



The Innovation  
Leader's  
Practical Guide to  
**STRATEGIC  
FORESIGHT**

By Christian Crews,  
Ted Farrington  
and Laura Schlehuber

**KALYPSO**

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Strategic foresight enables organizations to build a unique perspective of the future, driving market entry at the right time with differentiated products and services. But not all foresight approaches are created equal. This eBook provides a practical overview of strategic foresight for innovation leaders.

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# The Challenge of Longer-Range Innovation

Portfolio management is at the core of any innovation leader's job, including what to put in the portfolio, how to manage resources over time, and how to transfer to the business unit and commercialize.

And any company that invests in longer-range innovation faces two major challenges related to portfolio management.

The first is best expressed by this quote from the late Steve Jobs:



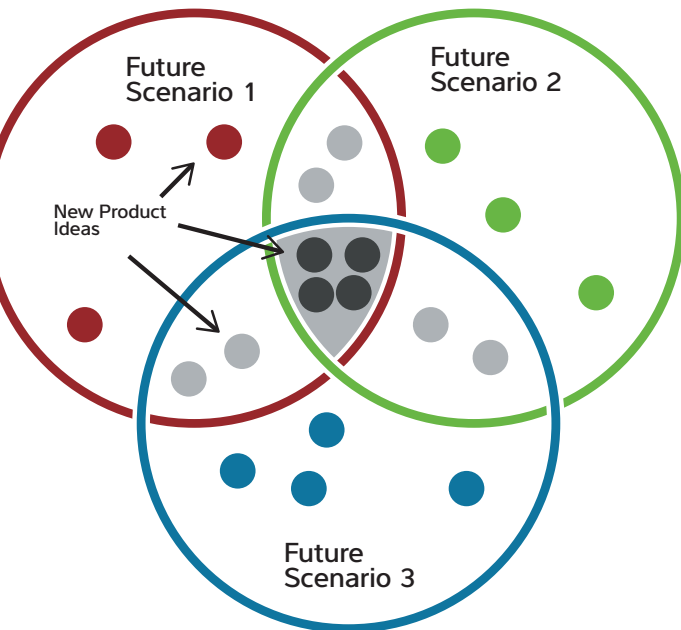
While the relevant timeframes vary by industry, most companies use consumer or customer intimacy to inform their near-term R&D project portfolio. Focus groups and ethnographic research give many industries, especially CPG firms, about a two-year view of what their consumers want to see in new products and services. So, the heart of this challenge is: How does a company select projects when the time to deliver major innovations often exceeds the time horizon that their existing consumer or customer understands?

**“You can’t just ask people what they want and build it, by the time you’re finished they want something new.”**

Henry Ford summed up the second dilemma when he said:

**“If I had asked people what they wanted, they would have said ‘faster horses!’”**

Longer-range project portfolio questions cannot be answered by talking with, or observing, current consumers and customers. They have no idea what might be possible five, ten or twenty years from now, depending on the industry.



## The Power of Strategic Foresight

Strategic foresight is a discipline that provides a structured way to investigate, not predict, the future. Fundamental to using strategic foresight to guide anything (corporate strategy, military plans, stock investments, government policy or longer-range R&D portfolios) is the development and use of scenarios. Scenarios are provocative, yet plausible, alternative views of the future in which we may find ourselves.

In the research and development context, strategic foresight is advanced portfolio management, where projects are selected based on robustness across multiple future scenarios, not a single financial metric or scorecard. A new product idea that appears in multiple futures is a pretty good bet! Leading practitioners of this approach require that any major R&D initiative perform well in all future scenarios.

# The History of Scenario Planning

Fundamental to using strategic foresight to guide anything (corporate strategy, military plans, stock investments, government policy or longer-range R&D portfolios) is the development and use of scenarios.

