open to it threats it faces, and understa respond.	Create your preferred future and understand the tactics, strategies or policies needed to bring that future about.
Horizons Roadmap	Create four contrasting scer based on two high-impact, high-uncertainty drivers of c	Understand what needs to happen for a particular scenario or desired future to emerge.
Explore change through a hu or cultural lens.	Create different alternative futures by exploring patterr change.	Understand which strategies are most resilient, and what to prepare for in the event of a particular scenario.
Visually explore and underst the direct and indirect impa and implications of a driver, issue	Create future scenarios by considering key questions a impact of different events.	Understand how the dynamics of a scenario change over time, and explore the transition.

Generate a plan that defines the major steps or milestones needed to move towards your vision or preferred future. |

WHERE TO FIND MORE INSPIRATION

Some top picks of brilliant initiatives and practical applications of these techniques. This is only a selection of the wealth of initiatives out there.

- *Global Trends 2030: Paradox of Progress* produced by the National Intelligence Council in the USA. This strategic foresight analysis is produced every four years to inform the administration of the newly elected US President but is useful for anyone working on global issues. https://www.dni.gov/index.php/global-trends-home

- *Global Strategic Trends*, published by the UK Ministry of Defence with contributions from the Department for International Development. This describes a strategic context for defence and security looking out to 2050. It provides valuable insights for humanitarian work, with powerful scenarios on the future of security and international cooperation. Are we at a key juncture facing four possible futures – multilateralism, multipolarity, network of actors and fragmentation? https://www.gov.uk/government/publications/global-strategic-trends

- *Development Policy in 2032* produced by the German Federal Ministry for Economic Cooperation and Development in cooperation with the Corporation for International Cooperation. This discussion paper identifies key drivers of change that development policy actors should pay special attention to. https://www.bmz.de/en/publications/type_of_publication/strategies/Strategiepapier445_02_2018.pdf

- Intergovernmental foresight initiatives. The OECD has a Strategic Foresight Unit based in the office of the Secretary General that helps to bring futures thinking to the policy analysis of the organisation and its member governments. Many other valuable foresight insights emerge from the European Strategy and Policy Analysis System and the European Parliament Research Service.

- *Well-being of Future Generations* by the Welsh Government in the UK is a valuable policy example setting up a shared vision for local sustainable development with a forward looking approach in future generations. https://gov.wales/well-being-future-generations-wales-act-2015-guidance

- The Scanning the Horizon network, hosted by the International Civil Society Centre (https://icscentre.org/our-work/scanning-the-horizon/), brings together international NGO staff leading on strategic planning and is a valuable platform for collaboration. Similar spaces for collaboration are available in the UK via BOND (https://www.bond.org.uk/), in Europe via Concord (https://concordeurope.org/) and in the USA via InterAction NGO Futures (https://www.interaction.org/programs/membership-and-public-engagement/ngo-futures/). If you're in a UK-based civil society organisation, you should also look at Civil Society Futures' independent enquiry into the future of civil society in England. https://civilsociety futures.org/final-reports/

x THE FUTURE IS OURS

- The Foresight for Development initiative (https://www.foresightfor development.org/) is currently being piloted in Africa by the Southern Africa Node of the Millennium Project. It's worth following their excellent Twitter feed of new resources, regularly updated (https://twitter.com/ FFDAfrica).

- In the humanitarian sphere there are plenty of valuable initiatives including the OCHA Global Humanitarian Overview produced every year (https://www.unocha.org/global-humanitarian-overview-2019), the Start Network analysis (https://www.startnetwork.org/), ACAPS (https://www.acaps.org/), The International Crisis Group (https://www. crisisgroup.org/), IARAN (including their *The Future of Aid INGOs in 2030* report http://futureofaid.iaran.org/), analysis on the future 2030 by RCRC (https://future-rcrc.com/), among many initiatives.

- UNICEF's Future of the Child project looks at how to involve adolescents in foresight (https://www.unicef.org/policyanalysis/foresight/files/ UNICEF_AdolescentToolkit_2016.pdf) and UNESCO's Futures Literacy promotes the discipline of anticipation (https://en.unesco.org/themes/ futures-literacy)

- The World Economic Forum publishes a lot of reports on the future of the new economy and society (https://www.weforum.org/platforms/ shaping-the-future-of-the-new-economy-and-society). Their Global Risk report is particularly helpful (https://www.weforum.org/reports/the global-risks-report-2019).

- CGD Development Leaders Conference (https://www.cgdev.org/blog/ development-agencies-fit-future). CGD convenes a network of senior policy-makers, in a safe and independent space for critical learning with a future thinking perspective.

- Forum for the Future does an annual trend report and have an online futures centre where you can track trends (https://www.thefutures centre.org/?gclid=Cj0KCQjwho7rBRDxARIsAJ5nhFr4_R4lp7hCpfdlHK ucE8RqZtjvnGZvRekR15e5uwL4nH2NPNscBVQaAjSCEALw_wcB). Especially recommended to consult the global enquiry on youth produce

with World YWCA (https://www.ymca.int/ymca2044-building-our-vision for-the-future/)

• Nesta's Futurescoping regularly publishes innovative and engaging resources on emerging technologies and ideas (https://www.nesta.org.uk/ futurescoping/). This includes their podcast series *Future Curious* (https://www.nesta.org.uk/feature/future-curious/).

• The World in 2050 Initiative (https://www.iiasa.ac.at/web/home/research/ twi/TWI2050.html) publishes a series of reports. Recommendations include: *Transformations to achieve the Sustainable Development Goals* (https://www.iiasa.ac.at/web/home/research/twi/Report2018.html) and The Digital Revolution and Sustainable Development: Opportunities and Challenges (https://www.iiasa.ac.at/web/home/research/twi/Report 2019.html).

• Training and materials: The School of International Futures runs an annual retreat (https://www.soif.org.uk/), The Oxford Scenarios Project runs week-long training for practitioners (https://www.sbs.ox.ac.uk/ programmes/oxford-scenarios-programme). In the public policy arena, look at *The futures toolkit* produced by the UK government (https://horizons.gc.ca/en/our-work/learning-materials/foresight-training manual-module-1-introduction-to-foresight/) or the *Foresight Manual* by Policy Horizon Canada (https://horizons.gc.ca/en/our-work/learning materials/foresight-training-manual-module-1-introduction-to-foresight/). For training focusing on francophone Africa, consult Futuribles (https://www.futuribles.com/en/). For development, it's worth reading the *IDS Bulletin* article on 'Foresight and International Development' and other articles in the same issue (https://bulletin.ids.ac.uk/idsbo/ article/view/2777/ONLINE%20ARTICLE). It may also be worth following futurists on Twitter, including Wendy Schultz (@wendyinfutures) and Noah Raford (@nraford).
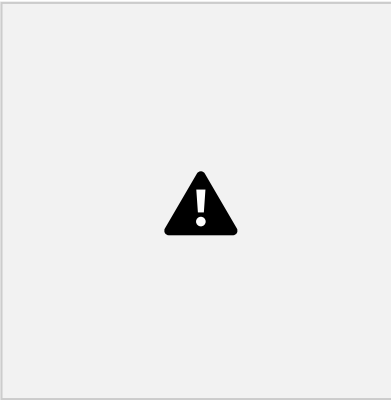
Driver Mapping

Explore and understand the drivers, emerging issues and

wildcards that are the building blocks of the future

3 hours +   5–8 participants (for a single group)

Requires Focal issue and time horizon

What is it?

Driver Mapping is a critical tool used to help identify high-impact and high-uncertainty drivers – factors and forces of change.

Uses include:
- Identify the critical uncertainties that will shape the future
- Question the assumptions we have about the direction of the future
- Understand how these uncertainties can shape alternative futures and affect your goals in different ways
- Inform strategy and planning work

How does it work?

A collaborative workshop process that uses a systematic process to explore and identify the most important drivers of change, the forces that will shape your future operating environment.

When to use it?

To identify a broad set of factors that you may want to consider when planning for the future, in particular across social, technological, economic, environmental and political domains. To gain consensus about the most important factors, and potential disruptions.

What do you get?

A list of drivers prioritised by impact and uncertainty. An understanding of the key forces shaping the future environment, the weak signals, megatrends and potential wildcards or disruptions.

What next?

Use the insights from Driver Mapping to develop insights about how the future may differ from today.

Use in combination with the following tools:

Scenarios Driver Mapping is a required prerequisite for the development of scenarios. 2x2 Scenarios, Archetypes, Branch Analysis and Visioning all require high-impact and high-uncertainty drivers to create scenarios that can help organisations explore uncertainties and plan different possible futures.

Futures Wheel Futures Wheel can be used to identify the direct and indirect impact of specific drivers, although typically used for scenarios.

Verge Verge helps identify the potential cultural and social impact of drivers, although is typically used for scenarios.

BACKGROUND

Drivers are forces or factors of change that have the potential to *drive* a future in a particular direction. Drivers may have an immediate effect on the system you are looking at or may have a more diffuse impact on a number of direct drivers.

A driver of change is not just a description of an issue, nor is it a trend. It should be neutral (allowing for different outcomes) and have a reasonable level of granularity. For example: 'technological change' is too high-level and 'loss of jobs due to automation' is not neutral, but 'impact of automation on jobs' would be a suitable driver.

