



Scenario Analysis

Preparing for What's Next: A Framework for Unpredictable Times

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In today's rapidly changing business environment, strategic planning and risk management are more crucial than ever. Technological advancements are reshaping industries, while geopolitical tensions and regulatory changes are adding to the complexity. Economic uncertainty underscores the need for strategic foresight. Additionally, the competitive landscape is becoming increasingly intense, and environmental and social concerns are creating new demands. Cybersecurity threats and health risks emphasize the importance of robust planning. All these factors make navigating uncertainties and safeguarding against potential threats indispensable.

Companies seeking to enhance their strategic foresight and risk mitigation strategies use scenario analysis as a structured approach to deepen their understanding of potential future developments. By creating and analyzing hypothetical future scenarios, businesses can shape their strategies and ensure they are prepared for whatever challenges lie ahead.

At consulting4drive (C4D), we utilize scenario analysis as a powerful tool to empower organizations in navigating complexity and seizing opportunities in an unpredictable world.

Why think about the future?

- *The future is uncertain, with numerous possible outcomes.*
- *It's important to envision the world several years or even decades ahead to strategically seize opportunities, ensuring there are intentional and responsive to evolving trends and circumstances.*
- *Imagining the future helps businesses stay proactive, to anticipate shifts in the market and environment, and to align their strategies with potential developments.*



1



What is scenario analysis?

Scenario analysis is a strategic method for thinking about the future to envision and prepare for various possibilities. It involves thinking about how different factors might interact. Structured narratives that describe possible future developments are called "scenarios". They are used in strategic

planning to explore and prepare for various potential outcomes. Scenarios are neither concrete predictions of the future nor projections extrapolated from the present or the past. Scenarios do not necessarily describe desirable futures, such as those based on political ambitions. Instead, they are plausible

hypotheses that integrate several trends, uncertainties, and events coherently and systematically.¹

The origins of scenario analysis can be traced back to military strategy and were later adapted for business use in the mid-20th century. Herman Kahn, a prominent figure in the field, played a significant role in its development, using scenarios to analyze potential outcomes of nuclear conflict.²

The method gained traction in the corporate world through Pierre Wack's work at Royal Dutch Shell in the 1970s, demonstrating its effectiveness in anticipating oil price shocks by imagining a world 50 to 100 years ahead, where fossil fuels are no longer the primary energy source.³

Today, more important than ever, scenario analysis remains a vital tool for organizations seeking to thrive in an unpredictable world.



What steps are taken?

Scenario analysis is a structured process that involves several key steps, each crucial in crafting comprehensive scenarios that inform strategic choices:

- **Scope Definition:** Define the scope and goal of scenario analysis and create boundaries. Typically, a time horizon is set for the later developed scenarios
- **Identifying Future Trends and Driving Forces:** Recognize major trends and drivers that could shape the future of your industry.
- **Identifying Critical Uncertainties:** Determine the uncertainties that could

significantly impact these trends and drivers.

- **Developing Detailed Scenarios:** Create coherent and plausible narratives for different future states based on the identified trends and uncertainties.
- **Analyzing Implications:** Assess the potential implications of each scenario for the broader industry and your business.
- **Taking Actions:** Agree on actions and the next steps to be taken to ensure strategic plans remain robust and responsive.

¹ Ringland, Gill (2010): The role of scenarios in strategic foresight. *Technological Forecasting and Social Change*. 77 (9): 1493–1498. doi: [10.1016/j.techfore.2010.06.010](https://doi.org/10.1016/j.techfore.2010.06.010)

² Bradfield, Ron; Wright, George; Burt, George; Cairns, George; Heijden, Kees Van Der (2005): The origins and evolution of scenario techniques in long range business

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planning. *Futures*. 37 (8): 795–812. doi: [10.1016/j.futures.2005.01.003](https://doi.org/10.1016/j.futures.2005.01.003)

³ Wack, Pierre (1985): Scenarios, Uncharted Waters Ahead. *Harvard Business Review*. <https://hbr.org/1985/09/scenarios-uncharted-waters-ahead>