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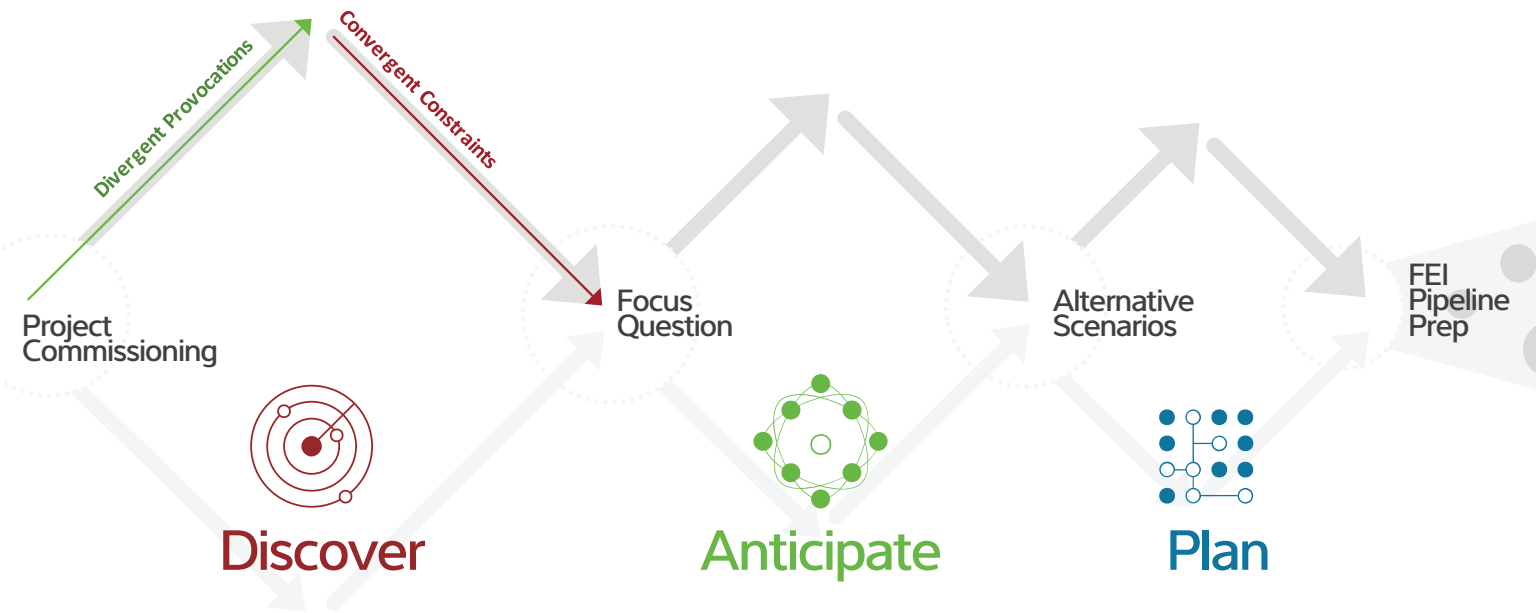
## **But where did this idea come from?**

The use of strategic foresight, and scenarios in particular, to explore the future goes back to the work of Herman Kahn at the RAND corporation in the 1950's. Kahn used scenarios to investigate different military strategies for engaging the Soviet Union during the Cold War. He became known for communicating about the future through stories told in the future. A modern-day example is this [2020 interview](#) with a PepsiCo executive about her work in getting customized products to consumers in China.

**Here's another example.** Running an oil company was pretty simple through the late 1960's. Demand grew at 7% per year and supply was unlimited. Strategic planning was nothing more than knowing when to build the next refinery and a few new tankers. Then the leaders of Royal Dutch Shell used scenarios to show the supply of oil would eventually need to be restricted by the oil producing countries. While they didn't predict when this would happen, they knew the signs that would appear as the day approached. Seeing these signposts before anyone else allowed RDS to stop building refineries, becoming the only oil company not to go into an overcapacity situation during the oil crisis of 1972.

Scenarios have been famously used to guide government policy and plans. In 1991-1992, the Republic of South Africa engaged a team from RDS to help them envision the future of RSA post-apartheid. Named after the resort where the work was done, four Mont Fleur scenarios were developed. The team then reverse engineered (or backcasted in futurists' terms) the decisions required along the way to achieve the future state most preferred by all stakeholders.

In 2010, Christian Crews and Ted Farrington led an 18-month futures study for PepsiCo to better understand the drivers of consumers' food and beverage choices in 2020, as well as what the ideas of health and wellness would mean to these future consumers. Three scenarios were created and new products, services and business models explored for each. Several platforms were found to be robust across two and even all three futures. That project was reviewed at the 2011 IRI Fall Summit and can be seen [here](#).