Foresight's strength is in helping explore and plan for uncertainty in our understanding of our future. By uncertainty, we mean uncertainty over how

Prioritisation matrix for identifying your critical uncertainties

HIGH

CRITICAL

things might manifest in the future. For instance, with the impact of automation on jobs, there may be uncertainty as to whether in 2040 we will face the loss and substitution of jobs, or the augmentation of jobs. People may agree that the driver is of high impact, but the outcome is more uncertain.

Driver Mapping aims to identify drivers that will have high impact and high uncertainty (that is, they demonstrate a degree of variability, or lack of predictability, as to how they will manifest in the future) or 'critical uncertainties'. These high impact, high uncertainty drivers are often used to help

LOW
UNCERTAINTIES

HIGH IMPACT DRIVERS

SECONDARY DRIVERS

explore uncertainty through scenarios.

LOW Uncertainty

HIGH

However, it is also important to identify other types of drivers: • Megatrends: High impact but more certain drivers which are likely to shape the future
• Weak signals: Early indicators of a potentially important emerging phenomenon that could shape the future
• Wildcards: factors or events that seem incredible or unlikely but would have high impact if they do happen.

When identifying drivers, it is important to understand the diverse drivers of change, from social values shifts to economic change.

STEEP (Society, Technology, Economy, Environment, Politics) is a framework to keep track of different types of drivers and ensure you consider a diverse range of drivers.

Source: Adapted from Wade, W (2012), *Scenario Planning: A Field Guide to the Future*. John Wiley & Sons. Page 204.

STEEP

TECHNOLOGY	**E**CONOMY	**E**NVIRONMENT
Communication, new media, engineering, sciences	Industry trends, economic policies and performance	Ecological change

SOCIETY **P**OLITICS

Demographics, lifestyle, social trends, social values and attitudes

PESTLE model: Political, Economic, Social/society, Technical/technological, Legal, Environmental. Government policies, political shifts, legal changes

An alternative version for risk management follows a

Driver Mapping
Facilitation Guide

WHAT YOU NEED

3 hours +

5–8 participants (for a single group)

Participants should be representative of the different types of stakeholders and expertise in order to create credible and plausible futures.

The combination of participants should help ensure:
1. High quality input from experts to enhance credibility of scenarios 2. Diverse input to provide more robust scenarios, including challenging voices 3. Buy-in from those who will use the scenarios to inform important decisions

Involving senior leaders and relevant experts in the scenario-building process will considerably increase the likelihood that the produced scenarios will inform important decisions.

REQUIRES

Focal issue The question you want to explore, for instance "what is the future of xyz?") or a strategic question ("should we build capacity in abc?")

Time horizon How far out do you want to look? e.g. 2030/2040 or beyond

Materials • Whiteboard, wall- or flipcharts (at least one flipchart per group) • Sticky notes

• Pens and markers

Room No specific requirements. Find a quiet space with room to get up and move around.

Templates provided

• Template #1: Driver Mapping Template

• Template #2: Prioritisation Matrix

INSTRUCTIONS

The Driver Mapping tool has six steps. Please review all steps before beginning the exercise and ensure all materials have been prepared.

Step 1 Introduce the Driver Mapping tool 10 mins

Step 2 Introduce the focal issue and time horizon 5 mins

Step 3 Generate and cluster drivers 60 mins

Step 4 Consolidate and prioritise drivers 60 mins

Step 5 Summarise and share 30 mins

Step 6 Next steps 15 mins

Before you begin
- Prepare the Driver Mapping template (Template #1) and Prioritisation Matrix (Template #2) on a whiteboard or flipchart
- Distribute pens, markers and sticky notes
- Designate someone to be notetaker

1. Introduce the Driver Mapping tool (10 mins)

Introduce the group to the Driver Mapping tool and explain why it is being used. Depending on how familiar the group is with the concept, it may be helpful to print and share the Background section (page 3) and an example of how the tool has been applied in the past.*

In particular, ensure the group understands the key concepts:
- Definitions of drivers, megatrends, wildcards, and weak signals •
The STEEP framework.

2. Introduce the focal issue and time horizon (5 mins)

Introduce the focal issue to be explored and the time horizon.

3. Generate and cluster drivers (60 mins)

a. Generate drivers

Each participant, individually or in pairs, should take ten minutes to write down drivers of change that could affect the focal issue. These should have the potential to have a high impact and also have a degree of high uncertainty about them.

Remember that drivers are not trends. Drivers are not established trends, e.g. ageing population and urbanisation. Drivers have a higher degree of uncertainty and ambiguous direction.

Each person should aim to identify four to five key drivers to share with their group. Encourage them to identify a variety of drivers from across the STEEP categories.

Write these on individual sticky notes and post on a whiteboard or flipchart.

* A supporting document 'Driver Mapping in Action' with examples of how the tool has been applied by Save the Children or other organisations is available upon request.

b. Describe and cluster drivers

Give each person an opportunity to share their drivers.

People will likely generate similar or identical drivers. As this happens, cluster these drivers together on the whiteboard or flipchart.

Keep in mind:
- *Let ideas flow.* If the sharing process generates Ideas of other possible drivers, write these down on a new sticky note and share.
- *Are there missing STEEP categories?* Is the group overlooking specific STEEP categories? Should the group take more time to generate specific social drivers or environmental drivers, for example? Does the resulting list look balanced for the given focal issue and time horizon?

4. Consolidate and prioritise drivers (60 mins)

a. Consolidate and prioritise

As a group, work together to identify clusters of drivers that can be consolidated to one idea, and capture these on one sticky note. If the group feels an idea is unique enough, keep it as it is.

Next, discuss as a group where the driver belongs within the Prioritisation Matrix. Move the sticky note over to the Prioritisation Matrix and place it accordingly.

b. Review the critical uncertainties

Look at the top right corner of the Prioritisation Matrix. Have a discussion about these drivers. As a group, identify the top five to ten critical uncertainties (high-impact and high-uncertainty drivers).

c. Review the megatrends and other high-impact drivers Identify any

drivers that are high impact, but more certain. These will be important issues to address in any future exercises such as scenario development.

d. Identify the wildcards

Next, discuss the wildcards or potential disruptions.

e. Debate the weak signals

Are there areas where the group has significant disagreement over the impact, or uncertainty? Are these emerging issues worth monitoring over time?

5. Summarise and share (30 mins)

A designated notetaker should summarise the findings to share with the relevant teams and project participants, taking special care to note the critical uncertainties, high-Impact drivers, wildcards and weak signals.

6. Next steps (15 mins)

Close the session by explaining how the drivers will be used next. The page Using the Outputs of Driver Mapping may be helpful here.

USING THE OUTPUTS OF DRIVER MAPPING

Driver Mapping is a critical tool in foresight and is required for the development of scenarios. The drivers identified in this process are used to inform: •
Scenarios: Drivers mapping is a required prerequisite for the creation of scenarios in the 2x2 and Archetypes tools.

• **Futures Wheel**: Futures Wheel can be used to explore the direct and indirect impact of specific drivers, although typically used for scenarios. The Futures Wheel helps identify first-, second-, and third-order impacts of specific drivers and scenarios.

• **Verge**: Verge helps identify the potential cultural and social impact of drivers, although it is typically used for scenarios.

• **Systems Mapping**: Drivers can be used as identified factors and forces to help create a systems map. See an illustration in Policy Horizons Canada (2016): "Module 4: System Mapping" in Foresight Training Manual, *Online resource*, at http://www.horizons.gc.ca/en/content/foresight-training-manual module-4-system-mapping.

FURTHER INFORMATION

In-depth guide to capturing and sharing drivers

Policy Horizons Canada (2016): *Module 3 – Scanning* in *Foresight Training Manual, Online resource*:
http://www.horizons.gc.ca/en/content/foresight training-manual-module-3-scanning

Capturing and categorizing drivers

See "Future Drivers Table" (pg. 19) in Sustainability West Midlands (2015) *The Future We Made: Birmingham and West Midlands Future Proofing Toolkit 2020–2060* by Government Office of Science:
https://www.sustainability westmidlands.org.uk/wp-content/uploads/WM-Future-Drivers-Report Final-July.pdf

Examples of drivers

See Drivers of Change by Arup: driversofchange.com

STEEP Foresight Cards by IVTO: https://ivto.org/foresightcards/

Verge

Explore change through a human or cultural lens

□ 1 hour 10 minutes +   □ 3 participants +

Requires Inputs and time horizon

What is it?

A useful framework for exploring drivers of change through a human or cultural lens or to use to deepen understanding of future scenarios.

Uses include:
- Explore the implications of a driver or issue
- Inform scenario impact and policy development process
- Inform scenario development

How does it work?

A systematic approach to explore drivers of change, issues or scenarios through an ethnographic lens – by taking a human-focused or cultural perspective.

When to use it?

Consider change through a human or cultural lens, to identify drivers or implications or explore scenarios, which can be particularly helpful to generate new and interesting perspectives.

What do you get?

A list of the social and human impacts of a given scenario.

Participants get an experiential notion of how the future 'feels and tastes'.

What next?