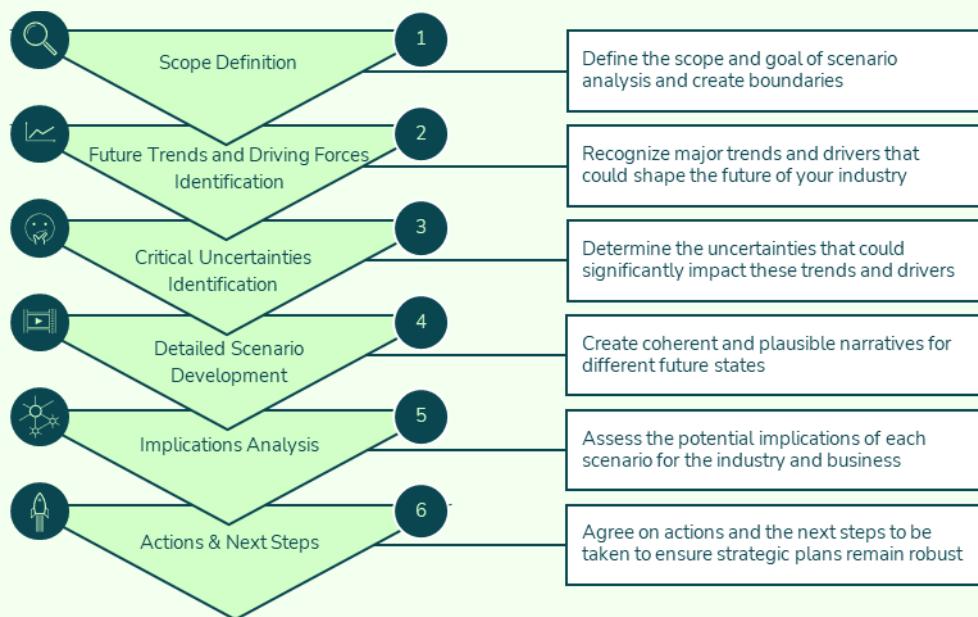


Figure 1 Scenario analysis process

Before getting started, however, it is important to define the goal and scope of your scenario analysis. Why is scenario analysis used, and what are the expectations? What would be a reasonable time-horizon? Which regions are of particular interest? Which aspects are particularly relevant, such as political dynamics, economic threats, sociocultural preferences, technological innovations, ecological changes, or regulatory requirements? What specific topics are in focus? Which actors play a decisive role in the scenarios?

The methodology employed in scenario analysis is designed to systematically identify, analyze, and synthesize trends and uncertainties to develop plausible future scenarios. This structured approach ensures a comprehensive understanding of potential future developments and their implications.

2.1



Identifying future trends and driving forces

The initial step in scenario analysis is identifying future trends and driving forces that shape the landscape in which an organization operates. This phase sets the foundation for developing realistic and relevant scenarios.

The process begins with comprehensive environmental scanning that involves gathering information about external factors that impact the organization. We identify emerging trends through secondary research, subject-matter knowledge, and surveys. We also use an internal trend database that is continuously updated. The goal is to compile a list of trends that are most relevant to the context of the client.

Data collection and analysis are integral components of scenario analysis, serving as the backbone for informed decision-making. It is crucial to collect quantitative and qualitative data from diverse sources, including market reports, academic studies, expert opinions, and historical data, as well as trend databases. This comprehensive approach ensures a well-rounded understanding of the factors influencing future scenarios.

To continuously benefit from scenario analysis, establish mechanisms for ongoing data and trend collection. A dynamic approach allows organizations to keep scenarios relevant and adapt to changing conditions. By prioritizing data collection and analysis, organizations can enhance the accuracy and relevance of their scenario analysis efforts. This is crucial for ensuring that strategic decisions are grounded in evidence, enabling businesses to navigate uncertainty with confidence and precision.

Analytical tools and techniques help to interpret the collected data, identifying patterns, correlations, and anomalies. Charts, graphs, and dashboards present data in an accessible and engaging manner. We use techniques such as PESTLE analysis⁴ to systematically explore different dimensions. Porter's Five Forces help to assess the competitive industry forces. The stakeholder

wheel visualizes the stakeholder relationships and influences within a project or organization. Once data is collected, the next step is to analyze emerging trends. Tools like SWOT analysis⁵ help in understanding how these trends might affect the organization. The influence matrix systematically identifies interdependence between individual trends. Trends are of particular importance if they have a high level of influence while showing a low ability to be influenced. These trends are called driving forces. They are key factors that will most significantly impact the organization's future. They can include technological advancements, regulatory changes, economic shifts, and social dynamics. To pinpoint these forces, identify patterns, and evaluate their impact, we employ techniques such as the Delphi method⁶, expert interviews, and collaborative workshops.