# A Practical Approach to Strategic Foresight and Scenarios

Strategic foresight enables organizations to build a proprietary view of the future to drive breakthrough innovation. But not all foresight approaches are created equal. Here are our recommendations for an effective three-phase process customized for innovation.

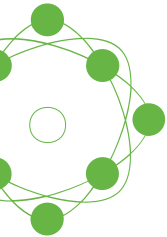


## Phase 1: Discover

Understand what elements of the external environment impact value creation and surface forces of change in those areas. Map the gaps in assumptions about the future among the current leadership.

Key outputs from Discover should include:

- A clear focus question for the initiative
- The organization's official future; the one its leaders are currently using to make decisions
- An environmental scan documenting trends and weak signals not included in the organization's official view of the future



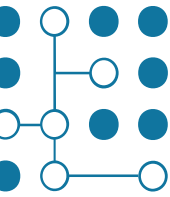
## Phase 2: Anticipate

Extrapolate trends and weak signals of emerging trends out several years (the exact number is determined during Discover). Combine these future impacts into holistic scenarios of the world in which the company, consumers and customers may find themselves. Identify the values driving each scenario and the major strategic implications on the business and for innovation. In some cases, conduct a participatory futures study, or MOOG (Massively Open Online Game) to augment the scenarios results.

Key outputs from Anticipate include:

- Three to four future scenarios based on the focus question of interest
- High level values and strategic implications for each scenario
- MOOG results if applicable





## Phase 3: Plan

Conduct design thinking workshops to understand the needs of consumers and customers in these futures and develop new products, services and business model platforms to meet those needs. This includes Incasting - projecting into scenarios using key personas of customers or consumers. Backcast from each future to identify mileposts that should be seen along the way.

Key results of the Plan phase include:

- New product, service and business model platforms
- Mileposts to watch as the real future unveils itself
- Point of View report that summarizes the results

Unlike many foresight projects that simply extrapolate observable trends into the future, this approach **forces a collision** between what an organization believes about the future and trends or events that are not on their radar. It creates thought-provoking unexpected scenarios of the future, and gives innovators proprietary views not shared by their competitors.



## Leading Practices for the Discover Phase: Looking Around

The goal of the Discover phase is to understand what elements of the external environment impact value creation and indicate forces of change. This phase is comprised of three major activities on most strategic foresight projects – developing a clear focus question, establishing the organization’s official future, and an environmental scan.

First is **development of a clear focus question for the project**. This sounds simple, but often takes several weeks to accomplish. Questions can be designed to seek consumer and customer understanding, explore a specific field of interest or even new business models. A good question is time bound and often geographically focused.

**Questions like these** are important as they are used to filter and prioritize results several times over the course of a project.

**Establishing the organization’s official future** is the second major component of the Discover phase. While they may not have written it down, every organization uses some set of beliefs about the future whenever it makes a business decision. Documenting these consensus drivers of the future is usually done through interviews with leaders across all functions with some stake in the focus question.

Since the goal of a project is several holistic future scenarios, trends and drivers are often sought across all STEEP categories (Society, Technology, Economics, Environment and Politics).



“What will drive consumers’ food and beverage choices ten years from now in the Far East?”

“What will the world of adult beverages look like in twenty years for the developed world?”



The result is a base case future that should surprise no one. Common drivers of change include: demographic shifts, emerging middle class in developing countries, ever increasing connectivity, etc. Interviews often uncover differences of opinion and organizational gaps that could impede the firm's ability to succeed in certain futures.

**Finally comes the environmental scan.** This involves scouring the world for weak signals of emerging trends that could disrupt the consensus view of the future held by the organization. Secondary research can be augmented with ethnography and digital social listening. Again, we cast a wide net, across the STEEP categories, to have all the ingredients needed for scenarios. Examples of weak signals could be CRISPR and Blockchain a few years ago, and brain-to-machine or brain-to-brain communication via implants today.

Finally, the focus question is used to cull both the official future and environmental scan results down to a manageable number; say 8-10 and 20-40 respectively.