Use the outputs in combination with the following tools to generate further insights:

Scenario development: Create deeper insight into cultural aspects of scenarios

Driver Mapping: Identify and prioritise key drivers impacting a focal issue

Three Horizons: Think about what needs to change to move to a particular future in the short, medium and long term

Related tools

Futures Wheel: Explore the indirect and direct impact and implications of a particular scenario, driver or trend

BACKGROUND

Verge is a way to frame and approach changes in the world. It was developed by Kaipo Lum and Michele Bowman as an alternative to STEEP categories. It explores the social and human impact of drivers and scenarios through six

human domains:

Define: The concepts, ideas and paradigms we use to define the world around us

Connect: The technologies used to connect people, places and things

Create: The processes and technology through which we create goods and services

Relate: The social structures and relationships which link people and organisations

Consume: The processes and technology through which we consume goods and services

Destroy: The ways in which we destroy value and the reasons for doing so

Verge can be used in different parts of the foresight process: • **Help create scenarios by more deeply exploring drivers** Verge can be a tool to understand the implications of different drivers and thus help build more robust scenarios.

• **Help understand the implications of scenarios**
Working with existing scenarios, Verge identifies their social, cultural, and human implications.

Verge

Facilitation Guide

WHAT YOU NEED

1 hour 10 minutes +

3 participants +

Verge can be done rapidly alone or as part of a larger, group-based project. These instructions assume three people with one hour and one specific scenario.

It is possible to adapt this guide for use with multiple groups, each working on a separate scenario.

REQUIRES

Note: This guideline assumes using a scenario. A driver or trend can be used as well.

Inputs A selected scenario to deepen or explore its implications **Time horizon**

How far out do you want to look? e.g. 2030/2040 or beyond **Materials** •

Whiteboard, wall- or flipcharts (at least one flipchart per group) • Sticky notes

• Pens and markers

Room No specific requirements. Find a quiet space with room to get up and move around.

Templates provided

• Template #1: Verge Template
• Template #2: Verge: Definitions and examples

INSTRUCTIONS

The Verge tool has four steps. Please review all steps before beginning the exercise and ensure all materials have been prepared.

Step 1 Introduce the Verge tool 10 mins

Step 2 Exploration with Verge 20 mins

Step 3 Share and finalise 30 mins

Step 4 Next steps 10 mins

1. Introduce the Verge tool and scenario (10 mins)

Introduce the scenario, the time horizon, and the Verge tool. It may be helpful to print and share the Background section (page 13) and an example of how the tool has been applied in the past.* Also print and share Template #2: Verge: Definitions and examples.

You will need additional time here if participants are not already familiar with the scenario

2. Exploration with Verge (20 mins)

Before starting: If everyone is working on the same scenario, assign specific categories to each person or persons. If using the tool to assess more than one scenario, then explore all Verge categories within each scenario together.

a. Start the process by having the group read their scenario and imagine what the world looks like – remember, they are exploring the world at a future date, depending on the time horizon you have set.

   Ask them to consider:
   • What does the world look like in this scenario and time horizon? •
   What elements of the scenario seem strange or interesting?

b. Next, have participants look at their Verge categories, and read the description.

   Have the participants think about the scenario through the lens of the category they have been assigned. For instance, if they thinking about 'Create', they should consider how the concepts, ideas and paradigms used to define the world around us are different in the future? What are social attitudes like? What is the role of religion?

   Remind participants not to hesitate over any idea. Good ideas are found by generating lots of ideas.

   Get the participants to consider the issue from different perspectives, eg, citizens, companies, governments, students, pensioners.

   Write the ideas into the template. *Make sure there are at least three items per category.*

* A supporting document 'Verge in Action' with examples of how the tool has been applied by Save the Children or other organisations is available upon request.

3. Share and finalise (30 mins)

a. As a group, share the completed template and ask the participants to share and compare insights. What does their world feel like? What has happened?

   Discuss as a group whether any items should be removed, decide via consensus or a simple vote (show of hands).

b. After sharing for 15–20 minutes, work together to identify which of the Verge

categories have the most uncertainties, opportunities, and risks.

Write them down in the space given in the template.

4. Next steps

Close the session by explaining how the scenarios will be used next. The page
Using the Outputs of Verge may be helpful here.

USING THE OUTPUTS OF VERGE

Verge is a versatile exploratory tool. It can be used alongside different segments of foresight work, such as horizon scanning and scenario implications.

Inform the development of scenarios

The Verge process can help explore the social and human implications of key drivers of change. For this purpose, Verge is typically combined with the Three Horizons or Futures Wheel tools. It can be used to help generate scenarios either directly or in conjunction with scenario tools such as 2x2 or Archetypes.

Deepen existing scenarios

The Verge tool can be used with existing scenarios to help deepen our understanding of these worlds, going beyond standard STEEP towards how we define, relate, create, connect and consume as individuals and as a society. In this way, Verge can be a tool to:
• flesh out scenarios and help build human-centred narratives • consider a scenario's implications and help inform possible strategic options

FURTHER INFORMATION

Similar approaches to Verge

The authors of the Verge tool suggest that it can be combined with other tools, such as Three Horizons and the Futures Wheel.

See Lum, Richard (2014). *VERGE: A General Practice Framework for Futures Work*. Vision Foresight Strategy LLC. Online resource: https://vision foresightstrategy.wordpress.com/2014/09/15/verge-a-general-practice framework-for-futures-work/

More information on Verge

Lum, Richard (2013): "An Introduction to 'Verge'", Presentation at Wolfson College, Oxford, UK. 5 October 2013. https://www.slideshare.net/ richardl91/apf-2013-104

e

m

i

T

To mark World Refugee Day 2019, Save the Children invited children living in refugee settlements to draw their hopes and memories onto a portrait of themselves.

These images are from Kyaka refugee camp, Uganda, where children took part, drawing and writing about their past experiences and their hopes and dreams for the future.

Children have an incredible imagination. Adults, in contrast, are often trapped by their own preconceptions of the future. The power of imagination is central in enabling us to move beyond our own biases and consider the potential implications of various alternative futures.

Futures Wheel

Visually explore the direct and indirect impacts and implications of a driver, issue or scenario

☐ 1 hour 15 minutes +   ☐ 3 participants +

Requires Inputs

What is it?

The Futures Wheel tool helps you explore the direct and indirect impacts and implications of a driver of change, emerging issue or future scenario.

Uses include:
- Identify second and third order impacts of a given driver of change, emerging issue or future scenario
- Inform scenario impact and policy development process by identifying risks and opportunities
- Inform scenario development by unpacking potential chain reaction to a given emerging issue

How does it work?

Structured brainstorming that helps participants visualise how important trends, events, or drivers will affect the larger environment.

When to use it?

Futures Wheel is helpful to explore the potential implications of a driver, issue or scenario. • Explore the implications of scenarios, trends, events or drivers
- Organise thoughts about future events or trends
- Think through possible impacts of current trends
- Show complex interrelationships
- Create forecasts within alternative scenarios

What do you get?

Structured list of direct and indirect implications of a given scenario.

What next?

Use the Futures Wheel to inform impact analysis and develop new policies, tactics or strategies or to inform scenario development.

Related tools

Verge: Explores the socio-cultural aspects of scenarios and drivers.

BACKGROUND

mplate Issue:

The Futures Wheel is one of the most commonly used methods among futurologists. It is an extremely easy way to engage people's thinking about the future.

The Futures Wheel focuses on a scenario or a driver, with participants working to develop first, second, third and sometimes fourth-level implications of the changes it generates. Below is a simple example using a 20% budget cut as the scenario.

Abridged Futures Wheel exploring implications of a 20% budget cut

3rd Order of Impact

2nd Order of Impact

1st Order of Impact

1 Can't take on new work

1 No external training

to travel

3 Lost sales

2 Second order impact

1 Sales staff to travel Economy Class

2 More internal training

3 On-the-job training

3 Third order impact

2 Sales staff less willing

1 First order impact

Source: Designed by the School of International Futures
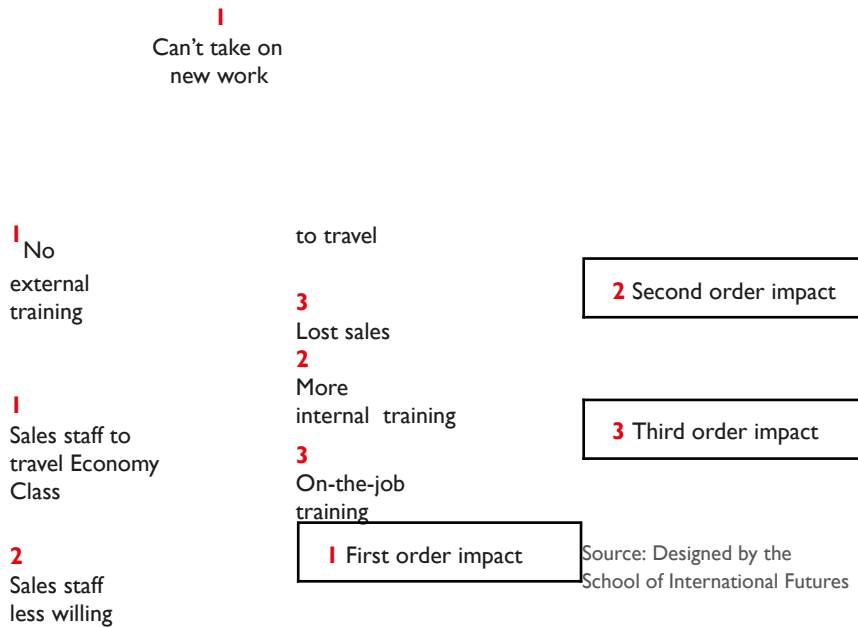
This tool focuses on helping participants think through possible direct and indirect impacts of potential future events. The Futures Wheel, however, is very versatile and can be applied to other uses.

