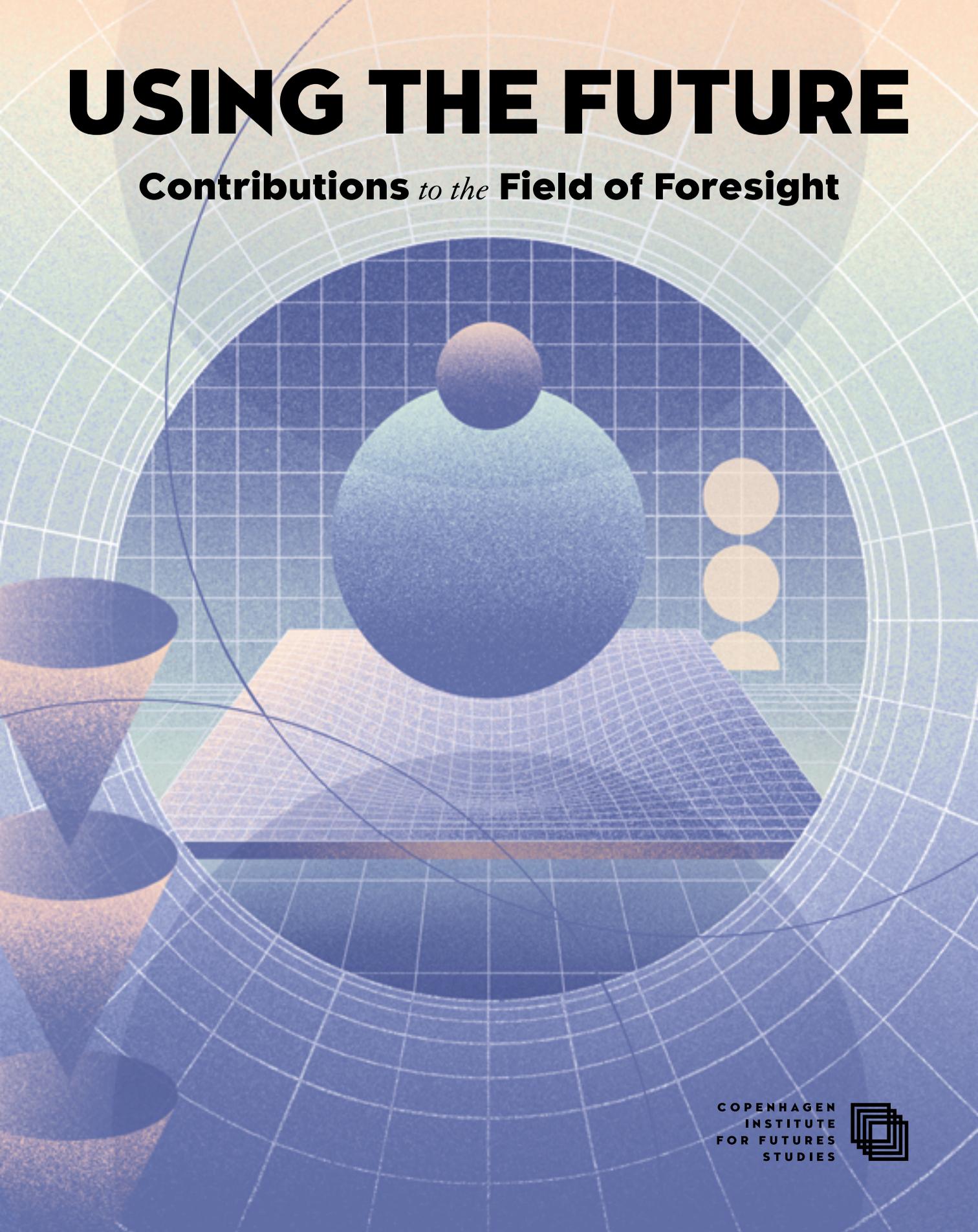


USING THE FUTURE

Contributions *to the* **Field of Foresight**



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Introduction

Since our founding in 1969, the Copenhagen Institute for Futures Studies (CIFS) has been an active participant in the futures and foresight field. Over the decades, the field has evolved significantly. Foresight has seen a methodological expansion, an institutionalisation of its practices, as well as broader integration and participation across different decision-making arenas.

And yet, the foresight field, like the future it seeks to explore, is not shielded from the forces of change. Foresight itself – and how we practice it – must continuously evolve. In a world where traditional decision-making frameworks are showing their limitations, the need is growing for knowledge, tools, and processes that enable more effective long-term thinking in decision-making.

This publication speaks directly to this need.

You will find contributions on anticipatory leadership as a way to align leadership styles with emerging future conditions, on building societal resilience through participatory foresight, on navigating the business realities of corporate foresight, and on embedding foresight into governance and political decision-making processes. We also open up new conversations about what foresight could become in an AI-mediated world, and about how time itself shapes organisational life.

Additionally, we introduce a novel foresight method – the Seven Provocations Method – that establishes provocation as a standalone practice, particularly suited for contexts where other traditional foresight methods may prove too abstract or demanding.

While each contribution stands on its own, we hope you will also sense a common thread running through them: an intent to contribute to the continued evolution of the foresight field by showcasing original CIFS thinking and sharing lessons drawn from our experience in the field, complemented by insights from other leading thinkers and practitioners.

We hope you find the same value in reading this publication as we have found in creating it.

SIMON FUGLSANG ØSTERGAARD

Content



08: A NEW FRAMEWORK FOR ANTICIPATORY LEADERSHIP

There's a paradox at the heart of many leadership practices today. While leaders have the responsibility of steering their organisations through times of change and uncertainty, few dedicate time or resources to systematically exploring what might lie ahead. By combining leadership theory with strategic foresight, futurist Lasse Jonasson introduces a framework for anticipatory leadership – designed to help executives match the way they lead to the world they are likely to inhabit.



18: FORESIGHT THROUGH PROVOCATION

Provocation is an integral part of foresight processes. It serves to push people out of the comfort of linear thinking, challenging established truths and forcing a reassessment of assumptions and world-views. In the best case, it leads to an expansion of what feels possible and plausible. A new method developed by CIFS futurist Simon Fuglsang Østergaard – presented here in its 'prototype' stage – seeks to turn this implicit byproduct of foresight into an explicit and easily accessible method.



40: THE BUSINESS OF FORESIGHT

Foresight takes on different shapes depending on the domain in which it is practised. In a corporate context, it faces a unique set of challenges – among them, how to demonstrate value in ROI-driven environments and how to ensure it is seen as a strategic necessity rather than mere inspiration. In this contribution, CIFS Associated Partner Joanna Lepore offers her insights and lessons drawn from her extensive experience in the world of corporate foresight.

46: GOVERNANCE FOR THE LONG TERM

Through the Declaration on Future Generations adopted in 2024, 143 UN member states committed to integrating foresight into governance. The question now is how they will do it. Examples from New Zealand, Finland, Singapore, Wales, and others have shown the way forward. Yet even well-established frameworks remain vulnerable to shifting political whims. Lasting foresight in governance depends on embedding both institutional capacity and participatory practices in society at large.



52: AI-MEDIATED FUTURES

As generative AI becomes more accessible and widely used, it's worth asking what role it might play in the future of foresight itself. Could AI shift from simply supporting existing foresight practices to fundamentally reshaping how we think, explore, and engage with possible futures? Futurists Sofie Hvitved and Bugge Holm Hansen introduce their concept of Liquid Foresight – a more responsive approach to futuring that considers AI a core component rather than mere add-on.



56: A FUTURIST SITS DOWN WITH A PROMPT ENGINEER

Futurist Simon Fuglsang Østergaard sat down with Morten Rockford Ravn of AI Revolution to explore a provocative question: given the transformational potential of generative AI in futures work, what happens when we combine the skills of a professional futurist with ability of a prompt engineer to guide a large language model like ChatGPT toward meaningful outcomes?



64: FORESIGHT FOR SOCIETAL RESILIENCE

Building resilient societies requires preparing for a range of plausible futures rather than optimising for a single version. This makes resilience an ideal match with foresight's emphasis on seeing the future in multiples rather than as one linear outcome. Together, foresight and resilience can strengthen society's future orientation and – when anchored in participatory processes – its social fabric as well.



70: THE ORGANISATIONAL FABRIC OF TIME

The relationship between time, perceptions of time, and organisational realities is both foundational and complex. Yet applying temporal analysis to organisations is still relatively uncharted territory. In this conversation with Professors Tor Hernes and Majken Schultz from the Centre for Organization and Time at Copenhagen Business School, we explore how time is not just a backdrop but an active force that shapes organisational life.



76: A HYBRID-METHOD SCENARIO APPROACH FOR RESILIENCE

Crafting future scenarios is rarely a textbook exercise; the complexity of the real world demands pragmatic blends of methods. In our contribution to the EU FutuResilience project, which aims to strengthen European economic and social resilience, CIFS applied a hybrid approach combining Jim Dator's generic scenario archetypes with Herman Kahn's variation scenarios to the case of the Bulgarian healthcare system.



Contributors



SIMON FUGLSANG ØSTERGAARD

A seasoned futurist with extensive expertise in facilitating and leading foresight processes, Simon serves as CIFS' Strategic Foresight Lead and heads the Institute's foresight training efforts. A self-described 'foresight nerd,' he is dedicated to maintaining high standards in the field. Simon has overseen the production of this publication, where he contributes with two interview articles and introduces a prototype of a new method for the structured use of provocation as a standalone foresight practice.



LASSE JONASSON

As CIFS' Chief Foresight Officer, Lasse Jonasson leads the Institute's efforts in advising organisations as they grapple with long-term strategic transitions through scenario planning and other foresight methods. In his contribution to this publication, Lasse introduces a newly devised framework for 'Anticipatory Leadership' for fusing organisational leadership with foresight, which we present in the opening article.



MARTIN KRUSE

Martin Kruse is a foresight specialist who has spent half his life working in the field. With decades of experience and a deep understanding of the theories and methods of foresight, he knows that effective scenario work is rarely a textbook exercise. Real-world complexity often calls for a pragmatic approach, which is why, in this publication, Martin shares a real-life example of how remixing different scenario methodologies can lead to stronger project outcomes.



SOFIE HVITVED

Futurist Sofie Hvitved's expertise lies in the intersection of media, artificial intelligence, and foresight. Rather than seeing technology as an add-on to the foresight toolbox, she is dedicated to exploring how it may fundamentally reshape the practice itself. In this publication, Sofie – together with Bugge Holm Hansen – introduces the concept of 'Liquid Foresight' as a way to reimagine traditionally analogue futures work through responsive and adaptive AI tools.

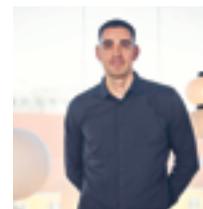


BUGGE HOLM HANSEN

As the Institute's Head of Tech Futures & Innovation, Bugge Holm Hansen's focus includes developing strategic visions for the use of artificial intelligence in sectors such as education and public services, as well as collaborating on future-oriented projects with global organisations. In his contribution to this publication, co-authored with Sofie Hvitved, Bugge investigates how foresight can be made more adaptive and responsive through AI.

THOR SVANHOLM GUSTAVFSON

As the national lead for Teach the Future Denmark and a founding member of the Danish Coalition for Future Generations, Thor Svanholtm Gustafsson works to amplify underrepresented voices in futures work. For this publication, Thor writes about how different governments across the world have already taken important steps in integrating the UN's recently adopted Declaration on Future Generations in national systems of governance.



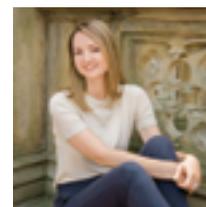
AUGUST LEO LILJENBERG

August Leo Liljenberg is an editor at CIFS. Alongside the rest of the editorial team, August is responsible for producing the Institute's quarterly print publication FARSIGHT, which he both writes and edits for. For this publication, August spoke to Tor Hernes and Majken Schultz from the Centre for Organization and Time at Copenhagen Business School about how time shapes organisational life.



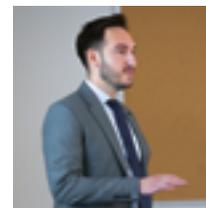
JOANNA LEPORE

Joanna Lepore is a passionate advocate for bringing the future into the heart of business and a prominent voice in corporate foresight. She has established and expanded the strategic foresight functions within two of the world's biggest brands – McDonald's and Mars Wrigley. Jo is also the co-founder of the Foresight Inside Group (FIG), a non-profit on a mission to connect and support people driving foresight work inside some of the world's largest organisations. For this publication, Jo shares her lessons and insights garnered from these experiences. Jo is an Associated Partner at the Copenhagen Institute for Futures Studies (CIFS).



MATIAS BARBERIS

A researcher at the European Future Innovation System (EFIS) Centre, Matias Barberis leads the EU-funded project FutuResilience which helps communities across Europe anticipate and adapt to future crises. He holds a Ph.D. in Social Studies and Humanities and has worked for more than a decade across Europe and Latin America on resilience, socio-economic impact assessment, and disaster risk reduction. He is passionate about research that is directly connected to society, especially through participatory methods that bring together those who decide, those who are affected, and those who can imagine differently.



PHILINE WARNKE

Drawing from her mechanical engineering roots and a Ph.D. in social science and technology studies, Dr. Philine Warnke has shaped foresight practice at the German publicly owned research organisation Fraunhofer since 2014, where she also heads the Department of Foresight. Her foresight work spans both industry and the public sector at national and European levels, including a secondment at Germany's Federal Chancellery to help build its strategic foresight function. Philine is an active participant in the European foresight community and is dedicated to enhancing the integration of foresight practices into policymaking across Europe, including through her role in initiatives such as the FutuResilience project.





Leading Through Time With Anticipatory Leadership

TEXT LASSE JONASSON
ILLUSTRATION SOPHIA PRIETO

Leadership is about enabling change. And enabling change relies on the ability to see ahead, think ahead, and move ahead. So why is it then that so few leaders work with the future in a structured way?

This question reveals a paradox at the heart of many leadership practices today. While leaders are constantly navigating change and uncertainty, few dedicate time or resources to *systematically* exploring what might lie ahead in the longer term. Foresight is often seen as interesting, even inspiring, but rarely treated as an operational discipline that informs decisions, shapes strategies, and defines priorities.

Research tells us this is not due to lack of awareness. According to the *Executive Leadership Barometer 2035*, published by the Copenhagen Institute for Futures Studies (CIFS), Danish leaders overwhelmingly recognise foresight as one of the most important competencies for the coming decade. Alongside digitisation and change management, strategic foresight ranks in the top three capability areas executives believe they need to succeed. The survey *A Clearer Role for the Board?* carried out by Aarhus University and CIFS reveals a similar picture. Board members across large European firms recognise that navigating external uncertainty has become central to their role, yet they also broadly acknowledge that they lack the capabilities to effectively do so in practice.

What emerges is a systemic blind spot. Leaders and boards understand that the future matters, but they also recognise that the importance of a long-term view is not reflected in how their organisations are led. The reason is not only due to familiar problems like organisational inertia or reluctance – or that what is “urgent” in the day-to-day tends to crowd out what is “important”. Leaders also often lack the structures, routines, and sometimes incentives to work proactively with the future.

From my own experience having been engaged in numerous business strategy processes, often facilitated by highly competent internal teams, there is a consistent pattern: strategy conversations are overwhelmingly focused on what is happening here and now and dominated by budget cycles and operational metrics.

When the future is brought into the discussion, it is usually framed through present-day trends and how to catch up with them, rather than exploring how the future might unfold through a complex interaction of various driving forces. Foresight, when it appears, is often limited to glossy reports or a slide in a quarterly update, and often far removed from where real decisions are made.

The challenge is not for leaders to acknowledge and comprehend that foresight is important. Most already know that. The challenge is how to operationalise it and make foresight a consistent part of how leadership happens – on the board, in the executive team, and across the organisation.

The leadership literature knows the future matters

Most leadership theorists implicitly spotlight “the future”, but most do so in ways that leave critical gaps.

John Kotter famously describes leadership as the process of defining what the future should look like, and the role of the leader as one who charts a unifying vision for how to reach it. Ronald Heifetz’s focus on the importance of sense-making and learning similarly contains a future dimension in how it highlights the need to engage with emerging patterns and navigating uncertainty over time. In Henry Mintzberg’s observations on managerial practice, the ability to hold a long-term perspective is also present. He argues that strategy is not a linear process of forecasting and control, but a dynamic, emergent practice – similar to what foresight preaches – and portrays leadership as a practice that spans multiple time frames.