The results from the Discover phase are:

- Foresight Diagnostic: Interviews with key leaders and other internal stakeholders to determine the major drivers of change they see impacting the future of the industry, their current assumptions about how the future will evolve, and how foresight has been operationalized in the past
- Weak Signals Research & Report: Research the future and uncover trends at an early stage of development that could evolve over the studied number of years to significantly impact the area of inquiry

Once the Discover phase is complete, we extract the results in the Anticipate phase, forecasting trends into the future and analyzing how they will interact to create novel future environments.

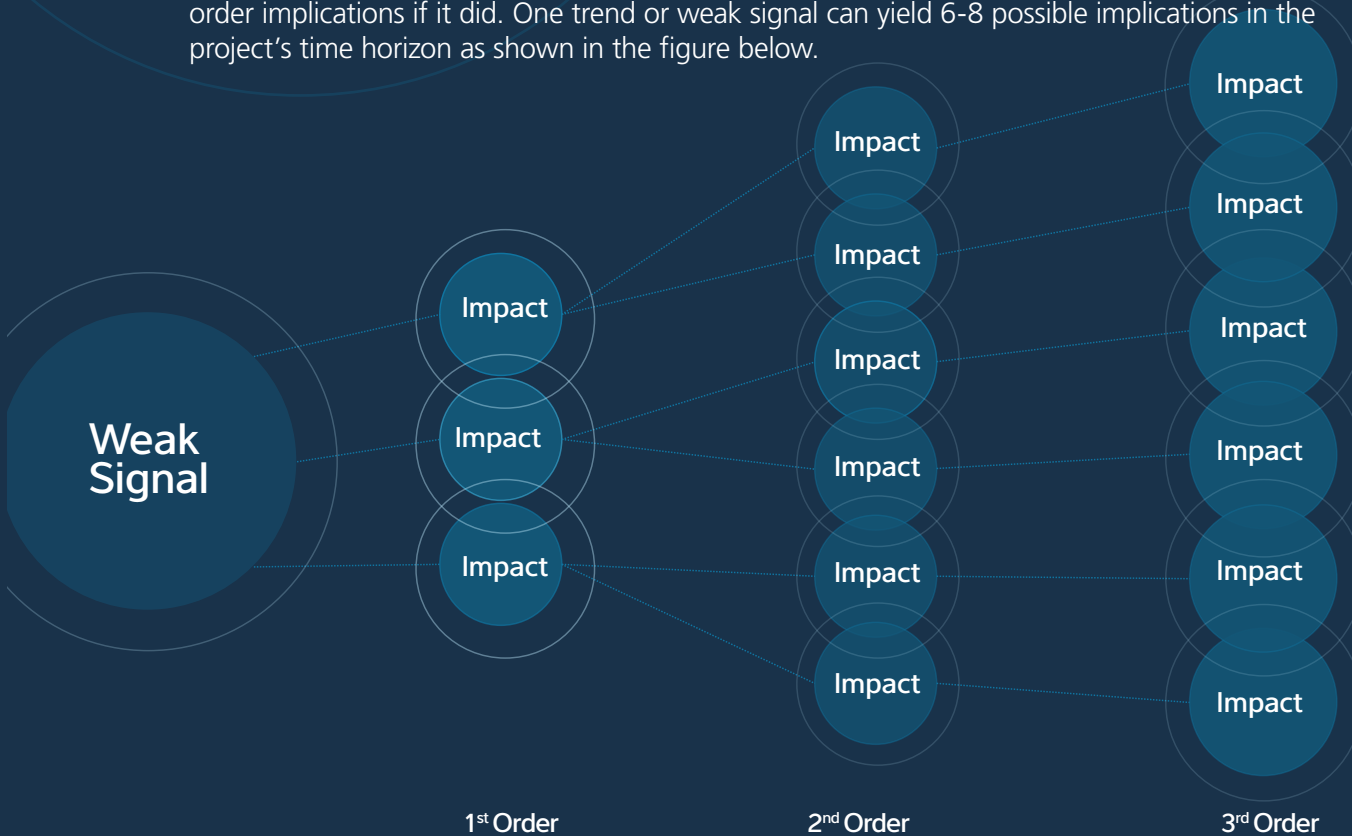


## Leading Practices for the Anticipate Phase: Looking Ahead

In the Anticipate phase, we forecast trends into the future and analyze how they will interact to create novel future environments.