One of the primary challenges in this phase is the influence of bias and subjectivity that can skew the identification of trends and forces. To overcome this, it is essential to involve diverse sources and perspectives and continuously validate findings through iterative feedback loops.

⁴ "PESTEL" refers to a mnemonic guideline of the domains it considers: Political, Economic, Social (or Socio-cultural), Technological, Environmental, and Legal. PESTEL is built as a guiding checklist, helping to systematize the collection of information on the environment and to identify specific relevant factors. See [PESTEL - EC Public Wiki](#)

⁵ SWOT analysis is a strategic analysis tool for use in context analysis. The acronym refers to the domains it

considers: Strengths, Weaknesses, Opportunities, and Threats. See [SWOT Analysis - EC Public Wiki](#)

⁶ The Delphi method or Delphi technique (...) is a structured communication technique or method, originally developed as a systematic, interactive forecasting method that relies on a panel of experts. See [Delphi method - Wikipedia](#)

2.2

 Identifying critical uncertainties

The second step in scenario analysis involves pinpointing critical uncertainties that could significantly impact the future. This phase is essential for understanding the variables that can lead to different outcomes and for crafting scenarios that address a range of possibilities. Critical uncertainties are defined as those emergent forces of change that are most critical while also being the most uncertain. Potential uncertainties may include drastic economic fluctuations, technological breakthroughs, changes in political power, abnormal weather events, or health crises. Not all uncertainties are equally impactful. We prioritize the trends and driving forces that we identified based on

- **Impact:** Which trends matter most to the client's problem?

- **Uncertainty:** Which trends carry the most uncertainty about their development?

Trends that emerged as both highly important and highly uncertain are called critical uncertainties. For the impact and probability assessment, tools like risk matrices are used to evaluate the likelihood and potential impact of each uncertainty. The Force Field Analysis⁷ helps us to understand what enables the client to move forward or what hinders him.

To visualize critical uncertainties, we use a graph with four quadrants where the x-axis represents the degree of uncertainty, while the y-axis is labeled as the degree of impact. The uncertainties are plotted according to their assessment of the two categories. Highly impactful and highly uncertain risks fall into the upper right quadrant, which forms the "Zone of Interest".

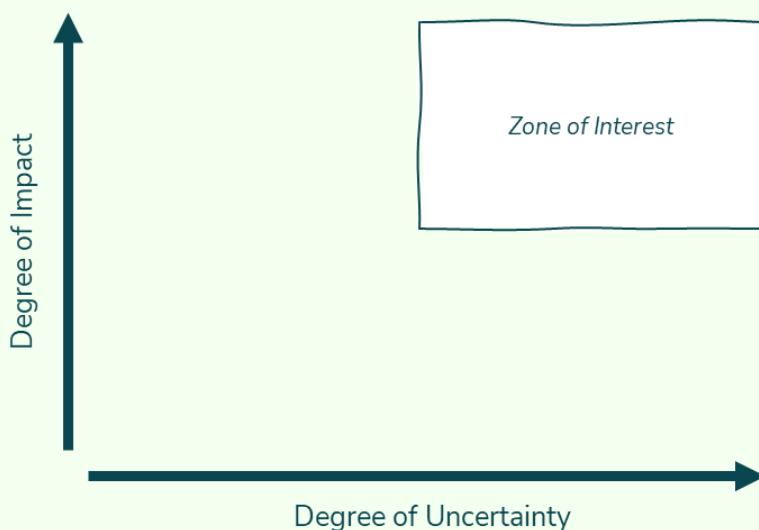


Figure 2 Matrix with Critical Uncertainties

⁷ A force field analysis is a tool for planning when and where to act to achieve a change. The analysis includes creating a map of the forces helping and hindering the

change, and then prioritizing those forces so the change can be most effectively achieved. See [The Force Field Tool | MIT Human Resources](https://mit.sr/2Dfz)

A key challenge in identifying critical uncertainties is the risk of overlooking less obvious factors that could have significant impacts. This limitation can restrict the scope and relevance of the scenarios, potentially leaving organizations unprepared for unforeseen developments. To address this, it is important to engage diverse stakeholders and continuously revisit and refine the list of uncertainties.

Our clients utilize critical uncertainties to develop flexible strategies that they adapt as new information becomes available, and situations evolve. Understanding critical uncertainties is essential for risk management, as it enables the focus of resources and efforts on the potentially most impactful developments.

2.3



Developing detailed scenarios

With the trends, driving forces, and critical uncertainties identified, the next phase

involves developing detailed scenarios that explore how these drivers of change might unfold. This phase is a collective learning process for questioning fixed assumptions and visualizing different possible futures.