So, it is not that leadership literature ignores the future. Very much the contrary. But what it often lacks is a structured approach to working with it. Vision is treated as an abstract ideal. Strategic direction is assumed to emerge from insight and experience. But rarely do leadership frameworks offer concrete tools for exploring uncertainty, rehearsing for multiple outcomes, or stress testing decisions against divergent future conditions. The lack of guidelines for how to operationalise the future leaves a gap between leadership theory and leadership practice.

Leadership styles and their assumptions about the future

Another, perhaps even more important, point is the lack of guidance on *when* to apply different leadership models. I firmly believe that the expected future condi-

tions in which an organisation will operate should determine which leadership approach is best suited.

However, in practice, leadership styles tend to be “inherited” from past successes, borrowed from dominant management norms, or unconsciously embedded in organisational culture.

The approach leaders adopt is also shaped by underlying assumptions of the world and the future: Is it stable or unstable? Predictable or uncertain? Can it be shaped, or merely survived? But again, this is often unconscious and based on past experience rather than a structured analysis of future conditions.

Across leadership practices, assumptions about the external environment vary widely. Traditional styles such as transactional leadership are rooted in a logic of optimisation. They assume a relatively stable environment, where performance can be improved by tightening control, aligning incentives, and ensuring compliance. Leadership becomes about reinforcing the known.

Transformational leadership, by contrast, places the leader as a visionary force – someone who sees a better future and mobilises others to pursue it. Here, the future is less fixed and more open to influence, but the leadership logic often remains top-down. The leader is the one who defines the direction, and others follow.

Other styles, such as adaptive leadership or agile leadership, treat the future as complex, uncertain, and co-created. In these approaches, leadership is less about knowing and more about sensing. The leader is a facilitator of distributed intelligence, rather than a central source of answers.

This implicitly reflects different positions on two key dimensions:

- **Assumptions about future conditions:** Is the external environment seen as relatively stable and predictable? Or is it seen as uncertain, turbulent, and emergent?
- **Strategic posture:** Does leadership orient itself toward exploitation and optimisation of the existing model, or toward exploration and transformation?

Where an organisation is placed on these two dimensions (which we will revisit in more depth below) has a profound influence on the fit of a given leadership style. In environments perceived as stable and predictable, it makes sense to emphasise planning and control. In turbulent and uncertain conditions, responsiveness,

alignment, and organisational learning become more important than planning. Yet in most cases, the leadership style is not adjusted to accommodate for the *future* needs of the organisation, but is a product of the past.

Anticipatory leadership in action

This has several implications. First, it requires leaders to reflect on their own defaults – their personal leadership comfort zone – and to ask whether it fits the emerging context. Second, it implies that leadership development should not only focus on capabilities like communication, decision-making, or resilience, but also on foresight and the ability to adjust leadership style to varying conditions. And third, it highlights that leadership is not just about managing people. It is about matching the organisation's internal dynamics with the external conditions it is facing – and doing so with strategic intent.

A recent CIFS client engagement with a large organisation operating across Europe brought this into sharp focus. Initially, we were asked to help develop a futures-oriented strategy within one geographical unit in a multi-national organisation. But through a structured scoping process, it became clear that the real need was broader: the whole group needed to be engaged in the exercise to ensure strategic alignment. What emerged was a landscape of potentially radical shifts – not just incremental changes, but a potential need for fundamentally rethinking parts of the business model. It also became clear that the future was not arriving uniformly. Different regional units were exposed to very different drivers and levels of uncertainty. As a result, the organisation's traditionally centralised, top-down approach to strategy and leadership was no longer fit for purpose. A more decentralised, context-sensitive approach was required – not just in the strategy, but in how leadership was exercised.

Seen this way, foresight becomes more than a planning tool. It becomes a way to lead. It helps shift the conversation from *what is your leadership style?* to *what does the future require of your leadership?*

That is anticipatory leadership in action.

CIFS Anticipatory Leadership framework

CIFS has developed an **Anticipatory Leadership framework** to help executives match the way they lead and strategise to the world they are likely to inhabit.

The work begins with a carefully structured foresight process to explore three questions relating to **assumptions about future conditions**: *What in the external landscape is clearly changing? What, beneath the noise, is likely to endure? And which factors remain genuinely uncertain?*

The key here is that the leadership team arrives at a point where they share a common understanding of the future to drive strategic conversations from, rather than relying on a collection of individual hunches. This creates far richer and more coherent strategic dialogue.

Once that shared foundation exists, the leadership group can address the next issue: **strategic posture**. In some contexts, the future reveals unmistakable opportunities – openings that favour decisive commitment and a bolder, “exploit” posture. In others, signals are too hazy to justify a single big bet; here an adaptive stance that keeps options open may be wiser – this calls for a more “explorative” posture.

Leaders cannot choose the external environment that they will face in the future, but they must choose the stance that will let them thrive within it. The CIFS Anticipatory Leadership framework becomes a simple but powerful prompt: *Based on your assessment of the future conditions, what kind of strategic posture is needed? And what leadership style will then be best suited?*

Or sometimes also using the model slightly different: *Based on your assessment of the future conditions, and given that most leaders tend to have a ‘go to’ leadership style, what strategic posture will then be best suited?*

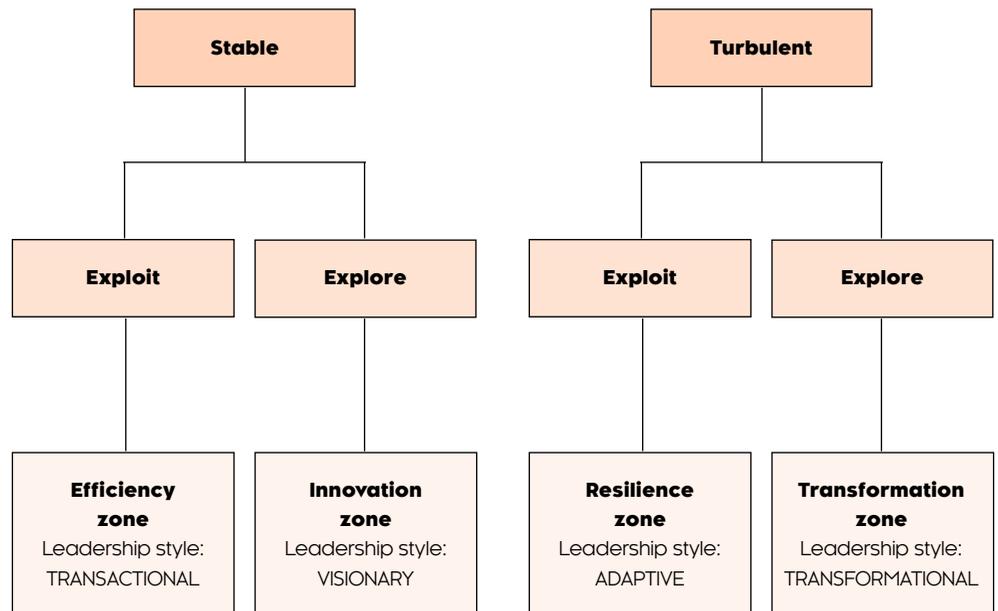
FUTURE CONDITIONS

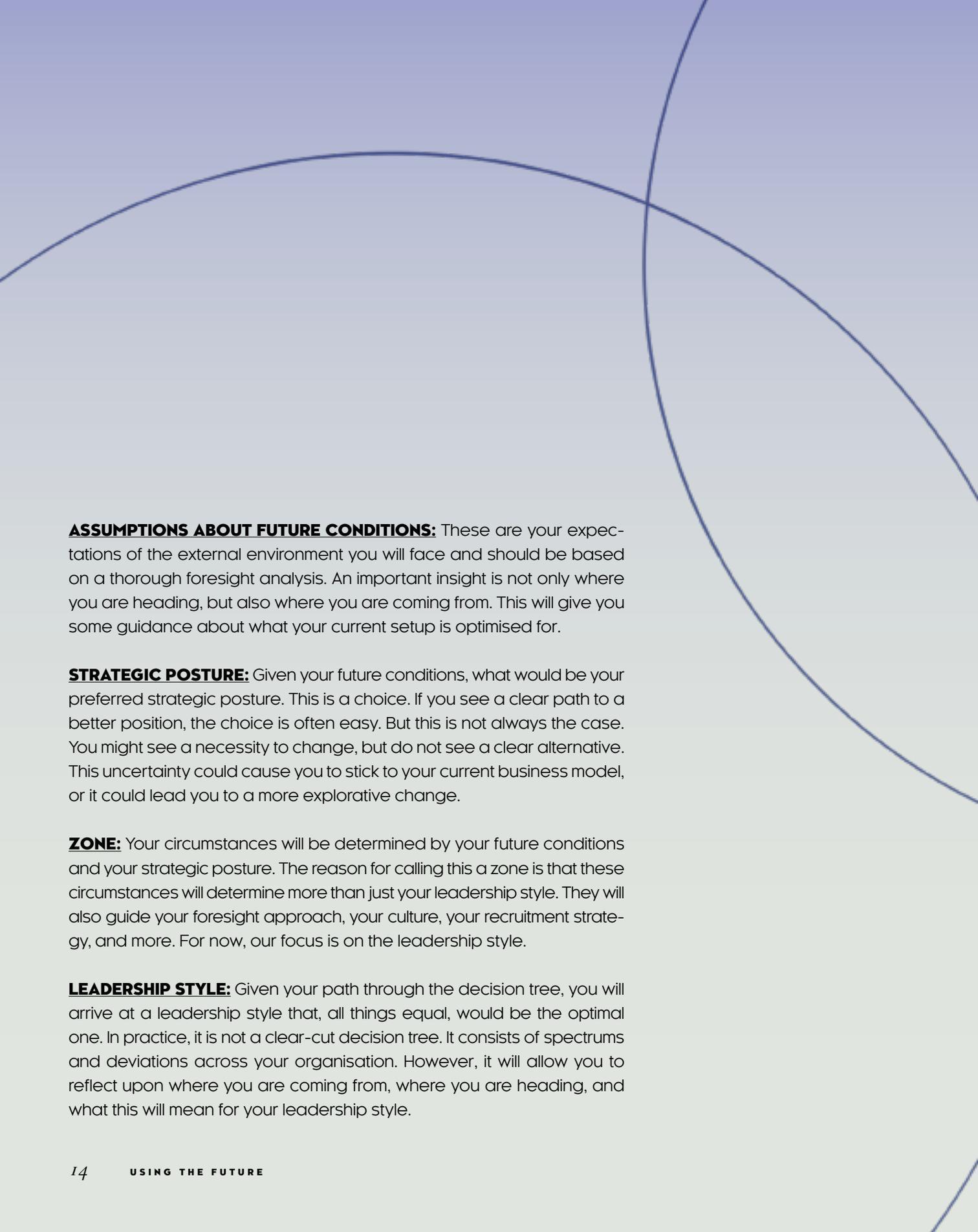
Foresight-based assessment

STRATEGIC POSTURE

Choice

ZONE





ASSUMPTIONS ABOUT FUTURE CONDITIONS: These are your expectations of the external environment you will face and should be based on a thorough foresight analysis. An important insight is not only where you are heading, but also where you are coming from. This will give you some guidance about what your current setup is optimised for.

STRATEGIC POSTURE: Given your future conditions, what would be your preferred strategic posture. This is a choice. If you see a clear path to a better position, the choice is often easy. But this is not always the case. You might see a necessity to change, but do not see a clear alternative. This uncertainty could cause you to stick to your current business model, or it could lead you to a more explorative change.

ZONE: Your circumstances will be determined by your future conditions and your strategic posture. The reason for calling this a zone is that these circumstances will determine more than just your leadership style. They will also guide your foresight approach, your culture, your recruitment strategy, and more. For now, our focus is on the leadership style.

LEADERSHIP STYLE: Given your path through the decision tree, you will arrive at a leadership style that, all things equal, would be the optimal one. In practice, it is not a clear-cut decision tree. It consists of spectrums and deviations across your organisation. However, it will allow you to reflect upon where you are coming from, where you are heading, and what this will mean for your leadership style.

The zone you end up in based on the assessment of future conditions and strategic posture will guide you towards the ideal leadership approach:

- In the relatively predictable **Efficiency Zone**, transactional leadership, rigorous performance indicators, and foresight used mainly to confirm early warning signs are often enough. The strategy process revolves around annual optimisation and lean improvements.
- The **Innovation Zone** still benefits from a strong core business, yet future growth demands adjacent bets. Visionary, agile leadership – supported by foresight-led ideation – encourages rapid prototyping and iterative portfolio plays.
- Where volatility and uncertainty are high, and the organisation does not see a clear path of how to transform, or for other reasons decides to remain focused on optimising current business, the organisation will be in the **Resilience Zone**. Here, leaders should blend top-down direction with bottom-up sensing, use foresight to stress test current operations, and run topic-based scenarios to continuously explore what is coming.
- If disruption seems unavoidable or transformative opportunities are identified ahead, the company would be in the **Transformation Zone**. This will require transformational leadership, future-back visioning, and a willingness to pivot the core. Strategy becomes a staged portfolio of bold repositioning programmes.

Talented executives do not cling to a single leadership doctrine. They calibrate, continually, to the organisation's context, capability, and strategic horizon. By aligning future conditions, strategic posture, and leadership in this way, the Anticipatory Leadership framework turns leadership from a habit-based unconscious preference towards an active tool to shape your organisation to become future ready.

Most leaders that I talk to about this framework broadly expect a movement towards more turbulence and unpredictability. Interestingly, most current leaders have been taught how to lead under more stable conditions – the optimisation-oriented environment found in the Efficiency Zone. Being aware of this shift is critical. Those who are ahead of the curve will gain a competitive advantage, because these organisational changes take time to implement.

Leading through time

Anticipatory leadership is not a new ideology. It is a call for leadership to return to its most essential role, which is navigating across time. The organisations that

thrive will be the ones with leaders who do not hold on to a preferred style, but who consciously adapt their approach to the strategic context and the future outlook they will need to navigate.

What distinguishes anticipatory leaders is not their ability to predict the future, but their discipline in working with it. They understand that uncertainty is not something to be avoided but engaged with. They see foresight as a core operating logic present in how we frame decisions, allocate resources, engage talent, and evolve culture.