By definition, everything identified during the Discover phase was found by looking around today's world. But the building blocks of a ten-year-out scenario must be the ten-year forecasts and implications of the trends and weak signals found today. This is typically accomplished by one of two methods; implications trees and technology forecasting.

During **implications tree** workshops, participants suspend any debate about whether or not the trend or weak signal will take off, but rather ask what would be some 1st, 2nd and 3rd order implications if it did. One trend or weak signal can yield 6-8 possible implications in the project's time horizon as shown in the figure below.





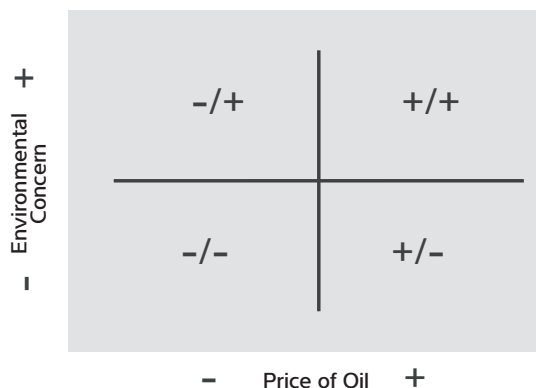
More formal **technology forecasting** methods can be used for trends and weak signals deemed of special importance. Expert panels are often asked where they see the trend or signal in ten years. What is required for that prediction to come true or be prevented are great follow-up questions that help later in the Plan phase. Simple extrapolations, Delphi methods, technology roadmaps and trend correlation are other technology forecasting methods that can be used here.

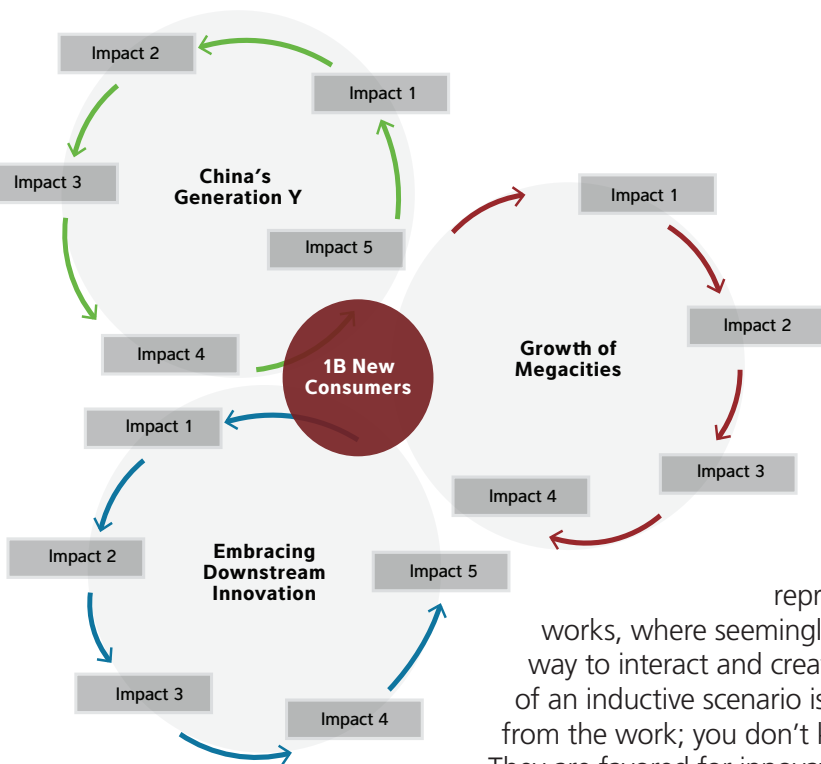
With up to 50 original trends and weak signals, and 6-8 implications for every one brought into the Anticipate phase, the results must be culled again to keep the project manageable. The focus question is used once more to prioritize which future implications are taken forward.

## Creating the Scenarios

The real heavy lifting of any foresight project occurs at this point, where all the previous results, combined with future implications of trends and weak signals, are used to develop holistic future scenarios. Three types of scenarios are commonly seen, with the last two preferred for innovation-related projects.

Simplest is the **deductive scenario** shown below. The question might be “how should my automobile company be investing its R&D dollars?” Two key areas of uncertainty are identified, such as the price of oil and level of environmental concern for the consumer. These form four possible combinations and the previous results are used to describe those futures. The key feature about deductive scenarios is that the space of the scenarios is defined at the beginning of the exercise.