Futures Wheel

Facilitation Guide

WHAT YOU NEED

1 hour 15 minutes +
3 participants + (per group)

The Futures Wheel can be done rapidly alone or as part of a larger, group-based project. This guide assumes a single group of three people are working together for one hour on one specific scenario. It can be adapted for work with multiple groups, each working on different scenarios.

A Futures Wheel exercise is unlikely to produce valuable insights if all of the participants think alike. A core principle is that complex problems can be investigated more effectively with a diverse team than by the best individual experts.

REQUIRES

Inputs A scenario to explore. This guide assumes a scenario will be used, but it can also be used with a driver or trend.

Materials • Whiteboard, wall- or flipcharts

• Sticky notes

• Pens and markers

Room If multiple groups, we suggest a cabaret setup with one table per group. The room should have sufficient space so that groups are not working on top of one another.

Templates provided

• Template #1: Futures Wheel Template
• Template #2: Reviewing the Futures Wheel

INSTRUCTIONS

The Futures Wheel tool has five steps. Please review all steps before beginning the exercise and ensure all materials have been prepared.

Note: these instructions assume that the group is exploring a single scenario. If

exploring a set of scenarios or drivers, you should do multiple Futures Wheels. Adjust instructions accordingly.

Step 1 Introduce the Futures Wheel tool and scenario 5 mins
Step 2 Fill out the Futures Wheel 30 mins **Step 3** Review the Futures Wheel 15 mins **Step 4** Share the Futures Wheel (optional) 15 mins **Step 5** Next steps 10 mins

Before you begin
• Prepare the Futures Wheel (Template #1) and Reviewing the Futures Wheel (Template #2) on a flipchart or whiteboard

1. Introduce the Futures Wheel tool and scenario (5 mins)

First, review the chosen scenario as a group.

You will need additional time here if participants are not already familiar with the objective or scenario.

Introduce the tool and explain why this is being used. Depending on how familiar the group is with the concept, it may be helpful to print and share the Background section (page 23) and an example of how the tool has been applied in the past.*

2. Fill out the Futures Wheel (30 mins)

Get participants to consider: "If this occurs, then what might happen next?"

During the exercise, the facilitator must:
• Ensure that each answer follows directly (with no intervening events) and is clear and specific.
• Encourage participants to identify both positive and negative impacts, including even low-probability consequences – the idea is to identify possibilities, however remote.

a. **First order impact**

Start by writing the scenario in the centre of the circle and ask the group "If this occurs, then what might happen next?" Ask them to write their responses – either directly on the chart or on sticky notes which they stick on the chart.

---

* A supporting document 'Futures Wheel in Action' with examples of how the tool has been applied by Save the Children or other organisations is available upon request.

Have the group work with **first-order impacts only**. Explain that you will work on each level one-by-one. This helps discourage linear thinking.

TIP

Remind participants that the Futures Wheel is not about prediction, but to identify a wide range of possible consequences of change and consider them in planning.

b. **Second order impact**

Once the first order impacts have been completed, take a step back to review. Next, start the second round asking "If this occurs, then what might happen next?" for each of the first order impacts generated. This round should take more time, but the group should be able to generate ideas quickly.

The facilitator may also ask: "What necessarily goes with this event or trend?" or "What are the impacts or consequences?"

c. **Third order impact**

Repeat the process. Uncovering third order impacts is usually more difficult than the first and second order impacts.

Allocate extra time to complete the third order impacts.

3. Review the Futures Wheel (15 mins)

Take time to review the Futures Wheel implications using Template #2.

Use the questions below to help start discussions:
• What are the most important or provocative implications that you
  have identified?
• Who are the key stakeholders that can best address these implications? •
What needs to be done in the short term?
• What needs to be done in the longer term?

If during the discussion the group feels that specific parts of the Futures Wheel need to be revised, encourage them to do so.

4. Share the Futures Wheel (15 mins, optional)

If working with multiple groups, the session can end with each group sharing their completed Wheels, highlighting provocative and important implications.

5. Next steps (10 mins)

Close the session by explaining how the scenarios will be used next. The page Using the Outputs of Futures Wheel may be helpful here.

USING THE OUTPUTS OF FUTURES WHEEL

Inform impact analysis and policy development

Futures Wheel is typically used as part of a larger impact analysis process, either formally or as part of a brainstorming process.

Inform scenario development

Futures Wheel can be used to help participants better understand the potential

direct and indirect implications of drivers. Applying the Futures Wheel exercise to key drivers and complex drivers can help create more robust scenarios that explore provocative and insightful futures.

FURTHER INFORMATION

Different approaches to Futures Wheel

Futures Wheel with VERGE

Shultz, Wendy (2010): "Use it with futures wheels: brainstorm by Verge category", Slide 16 in *Futures Tools: scanning, futures wheels presentation*, 30 August 2010. https://www.slideshare.net/wendyinfutures/futures-tools scanning-futures-wheels-verge

Futures Wheel with STEEP-type Domains

Magnus, Stephen (2017) "Einstieg in alternative realitaten" in *The adventure future*. Online resource (in German): https://abenteuerzukunft.wordpress. com/2015/07/

Behboudi, Majid (2019) *Futures Wheel: Practical Frameworks for Ethical Design*. https://medium.com/klickux/futures-wheel-practical-frameworks-for ethical-design-e40e323b838a

Artis, Lea and Jeremy Pesner (2015). *How to Build Utopia: An Experiment in 'Rapid Futuring' to Create Action Presentation + Facilitation Slides with Results + Process Captured*. Presentation at WFS2015. https://www.slideshare.net/ WorldFuture2015/how-to-build-utopia

SWOT

Explore the strengths and weaknesses of an idea, strategy,
organisation or team, the opportunities open to it and
the threats it faces, and understand how to respond

1.5 hours +   1 participant + (ideally a group of 6–8 participants)

Requires Inputs and focal issue

What is it?

The SWOT tool helps you assess the strengths, weakness, opportunities and threats of an idea, strategy, organisation or team and understand how to improve it.

Uses include:
- Build a shared understanding of strengths and weakness during a strategy development process
- Inform risk mitigation plans by identifying threats
- Inform innovation plans and preparedness by identifying future potential opportunities

How does it work?

A systematic approach to consider how best to achieve your objectives.

When to use it?

SWOT can be used as an ice-breaker to kick off strategy discussions, to assess an idea, strategy or project, or help orient an organisation before starting a new project.

What do you get?

A shared profile of strengths and weaknesses to build on.

List of potential of opportunities and threats for future preparedness.

What next?

Use the insights from SWOT to inform planning or strategising. Double-check the validity of an idea and orient internal organisational factors as part of the strategy development process.

BACKGROUND

SWOT is a simple tool that helps you to assess the strengths and weaknesses of an idea, strategy, organisation or team as well as the opportunities open to it and the threats it faces.

In particular, it helps:
- identify what needs to be done to capture and build on opportunities
- identify what needs to be done to mitigate threats
- identify internal priorities and challenges.

Typically the organisation is you or your team, but you can use the tool to think about external stakeholders.

| INTERNAL FACTORS (Attributes of the organisation)		EXTERNAL FACTORS (Attributes of the environment)	
Strengths	**Weakness**	**Opportunities**	**Threats**
• What do we do better than others do? • What are our unique resources?	• What resources or infrastructure are we lacking? • What do we do poorly?	• Where can we best apply our strengths? • What changes are creating new prospects?	• What are critical external challenges? • What are potential external limitations?

You may want to focus on the left-hand side of the matrix and only cover strengths and weaknesses to simplify the discussion.

SWOT

Facilitation Guide

⚠️

WHAT YOU NEED

1.5 hours +
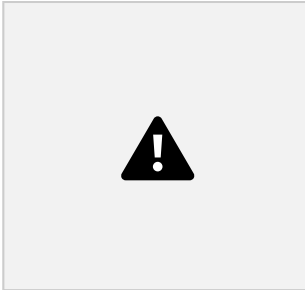
1 participant + (ideally a group of 6–8 participants)

SWOT can be implemented alone or used in a group. As a highly participative exercise, and to help group dynamics, participants should be involved with the project or organisation being addressed and be able to bring alternative perspectives.

SWOT can be conducted rapidly. For group work, we recommend 1 to 1.5 hours. For this document, we assume a 1.5 hour session.

REQUIRES

Inputs Consider the set of STEEP drivers from a driver mapping exercise if relevant.

Before you start you will need to have completed a Driver Mapping exercise. Alternatively, add 30–60 minutes at the start of the session to run this with the group.

Focal issue The subject you want to explore, this could be your organisation or team, a strategy, value proposition or objective.

Materials • Printed copies of the SWOT Template, or a whiteboard or flipcharts

• Sticky notes

• Pens and markers

Room If multiple groups, we suggest a cabaret setup with one table per group. The room should have sufficient space so that groups are not working on top of one another.