At the beginning, we revise the framework that outlines the key elements of each scenario. This includes adjusting the scope, time horizon, and key variables based on the critical uncertainties identified earlier. Next, the detailed narratives for each scenario are created, describing how the future might evolve under different conditions. We explore what the future could look like if the most critical and most uncertain factors play out in terms of ideal states and worst-case scenarios. These factors can be plotted again on a graph. For each of the quadrants, we creatively name and write a thumbnail scenario. The narratives should be vivid and plausible, incorporating the driving forces and uncertainties in a coherent storyline.



Figure 3 Four potential scenarios

Subsequently, stakeholders engage in reviewing and validating the scenarios, ensuring they are realistic and strategically relevant. This step often involves workshops or discussions to refine the narratives and address any gaps or biases. Storytelling is a powerful technique for creating engaging and relatable scenarios that capture the imagination and provoke thought. Visual tools such as mind maps, flowcharts, or diagrams effectively outline the sequence of events and interactions within each scenario, making complex information more accessible. For in-depth quantitative insights into potential outcomes, simulation models can further test and explore the dynamics of scenarios.

Developing detailed scenarios can be challenging due to the complexity of integrating multiple variables and perspectives. This complexity can lead to oversimplified scenarios that do not capture the full range of possibilities. To overcome this, it is essential to foster collaboration among diverse participants from different backgrounds, ensuring a balanced and comprehensive view that mitigates bias and enriches the scenario development process. Iterative refinement is also crucial, allowing organizations to continuously revisit and update scenarios with new information and insights, ensuring they remain relevant and adaptable. Developing detailed scenarios helps organizations understand potential

futures, challenge outdated thinking, and prepare proactive and adaptive responses.

2.4



Analyzing implications and creating actionable strategies

The final step in the process considers the implications of each developed scenario and identifies strategic options that can be pursued in response to different futures. This step is essential for translating scenario insights into actionable strategies, enabling businesses to navigate uncertainty and achieve their long-term objectives.

We evaluate the potential effects of each scenario on various aspects of the organization, including technological orientation, market position, operations, finances, and stakeholder relationships. For a thorough analysis of the risks and opportunities presented by each scenario, tools like SWOT analysis⁸ or Fishbone Diagram⁹ can be used to systematically reflect on scenarios and their implications. Based on the impact assessment¹⁰, we identify strategic options that the client can take to capitalize on opportunities or mitigate risks associated with each scenario. Options appraisal is a technique for evaluating different options or courses of action against criteria, including benefits, costs, and risks, to determine the most

⁸ SWOT analysis is a strategic analysis tool for use in context analysis. The acronym refers to the domains it considers: Strengths, Weaknesses, Opportunities, and Threats. See [SWOT Analysis - EC Public Wiki](#)

⁹ The Fishbone Diagram (also known as the Ishikawa or cause-and-effect diagram) is used to analyze the

causality of major problem sources. See [Leanhealth.ch - What | Tool | Fishbone-Diagram](#)

¹⁰ Impact assessment is a procedure for systematically determining the positive or negative impact of activities, projects, or policies and evaluating them based on predefined criteria (assessment). See [Impact Assessment • Definition | Gabler Banklexikon](#)

beneficial one.¹¹ Visual tools, such as decision trees¹², map out strategic paths and their potential outcomes, helping in decision-making. A driver diagram enables different levels of action to be articulated that will drive you towards your objectives.¹³ A strategy map is a visual representation of how an organization creates value, illustrating the cause-and-effect relationships between strategic objectives.¹⁴

All these steps can be carried out in collaborative sessions with a variety of stakeholders. The goal is to develop strategies that are robust enough to succeed in multiple scenarios, as well as to identify hedging strategies that can only be successful in one scenario but protect organizations from a plausible breakdown.

Share, discuss, review, and pressure test the scenarios in collaborative sessions!



- How do the scenarios align with our organization's mission and values?
- What long-term impact does each scenario have on our industry and market position?
- What is your organization's response?
- How do these scenarios impact our stakeholders, and what are their expectations?
- Towards which future is it most likely heading? How can we adapt our current strategies to better prepare for the most likely scenario?
- What are the key indicators that will signal a shift towards one scenario over another?
- On which future scenario does your organization focus its energy? Is that the future you desire?
- What are the potential barriers to achieving the desired future scenario?
- Which future is most and least risky for your organization? How can we leverage our strengths to mitigate risks associated with each scenario?
- What resources will be required to implement strategies for each scenario?
- What partnerships or collaborations could enhance our ability to navigate these scenarios?
- How can we ensure flexibility in our strategic planning to accommodate unexpected changes?