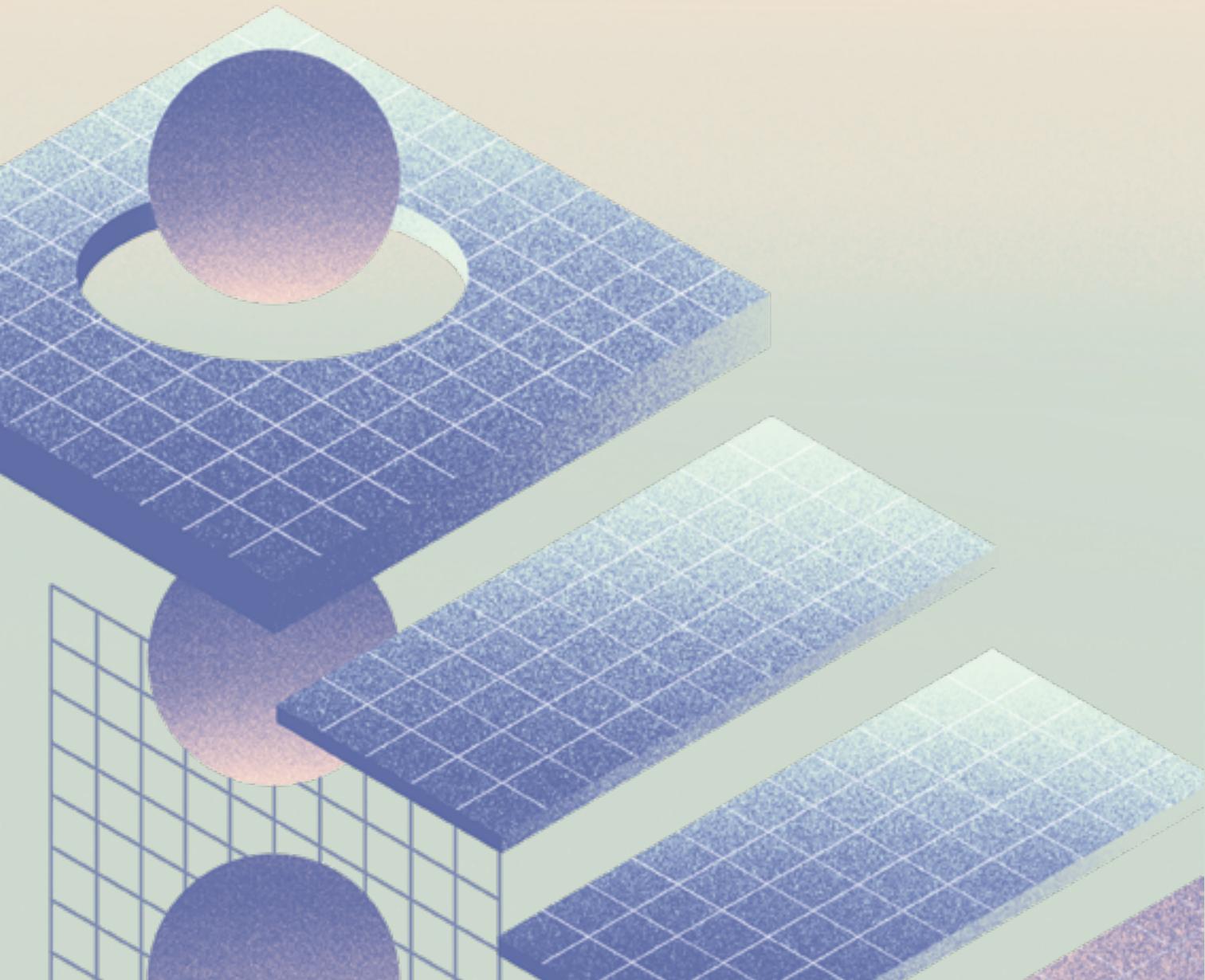
At CIFS, one of the most powerful outcomes we consistently observe in strategic foresight processes is a transformation in how leaders relate to the future. It ceases to be a distant concept or an abstract construct, and instead becomes a tangible, integrated dimension of leadership. It shapes the conversation, informs the strategy, guides the processes around it, and cultivates forward-thinking organisational culture. That is the essence of anticipatory leadership. ■

ASSUMPTIONS ABOUT FUTURE CONDITIONS	STRATEGIC POSTURE	ZONE	LEADERSHIP STYLE	FORESIGHT APPROACH
Relatively stable and predictable	Exploit Extension of current business model with a focus on operations and efficiency gains	Efficiency Zone An environment with known success metrics and repeatable models	Transactional, directive, outcome-focused	Foresight-tested Scanning to validate assumptions and monitor continuity
Relatively stable and predictable	Explore Transformation of offerings and the business model with a focus on changing specific elements	Innovation Zone An environment stable enough to sustain the core, but future growth requires adjacent exploration	Agile, visionary, empowering	Foresight-led Exploration and ideation related to adjacent futures to inform innovation bets
Relatively unstable and volatile	Exploit Extension of current business model with a defensive focus on adapting to changes and new conditions	Resilience Zone An environment that threatens the current business logic, but transformation is not (yet) necessary or possible	Adaptive, situational, pragmatic	Foresight-tested Scenarios to stress-test current operations and improve agility
Relatively unstable and volatile	Explore Transformation of offerings and the business model with an offensive focus on adapting to constant change	Transformation Zone An environment where disruptive change is imminent or underway, and the current model is no longer viable	Transformational, bold, future-back oriented	Foresight-led Scenario and systemic foresight to inspire reinvention



The Seven Provocations

Introducing a new method for making provocation a structured and standalone foresight practice.



The future is inherently unpredictable, shaped by new assumptions, behaviours, and realities that have yet to emerge. This has always been true, and it will continue to be so. Yet, when things become less certain – and therefore less controllable – individuals and organisations alike tend to retreat into the comfort of linear thinking.

Foresight exists to challenge this tendency of linear thinking. It enables individuals and organisations to question entrenched and misguided assumptions that underpin an understanding of the future that is rarely tested or questioned explicitly – and thus remain disconnected from emerging realities.

Integral to many foresight methods is the element of provocation. Such provocation serves to push people out of the comfort of linear thinking, to deliberately shift perspectives, and cultivate a more expansive understanding of potential futures. Traditional foresight methods, such as Scenario Development, Causal Layered Analysis, Three Horizons, Futures Wheel, and Futures Literacy “reframing” techniques, embed clear elements of provocation.

However, these methods can be intricate and demanding, requiring significant foresight expertise and facilitation skills. For individuals and teams with limited experience or confidence in foresight practices, meaningfully engaging with these methods can be daunting, potentially hindering effective participation and often leading to underwhelming foresight outcomes.

Building on the longstanding foresight principle of provocation, the method presented on the following pages establishes provocation as a standalone practice. It provides a systematic and intuitive process for identifying entrenched assumptions about the future, confronting them with structured provocations, and exploring potential implications that emerge from that. It is designed to be a more accessible entry point for the use of provocations in foresight, including for those with limited foresight confidence or experience.

This proposed method is shared here as a first iteration and remains a work in progress. It is expected to evolve through application and testing in real-world strategic settings, as its practical value is explored and refined over time.

CONCEPTUAL FOUNDATION

Provocation in foresight

The term provocation can be defined as a deliberate and intentional act aimed at eliciting a response or reaction, often by evoking a sense of conflict in the one who was provoked.

Although provocation may have a negative connotation in most contexts, it can also represent a positive confrontation or stimulus to incite new thinking and fresh perspectives. In foresight, it is precisely this constructive potential that makes provocation a valuable tool for reassessing a status quo perception. It involves purposefully challenging entrenched assumptions and facilitating “reperception” – the act of shifting perspectives to think of the future in a new way, recognising that the future will likely be different from what one currently expects (Wack, 1985).

In principle, the structured use of provocations proposed here is merely a conceptual extension of longstanding foresight principles and can be attributed broadly to the foresight field’s ethos of challenging assumptions. More specifically, the key foresight approaches listed below – along with many more – integrate elements of provocation to achieve these ends:

- **Scenario Development:** Scenarios often use provocative narratives to present divergent futures that contrast both with present realities and with each other, challenging individuals and organisations to think beyond linear expectations (Schwartz, 1991; van der Heijden, 2005).
- **Causal Layered Analysis (CLA):** This method deconstructs surface-level issues and reframes them through deeper worldviews and myths, provoking shifts in perspective and understanding (Inayatullah, 2019).
- **Three Horizons Framework:** By contrasting the dominant system at present (Horizon 1) with emerging transformational shifts (Horizon 3), this frame-

work provokes a deeper understanding of how established structures might evolve, decline, and transition into new ones (Curry & Hodgson, 2008; Sharpe, 2013).

- **Futures Wheel:** This method visualises potential consequences of a change or event to provoke multi-order thinking by revealing cascading effects and interconnections often overlooked in linear approaches (Glenn, 2009).
- **Futures Literacy:** Best understood as a broader capability rather than a single method or framework, Futures Literacy encompasses various “reframing” techniques that actively use provocation to disrupt habitual ways of thinking about the future, mostly at the individual level (Miller, 2018).

Why this method is needed

While provocation is embedded in many foresight methods, it is often implicit, making its application dependent on expert facilitation and experience. For individuals or teams with limited exposure to foresight, this can present significant barriers to engagement and lead to underwhelming outcomes.

On a more practical level, foresight often appears complex, abstract, and time-consuming for many people in fast-paced professional environments and organisational contexts where day-to-day priorities take precedence. This often leads to hesitation to even engage in foresight in the first place.

There is considerable evidence in academic literature that complex and abstract processes can lead to disengagement and even alienation of participants. For example, Cognitive Load Theory shows that when a task imposes a high “cognitive load” – meaning it requires holding too much complex, abstract information in one’s mind – it impairs learning and problem-solving, increasing the risk of disengagement and a reversion to heuristics (Sweller, 1988). Moreover, participants must feel psychologically safe to effectively engage with complex or abstract processes, as such contexts increase interpersonal risk-taking (Edmonson, 1999). Without sufficient psychological safety, participants may withdraw rather than actively participate.

The proposed method formalises provocation as a standalone practice, providing a structured and lightweight approach to identifying and confronting entrenched assumptions. It is particularly valuable in contexts where traditional foresight methods may prove too abstract, complex, or demanding, and hence cause reluctance to participation. Ultimately, the method provides a more accessible and practical entry point to engaging with foresight in organisations and teams with limited experience or confidence in foresight practice.

THE METHOD

Surfacing current assumptions about external change

Our assumptions are the underlying factors and expectations that shape how we interpret information, make decisions, and anticipate change. They influence the questions we ask, the risks we perceive, and the opportunities we consider. Any given strategic lens or outlook relies on both explicit and implicit assumptions about technology, social dynamics, markets, geopolitics, etc. Some assumptions are widely shared across organisations or industries, while others are more specific to a particular context. Regardless, if left unchallenged, they can create a confirmation pathway, leading to a flawed or overly deterministic view of the future.

Before we can meaningfully provoke new thinking, we must first establish a clear understanding of the key assumptions underpinning a current strategic outlook. In other words, making explicit the external conditions that need to hold true over time for a strategic outlook to be “on point”.

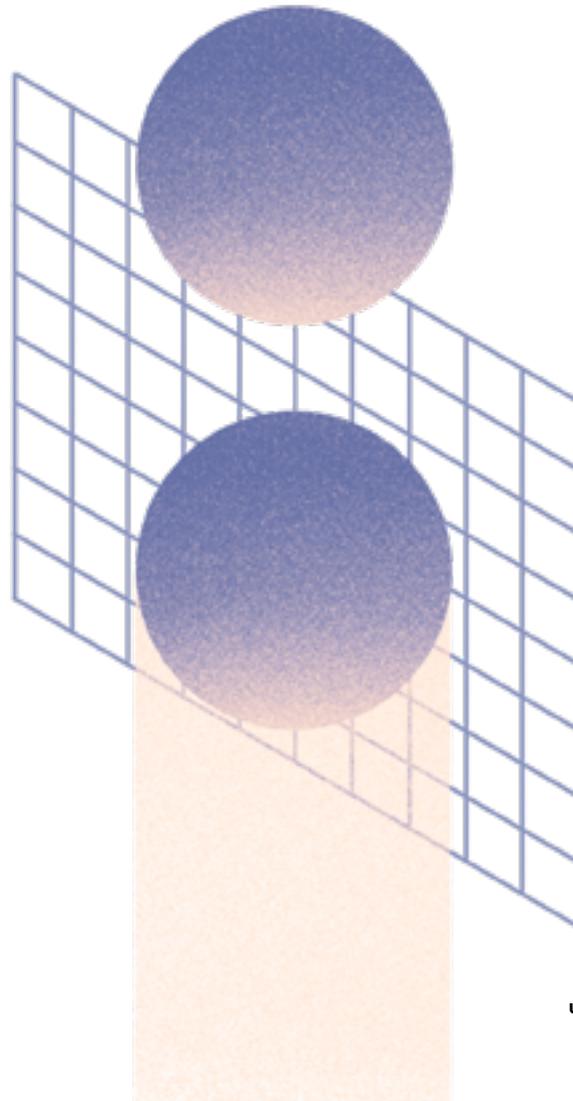
This can be done through an “assumption audit”, where we seek to clearly capture the explicit and implicit aspects that are taken for granted in relation to how the external environment will evolve.

You can prompt with questions such as:

- What conditions do you strongly assume *will not* change?
- Which developments do you assume *will continue* their current trajectory?
- Which developments do you believe *must unfold* in a specific way?
- Which beliefs or “truths” about the future do you *rarely question*, but regularly base decisions on?
- What potential developments are instinctively *dismissed* as unlikely, unrealistic, or off the table?

By forcing people to articulate why they believe something to be true, their assumptions will be embedded in these responses. The role of the facilitator is then to listen critically and to identify those assumptions – both explicit and implicit – and make them discussable. This provides the foundation that the provocations will deliberately challenge to unlock fresh perspectives on the future.

The assumption audit outlined here is described in relatively simple terms, but it could easily become a deeper area of work in its own right. Others have explored more structured approaches to surfacing assumptions in organisations within strategic and foresight contexts, for example van der Heijden (2005), whose work on scenarios emphasised the role of assumptions in shaping strategic conversations. There is an ambition to explore a more detailed and structured framework to strengthen assumption audits in a way that will have broader applicability beyond the Seven Provocations Method.



The Seven Provocations

This section introduces a practical set of provocations designed to deliberately challenge assumptions that a specific organisation might take for granted about the future and on how change will unfold.

Each provocation is targeted to confront and reframe a specific type of assumption that may underpin an organisation's understanding of how the world will behave and ultimately its future strategic outlook. These are assumptions that often go unexamined in strategic thinking. Of all the provocations, the "Value Lock-in" is the most philosophically layered, and may be less operationally relevant at an organisational level compared to the others.

#1 THE FLIP

Provocation: *What if an assumption you hold turns out to be misaligned, or even in direct opposition, to how the future eventually unfolds?*

Purpose: To directly challenge the assumptions that form the foundation of your current future (strategic) outlook, especially those considered stable, predictable, or “unchallengeable”.

How: Identify a core assumption or widely accepted “truth” about the future that underpins your current future (strategic) outlook. Flip this assumption and explore the (strategic) implications of this inverted reality.

Illustrative examples:

- Globalisation is expected to persist, but what if it fragments or reverses instead?
- Renewable energy is expected to displace fossil fuels, but what if fossil fuel investment rebounds?
- Banks are expected to remain central to payment infrastructures, but what if banks are bypassed entirely by alternative payment rails?
- AI is expected to rapidly transform work, but what if real-world uptake stalls due to inertia or distrust?

#2 THE DIS-CONTINUITY

Provocation: *What if defining features of current reality or dominant “ways of doing” are rendered obsolete in the future?*

Purpose: To understand how an unexpected discontinuation of the existing – often an overlooked aspect of how change unfolds – may significantly shape and impact your future (strategic) outlook.

How: Identify developments or conditions that you assume cannot or will not change in the foreseeable future. Consider a future where these are discontinued or made obsolete, and explore the (strategic) implications of a context without these foundational elements.

Illustrative examples:

- Universities act as the primary credentialing institutions, but what if that one day is no longer the case?
- Traditional degrees are seen as the gold standard, but what if they lose their value entirely?
- Physical retail stores have historically been the primary way to access goods, but what if physical retail disappeared?
- The nation state is seen as permanent, but what if its role as a governing structure fades?

#3 THE RESISTANT

Provocation: *What if a development or change you strongly expect to happen is delayed or stopped by the weight of present structures or habits?*

Purpose: To uncover barriers, structural resistance, or dominant narratives that may hinder the change you view as inevitable or necessary, consequently misaligning your future (strategic) outlook.

How: Identify developments that you strongly believe must unfold in a specific way. Consider a future where “sticky” forces of the present work to delay or stop the change unfolding in the expected way. Explore the (strategic) implications of this stagnant future outlook.

Illustrative examples:

- Hybrid work is expected to become the norm for knowledge workers, but what if organisational culture and control pull workers back on-site?
- A shift to plant-based diets is seen as inevitable, but what if current habits and systems prove too resistant to change?
- Private car ownership is expected to decline, but what if status and culture keep it firmly in place?
- Autonomous vehicles are expected to be widespread, but what if regulation and social complexity continue to slow their arrival?

#4 THE OVER-CORRECTION

Provocation: *What if an emerging change that appears transformative today levels off or becomes less transformative in the long term?*

Purpose: To challenge assumptions anchored in peak moments or strong hype cycles, which may lead to overestimating how profoundly or permanently your future (strategic) outlook will change.

How: Identify a development that currently feels transformative and is believed to strongly shape your future (strategic) outlook. Consider a future where the promise of this development proves highly inflated. Explore the (strategic) implications of a future where this change is much less transformative than expected.

Illustrative examples:

- The metaverse was expected to reshape work and social life, but what if its relevance continues to fade?
- Vertical farming was expected to be a food systems breakthrough, but what if its long-term impact remains limited?
- Generative AI is expected to transform industries at large, but what if its real-world integration proves slower and narrower than assumed?
- Green hydrogen is expected to decarbonise heavy industry, but what if infrastructure and cost barriers stall its impact?