Template provided

• Template #1: SWOT Template

INSTRUCTIONS

The SWOT tool has four steps. Please review all steps before beginning the exercise to familiarise yourself with the timings, steps and to ensure all materials have been prepared.

Step 1 Introduce the SWOT tool and define the scope 10 mins

Step 2 Generate ideas 30 mins **Step 3** Discuss and converge 40 mins **Step 4** Next steps 10 mins

Before you begin
• Prepare the SWOT Template on a whiteboard or flipchart

1. Introduce the SWOT tool and define the scope (10 mins)

Introduce the group to the SWOT tool and explain why it is being used. Depending on how familiar the group is with the concept, it may be helpful to print and share the Background section (page 33) and an example of how the tool has been applied in the past.*

• Introduce each person to SWOT and the SWOT Template
• Next, ensure all participants consider the perspective of the analysis – are you conducting the analysis on your own organisation, project or team, or from an external perspective? Introduce the focal issue and ensure you have a common understanding of what this is.

2. Generate ideas (30 minutes)

Generate as many ideas possible for each strength, weakness, opportunity and threat.

• Work individually, or in pairs, and take 30 minutes to brainstorm as many ideas as possible. Fill these into the SWOT Template (individual copies or a shared copy).
• Remind the group not to hesitate over any idea. Good ideas are found by generating lots of ideas.

* A supporting document 'SWOT in Action' with examples of how the tool has been applied by Save the Children or other organisations is available upon request.

Use the internal factors and forces and facts in the table below as prompts to encourage participants to generate ideas in different categories.

Internal factors (strengths and weaknesses) Includes resources and experiences under your control	External factors (opportunities and threats) Forces and facts that your organisation does not control

• Human resources • Physical resources • Financial resources • Activities and processes • Past experiences and reputation	• Future trends (within the sector and society) • Economy (local to international) • Funding sources • Culture and demographics • Physical environment and logistics • Legislation and regulations • Local, national or international events

You can also use the STEEP categories (Society, Technology, Economy, Environment, Politics – see Drivers Mapping tool) to help think through your analysis.

3. Discuss and converge (40 mins +)

Once the SWOT templates have been filled out, ask the group to come together to share the findings:
• Proceeding in S-W-O-T order, ask each person to explain their ideas for each category.
• Once all have participated, review as a group which of the items in each category are most important in relation to your focal issue. Develop a consensus within the group on the most important items per category.
• Agree on the top three to five items for each category. You may want to rank them based on their significance.

4. Next steps (10 minutes)

If appropriate, the facilitator or designated notetaker should summarise the findings to share with the relevant teams and project participants.

Close the session by explaining how the outputs from the SWOT exercise will be used.

USING THE OUTPUTS OF SWOT

SWOT is a versatile tool that is best used as part of a larger strategic planning and analysis process. In particular, it can be used to:

• **Double-check the validity of an idea or project**

SWOT can be used to do a quick check on the negatives and positives of a potential project or idea, from an internal organisational and external

factors perspectives.

- **Inform the strategic approach**

  The four quadrants of the SWOT approach are a good starting point to take stock on the organisation and external environmental factors. It can be a useful orientation tool from which to build a strategy.

  Strengths: How can you harness these?
  Weaknesses: What can you do to address these?
  Opportunities: How do you take advantage of these?
  Threats: How can you mitigate or prepare for these?

  The tool can be further developed as a "TOWS Matrix" – see Further Information – by considering how you can develop tactics, policies or strategies that allow you to:
  – Use strengths to take advantage of opportunities
  – Overcome weaknesses by taking advantage of opportunities –
  Use strengths to avoid threats
  – Minimise weakness and avoid threats.

FURTHER INFORMATION

Additional guides for SWOT

See 'SWOT Analysis' in *Community Tool Box* by the University of Kansas:
https://ctb.ku.edu/en/table-of-contents/assessment/assessing-community needs-and-resources/swot-analysis/main

Alternative approaches to SWOT

TOWS

The TOWs approach guides participants to develop options to address the identified threats, weaknesses, and opportunities.

- 'Using the TOWS Matrix'. https://www.mindtools.com/pages/article/ newSTR_89.htm

SOAR

SOAR (Strengths, Opportunities, Aspirations, Results) applies an appreciative inquiry approach to enhance what is already going well. •
California Institute of Behavioral Health Solutions. *SOAR Worksheet.*
https://www.cibhs.org/sites/main/files/file-attachments/ soar_hand_out.pdf

C
o
F

.

2x2 Scenarios

Create four contrasting scenarios based on two high-impact,
high-uncertainty drivers of change

4 hours +   5–8 participants (for a single group)

Requires Inputs, focal issue and time horizon

What is it?

The 2x2 Scenarios tool is a widely used method to develop a set of future scenarios based on the analysis of drivers of change.

Uses include:
- Identify the critical uncertainties that will shape the future
- Question the assumptions we have about the direction of the future
- Understand how these uncertainties can shape alternative futures and affect your goals in different ways
- Inform strategy and planning work

How does it work?

Facilitated discussions to create four contrasting scenarios based on two high-impact, high-uncertainty drivers of change.

When to use it?

Scenarios help you to challenge assumptions and explore alternative ways that the future may develop.

What do you get?

Four contrasting scenarios based on two high-impact, high-uncertainty drivers of change.

What next?

Use the insights from scenario development to challenge assumptions and surface new insights.

Use in combination with the following tools:

Wind Tunnelling: Stress-test policies across different scenarios

Verge: Explore the cultural aspects of a scenario

Futures Wheel: Explore deeper implications for each scenario

Related tools

Branch Analysis: Develops scenarios by considering key questions and the impact of different events

Archetypes: Develops scenarios by using differentiated archetypes

Visioning: Develops a preferred future by focusing on a common set of aims and objectives for a project

BACKGROUND

What are scenarios?

Scenarios are not predictions. They offer interesting – sometimes challenging – images of the future.

They are used to explore alternative ways that the future may develop. It is important to consider more than one scenario, and by having a set of scenarios, you can test how different interventions may work under different conditions.

Scenarios often challenge the status quo and thus must be communicated carefully.

The 2x2 method

The 2x2 method is particularly useful for looking 10 to 20 years into the future.

It uses two high-impact high-uncertainty drivers ('critical uncertainties') to create four contrasting scenarios. The underlying assumption is that the path through which the futures emerge but focuses on describing the futures.

There are three key elements that must be set before working with your team to create scenarios:

1. Focal issue

There must be a defined focal issue. It can be exploratory ("what is the future of xyz?") or a strategic question ("should we build capacity in abc?").

2. Prioritised set of drivers

2x2 scenarios for the future of energy

uncertainties drive the future.

By considering two different outcomes for each driver you create four different scenarios. The approach does not define

Disrupts business model

Sequestration fails

Advanced hybrids/ batteries
• Digital grid
• Oil sands competitive

Low

Technology forced •
Alternatives
• Hybrids/fuel cells • Wind and biomass • Nuclear with waste disposal
• Oil sands/heavy oil disadvantage

High

Silver bullet
• Integrated gasification

Price of carbon

Market choices
• Alternatives/solar
• Fuel cells/mini-turbines •

Limited choice •
• High oil demand
• Oil sands growth
• Fuel cells and solar fail • High oil demand
• Oil sands cost pressure • Gas and nuclear
• Wind

Key elements

combined cycle and carbon capture and sequestration • Coal-to-gas and coal to-liquid • Coal and biomass

Reinforces business model

Scenarios are usually developed following a Driver Mapping exercise as part of the same workshop. This allows for greater credibility, as the same team prioritises the drivers and the scenario development.

3. Time horizon

Scenarios are most effective when thinking at least ten years into the future. This distance in time helps create the mental space to imagine futures distinct from business as usual, including controversial images of the future that challenge the status quo.

2x2 Scenarios

Facilitation Guide

WHAT YOU NEED

4 hours or 4 hours 40 minutes
5–8 participants (for a single group)

You can run this exercise with one group (all participants work on all scenarios), two groups (two scenarios per group) or four groups (one group per scenario).

Participants should be representative of the different types of stakeholders and expertise in order to create credible and plausible futures.

The combination of participants should help ensure:
1. High quality input from experts to enhance credibility of scenarios
2. Diverse input to provide more robust scenarios, including challenging voices
3. Buy-in from those who will use the scenarios to inform important decisions

Involving senior leaders and relevant experts in the scenario-building process will considerably increase the likelihood that the resulting scenarios will inform important decisions.

REQUIRES

Note: This guideline assumes using a scenario. A driver or trend can be used as well.

Inputs Prioritised set of STEEP drivers from a Driver Mapping exercise. Before you start you will need to have completed a Driver Mapping exercise. Alternatively, add 30–60 minutes at the start of the session to run a shorter version of Driver Mapping with the group.

Focal issue The question you want to explore, for instance "what is the future of xyz?" or "should we build capacity in abc?"

Time horizon How far ahead do you want to look? eg, 10 years, 20 years, or beyond?

Materials • Whiteboard, wall- or flipcharts (at least one flipchart per group) • Sticky notes
• Pens and markers

Room If there are multiple groups, we suggest a cabaret setup with one table per group. The room should have sufficient space so that groups are not working on top of one another.