**Inductive scenarios** are developed by seeking out potential interactions among future extrapolations of known trends and weak signals of potential future trends or events. Then, systems thinking methodologies are applied to build open and closed loop systems from these future interactions. Finally, systems with common elements are combined, as shown to the left, to complete the inductive scenario.

These scenarios are more difficult to construct, but they are a better representation of how the world really works, where seemingly unrelated trends and events find some way to interact and create unexpected futures. The key feature of an inductive scenario is that the space of the scenario emerges from the work; you don't know here you'll end up when you start. They are favored for innovation-related projects because every node around the system can be considered a point to intervene with a new product, service or business model to take advantage of, or influence, that future.

**The combination deductive-inductive scenario** offers the best of both scenario types. Suppose the project is related to innovation on some level; so, inductive is the clear choice. The deductive-inductive combination makes sense when there are also major areas of uncertainty; like the price of oil or who will win an election. The result is a two-by-two matrix as shown on page 13, but with a different inductive scenario in each quadrant.



## Incasting Workshops

Once scenarios are complete, incasting workshops ask teams to not debate a scenario, but rather assume it will come to pass. Then living in that future, **answer the question**



“What does my organization need to do to be successful in this future?”

And this is done separately for each scenario created.

The results of the Anticipate phase are:

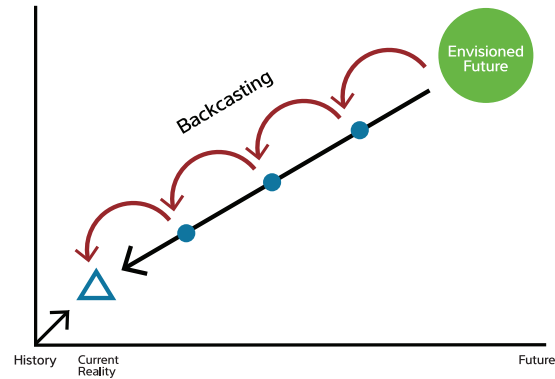
- Quantitative and qualitative forecasts on trends identified in the Discover phase
- Scenario Planning: Narratives of alternative futures that will impact the strategic business environment, built from system frameworks. The report includes external indicators to monitor that confirm or deny assumptions about the future in each scenario.

Once the Anticipate phase is complete, the Plan phase is used to prioritize opportunity areas, ideate new products, services, and experiences, and provide external landmarks for ongoing portfolio management.

## Leading Practices for the Plan Phase: Looking In

The Plan phase is used to prioritize opportunity areas, ideate new products, services, and experiences, and provide external landmarks for ongoing portfolio management.

Many great examples of future scenarios have become not much more than “books on a shelf.” Usually, this is caused by no formal way to integrate results into the organization’s planning and portfolio management process. This approach emphasizes the need for this activity by making it a separate phase where three major activities typically occur – backcasting, structured ideation workshops, and a point of view (PoV) report.



Future scenarios can seem distant.

**Backcasting** is a tool used to both bring them closer and identify mileposts that should emerge as the true future unveils itself. If a scenario tells us what the world might look like in twenty years and incasting has told us what we need to be doing to succeed in that future, backcasting asks, “What should we be seeing and doing at fifteen, ten and five years along the way?” The mileposts are key as they give the company a competitive advantage by seeing coming changes before others.

**Structured ideation workshops** engage the organization’s cross-functional team to identify new products, services and business model opportunities in each future scenario that has been created. Everything from simple brainstorming to mock venture capital pitches can be used here. But diversity of participants is important, because projects are prioritized based on robustness across multiple futures.





The final work product of a strategic foresight project is the **Point of View or PoV Report**. For every new product, service or business platform identified during ideation, the PoV report documents:

- The team's beliefs about that future
- The implied consumer, customer and business needs
- What needs to happen for that future to come true
- What could prevent it from coming to pass
- Technical or business model challenges to be overcome to be successful
- Clear link to the organization's overall strategy

With the PoV document complete, individual new platforms can be integrated into the organization's portfolio management process. Investments can be adjusted over time by monitoring the mileposts and reprioritizing as the true future becomes clear.