#5 THE UNDER-CORRECTION

Provocation: *What if a change that seems marginal or easy to dismiss today becomes far more transformative in the longer run than initially assumed?*

Purpose: To challenge assumptions that downplay the long-term significance of emerging developments, leading to underestimations of how impactful these developments may become on your future (strategic) outlook.

How: Identify a development that you might currently downplay or see as marginal in terms of its significance for your future (strategic) outlook. Consider a future where this development accelerates or compounds over time. Explore the (strategic) implications of a scenario where its impact turns out to be far greater than initially expected.

Illustrative examples:

- Public trust in democratic institutions and processes is in decline, but what if this decline accelerates, leading to systemic breakdowns?
- The audience of traditional news media has been declining. What if these outlets become completely marginalised?
- Achieving artificial general intelligence (AGI) is still considered a far-future scenario by many, but what if it arrives far quicker than expected?
- Decentralised finance (DeFi) is treated as experimental, but what if it eventually becomes a core financial infrastructure?

#6 THE UNCOMFORTABLE TRUTH

Provocation: *Which uncomfortable or inconvenient “truths” about the future are being consciously or subconsciously avoided?*

Purpose: To deliberately counteract ignorance and bias around taboo topics that are being avoided, but that may significantly impact your future (strategic) outlook.

How: Identify developments or potential future outcomes that are often dismissed or ignored due to their challenging or undesirable nature. Explore the (strategic) implications of these uncomfortable “truths”.

Illustrative examples:

- What if transatlantic cooperation is assumed to be stable, but ultimately breaks down?
- What if diversity and inclusion efforts are assumed to advance, but plateau or reverse?
- What if digital platforms capturing end-customer relationships are dismissed by traditional actors, but end up marginalising them across sectors?
- What if a global pandemic as a known risk was systematically avoided?

BONUS: THE VALUE LOCK-IN

Provocation: *As we lock in on a transformation toward a system or paradigm seen as more desirable, what embedded constraints, exclusions, or dependencies might shape that preferred future in limiting ways?*

Purpose: To challenge the assumption that transformations toward new, desired systems or paradigms will be inherently better, freer, or more inclusive simply because they reflect today's preferred values and ideals for the future. It encourages critical reflection on how the values we institutionalise today may later feel rigid, limiting, or exclusionary as the future cannot be assumed to remain "value stable".

How: Identify key assumptions that underpin your understanding of a preferred version of the future. Explore how this new, desired future can potentially create constraints or "bad outcomes" – just of a different kind – as it may no longer reflect today's values and ideals over time.

Illustrative examples:

- What if radical sustainability agendas embed forms of eco-authoritarian control that eventually come to feel undemocratic or coercive?
- What if human enhancement and longevity efforts create new inequalities?
- What if technological optimism around AI locks societies into high-risk dependencies with limited accountability?
- What if radical inclusion frameworks unintentionally erode perceived fairness or meritocracy?

PROVOCATION	ASSUMPTION TYPE CHALLENGED	ANGLE OF PROVOCATION
#1 The Flip	Directional certainty	Inversion of core assumption
#2 The Discontinuity	Continuity of present systems	Subtraction of what is assumed permanent
#3 The Resistant	Inevitable change	Stickiness of the present
#4 The Overcorrection	Overestimating change in the short term	Less transformative than assumed
#5 The Undercorrection	Underestimating change in the long term	More transformative than assumed
#6 The Uncomfortable Truth	Emotional/moral avoidance	Confronting what is being ignored
BONUS The Value Lock-in	Value stability over time	Exposing constraints from value lock-in

Working with the provocations

The provocations can be used individually or in combination. While some provocations may overlap and some implications will repeat, each offers a distinct lens to reframe what is currently taken for granted about the future. When selecting which provocations to use, it is helpful to consider the nature of the assumptions you are seeking to challenge.

To support this, the provocations can be grouped into three clusters:

- **Core strategic logic**

(The Flip; The Discontinuity; The Resistant)

Challenges foundational assumptions about continuity, direction, and inevitability that shape how the future is understood.

- **Timing/pace dynamics**

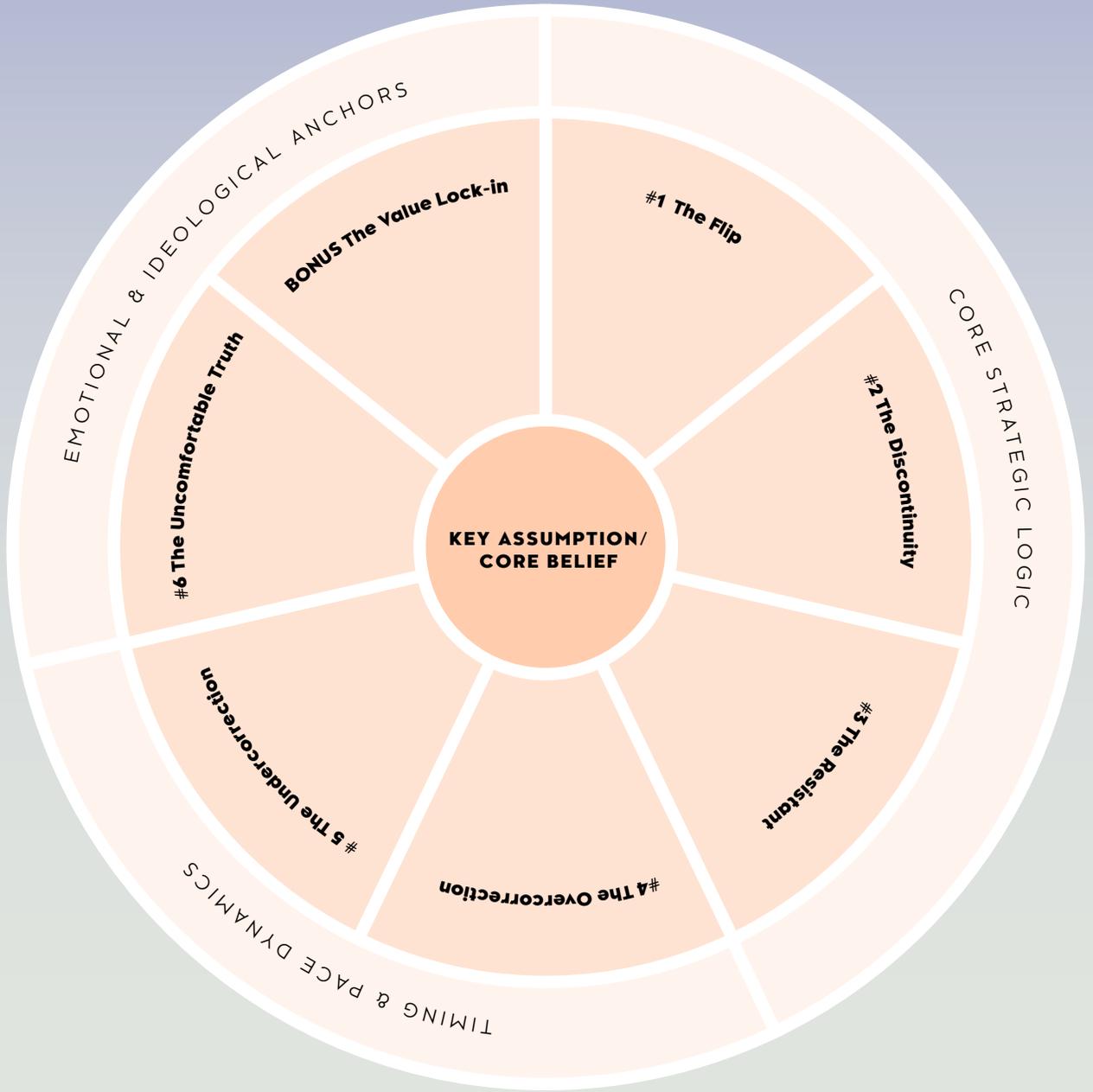
(The Overcorrection; The Undercorrection)

Challenges how the timing, pace, and rhythm of change are perceived and interpreted.

- **Emotional/ideological anchors**

(The Uncomfortable Truth; The Value Lock-in)

Challenges value-laden beliefs and emotional avoidances that limit what is acknowledged when considering how the future may unfold.



Once assumptions have been surfaced and a provocation selected, the following template provides a practical structure to work through one provocation at a time. You start with a core assumption, reframe it through the lens of the selected provocation, and explore the potential implications if the provoked version of the future were to unfold. Use the template repeatedly to test different assumptions or apply multiple provocations to the same one.

PROVOCATION USED: _____			
Assumption to challenge State an assumption/expectation/belief about how the future will unfold	Reframed assumption Rewrite the assumption through the lens of the provocation	Potential (strategic) implications List key implications if this provoked version of the future were to unfold	Additional reflections Consider how central this assumption is to your current outlook, and whether this provocation exposes something worth exploring further

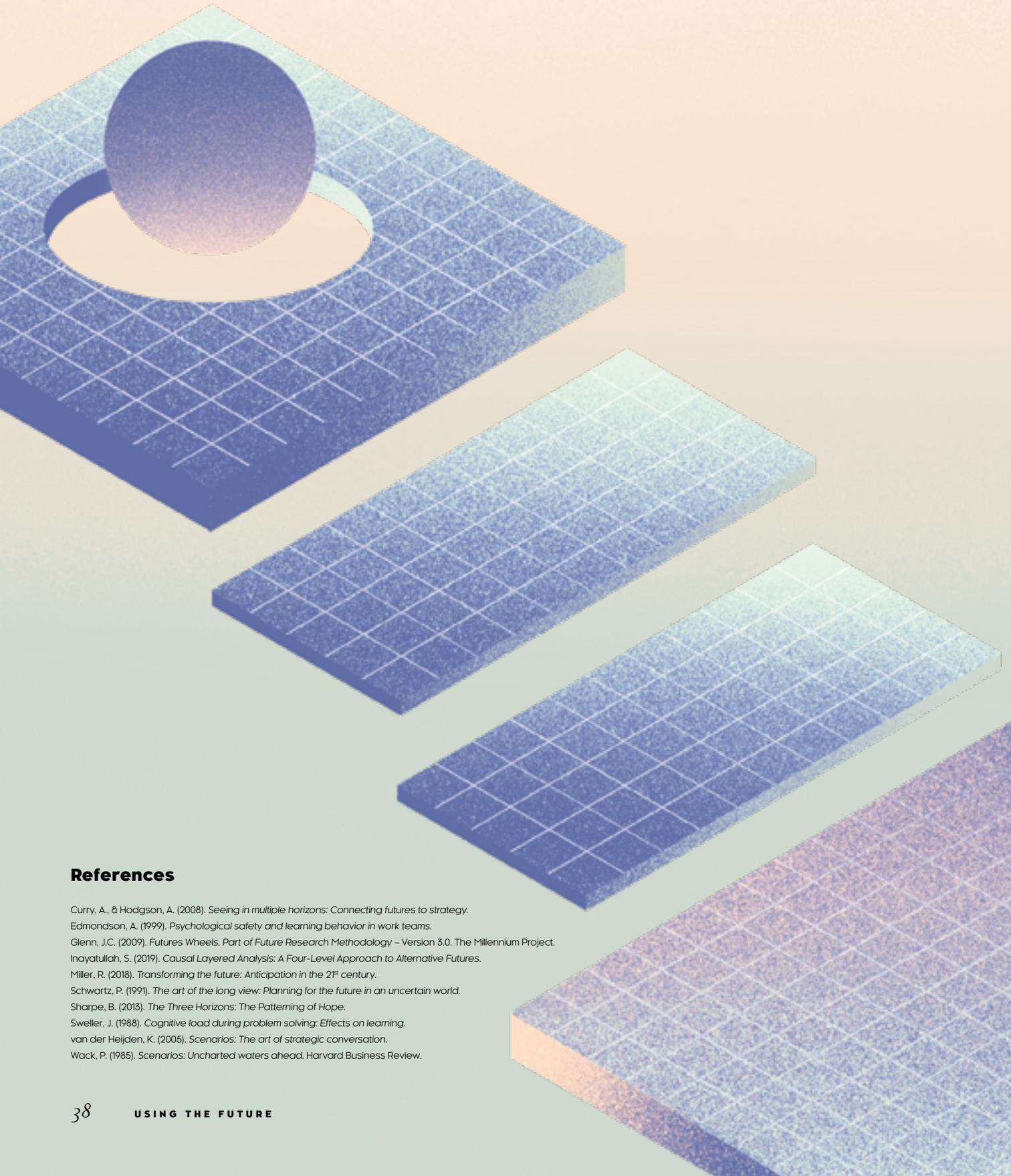
CONCLUSION

Provocation is a core element in foresight practice, serving as a way to challenge entrenched assumptions, expand awareness beyond default thinking, and shift perspectives about possible futures.

The Seven Provocations Method builds on foresight's ethos of challenging assumptions by formalising provocation as a standalone practice. It offers a practical set of provocations to deliberately confront underlying assumptions that shape an organisation's understanding of its external environment and future outlook. The intuitive and accessible nature of the method makes it particularly valuable in contexts where more complex, abstract, or demanding foresight methods may be overwhelming or difficult to apply – especially for those with limited experience or confidence in foresight work.

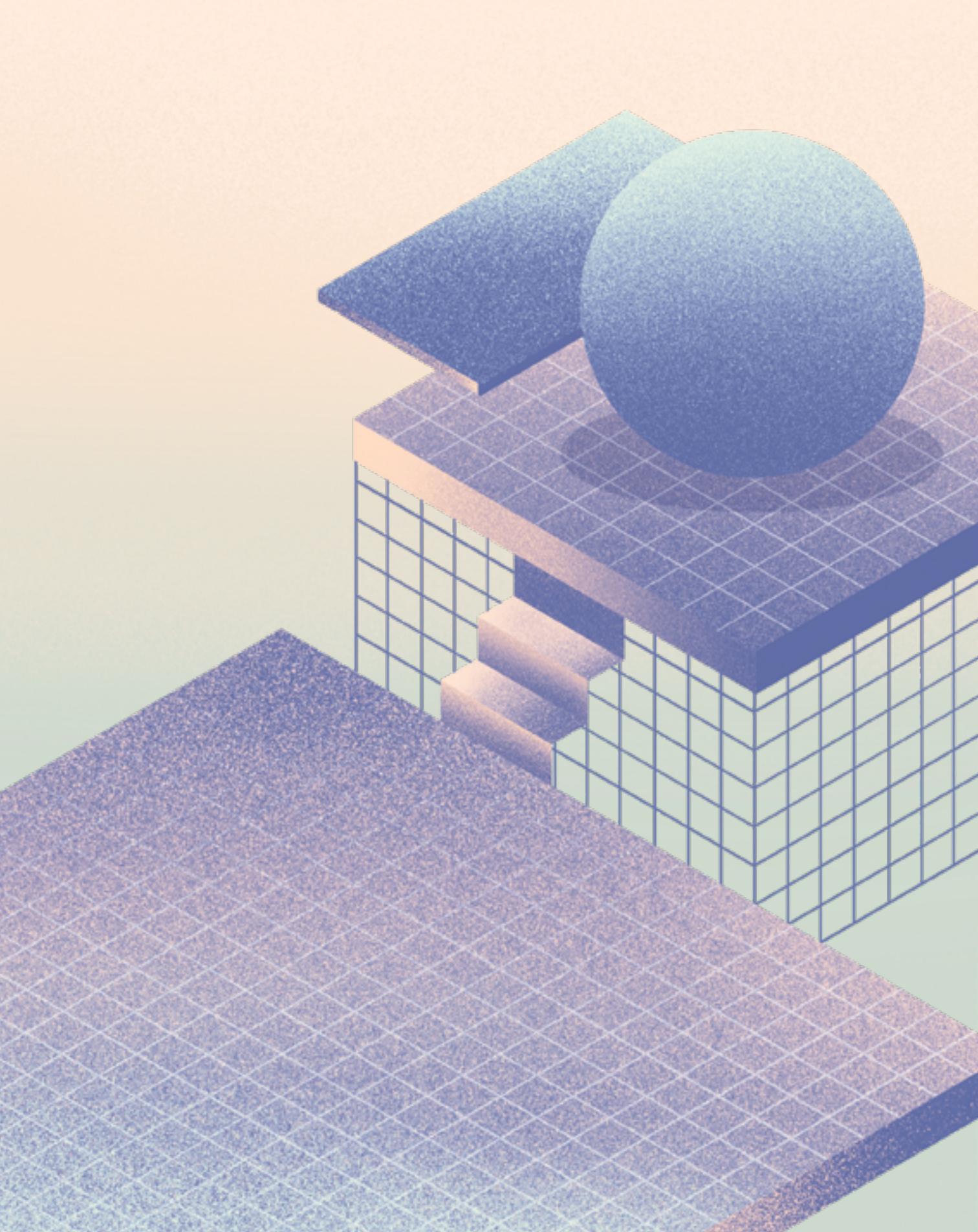
While the method has been developed conceptually, it remains a work in progress and it has not yet been applied and tested in real-world strategic settings. Its practical value will ultimately depend on how well it can be integrated into different organisational contexts and foresight processes. Further application and refinement will be important to understand where it works best – and where it may need to evolve.