Templates provided

• Template #1: Impact and Uncertainty Axis
Template #2: Scenario Framework
• Template #3: Scenario Summary

INSTRUCTIONS

The tool has seven steps. Please review all steps before beginning the exercise and ensure all materials have been prepared.

Step 1 Introduce the 2x2 Scenario tool 5 mins

Step 2 Introduce the focal issue and time horizon 10 mins

Step 3 Introduce and review the drivers of change 30 mins

Step 4 Set up your scenario axes 60 mins

Step 5 Build out the scenarios 120 mins

Step 6 Review and share your scenarios (optional) 40 mins

Step 7 Next steps 15 mins

Before you begin
• Display the Impact and Uncertainty Axis (Template #1) and the 2x2 Scenario Framework (Template #2) on a flipchart or whiteboard •
Distribute sticky notes, pens, markers

1. Introduce the 2x2 Scenario Tool (5 mins)

Introduce the group to the tool and explain why it is being used. Depending on how familiar the group is with the concept, it may be helpful to print and share the Background section (page 41) and an example of how the tool has been applied in the past.*

TIP

Share a handout that outlines the focal issue, time horizon, and drivers of change.

2. Introduce the focal issue and time horizon (10 mins)

With the group, review the focal issue to be explored and remind yourselves of the time horizon.

Optional: It can helpful to spend a moment to summarise how the focal issue has changed in the past, eg, look back to 20 years ago before looking 20 years ahead. Looking back can help participants use historical references to understand how issues change over time.

3. Introduce and review the drivers of change (30 mins)

a. Write the focal issue on the flipchart/whiteboard and remind everyone of the time horizon.

b. Revisit the outputs from the driver mapping exercise and look at your critical uncertainties. Remember these are the high-impact, high-uncertainty drivers

* A supporting document '2x2 Scenarios in Action' with examples of how the tool has been applied by

you previously identified. Put the high-impact drivers aside, we will revisit these later.
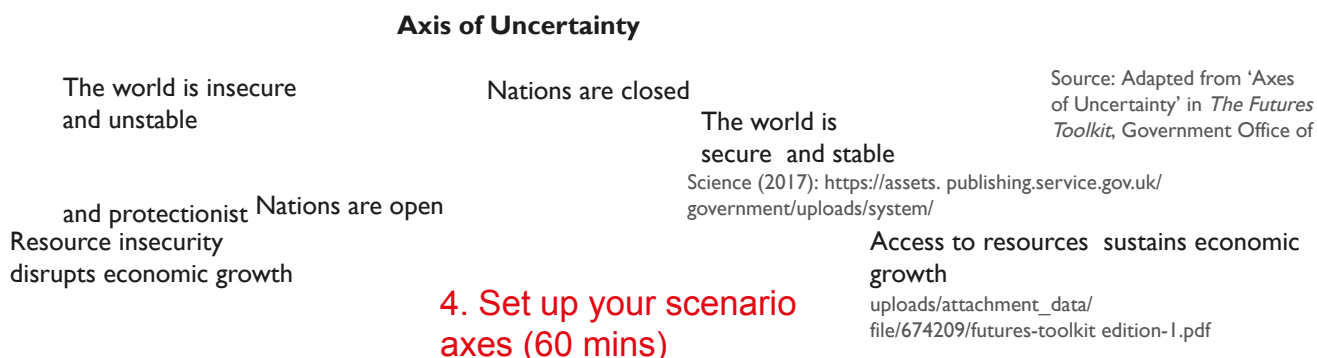
To be effective, the drivers must be seen as credible by the participants and those that will use the 2x2 scenarios. If no existing set of drivers exists or if they lack strong credibility, the facilitator should work with the group to reprioritise and identify drivers using the Driver Mapping tool first.

c. Review and discuss each 'critical uncertainty' as a group. Consider: *Can you think of two quite different ways in which each one may manifest in the future?*

Ask the group to describe the ways the drivers could play out in opposite ways.

The same driver can have multiple interpretations. It is important to explore different possibilities and decide what would work best to create contrasting scenarios through which to explore the focal issue.

For example, the driver 'Global security' could create different kinds of uncertainties:

Axis of Uncertainty

The world is insecure and unstable

Nations are closed

The world is secure and stable

Source: Adapted from 'Axes of Uncertainty' in *The Futures Toolkit*, Government Office of

and protectionist Nations are open

Resource insecurity disrupts economic growth

Science (2017): https://assets. publishing.service.gov.uk/government/uploads/system/

Access to resources sustains economic growth

4. Set up your scenario axes (60 mins)

uploads/attachment_data/file/674209/futures-toolkit edition-1.pdf

a. Ask the group to think about which of their critical uncertainties might combine to generate a set of four interesting scenarios.

They want to select two drivers. These should not be obviously linked. Avoid having two drivers from the same STEEP category.

Scenario 1 Scenario 2

Axis 2

Scenario 4 Scenario 3

b. Ask the group to write the drivers they selected on the axes on the 2x2 Scenario Framework chart.

Note: This process can be repeated. Groups should be encouraged to create multiple alternatives. They can decide to go back and choose different drivers if it doesn't feel like a right fit.

As you do this, discuss what each quadrant might look like. Test the logic by asking:
• Can you give a name to each quadrant?
• Do the four scenarios illuminate the focal issue?
• Are the scenarios meaningfully different?
• Is each scenario plausible? They can be unlikely, but must still be plausible. • Do the scenarios pose interesting and useful challenges for the focal issue?

c. Once you have a set of axes that might work, ask the group to identify potential titles for each quadrant, write them on the Framework.

d. Write a quick list (up to three bullet points) to describe the essential features of the scenario.

Do this for all four quadrants, and review – do these seem like plausible scenarios? Try to be imaginative and consider the very extreme cases in each quadrant.

Remind participants that they are imagining a set of future scenarios. They don't need to worry about whether or how they might come about.

e. It is important that the scenarios appear to be contrasting.

Ask the group: Do the scenarios appear to be fundamentally different? They should not be so close to one another that they become simply variations of a base case.

If the scenarios are not structurally differentiated, ask the group to reconsider the axes. If needed, and they can use different combinations of high-impact, high-uncertainty drivers.

5. Build out the scenarios (120 mins)

Identifying major characteristics and building a storyline for each scenario

Before you begin
• Decide if the participants are going to work together to tackle each scenario in turn or in small groups to develop one scenario each (we suggest the latter).
• Prepare a Scenario Summary (Template #3) for each group.

a. Ask each group to discuss each of the four scenarios:
• How might the other prioritised drivers from the Driver Mapping exercise play out in this scenario? Consider the other critical uncertainties and high-impact drivers you previously identified.
• What are the major characteristics that would describe this scenario?

Using the ideas generated in the discussion, each group fills out the Scenario Summary for each of the four scenarios.

> When sketching out the scenarios, there are four elements to keep in mind:
>
> 1. **Plausibility**: The scenarios must be plausible, this means that they must fall within the limits of what might conceivably happen. 2. **Consistency**: The logic must be consistent so that the scenario seems credible.
> 3. **Decision making utility**: Each scenario should contribute specific insights into the future that will generate further insights for the focal issue.
> 4. **Challenge**: The scenarios should challenge conventional wisdom and business-as-usual thinking about the future.

TIP

Ensure participants complete the templates so that the output can be collected and used for strategy planning or with other tools.

6. Review and share the scenarios – OPTIONAL (45 mins +)

This section is optional but is useful where different teams are developing different scenarios.

One person from each group should give a brief overview of the scenarios they have generated.

Before presenting, each group may want to discuss early learnings from the scenario process that can be shared with the entire team, such as: a. What are the biggest surprises that occurred for individuals in the group?

Were there specific scenarios or drivers that were unexpected? b. What are the implications of the scenarios for the focal question? What are the strategic issues that we need to address?

7. Next steps (10 mins)

Close the session by explaining how the scenarios will be used next. The page Using the Outputs of 2x2 Scenarios may be helpful here.

USING THE OUTPUTS OF 2x2 SCENARIOS

A scenario set helps policymakers, strategists, planners, and other stakeholders to test the resilience or importance of interventions in different alternative futures. It can help stimulate discussion and unearth different and challenging perspectives.

One scenario on its own is of limited value, as it contains insights about only one possible future. A scenario set, by contrast, allows you to consider both positive and negative elements of different scenarios, and explore how the future may emerge.

A scenario set can help you to:

Develop options and understand risks

• understand risks, opportunities or dynamics of how the future may evolve • generate strategies or policies to put in place if that scenario or elements of it were to occur

• generate more robust strategies and policies that would be effective across different scenarios.

Understand your preferred future

• understand which scenarios, or elements of scenarios, you'd like to encourage or discourage.

Scenarios as a signpost

Scenarios can serve as an early warning system, helping you to identify signals or events that may suggest a particular future is emerging.