¹¹ See [Business analysis and options appraisal](#) | University of Essex

¹² A decision tree is a decision support recursive partitioning structure that uses a tree-like model of

decisions and their possible consequences. See [Decision tree - Wikipedia](#)

¹³ See [Driver Diagram Template | Miro](#)

¹⁴ See [Strategy Map – Definition, Funktion und Aufbau erklärt](#)

A common challenge in analyzing implications is the tendency to focus on immediate impacts rather than long-term strategic consequences. To overcome this, it is important to maintain a holistic perspective and engage diverse stakeholders to ensure comprehensive analysis.

Agreeing on the next steps helps to ensure that the strategic plans become robust and responsive. However, in order to keep it proportional to the current time, it is best to outline the actions and their triggers, but do not implement them until there is more clarity around the uncertainties.

How can scenarios support decision-makers?

Scenarios help identify and explore key drivers of change by enabling the imagination of different futures. Considering the ubiquitous uncertainties, scenarios describe alternative development trajectories designed to question our assumptions about the past, present, and future. Therefore, foresight scenarios move stakeholders from their comfort zones into developing strategies and supporting decision-making processes by broadening their perspectives.



3



How can scenario analysis benefit your business?

Scenario analysis can provide companies not only with an advantage through increased agility but also through improved risk management and enhanced innovation capabilities. Scenario analysis offers a **strategic** advantage by providing businesses with the **flexibility** to prepare for various future scenarios. By crafting plausible hypothetical futures, companies can anticipate changes, adapt their strategies, and ensure resilience in the face of uncertainty. Responding effectively to emerging trends and disruptions is crucial for maintaining a competitive edge. In terms of **risk management**, scenario analysis enhances the ability to identify and manage risks by analyzing trends and uncertainties.

This proactive approach enables businesses to mitigate potential threats before they materialize, safeguarding their operations and assets. Companies that implement scenario analysis often report a reduction in unforeseen risks, leading to improved stability and confidence in their strategic decisions.

Moreover, scenario analysis fosters **innovation** by encouraging creativity and the exploration of new business models. By examining challenges from multiple perspectives, organizations can uncover opportunities for growth and transformation. This innovative mindset is essential for staying ahead in rapidly evolving markets, where adaptability and creativity are key drivers of success.

Scenario analysis can be seamlessly integrated into existing strategic management processes by aligning it with established frameworks and models that enhance strategic agility. One effective approach is to incorporate scenario analysis into the strategic planning cycle, using it as a tool to explore uncertainties and develop flexible strategies. By embedding scenario analysis within SWOT and PESTLE frameworks, organizations can systematically assess external factors and internal capabilities, ensuring that strategic decisions are informed by a comprehensive understanding of potential futures. Additionally, the balanced scorecards can be adapted to include scenario-based metrics, allowing businesses to track performance against various scenarios and adjust strategies

accordingly. This integration fosters a culture of adaptability, enabling organizations to pivot swiftly in response to changing conditions. By leveraging scenario analysis alongside strategic management models, companies can enhance their foresight, resilience, and ability to capitalize on emerging opportunities.

At C4D, we assist clients in integrating the scenario analysis methodology into their strategic processes. We provide tailored solutions that align with their unique goals and challenges. Our collaborative approach empowers businesses to navigate uncertainty with confidence, ensuring they are well-equipped to mitigate risks and seize opportunities.



Why should I use scenario analysis?

- Scenario analysis can assist automotive companies in anticipating the impact of political restrictions and increasing international competition, allowing them to strategically adjust their sourcing and manufacturing locations as well as develop new partnerships.
- If you're a technology company, scenario analysis enables you to anticipate shifts in consumer preferences, facilitating the successful launch of new product lines tailored to emerging demands.
- For manufacturing companies with supply chain vulnerabilities, scenario analysis offers a strategic approach to identify weaknesses and optimize strategies, enhancing resilience and potentially reducing business disruptions by up to 20%.
- Healthcare organizations can benefit from scenario analysis by preparing for regulatory changes, technological disruptions, and evolving patient expectations, ensuring they are equipped to deliver cutting-edge services and maintain operational efficiency in a dynamic environment.



Curious to find out more?
We're happy to hear from you!

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