Hence, this is also an invitation to test and experiment with the method in your own context – to explore how it can add value, how it might be iterated for greater rigour and usability through real-world application, and how it can be integrated with other foresight approaches. ■



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The Business of Foresight

Lessons From the Corporate World

TEXT JOANNA LEPORE
ILLUSTRATION SOPHIA PRIETO

Every business needs foresight. But not every business needs a foresight function.

That may sound positively blasphemous coming from someone who set up and expanded foresight at two of the world's biggest brands – McDonald's and Mars. Or from someone who founded a network to support the growth of the corporate foresight practice.

Not to mention from a futurist who believes foresight is a must-have, not a nice-to-have, in business. And I truly do. But equally, I believe a business needs to be ready for foresight before it invests in it.

This begs a series of questions: what should foresight in business look like? Should it be done inside-out, anchored in an internal foresight function and spread across the business, or outside-in, brought into various business functions from external support? How should its impact be measured and demonstrated?

One thing is certain: foresight in business takes many shapes and forms, depending on organisational reality, context, culture, and objectives.

Businesses get it, but are they ready?

Most businesses already have some form of futures-focused activities to generate intelligence about what lies ahead, whether or not it has a formal title, a boss, or

a budget line attached to it. Often, these foresight activities hide in plain sight tucked under other functions, like sustainability, consumer and market insights, risk management, or cultural strategy.

Whether the quality of this “incognito” foresight work is sufficient, whether it is systematic enough, or whether it is truly used to inform decisions are different questions. But when businesses are ready to move from ad hoc foresight to more systematised foresight – when they are ready to turn it from nice-to-know to proactive decision-making – that is when they need a dedicated foresight function.

For now, a formalised foresight function mostly remains a competitive advantage. Increasingly, I witness how foresight work is becoming part of the conversation to widen strategic perspectives. Businesses are desperate for the kind of broad, fresh, robust thinking that foresight brings.

Most leaders are acutely aware of the pace of change and of the need to adapt their business model to keep up. Experts and business leaders across industries, like those in the AXA Global Risks report and PwC’s annual CEO survey, consistently highlight that market volatility is greater now than it was just a decade ago. The only safe bet is building systematic anticipation for what may lie ahead, so that decisions aren’t solely led by intuition, past choices, or what one smart expert (often a tech guru or a consultant from the big four) tells you.

And yet, judging the success of foresight and claiming legitimacy as a corporate function isn’t straightforward. I’ll get back to that.

Demonstrating the business impact of foresight

Foresight in business comes with a unique set of challenges that foresight professionals don’t typically face elsewhere. Foresight inside corporations needs to be tightly aligned to business objectives, and effective inside their corporate structure.

In some foresight forums you’ll hear passionate and exasperated futurists ask why their work isn’t landing and why businesses aren’t changing. It’s clear that on both fronts, they’re wrong. Business has vastly diversified and adapted. Business executives *are* wide awake. Foresight is making an impact.

One example of this comes from within Foresight Inside Group (FIG), a network I co-created with my foresight peers in Disney and JLR, Adam Walker and Benjamin Moncrieffe. Here we host a select set of large-scale organisations with dedicated resources and a clear focus on foresight. Members include big legacy businesses like AXA, PepsiCo, HP, Globo, and Ford. While the network is a space for individual foresight leaders to share challenges and opportunities of our field,

what matters most is that these businesses have made a clear commitment: foresight is valuable, and foresight is necessary.

But there's also a vulnerable admission that there is room to improve. Ultimately, we all just want to make an impact. That's a desire we share with independent futurists outside the corporate world. But where they may chase meaningful societal or environmental impact (sometimes with grand, sweeping sentimentality), those of us working inside business focus on business impact.

For those on the periphery of the business world, this may seem like an impossible task. After all, how can one small team inside a large enterprise push the CEO and leadership team to think beyond the quarter, and to the next decade? How can true transformation happen inside a system designed to deliver predictable profits?

Well, no one said it was easy. But creative, change-driving individuals have existed in big business since their beginnings, pushing legacy-thinking past short-term obsession. And they didn't necessarily call themselves futurists. But as we say in foresight, adaptability and patience are the virtues of the future. As they are in our field.

Those who enter the foresight field are generally adaptable, flexible, and resilient. But not always patient.

When I speak with other corporate foresighters, it's one of two stories. They are either gloomy about the things that get in the way of foresight, focused on obstacles and frustrations, exasperated that their efforts are not landing. Or, they have their head in the clouds and sing a song of instant success, soaring past impossible challenges with pride.

I've been in both places. Being able to tell people that you have more demand than supply of foresight, that you need to resource for more foresight, is magical. The low of being told your budgets are being cut and your projects are not a priority is heartbreaking. After ten years in marketing and strategy, prior to foresight, I personally feel it hits a little harder in foresight, because the mountain is so much grander and the rock you're pushing up that mountain is so darn heavy.

The reality is that foresight in business, at least for now, often sits in an uncertain spot. And can flip at the drop of a hat ... or a drop in share price.

Although foresight can pivot exceptionally well from more distant outcomes to support immediate planning priorities, crisis management, and shareholder agendas, it's not always seen that way or given permission to prove it.

Perhaps the biggest problem that corporate foresight faces is precisely that it hasn't defined what success looks like. Most foresight practitioners would acknowledge that demonstrating impact and measuring tangible outcomes is important but often also hide behind the vague argument that foresight's deeper value is often misunderstood in business cultures obsessed with counting and measuring everything.

But, as I often say, we don't get a free pass. We can't afford to be naïve and expect to get resources for foresight and not have to show what impact is being made on the business, just because it's foresight.

Now, let's for a second recognise that many other business functions, ones that have been around for much longer, can get away with vague, somewhat connected but not directly correlative measures for success. But they, unlike foresight, have had the time to prove themselves. In many cases they have longitudinal studies showing the value their long, extended process delivers. Foresight has a handful of research and real-world case studies, from a much shorter time in play.

So, we are still working this out.

Return on Investment (ROI) isn't just an interesting tension, it's the biggest issue that faces our field in business, and it's the one many foresight teams aren't prepared for (ironically). They must answer it, knowing fully well that it doesn't define the total value of foresight. Knowing, right or wrong, that foresight will be compared side-by-side with other corporate functions, despite it being quite an un-corporate-like function. Knowing a vast amount of the value from foresight can't actually be measured, because as Peter Drucker said, we're trying to help the business not necessarily to grow bigger, but to grow better. Admitting defeat, in a way, to the finance department, while pushing on diligently with the practice.

In FIG, we're working on figuring this ROI thing out. Amongst our member organisations, ranging from those who have had foresight for a long time like Shell, to those just starting out like Nestlé, we share the same challenge. We either continue to have to show, explain, and prove our value, or we know we will have to soon. One thing we all agree on is that this isn't just an inevitability, it's a necessity for our survival. And it's the right thing for our businesses.

It also shows why it's important to put businesspeople who can capably stretch themselves to futures thinking (not always an easy find) into foresight roles, to prevent the foresight practice from becoming disconnected from corporate reality and business objectives. Those of us who have "served our time" in corporate roles

know the expectation is always to drive a measurable outcome. There are no exceptions. Not even for a function promising to “future proof” your business.

Instead of agonising over the correct measure for corporate foresight, it is more important to get something on paper that you can commit to, ideally framed in the familiar context your business operates within. To “hack” the process, in my past corporate foresight roles I’ve “borrowed” and re-applied my SMART (specific, measurable, achievable, relevant, and time-bound) goals from other roles to my corporate foresight role. For example:

1. In Marketing at General Mills, I had to improve the ROI of our multi-million-dollar media budget. In foresight, I can help improve the ROI of our marketing plans by guiding investments toward the media platforms that will be most relevant and lucrative in the future, and not just what performs well today.
2. In Innovation at Mars, when mapping future innovation white space, I had to deliver a better success rate for new products launched than the historical average (which wasn’t that hard, the average is very low). In foresight, I can help steer innovation exploration toward emerging future white spaces, and identify pilots that can drive incremental revenue in those emerging areas.
3. At McDonald’s, I had to marry the vision of health and wellbeing in the food industry with “right to play” factors of the brand. In foresight, my goal became helping teams refine a future vision they wanted as part of their legacy, aided by a roadmap, within unfolding time horizons.

But ... best laid plans, right? Sometimes conditions change so drastically in the external business environment or internally through restructuring, that the very best results can’t save you.

Grounding the future

Foresight as a formal organisational activity can take different forms and there are many pathways to its implementation. While the methods applied can differ in each business and the approach may need to be more “business” than “futures”, the foundations should be robust.

Frequently, in my corporate foresight roles, I would be called in to do presentations to teams of all seniority levels and areas of responsibility to offer “inspiration” about the future. The first question I’d always ask: “Have you had a speaker like this before and what was the feedback?” Almost always the answer was the same. That the speaker was really interesting, opened their minds ... and left

them confused. “We didn’t know what to do with the information. It felt disconnected from our industry and business reality. It was too far out into the future.” Once you know this, it’s actually a very easy solve, and helps you shape communication about the future for a business audience. You have to make it real, and really relevant to today.

Some of my favourite internal presentations were buddying up with external speakers. They would come in and do the provocative inspiration, and I would ground it back down to earth. This worked well when I had cultural theorist Matt Klein come in to present to the McDonald’s customer experience team about the changing media landscape. Matt was excellent at poetically pulling out examples of fringe culture. Then I followed up with what it meant for the Big Mac.

As corporate foresight practitioners, we don’t always have to be the most interesting person in the room. Sometimes we can be the translator that makes it relevant to the business context. I used to introduce myself at Mars and McDonald’s as the “outsider inside”. “I am in the business with you, I get it.” The balance here is important – if you’re seen as an external nice-to-have consultant, you’re easily removed from various parts of projects and seen as only valuable for “the trends bit”.

Which leads me back to foundations. A corporate foresight practitioner will know the field of foresight, its history and ethos, the various agreed upon methods, and how they can be applied, and watch for new and emerging methods that can pressure test thinking. With this grounding, they move past being just another businessperson trying to make trends relevant, or an exciting “in-house futurist” bringing in something new and sexy. They are a grounded, practical, multi-disciplinary decision maker that brings something truly unique to a business.

We often say of other business functions that the greatest measure of success is if they’re no longer needed. Very quickly does the world around a business change, very easily do business leaders get swept up in shiny new targets, very insulated a business can feel causing it to lose relevance. Because the future isn’t a destination, it is a moving target, foresight will always be needed. ■





The Futures Mandate

How to Embed Foresight in Governance

TEXT THOR SVANHOLM GUSTAVFSON
ILLUSTRATION SOPHIA PRIETO

The *UN Summit of the Future*, held in September 2024, prompted governments to begin addressing a foundational design flaw in modern governance: the challenge of planning for the long term. Across different political systems, decision-making is often shaped by short-term imperatives – be they electoral cycles, media narratives, crisis response, special interests, or institutional inertia – rather than consideration of the long-term consequences of today’s decisions.

With the Summit, 143 UN member states committed to integrating strategic foresight in national governance through the Declaration on Future Generations. The question facing governments is no longer whether to act, but how.

The need to develop responses to the temporal limitations of governance systems is clear, but translating broad commitments and diplomatic rhetoric into lasting structures will require more than good intentions. Polarisation, increased geopolitical contestation, technological risks, democratic erosion, and climate breakdown – these are problems that are not only wicked and complex, but which stretch far into the future as well. Their causes are entangled, their impacts unevenly distributed, and their consequences often unfold over decades, far beyond the reach of conventional policy cycles. Addressing them is no easy task.

Yet templates and prototypes for new systems of governance that take steps toward doing so already exist. In countries like Singapore and Finland, governing for the long term has been institutionalised over decades through foresight initiatives that inform strategic policy planning. In Wales, Scotland, and New Zealand, there have been extensive efforts to define and measure long-term wellbeing outcomes on behalf of future generations.

At a general level, these examples can be positioned along a spectrum of strategic orientation in anticipatory governance. Towards one end of this spectrum, Wales, Scotland, and New Zealand represent a group of countries where anticipatory governance is anchored in wellbeing economics and long-term societal goals. Here, the approach is primarily value- and mission-driven with an emphasis on defining which outcomes matter over the long term, embedding values like sustainability, equity, and intergenerational fairness into governance structures.

At the other end of the spectrum, countries like Finland, Singapore, and Spain exemplify a capability-driven orientation to anticipatory governance, with a more explicit focus on building systemic foresight capacity across the whole governance system. In these cases, the emphasis is more on building strategic foresight capacity within the system than on influencing which specific goals governments and policymakers set for the future. In reality, these two orientations often overlap, and effective long-term governance often blends both value-driven and systemic foresight capacity-building.

These initiatives all predate the formal adoption of the UN Declaration on Future Generations. In many ways, they have helped shape the very language and principles now reflected in the Declaration. They are not one-size-fits-all models, but rather situated responses, shaped by distinct political contexts, legal mandates, institutional cultures, and patterns of cross-sectoral engagement. But they are examples that despite all the barriers that inhibit governance for the long term, it is a goal that is both possible and achievable.

Examples of putting the future to work

In the case of New Zealand, ambitious steps were taken in 2019 to support strategic foresight via public financing. That year, the government introduced the Wellbeing Budget, which earmarked NZ \$26 billion for wellbeing activities the following four years. In this context, wellbeing was measured in terms of improvements in the natural environment, social institutions and culture, population health, human knowledge and skills, physical infrastructure and the material living conditions of citizens.

The Wellbeing Budget provided an example of ambitious long-term governance, perhaps best exemplified through New Zealand's 30-year infrastructure strategy co-designed with government, industry, and communities, as well as a 10-year commitment to education infrastructure that set aside dedicated funding for a School Property Programme to ensure that the future classroom capacity keeps pace with demographic and regional needs.

As of 2025, the political landscape has shifted. While the language of “wellbeing

objectives” still appears in official documents, the framework has been significantly de-emphasised. In May 2025, the government announced plans to repeal the wellbeing provisions from the Public Finance Act, effectively dismantling the legislative requirement to integrate wellbeing into fiscal decision-making. In many ways, this development underscores a deeper point: even well-established and widely praised examples of anticipatory governance are inherently fragile. Without broader political ownership and structural entrenchment, long-term policy frameworks remain vulnerable to short-term political shifts and changing economic narratives.

Finland, through its well-established national system for strategic foresight, provides an example of a more entrenched form of foresight governance. The Finnish government has long utilised foresight reports to inform parliamentary dialogue and decision making on long-term challenges. Foresight bodies and initiatives like the parliamentary Committee for the Future, the National Foresight Network, coordinated by the Prime Minister’s office and the Innovation Fund Sitra, and the Government Foresight Group, made up of foresight and futures professionals, have created a robust and lasting link between foresight and policymaking.

A few outcomes of this are worth highlighting. One is Finland’s national strategy for continuous learning, established by identifying needs for future skills and by guiding investment toward flexible, lifelong education pathways aligned with expected labour market shifts. In climate policy, foresight has also played a part in informing the government’s roadmap to carbon neutrality by 2035, shaping regulatory design, infrastructure planning, and fiscal policy to ensure that short-term milestones are consistent with long-term emissions targets. In both cases, foresight has been used not as a parallel exercise but as a core part of policy development.