Other tools to use in combination with the 2x2 Scenario tool

Futures Wheel: Explore deeper implications for each scenario

Verge: Explore the cultural aspects of a scenario

Backcasting: Understand how your scenario may come about

Wind Tunnelling: Test policies across different scenarios

Vision: develop a 'fifth scenario' which is your preferred future

FURTHER INFORMATION

Different approaches to scenario development

See the other scenario development methods provided in this toolkit:
• Branch Analysis
• Archetypes
• Visioning

More on scenario development

Scenario planning methods

• UK HM Government Office for Science (2009): Scenario Planning.
  Foresight. https://webarchive.nationalarchives.gov.uk/20140108141323/
  http://www.bis.gov.uk/assets/foresight/docs/horizon-scanning-centre/
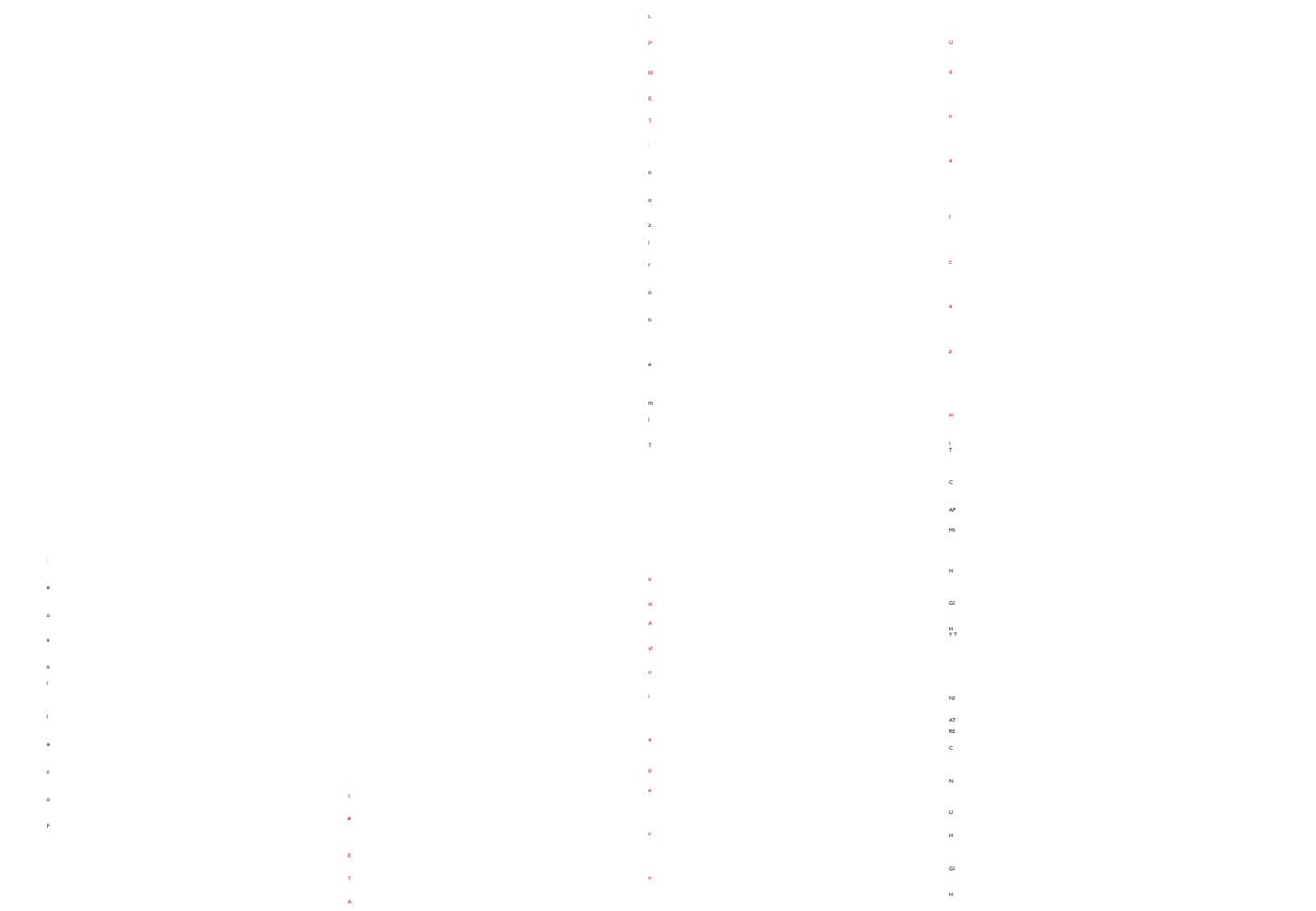 foresight_scenario_planning.pdf

An overview of methods

• Curry, A. (2012): *The Future of Futures*. Pages 11–15. Association of
  Professional Futures. Available at: https://www.academia.edu/7217122/
  The_Scenarios_Question

Exploration of scenarios for strategy

• Van Der Heijden, K. (2004): *Scenarios: The art of strategic
  conversation*. New Jersey: John Wiley & Sons. Page 382.

l
e
u
a
j
l
a
c
o
F

Critical
uncertainty (

High-impact,

high-uncertainty

driver)

Archetypes

Create different alternative futures by exploring patterns
of change

4 hours +   8 participants (2 groups of 4 participants) +

Requires Inputs, focal issue and time horizon

What is it?

Archetypes is a useful tool to quickly explore different alternative futures by exploring patterns of change.

Uses include:
- Identify the critical uncertainties that will shape the future
- Question the assumptions we have about the direction of the future
- Understand how these uncertainties can shape alternative futures and affect your goals in different ways
- Inform strategy and planning work

How does it work?

Facilitated discussions of the future framed by four images of the future: growth, collapse, discipline, and transformation.

When to use it?

Scenarios help you to challenge assumptions and explore alternative ways that the future may develop.

What do you get?

A set of contrasting scenarios and a shared understanding of how uncertainties drive different archetypal images of the futures. This tool is frequently designed to create two sets of four scenarios.

What next?

Use the insights from scenario development to challenge assumptions and surface new insights.

Use in combination with the following tools:

Wind Tunnelling: Stress-test policies across different scenarios
Verge: Explore the cultural aspects of a scenario
Futures Wheel: Explore deeper implications for each scenario
Vision: Create a 'fifth scenario' of a preferred future

Related tools

2x2 Scenarios: Develops four contrasting scenarios based on two high-impact, high-uncertainty drivers
Branch Analysis: Develops scenarios by considering key questions and the impact of different events
Visioning: Develops a preferred future by focusing on a common set of aims and objectives

BACKGROUND

What are scenarios?

Scenarios are not predictions. They offer interesting – sometimes challenging – images of the future.

They are used to explore alternative ways that the future may develop. It is important to consider more than one scenario, and by having a set of scenarios, you can test how different interventions may work under different conditions.

Scenarios often challenge the status quo and thus must be communicated carefully.

The Archetypes method

Archetypes scenarios are used to understand how alternative futures may come about, and to develop alternative futures scenarios. Archetypes can be a useful tool to discuss scenarios that are uncomfortable for some stakeholders, such as scenarios of collapse or transformation.

There are different archetypes you can use (see the Further Information section) but in this exercise, we are using four archetypes: Growth, Collapse, Discipline and Transform. These are often used in strategic foresight. They are derived from work by Professor Jim Dator at the University of Hawaii who conducted a meta-analysis of narratives told about the future and identified four recurring images or archetypes.

Each of the four represents a broad trajectory and there may be many different possible scenarios within each archetype. Each archetype has its own internal logic:

Growth imagines a future in which the world is on an upward trajectory, including production, consumption and population growth. A scenario where things continue building as they do in our current world.

Collapse signals the dissolution of the systems and conditions that make up life as we know it. A scenario where things fail, leading to a drastically different world.

Discipline speaks of a future in which order is coordinated or imposed, either by a top-down entity or an ethos of collaboration.

Transform describes a future in which a profound historical transition has occurred; this transition can be ideological, spiritual or technological in nature. A scenario where some unexpected event changes the world in an unforeseeable way.

Archetypes

Facilitation Guide

WHAT YOU NEED

4 hours +

4 participants + per group (16 participants for four scenarios)

Participants should be representative of the different types of stakeholders and expertise in order to create credible and plausible futures.

The combination of participants should help ensure:
1. High quality input from experts to enhance credibility of scenarios 2. Diverse input to provide more robust scenarios, including challenging voices 3. Buy-in from those who will use the scenarios to inform important decisions

Involving senior leaders and relevant experts in the scenario-building process will considerably increase the likelihood that the produced scenarios will inform important decisions.

REQUIRES

Inputs Prioritised set of STEEP drivers from a Driver Mapping exercise. Before you start you will need to have completed a Driver Mapping exercise. Alternatively, add 30–60 minutes at the start of the session to run this with the group.

Focal issue The question you want to explore, for instance "what is the future of xyz?" or a strategic question, "should we build capacity in abc?".

Time horizon How far ahead do you want to look? e.g. 2030/2040 or beyond?

Materials • Whiteboard, wall- or flipcharts (at least one flipchart per group) • Sticky notes

• Pens and markers

Room We suggest a cabaret setup with one table per group. The room should have sufficient space so that groups are not working on top of one another.

Template provided

• Template #1: Scenario and Archetype Template

INSTRUCTIONS

The Archetypes tool has seven steps. Please review before beginning the exercise to ensure all materials have been prepared.