The results of the Plan phase are:

- Ideation: Design thinking to ideate new products, services and experiences based on the new consumer needs across the scenarios
- POV statements: Top ideas that include title, description, belief about the future, consumer needs met, right to play, research needed, scenarios in which they are relevant, and milestones for portfolio management, and connection to business strategy

# Lessons Learned: The Difference Between a Successful and a Forgotten Strategic Foresight Initiative

A successful strategic foresight project is not an event, but rather the beginning of a journey that can continue to drive value for years to come. From our 20+ years of experience, the difference between a successful and a forgotten foresight initiative can be attributed to a few important leading practices:

- **Gain critical buy-in from key stakeholders.** Maximize this buy-in by facilitating three or four collaborative workshops throughout the project, and remember that your company – not a consultant – should own the final results.
- **Socialize the strategic foresight scenarios and results across the organization.** This is challenging but very important. Both the [PepsiCo Research Foresight](#) and [IRI2038 project](#) created [high quality video movies and trailers](#) to communicate the scenarios to the broader organization. These were extremely impactful.
- **Don't forget change management.** Long-term and breakthrough ideas need different tools, metrics and incentives than incremental innovation.
- **Take the backcasting signals seriously.** Review them every quarter and adjust the scenarios if needed.

Done correctly, strategic foresight can enable organizations to build a unique perspective of the future with proprietary and actionable foresight, enabling market entry at the right time with differentiated products and services.

# The Benefits of Foresight for Innovation Leaders

Strategic foresight enables organizations to build a proprietary view of the future to drive breakthrough innovation. Looking ahead using the process described in this series offers many tangible and intangible benefits to longer-range innovation efforts.

Most importantly, strategic foresight helps fill and manage the innovation pipeline. Creating points of view about anticipated consumer/customer needs develops innovation ideas that are robust across a range of futures and differentiate the company from competitors. External indicators can guide the ongoing development of innovation platforms to meet the market as it evolves at the right time with the right product.

Strategic foresight also solves some of the more intangible requirements of longer-term innovation. Initially, it identifies markets that do not yet exist. It creates alignment across the enterprise so that when innovations are ready to be commercialized, stakeholders are ready to manufacture, distribute and sell the products. Some innovations can take three to five years to develop, and during that time leadership changes and shifts in strategic direction can cause starts and stops to these research programs. Strategic foresight can improve the odds that these programs survive and thrive through these typical organizational transitions.

Longer-range innovation inherently has higher risk, and as a result, many companies do not invest in it enough, leaving their brands to grow at market rate through less risky, but less rewarding, incremental moves. Strategic foresight, while not predicting the future, provides an ongoing way for companies to act in uncertainty, and manage their risk over time to improve the chances that their longer-term innovation investments will reach the market and be successful. These tend to have higher rewards and position the company advantageously in new and growing markets ahead of competitors.

It is impossible to predict the future. A Strategic foresight process provides an ongoing way to fill and manage the innovation pipeline so that companies can act in uncertainty and gain outsized growth from safely taking greater risks.

# Use the Future to Drive Breakthrough Innovation

Kalypso works with organizations to develop proprietary points of view about future market environments to fill, manage and activate the innovation pipeline.

For companies challenged with breakthrough innovation, this means identifying unique innovation platforms, envisioning markets that do not yet exist, building organizational buy-in, maintaining funding throughout development and hitting the market at the right time.

Our Foresight practice is designed to solve these common challenges. We work with clients to build a unique perspective of the future with proprietary and actionable foresight, enabling market entry at the right time with differentiated products and services.

This customized process improves innovation performance for top-line growth, guiding clients on where to play, how to win and how to activate their innovation pipeline. Our approach connects foresight to the innovation engine - from business and innovation strategy to ideation through commercialization – driving alignment, decision making and action.



**Christian Crews**  
Senior Manager

[christian.crews@kalypso.com](mailto:christian.crews@kalypso.com)



**Ted Farrington**  
Fellow

[ted.farrington@kalypso.com](mailto:ted.farrington@kalypso.com)



**Laura Schlehuber**  
Manager

[laura.schlehuber@kalypso.com](mailto:laura.schlehuber@kalypso.com)

A person's face is visible in the background, looking towards the right. The image is overlaid with a blue gradient and various digital patterns, including lines, circles, and squares, suggesting a technology or data theme.

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