The participatory premium

The case of Finland makes it clear that when foresight is anchored in central governing institutions, it can directly impact decision-making cycles and shape longer-term strategic agendas and policy delivery. Yet building an integrated approach to anticipatory governance is a significant undertaking. It might require adjustments of planning and hearing cycles, budgetary frameworks, financial modelling, and regulatory mechanisms that assess policies for both long-term value and feasibility.

Of course, long-term governance is never only a technical challenge – it is also a social one. An important matter for anchoring foresight in governance is thus participation. If futures are imagined exclusively by experts and policymakers behind closed doors, the risk is not only blind spots but legitimacy gaps as well.

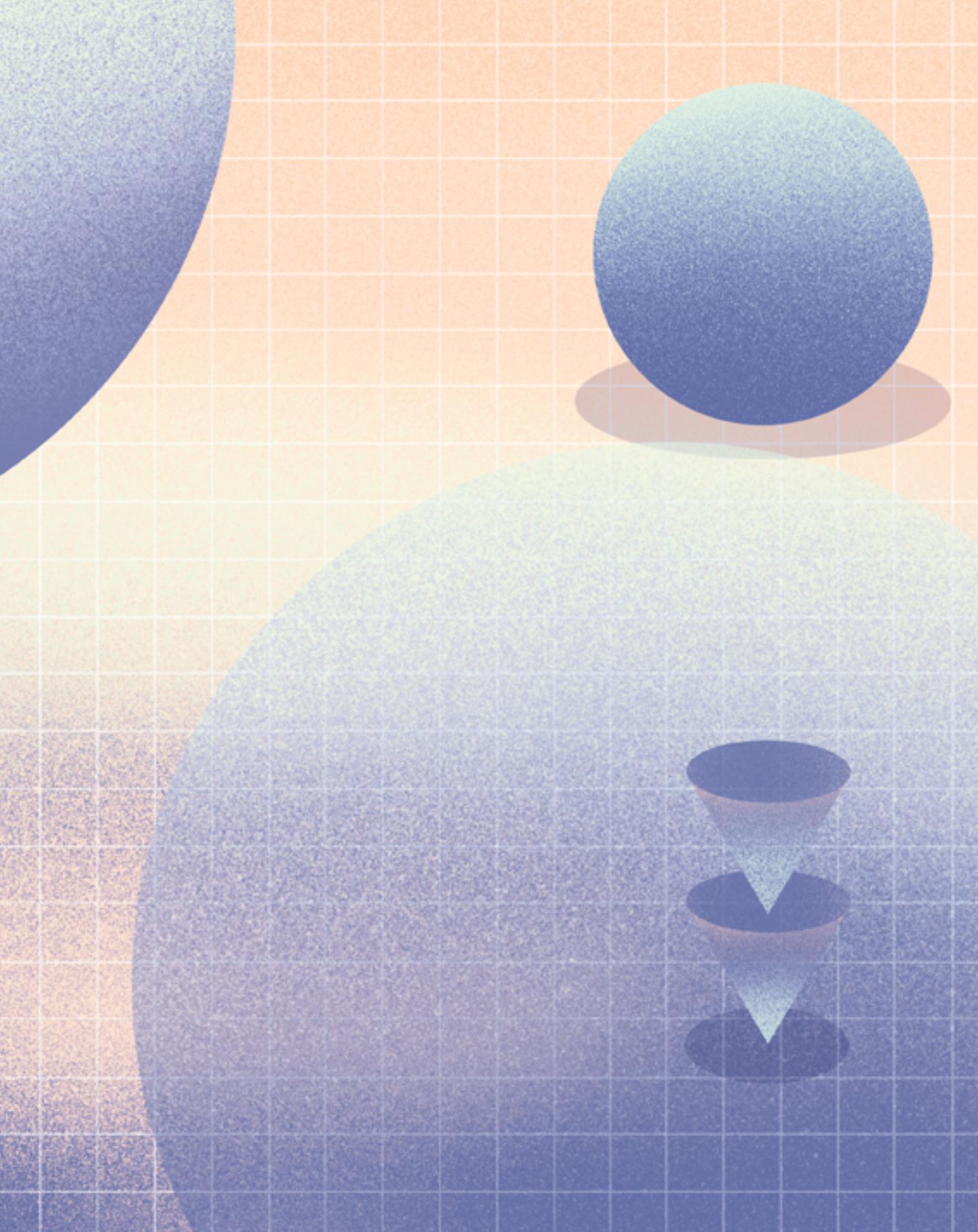
Participatory foresight offers a way to embed futures work more broadly in the desires of the populace – widening who gets to imagine, challenge, and co-create the future. This can include citizens and civil society in general, or specific groups like youth, indigenous communities, and others whose voices are often absent from formal processes. Citizen assemblies, youth foresight labs, and participatory scenario-building processes are examples of ways to redistribute the work of imagining alternative futures while nurturing cultural cohesion and ensuring broad representation. Participation builds democratic resilience, and communities that imagine futures together are often better prepared to face uncertainty collectively. Embedding participatory foresight may be one of the most effective ways to shift ownership of the future from governments alone to society at large.

Foresight is context-dependent

Whether foresight is sought to be embedded in governance via a technocratic route or through broader public participation, there's no perfect template to follow. Every governance system must approach the task differently, because every system has its own constraints and needs. As such, figuring out how best to adapt foresight methodology to a diverse range of institutional and policy architectures, whether as embedded foresight units, participatory infrastructures, or cultures of anticipatory governance, is where the hard work begins.

At the core of the challenge, however, is the fact that foresight in governance is something beyond a mere skillset. It also requires building a mindset consisting of a shared language, habits of reflection, and a tolerance for ambiguity. These are the qualities that make foresight possible and which will also be necessary for maintaining anticipatory governance as something more than just a checklist.

While declarations can set direction, they can't shift systems on their own. The Declaration on Future Generations creates new opportunities for politicians, bureaucrats, and government officials who subscribe to the idea that state institutions have long-term responsibilities. Whether it leads to system change and reforms depends on what follows. ■





Liquid Foresight in an AI-Mediated World

As generative AI becomes more accessible and embedded in everyday tools, it's worth asking what role it might play in the future of foresight itself. Could AI shift from simply supporting existing foresight practices to fundamentally reshaping how we think, explore, and engage with possible futures?

TEXT SOFIE HVITVED
& BUGGE HOLM HANSEN
ILLUSTRATION
SOPHIA PRIETO

Faster processes, lower costs, broader access – that's the promise at the heart of AI's efficiency mantra. And foresight is no exception to AI's growing influence across knowledge work. The ongoing integration of AI in foresight has surfaced existential questions about how to maintain the discipline's integrity while also taking advantage of the potential benefits of the new tools. How do we ensure foresight remains meaningful and useful *with* AI, and what happens to the depth, pause, and human reasoning if the tools do more of the heavy cognitive lifting for us?

These questions are on the minds of many foresight practitioners – and rightfully so. This exploration must begin with the recognition that our own incremental mindset may be keeping us from noticing deeper changes already unfolding beneath the surface, and that the potential of AI may far exceed merely adding new tools to existing foresight practices.

What if the shift AI brings is something more profound than just augmenting the traditional practices within the discipline? Will exploring possible futures need to begin from entirely new premises in a world that is becoming increasingly AI-mediated? What if we allowed ourselves – in a safe, speculative space – to explore what might emerge when humans and AI systems start to co-create futures insights?

To be clear, we aren't suggesting scrapping the foresight toolbox in favour of AI. Nor do we intend to downplay the very real challenges that come with integrating AI into foresight practices – including the negative effects of cognitive off-loading, biased models, homogenised outputs, or model collapse. Instead, we suggest building on the strong foundations of foresight practices while considering what new, AI-mediated approaches those foundations could support.

At the Copenhagen Institute for Futures Studies (CIFS) we have coined the term *Liquid Foresight* to describe this more adaptive, evolving type of foresight.

As we move into an AI-mediated reality, shaped by developments such as agentic AI, experience AI and perhaps even conscious AI, it's hard to imagine how we will interact with and consume information, generate knowledge about the future, and make sense of emerging change and uncertainty.

We don't need to look to the future to recognise some of the current shortcomings in foresight that AI may be able to help resolve. Although foresight is an established practice, there are areas where the practice consistently falls short and where it hasn't evolved sufficiently.

The feasibility of a more liquid type of foresight rests on two assumptions about how the foresight field could improve to better meet the evolving demands placed upon it. Firstly, reality increasingly outpaces foresight. Scenarios and other foresight outputs often remain frozen in time while the world continues to shift around them. When insights are locked into static outputs, the opportunity for ongoing reflection and reframing is often lost.

Secondly, as foresight practitioners, our role is to help others engage with the possibility that things could be different – to enable “reperception”. To paraphrase Pierre Wack, the French scenario planner who first applied scenario planning to corporate strategy, reperception is the sudden mental jolt experienced when one's understanding of the future slips and realigns.

However, the spark of reperception tends to fade once a foresight session or engagement ends. Typically, only a select few are involved in the participatory parts of the process, and it is often difficult for the wider organisation to engage meaningfully with the outcomes. As a result, the strategic value of foresight can fade away, becoming something insightful in the moment, yet left to wither thereafter.

Yet, much of the discipline continues to rely on static formats with (rather) formal processes and outputs to spark this transformation. Whether this is an effective

way of achieving long-lasting re-perception is questionable. As an alternative, we should explore how intelligent systems could help address some of the long-standing gaps inherent in traditional foresight approaches, potentially turning re-perception into a more continuous, ongoing experience than it is today.

The aim of a Liquid Foresight approach is to build more responsive, layered foresight that links stable long-term perspectives and consistent future logics with dynamic, real-time signals and contextual shifts that can influence how different scenario outlooks develop. This could potentially turn foresight into a living “interface” where AI helps us reimagine scenarios as conditions shift. If done well, it might offer a way for foresight to become a living conversation, responsive to change while still being resistant to noise, personalised to context, and capable of nudging people into new ways of thinking as reality moves.

Liquid Foresight does not stand in opposition to human reasoning and intuition. Instead, it should operate within meaningful boundaries defined by foresight practitioners, helping to maintain a degree of control to prevent it from losing relevance by becoming “over-responsive” to short-term volatility and elusiveness. We see the combination of AI and human input as an opportunity to continuously challenge assumptions and introduce more random, unexpected – and at times also uncontrollable – friction into futures thinking as a source of divergent insights and re-perception.

We might not always need polished deliverables, but rather adaptive foresight infrastructures. Sandboxes, not temples. Interfaces, not end-products. Spaces where ideas can grow, break, rebuild, and remix.

This would also mean more room for speculative AI models, imperfect data experiments, and open-ended “what ifs.” We as foresight practitioners would still be the curators and facilitators of futures work – but the process and output of this work might take the shape of dynamic worlds rather than a static end-product which has traditionally been a main delivery of a foresight process.

Imagine a foresight framework that functions as a dynamic narrative system. One where users and stakeholders can adjust parameters, shift perspectives, play with data and scenarios. Something akin to an interactive futures interface that lets people test, stretch, and refine their futures thinking in real time. Instead of passively consuming stories about the future, you can actively engage with them.

If we could build that, Liquid Foresight might help overcome some of the persistent challenges of foresight: making re-perception more enduring, and keeping scenarios relevant over time in a world that refuses to stand still. ■



A Futurist Sits Down With a Prompt Engineer

What sounds like the set-up to a bad joke was actually a thoughtful encounter. This is how it went.

TEXT
SIMON FUGLSANG ØSTERGAARD
ILLUSTRATION
MORTEN ROCKFORD RAVN

We find ourselves in a moment where the collective foresight field is grappling with how to best use AI to augment our work. What's clear from this multifaceted discussion is that the potential of embracing generative AI – and AI more broadly – in foresight is significant.

But I've been noticing a wave of underwhelming and subpar foresight work being churned out with the 'help' of generative AI. Much of it feels derivative, shallow, or little more than reskinned content. Perhaps it is because futurists – myself included – fall victim to what's known as the *Dunning-Kruger effect*, convincing ourselves that working with the future makes us inherently more adept at prompting these *futuristic* tools for meaningful outcomes.

What worries me, however, is that these powerful new tools are perhaps not being used to provoke better thinking about the future, but rather to automate and amplify mediocre output in what is already a noisy information environment. At least in the short-term.

To be clear, I'm not trying to point fingers here – I'm definitely not a very good prompter myself. My reflections relate to my own assumptions and habits as much as to the broader foresight field I'm part of.

With these observations in mind, I wondered: what would happen if one intentionally combined the “futures abilities” of a futurist with the skills of a prompt engineer – someone who knows how to effectively inquire and prompt a large language model like ChatGPT? Perhaps the production of mediocre AI-content cannot simply be blamed on shortcomings in the models themselves, but more so on the amateur use of them by many in the foresight field.

Enter Morten Rockford Ravn of the company AI Revolution. Morten has been working with generative AI and LLMs long before ChatGPT was made openly accessible in 2022. Today, among other things, he helps organisations implement AI in their creative work processes.

Our sit-down took place in Copenhagen in the late spring of 2025. We only had two-and-a-half hours together, so there were clear limits to how far we could take things. In those few hours, we also had to get to know each other, find a shared work rhythm, and, of course, produce some actual foresight.

Humans and LLMs reason in different ways

At their core, LLMs do not think like humans do. Their “reasoning” is the output of probability distributions and next-word prediction. They are (currently) particularly good at mimicking deductive reasoning (drawing valid inferences from general rules and logic) and inductive reasoning (identifying patterns from specific examples) because they have been exposed to far more data than any human could process in a thousand lifetimes.

In contrast, humans excel at the fuzzier abductive reasoning which relies on context, intent, emotion, beliefs, and lived experience to form plausible explanations when faced with incomplete data and ambiguity.

Despite lacking human reasoning, LLMs can clearly produce content and “thinking” that appears thoughtful and even profound when prompted well. There are also methods to better guide models towards abductive-style thinking. One approach is *in-context prompting*, where the model infers a pattern from the context provided directly in a prompt. With the right inputs, the prompter can steer the model toward specific outputs, tones, analytical styles, or even reasoning frameworks.

Another technique is *chain-of-thought prompting*, where the model is helped to think step by step before arriving at a final outcome. But this mimicking of abduc-



tive reasoning does not come from the model discovering something new. Instead, it is remixing what it already knows into something that *feels* novel.

Futurists and foresight practitioners – at least the good ones – use abduction to facilitate the imagination of new outcomes and possibilities. Foresight and futures thinking shine brightest when being used to challenge and transcend more rigid ways of seeing and knowing.

Having a prompting strategy

After finishing our coffee and cake, Morten wanted to get started. In our initial email exchange, we had agreed to tackle a foresight evergreen: the future of work. “Let’s get our prompting strategy in place,” he said. As someone who does most of my prompting in a somewhat ad-hoc and unplanned way, the idea of following a more formalised process was new to me.

“You can’t just say ‘give me some future scenarios for the future of work 2040’ and expect to get anything but a generic, surface-level outcome,” Morten explained. “Without a solid prompting strategy, even an advanced AI model can only guess what you’re really looking for, what lens to apply, and what you actually want to achieve. It will default to safe, predictable outputs.”

It quickly became clear to me that a well-designed prompting strategy guides both the process and the output.

To my surprise, Morten started out with what he called a “meta prompt”. Essentially, he would get the model to help prompt itself by asking it directly: “How should I prompt you to generate high-quality scenarios for the future of work?” He explained that it is basically a way to tap into the model’s experience of how people usually frame these kinds of tasks. Morten clarified that this method is especially useful for open-ended and creative prompting where there’s no single correct answer, like with scenario work.

The model returned with a list of useful framing inputs: the objective of the scenarios, their intended audience, the vantage point the model should adopt, whether the scenarios should be forecasted, explorative, or normative, their stylistic structure, and so on.

After providing the model with the context it requested, we organised our work around a simple but powerful loop:

Research and input curation ▶ **Prompt for scenarios** ▶ **Reflection on scenario output (futurist in the loop)** ▶ **Iteration and refining of research**

We would continue cycling through this loop as long as we felt we were getting closer to quality output.

Deep research

All futurists know that researching and scanning is easily the most cumbersome component in foresight work. It's time consuming and often fragmented. Morten had a trick up his sleeve for this. "We will basically ask the model to generate its own research input that we can then use as source material for our scenario prompting. It is called deep research and it will be a huge shortcut for us, given the limited time we have right now," he explained.