Step 1 Introduce the Archetypes tool 10 mins

Step 2 Introduce the focal issue and time horizon 10 mins

Step 3 Introduce and review the drivers of change 30 mins

Step 4 Choose an archetype and build the scenario 60 mins

Step 5 Build out your scenarios 60 mins (with optional extra 30 mins) **Step 6** Share your scenarios (optional) 30 mins

Step 7 Next steps 10 mins

Before you begin
• Prepare a handout with high impact, high uncertainty and high impact drivers, taken from the Driver Mapping exercise
• Prepare a whiteboard or flipchart for each group, using the template •
Distribute markers, pens and sticky notes

1. Introduce the Archetypes tool (10 mins)

Introduce the group to the Archetypes tool and explain why it is being used. Depending on how familiar the group is with the concept, it may be helpful to print and share the Background section (page 55) and an example of how the tool has been applied in the past.*

2. Introduce the focal issue and time horizon (10 mins)

With the group, review the focal issue to be explored and the time horizon (e.g. 2040).

> **TIP**
>
> Share a handout that outlines the focal issue, time horizon, and drivers of change.

Optional: It can be helpful to spend a moment to summarise how the focal issue has changed in the past, eg, look back to 20 years ago before looking 20 years ahead. Looking back can help participants use historical references to understand how issues change over time.

* A supporting document 'Archetypes in Action' with examples of how the tool has been applied by Save the Children or other organisations is available upon request.

3. Introduce and review the drivers of change (30 mins)

Participants review drivers and select, as a group, five to seven drivers to build scenarios with.

a. Walk through the drivers from the Driver Mapping exercise with the entire group; focus on high impact, high uncertainty drivers first and high-impact drivers later.

   Using the handout as a guide, invite different participants to take turns reviewing a different driver.

Review and discuss each driver as a group. Ask participants to consider: • Can you think of two different ways in which the driver may manifest in the future? For instance, if you have identified an issue connected to the economy, might it be high GDP growth or low growth; or if government policy might it be an interventionist or laissez-faire environment? • You may think of multiple outcomes. Note these down.

c. Once all of the high impact, high uncertainty and high impact drivers have been discussed, work with the group to identify up to seven drivers that the group feels are the most insightful or provocative.

4. Choose an archetype and build the scenario (60 mins)

In groups of four, participants select an archetype and build the scenario logic using the chosen drivers.

a. Ask participants to split into teams and pick an archetype that they would like to explore. There should be at least three people (optimally four or five) per team.

   Ensure groups are not working on the same archetype.

b. Ask the groups to start thinking about the scenario logic, for example, what might transformation mean when we talk about "children's welfare in 2035"?

c. After five to ten minutes, get the group to pick one driver from Step 3.
   For each driver, ask the participants to consider:
   • How does the driver behave under this archetype scenario? How does it contribute to the chosen archetype logic?
   • How would it behave under a different archetype?

   Have a member of each group take down notes using the whiteboard or flipchart.

   Allow time for conversation to ensure the group fully understands the process and has time to discuss and develop the scenario content arising from each change driver. Each scenario will become richer with every new change driver being incorporated into the story.

d. Once they have done this, the group should continue with the next driver until four or five have been discussed.

   Reflect on the STEEP categories, try and ensure there is an appropriate mix of drivers.

5. Build out the scenario (60 mins)

Once the overall logic is place, each group will review their work and start putting together the scenario logic and overall scenario narrative.

a. Ask each group to discuss the drivers and archetype and give their scenario a title and enter this on their template.

   Suggest the following questions to help them choose the title:
   • What are the main themes in this scenario?
   • What is provocative about this future?
   • Who benefits? Who loses? What is transformed?
   • What are the major characteristics that would describe this scenario?

b. Ask the groups to list up to seven drivers and write, in one sentence, how each one affects the scenario

c. Have each group write a narrative to describe what it is like to be in that scenario – keeping in mind the archetype, drivers, and time horizon. They could write a day-in-the-life first-person account or a news report.

When sketching out the scenarios, there are five elements to keep in mind: 1. **Plausibility**: The scenarios must be plausible, this means that they must fall within the limits of what might conceivably happen. 2. **Consistency**: The logic in the scenario must be consistent so that the scenario seems credible.

3. **Decision-making utility**: Each scenario should contribute specific insights into the future that will generate further insights for the focal issue.

4. **Challenge**: The scenarios should challenge conventional wisdom and business-as-usual thinking about the future.

d. Understand impact of specific domains (optional, 30 mins)

Depending on the focal issue and the stakeholders, you may wish to understand the potential impact of the scenario within specific domains. Domains are specific sectors or categories, such as the STEEP domains from the Driver Mapping exercise (e.g. economics and environment) and those from Verge (e.g. how people connect, create, consume…)

For example, the focal issue of "future of energy in minority communities" may require a deeper dive into specific domains of quality of life, economics, or environment to make more meaningful scenarios for stakeholders.

e. Finally, ask each group to take a step back and review their work.

Ask them to discuss:
• What elements feel coherent?
• Is there anything out of place?
• Is everything aligned? Do the drivers, title, and narrative build on each other? •
What elements feel strange?
    Build on them, don't rule them out: Dator's second law of the futures is, "Any truly useful idea about the future should at first sight appear to be ridiculous." •
Which part of this future feels too familiar or comfortable?

Ask each group to use their remaining time to discuss and revise any element as needed, such as adjusting the title, driver, or narrative.

6. Share your scenarios (30 mins)

One person from each group should give a brief overview of the scenarios they have generated. Keep the sharing short, allocate no more than five minutes per group.

Before presenting, each group may want to discuss early learnings from the scenario process that can be shared with the entire team, such as:

a. What are the biggest surprises that occurred for individuals in the group? Were there specific scenarios or drivers that were unexpected?

b. What are the implications of the scenarios for the focal question? What are the strategic issues that we need to address?

7. Next steps (10 mins)

Close the session by explaining how the scenarios will be used next. The page Using the Outputs of Archetypes may be helpful here.

USING THE OUTPUTS OF ARCHETYPES

A scenario set helps policymakers, strategists, planners and other stakeholders to test the resilience or importance of interventions in different alternative futures. It can help stimulate discussion and unearth different and challenging perspectives.

One scenario on its own is of limited value, as it contains insights about only one possible future. A scenario set, by contrast, allows you to consider both positive

and negative elements of different scenarios, and explore how the future may emerge.

Develop options and understand risks

Understand risks and opportunities or dynamics of how the future may evolve.

Generate strategies or policies to put in place if that scenario or elements of it were to occur.

Generate more robust strategies and policies that would be effective across different scenarios.

Futures Wheel: Explore deeper implications for each scenario

Verge: Explore the cultural aspects of a scenario

Backcasting: Understand how your scenario may come about

Wind Tunnelling: Test policies across different scenarios

Understand your preferred future

Considering different scenarios can help you to understand which scenarios, or elements of scenarios, you'd like to encourage or discourage.

Vision: Develop a 'fifth scenario' of your preferred future

Scenarios as a signpost

Use scenarios as an early warning system by identifying signals or events that may suggest a particular future is emerging.

FURTHER INFORMATION

Scenario development

See the other scenario development methods provided in this toolkit:
• 2x2 Scenarios
• Branch Analysis
• Visioning

Archetype scenarios

More Emphasis on Scenario Logic

> • Policy Horizons Canada (2016): 'Module 6 – Scenarios and Results' in *Foresight Training Manual*, Online resource. http://www.horizons.gc.ca/en/content/foresight-training-manual-module-6-scenarios-and-results

Alternative Set of Archetypes

> • Schultz, Wendy (2001): *Scenario Archetypes: A Map of Basic Structures*, Online Presentation. http://www.infinitefutures.com/essays/prez/scenarch/sld001.htm

• Shell International BV (2013) *New Lens Scenarios. A Shift in Perspective for a World in Transition.* https://www.shell.com/content/dam/royaldutchshell/documents/corporate/scenarios-newdoc.pdf

"Kids can teach adults many things…
we won't stop until they listen to us."

**Nabila, a Syrian refugee in Jordan, is an
impressive young activist: on education,**

early marriage, and violence towards children in particular. She also loves playing football with her friends and is optimistic about the future. She wants to be a doctor or lawyer when she's older.

Narratives describing scenarios for the future are often developed by adults who have their own biases and preconceptions. But children have much to teach adults, as Nabila said. Children can bring new insights to the mix and use their imagination to bring scenarios to life in a more meaningful way.

Branch Analysis

Create future scenarios by considering key questions and the
impact of different events

3.5 hours + 5–8 participants (for a single group)

Requires Inputs, focal issue and time horizon

What is it?

Branch Analysis is a method for developing future scenarios by considering key questions and the impact of different events.

Uses include:
• Explore the longer-term implications of different events
• Understand how these events can shape alternative futures and impact your goals in different ways
• Inform strategy and planning work

How does it work?

Facilitated discussions to explore path-dependent outcomes of events or sequences of events.

When to use it?

Scenarios help you to challenge assumptions and explore alternative ways that the future may develop.

What do you get?

A set of contrasting scenarios based on different potential outcomes of key future events.

What next?

Use the insights from scenario development to challenge assumptions and surface new insights.

Use in combination with the following tools:

Wind Tunnelling: Stress-test policies across different scenarios

Verge: Explore the cultural aspects of a scenario

Futures Wheel: Explore deeper implications for each scenario

Related tools

2x2 Scenarios: Develops four contrasting scenarios based on two high-impact, high-uncertainty drivers.

Archetypes: Develops scenarios by using differentiated archetypes

Visioning: Develops a preferred future by focusing on a common set of aims and objectives for a project