At the time of our session, deep research was a newly introduced feature to most models. At its core, deep research tries to mimic the way a human researcher would approach a research task. While a normal prompt response is nearly instant, a deep research prompt can take up to thirty minutes to return results, as it sifts through reports, scans vast amounts of information, and analyses patterns. In the end, it handed us a compiled research report on our topic – the future of work – which we used as direct input into the next step in the loop: scenario prompting.

While waiting for the deep research to generate, we stepped out into Morten's garden to sit in the sun while he smoked a cigarette. One of the longstanding promises of AI suddenly became oddly tangible to me: the opportunity to offload the cumbersome tasks to the machines and free up time for more meaningful things, like sitting in the sun having an interesting conversation, and (for those who find it enjoyable) a cigarette.

However, while the tool certainly did save us a lot of time and effort, I was not overly impressed with the research report's output. I instantly felt that it was somewhat mislabelled as being *deep*; it was actually just *wide*. It gravitated towards the mean. It certainly did not have the depth and contextual sensitivity of the research of a good human researcher whose process evolves intuitively and organically – hallmarks of abductive reasoning. However, even though deep research is not, in fact, actual deep research, it can still be a great way to get a head start.

Lastly, it seemed that these findings reflected the very issue I wanted to investigate in the first place. Even deep research depends on good, intentional prompting. It feels like "bad" or "naive" prompting will compound negatively across the entire process.

Scenarios or not?

With the properties and the input in place, it was time to take a first stab at promp-



ting for scenarios. Our first loop was simply to get past a blank page. The model quickly returned the two exploratory scenarios for the future of work in 2040 that we had asked for. But I quickly realised that what it produced, in fact, did not really constitute scenarios in the conventional foresight sense. They mostly felt like lifeless variations of the same summary, loosely patched together from the trends and drivers uncovered in the deep research, with a few imaginative flourishes added on top.

“It isn’t the model’s fault,” Morten told me. “We obviously haven’t prompted it well enough. We need to dial back and be more intentional in the criteria for building scenarios.”

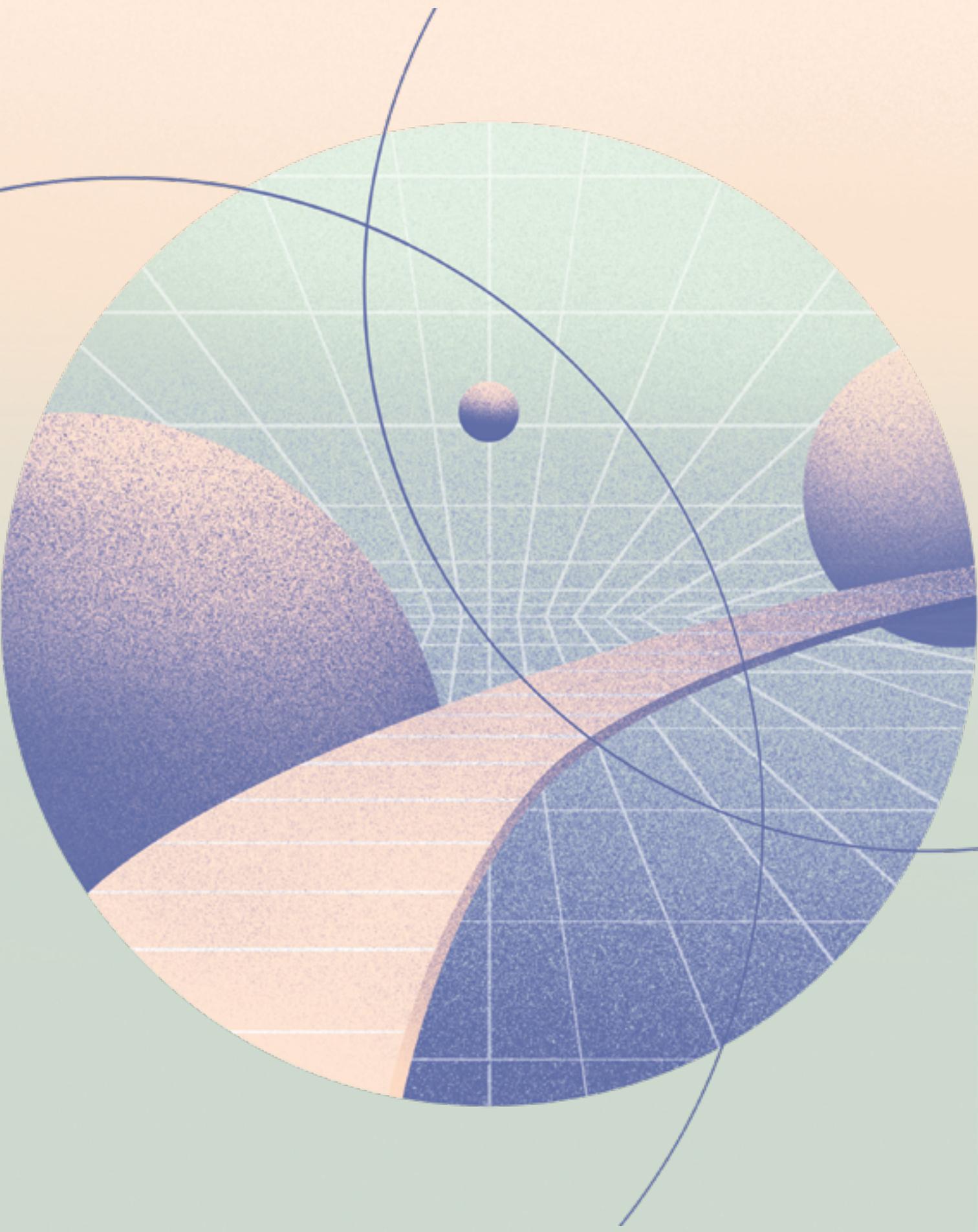
It was time to put my futurist experience into play. I’ve built many scenarios across a wide range of contexts in my career, and I should by now know the criteria for building quality ones.

After tinkering with the scenarios to achieve a clearer framing, we also wanted to expand the research base. We asked the model to run another round of deep research with more targeted prompting around aspects we thought were under-represented or too vague in the first research report. The idea was to enrich the scenarios’ foundation before prompting again, so that we could iterate towards something of higher quality which resembled actual scenario work. And yes, it was time for another cigarette.

Luckily, the results were miles better after this second iteration. It was uplifting to see how quickly we moved from a blank page – through one targeted iteration – to something that at least resembled scenario work. With a few more loops we were able to sharpen things even more, but the marginal gains per loop quickly started flattening out.

Time was up. Morten and I had a really productive session in spite of the limited time available. But I want to be clear: while our AI-driven approach was a decent launchpad, it wasn’t good foresight in its own right. Not yet. And the result is definitely not something I’d feel comfortable showcasing in this publication.

Zooming out from our session, the indisputable potential in well-prompted foresight work is evident to me. With the rise of mainstream LLMs, we’ve also seen “fast foresight” becoming part of the vocabulary, coinciding with a wave of surface-level foresight work. However, as a foresight romantic (maybe soon to be dinosaur) I’m still grappling with what that might do to the collective ability of the foresight field to think deeply and with flair about the future. To this day, while AI can write for you, it still won’t do futures thinking for you. ■



Foresight for Societal Resilience

Building resilient societies requires preparing for a range of plausible futures rather than optimising for a single version of it. This makes foresight and resilience an ideal match. In combination, foresight and resilience can strengthen society's future orientation and, when anchored in participatory processes, its social fabric as well.



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Societal resilience refers to the capacity of communities, institutions, and systems not only to cope with disruptions and recover effectively, but also to adapt over time to emerging and evolving challenges. In an age characterised by complex, interconnected challenges such as climate change, global pandemics, economic volatility, cyber threats, and technological disruption, societal resilience has emerged as a foundational principle for futures-oriented governance and sustainability.

Traditionally, resilience has been associated with shock events that test the endurance capacity of societies. However, resilience extends beyond immediate recovery to encompass long-term adaptability, learning, and transformation. Societal resilience is a proactive, forward-looking process, deeply embedded in the everyday functioning and changes of societal systems. It has the capacity to catalyse innovation and learn from social diversity, recognising it is shaped by pre-existing conditions, which can either strengthen or weaken a society's capacity to adapt.

A resilient society might be prepared for a range of shocks, from minor disruptions to foreseeable crises, or large novel shocks which require innovative policy responses and significant structural change. This implies navigating core tensions while developing policy actions: efficiency versus redundancy, autonomy versus collaboration, and strength versus flexibility. Such trade-offs are not contradictions but the operational paradoxes that define resilience in practice.

Based on an extensive literature review, D. F. Lorenz, Senior Researcher at Freie Universität Berlin's Disaster Research Unit, delineates resilience into three interdependent capacities:

- **Absorptive capacity** allows systems to endure shocks without systemic collapse, preserving continuity while integrating the experience into collective learning and sensemaking.
- **Adaptive capacity** enables systems to evolve through incremental reforms, adjusting practices, structures, and narratives in response to a changing environment.
- **Transformative capacity** refers to the ability to reimagine and reconstruct core institutions and societal functions when existing frameworks are rendered obsolete by deep systemic disruptions.

These capacities are underpinned by participatory capacity – the active involvement of diverse stakeholders in resilience strategies. This includes leveraging local knowledge, cultural practices, and grassroots agency to ensure solutions are tailored to context and are inclusive.

Societal resilience depends on the robustness of the societal fabric – the inter-linked systems and routines that sustain daily life. Sectors such as healthcare, education, mobility, food, and energy are not merely service domains but vital threads that, when put under stress, reveal a society’s vulnerability. Building resilience thus requires reinforcing this fabric through strong capacity building strategies aimed at making each of these areas ready to deal with changing internal and external system conditions. This means embracing trust, flexibility, and robustness in policy design, including institutionalisation of adaptability to changing conditions. It also requires mechanisms for timely recalibration and multi-level coordination across public, private, and civil society actors.

A cornerstone of resilient societies is anticipatory governance – a future-oriented model of decision-making that prepares for a range of plausible futures rather than optimising for a single version of it.

A key element of anticipatory governance is the systematic uptake of foresight practices. Rather than predicting the future, foresight aims at exploring multiple future pathways to facilitate decision-making in the face of uncertainty and complexity. Professor of policy studies at Victoria University of Wellington School of Government Jonathan Boston defines the basic aim of policy-oriented foresight as to “assist and encourage policymakers to reflect on the implications of current decisions, events, and trends, to consider important path dependencies, to filter out critical signals from distracting noise, to identify developing risks and opportunities, and to detect creeping and looming problems early.”

Through the participatory development of scenarios – a key method in foresight – policymakers and communities can explore diverse trajectories, identify critical uncertainties, and test the robustness of policy options. For instance, cities facing rising sea levels and migration pressures might develop participatory scenarios that integrate both adaptive infrastructure and inclusive housing strategies. These plans may involve flexible zoning laws, responsive building codes, or community protocols that activate during environmental stress. Importantly, involving citizens in scenario creation enhances legitimacy and local sense-making of risks.

While foresight clearly contributes to societal resilience by supporting future-oriented policymaking in the face of complex problems, the relationship between foresight and societal resilience runs deeper. As foresight practitioners have long

emphasised, participatory foresight dialogues do not only generate insights that guide decision-making but also profoundly impact the fabric of the communities engaging in the futures dialogue. This so called “process benefit” entails future-oriented attitudes and insights, the ability to question anticipatory assumptions, shared goals, recognition of each other’s expectations, sensitivity to change, and novel linkages between actors and elements that can be activated in the future. Through having jointly reflected on multiple futures, a community will have gained futures literacy, allowing it to recognise upcoming changes and proactively initiate transformations that unlock opportunities and counteract risks.

These contributions of foresight can be directly linked to the dimensions of resilience as outlined above. They can do so in the following ways:

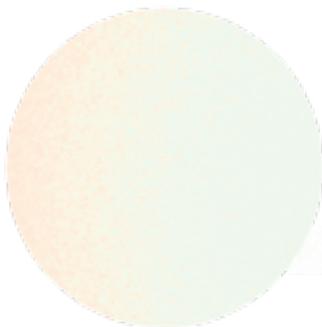
- Foresight strengthens absorptive capacity by activating the community’s capacity to collectively imagine and make sense of disruptive changes, to tell stories that link past and future, and to create visions that provide hope. Moreover, the new linkages generated in foresight processes can be activated in case of shock events, initiating joint responses.
- Foresight contributes to adaptive capacity by enabling individuals, organisations, and the community as a whole to notice changing context conditions early on and thereby recognise the need for adaptations in due time. The knowledge of different actors’ expectations will help to identify conflicts and find shared solutions.
- Foresight underpins transformative capacity by honing the ability to recognise fundamental shifts (what Riel Miller, known for advancing futures literacy through his work at UNESCO, calls “changes in the conditions of change”) and to reimagine systems and radically new solutions. This aspect of foresight as an enabler of innovation is highly valuable.

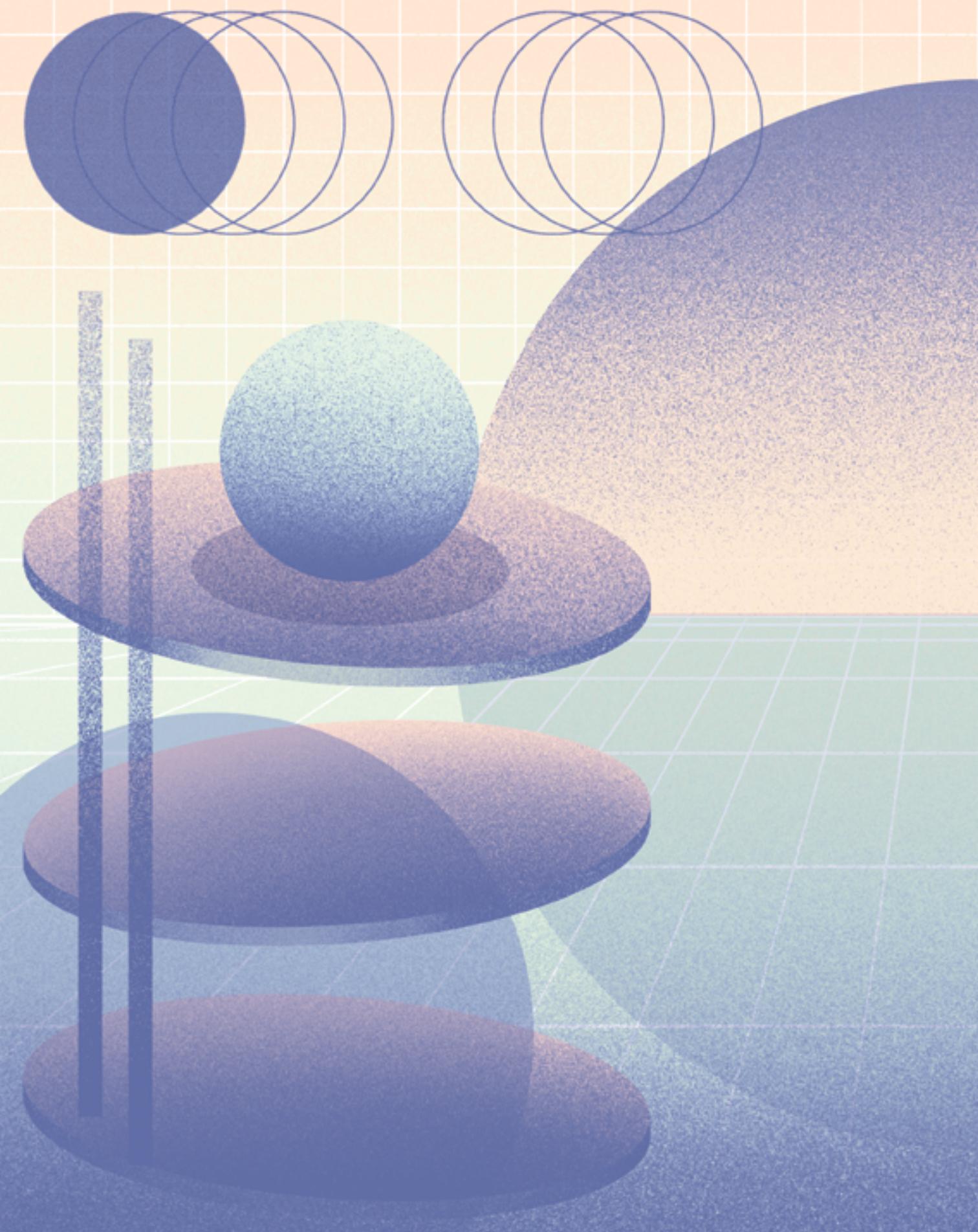
Finally, the crosscutting dimension of “participatory capacity” lies at the very core of connecting foresight to societal resilience, standing in contrast to more traditional, expert-driven policymaking. This connection requires the active involvement of diverse perspectives and voices, especially those who are typically underrepresented and those who will live with the long-term consequences of the specific decisions being made. This is essential to ensuring broader relevance and shared ownership of future outcomes.

These links between foresight and the societal resilience outcomes are not just theoretical. We have actually been able to unfold this in practice within a recent EU funded research project, FutuResilience, which focuses on strengthening

Europe's economic and social resilience by applying participatory foresight in diverse local contexts. The project set up ten co-creation labs ("FutuResilience Labs") that used various foresight approaches to address local challenges and strengthen societal resilience. With the project coming to an end, preliminary results already underpin our hypothesis. Several of the Labs report not only outcomes in terms of strategic choices for decision makers but also benefits that align well with the dimensions of societal resilience discussed in this article.

In summary, societal resilience is not a static capability, but an evolving one. It calls for reimagining governance beyond traditional safety and security paradigms, recognising that resilience is shaped by institutional preparedness, cultural values, social bonds, and public trust. It also demands learning from past disruptions, evaluating future risks, and adapting for possible futures accordingly. Foresight can make a major contribution to societal resilience by enabling anticipatory governance on the one hand and by strengthening the future-oriented societal fabric on the other. ■





The Organisational Fabric of Time

A conversation with Tor Hernes and Majken Schultz from the Centre for Organization and Time at Copenhagen Business School on how time shapes organisational life.

TEXT SIMON FUGLSANG ØSTERGAARD
& AUGUST LEO LILJENBERG
ILLUSTRATION SOPHIA PRIETO

The past defines the future as much as the future defines the past. This idea, paraphrased from the American philosopher George Herbert Mead, captures the notion that time cannot be seen as a simple linear progression, but as a constant interplay between the past, present, and future. Our future is influenced by how we make sense of the past, while new experiences and emerging perspectives reshape how we give meaning to the past.

The relationship between time, perceptions of time, and organisational realities is both foundational and complex. On the surface, time appears merely as a backdrop against which organisations operate. An indefinite progression of existence that can be accurately observed and measured. Interrogate this surface layer, however, and time begins to acquire depth. It warps.

Applying temporal analysis to organisations is still relatively uncharted territory. Some of this work is, of course, being done by foresight practitioners, who help organisations open up a plurality of futures to broaden their strategic perspective in the present. But the intricate role of time in organisational contexts has also emerged as a central focus in organisation studies in the academic world.

Professor Tor Hernes and Professor Majken Schultz of the Centre for Organization and Time (COT) at Copenhagen Business School both agree that “time is closely interwoven with everything we do.” Judging from their backgrounds alone, the two clearly make a powerful team. Hernes is a technologist-turned-philosopher, having engaged with some of the denser theorists from the 20th century: Gilles Deleuze, Alfred North Whitehead, and George Herbert Mead, to name a few. Schultz, as a Professor of Management and Organisation Studies, draws from her extensive corporate and boardroom experience in some of the largest Danish businesses in analysing how organisations leverage time.

Together, they display the interdisciplinary nature of the COT, which blends the social sciences, humanities, and empirical findings from business research to better understand how organisations enact their time, and how time enactment shapes them in turn. Established in 2018, the Centre grew from a dissatisfaction with how time has often been treated as a chronological, clock-time backdrop to organisational reality.

“Organisation studies tend to relegate time to an external measure of activity, despite there being more than a century of studies in the humanities, social sciences, and philosophy showing that time is *what we do*,” Hernes says. “It’s a greater part of organisational reality and identity than what has previously been assumed in the field.”

Both Hernes and Schultz begin our conversation by diagnosing a problem: the need to develop more expansive models of time to better understand organisational life. In 2024, they co-authored the paper “Time as a Research Lens” with Professor Blagoy Blagoev and Professor Sven Kunisch, identifying three distinct *temporal lenses* within management research and calling for a greater interplay between them.

The first of these is *time-as-resource*, which is the most dominant lens in management thinking. This lens provides an instrumental view of time as a quantifiable asset and a strategic resource. Something that organisations can allocate, manage, and optimise, with a focus on efficiency and productivity.

The second lens is *time-as-structure*. The deliverable deadline. The timesheet. The frameworks that shape organisational routines and coordinate collective activity. “This is sociology-based time,” Hernes explains, “the one of calendars and clocks that facilitate social order, control, and coordination in systems and organisations.”

Together, *time-as-resource* and *time-as-structure* reflect a dominant *clock-time* paradigm, as Hernes and Schultz call it. This paradigm is rooted in Western, indu-

strial notions of time as linear, measurable, and divisible. “It is the clock that to a large extent defines our understanding of time.”

In contrast, the third lens, *time-as-process*, departs from this logic. Hernes and Schultz are both deeply immersed in *process time* research, or that which “highlights the dynamic and emergent nature of organisational life, where past, present, and future is continuously interconnected.” Drawing from philosophy of time, phenomenology, and organisation studies, *time-as-process* emphasises time as a continuous flow-like state where the present is a constant negotiation between the past and future and rejects the idea of time merely as a linear succession.

Foresight practitioners will recognise *time-as-process* when they work across different time horizons that become interwoven, and when they enact more distant futures in current ongoing organisational activity. But Hernes and Schultz call for a greater interplay between the three temporal lenses. They hope that their work will challenge us to move beyond linear and chronological notions of time and to recognise the multiple temporalities at play in organisational life.

Tyranny of the future

The notion of the *tyranny of the present* is often pointed to in foresight to describe the inability to think or act beyond the immediate. A condition that prevents action towards the longer term and is closely linked to the preference for instant results over long-term outcomes. It is often presented – sometimes in borderline populist terms – as something organisations need to “escape”.

While recognising this temporal trap, Schultz offers a thought-provoking perspective – at least for many foresight practitioners – that a *tyranny of the future* exists too. “I think that organisational long-termism can also be a trap, just like short-termism can,” Schultz says. “In our research, we have studied how companies act on their distant future climate goals. And as I’m sure you know, companies have made a lot of pledges for the future, particularly related to climate change – but also the broader ESG agenda.” Organisations, she warns, may become passive when faced with burdensome, distant targets that may feel abstracted from present realities. Especially if they hinge on techno-optimistic assumptions and an overemphasis on what *could* be true in the future in terms of new technological use cases and solutions behind these long-term goals.

“The current AI obsession in organisations is part of the same problem,” she says. “If you only rely on distant future goals, they end up being unrealistic. They can be hard to translate into realisable, feasible organisational action. It may remain ‘out there’ as a goal, but not much more.” In such cases, long-termism risks becoming as debilitating to organisational action in the present as short-termism.

It's a refreshing take for foresight practitioners: that short-termism or a *tyranny of the present* isn't the only enemy of effective action towards the future. But that an incomplete and imbalanced understanding of how to leverage time is what leads organisations to fall into these temporal traps.

Continuity is change

When dealing with the future, organisations often like to invoke concepts like transformation and change. Hernes and Schultz, on the other hand, want to emphasise continuity: a concept which many organisations and foresight practitioners wrongly define as being the “same” or an extension of the present.

Rather than pitting continuity against change, continuity can be viewed as an important part of change and a common thread in an organisation's strategic narrative of how it emerged and what it might become in the future. Consider the example of looking at yourself in the mirror every day for ten years. Here, there exists continuity in gradual change, but it is difficult to see the day-to-day change. Of course, this narrative of continuity is easier to string together retrospectively when looking at the selfie you took 10 years ago – but it always existed.

In an organisational context, foresight practitioners might benefit from seeing continuity as an invisible thread giving change meaning. When organisations are thinking about the future as something radically different from the present, it is valuable in terms of contrasting present reality with transformational shifts. But they might also benefit from talking about what constitutes continuity with the past. Hernes emphasizes that a sense of continuity between past and future does in no way imply “sameness”. On the contrary, past and future may differ and yet provide a sense of continuity.

These thoughts are part of the *process time* mindset Hernes and Schultz are trying to inject into organisations. But if we can't only rely on clock-time to create resilient organisations, then how should businesses navigate the concept of *process time*? What are some tangible methods organisations can use to become more temporally aware? How do we leverage time and think about distant futures as something concrete and tangible?

“What we've been trying to do with some researchers around the world is to establish what we call an event-based view of time. Rather than seeing this continuous idea of time and goals – clock-based time – trying to understand how certain events are linked together through time,” Hernes says.

Time takes shape in events. Foresight practitioners will know that when giving narrative flesh to alternative futures in a scenario process or worldbuilding exercise,

it's often useful to think in terms of certain moments bearing narrative contingency. These individual durations of time shaping the future don't have to be organisation-disrupting events. Hernes encourages leaders to categorise and leverage events more broadly: the conversation, the meeting, as a way for them to establish continuity. Otherwise, the flow of time becomes fleeting. "I think great leaders have been able to seize these events to connect the past and the future. You end up creating a *history of the future*," Hernes says.

Likewise, these events could be in the future, too. "Future imaginaries are ways in which we conceive the future as something that has already happened, if you will. The analogy I like to use is running a race. Both Tor and I have run several, where it's about envisioning yourself at the finish line. Creating a memory of an event in the future that gets you to the finish line," Schultz says.

Along the same lines, strategic foresight practitioners will argue that utilising foresight to create memories of the future can help leaders "rehearse" the future. Essentially building a "repertoire" for future use when confronted with change and events not previously encountered, but which nonetheless exist in some form within these rehearsed memories of the future.

Of course, organisations are often steered into temporal traps by forces more structural than philosophical. Distorted incentive systems – particularly those tied to short-term financial targets, shareholder expectations, and temporal anchoring in "this is how we've always done it" – play a critical role in tethering organisations to immediate outcomes.

However, from her vantage point at the boardroom level in Danish industry, Schultz has observed a subtle but notable shift: "In the last five years, I have seen more [Danish] companies paying attention to incentivising their leaders towards the more distant future – beyond typical strategic and financial cycles. The goals in the performance systems of ESG targets are, for example, by definition, more distant. That's not to say that ESG is the only way to think about the future by any means, but they are clearly incentivising a more long-term view." Yet, this shift is not without complications, as the tenure of top management in business has been decreasing significantly in recent years, potentially undermining the effectiveness of longer-term incentives.

Time isn't just a linear and chronological backdrop to organisational realities. In the end, the real challenge isn't simply about the short-term versus the long-term, but rather about developing a more expansive understanding of how time and temporal structures shape organisations in ways that are often more intricate than they first appear. ■

A Hybrid-Method Scenario Approach for Resilience

Crafting future scenarios is rarely a textbook exercise; the complexity of the real world demands pragmatic blends of methods.



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As foresight professionals we often encounter futures issues for organisations and governments that can benefit from being explored using scenarios. There are many types of scenarios and many approaches to building them. So, like a carpenter, the foresighter will need to choose his or her tools with care. The experienced foresighter knows that building effective scenarios is rarely a textbook exercise, and that real-world complexity often demands a pragmatic approach.

This article draws on insights from the FutuResilience project, an EU Horizon Europe initiative using foresight to strengthen societal resilience. One of the project's cases focused on the challenges facing the Bulgarian healthcare system. Bulgaria is among the many countries across the world that are experiencing a long-term trend of rising health care costs as a share of GDP. This trend will weigh heavily on government finances and is unsustainable in the long term.

As part of the FutuResilience project, the Copenhagen Institute for Futures Studies (CIFS) investigated how Bulgaria, and the health care system in particular, can increase its resilience in face of this looming crisis. This article provides an overview of this process, which involved developing a multi-method scenario approach, drawing inspiration from Jim Dator's Four Generic Futures framework and blending it with Herman Kahn's variations scenarios. The method was designed specifically to support policy recommendations for resilient healthcare systems.

The Bulgarian healthcare system as the case

European healthcare systems, including Bulgaria's, face compounding challenges that threaten their long-term sustainability and social impact. Rising costs, growing burdens of non-communicable diseases (NCDs), and workforce shortages are converging with rapid demographic aging, placing significant strain on healthcare infrastructure and budgets. Thus, the rising share of healthcare expenditure in GDP is a growing concern for many economies. If this trend continues, healthcare will consume an ever-larger portion of national income, crowding out other critical public investments like education and infrastructure, and potentially jeopardising the European green transition.

In Bulgaria, these issues are especially pronounced. As one of the EU countries with the highest rate of preventable mortality, largely due to cardiovascular disease, cancer, and diabetes, the nation faces a pressing need to reimagine its healthcare system and delivery model. A core issue in Bulgaria's healthcare system is underfunding, which leads to resource shortages, disparities in service quality and high out-of-pocket expenses for the individual, meaning that patients bear a larger share of the total healthcare cost themselves. Bulgaria has one of the highest out-of-pocket healthcare expenditures in the EU, more than double the EU average.

Introducing Dator's Four Alternative Futures

In the late 1970s, Jim Dator of the University of Hawaii at Manoa introduced a model of change in social systems called The Four Generic Futures, which examines four distinct archetypes of alternative futures.

The method is regarded as a foundational model in futures studies. It categorises possible futures into four broad archetypes. These archetypes were, according to Dator himself, derived through a systematic analysis of "images of the future" found in media, academic essays, literature, science fiction, as well as corporate and public long-range planning documents. By identifying and comparing these recurring archetype narratives, the Four Generic Futures model enables a structured discussion of alternative futures and helps uncover the cultural and institutional biases embedded in our expectations of change. To a certain extent, you could say they aren't scenarios at all, but narrative templates that reveal how people tend to organise expectations about the future into preconfigured mental boxes. Unlike strategic explorative scenarios, which emphasise plausibility, internal consistency, and analytical objectivity, the Four Generic Futures are deliberately shaped by cultural and institutional biases.

The Four Generic Futures are outlined as follows:

- **Continued Growth/Continuation:** A representation of a future in which current trends and 'business as usual' dynamics continue largely unchanged. This is often the default assumption in mainstream policy and planning.
- **Crisis:** A representation of a future where the emergence of crisis causes the decline or degradation of a current system (society, economy, or environment).
- **Discipline/Constraint:** A representation of a future shaped by societal constraints, often with a focus on controlled and managed change as our societal behaviour adapts to a more sustainable state.

- **Transformation:** A representation of a future where transformational factors change the game, driving a radical shift in how society is organised. This is typically triggered by technological breakthroughs, paradigm shifts, or major social innovations.

Dator's framework is effective for surfacing underlying assumptions, structuring conversations about change signals, and exploring biases and preferred futures. However, its strength lies primarily in its diagnostic and descriptive capacity. While it provides a structured way to imagine alternative trajectories, it does not directly support policy design or testing to determine which actions or policies would be most effective across those imagined futures. For this reason, we chose to develop this hybrid approach, which takes its departure in Dator's Futures, but reorients it from being descriptive archetypes to being used prescriptively to test policies.

A hybrid approach for resilience

Starting from Dator's framework, we worked with three of his four archetypal futures that are particularly relevant to the challenges facing Bulgaria – but not all of which are equally feasible or plausible.

Continued Growth/Continuation: This scenario arises from the expectation that the continued expansion of the healthcare system is possible. Yet in Bulgaria's case, fiscal limitations present a major barrier. With a continued expansion comes rising costs that are unsustainable for government budgets in the long run, effectively creating a crisis that could prove disastrous if expectations are not tempered. In essence, the Continuation scenario and the Crisis scenario, detailed below, are two sides of the same coin.

Crisis: The Crisis scenario is founded in an array of disadvantageous developments facing Bulgaria in the decades to come. By 2040, more than 30% of Bulgarian citizens will be over the age of 65. Combined with persistent financial constraints, critical workforce shortages, and fragmented digital infrastructure, these challenges threaten the long-term sustainability and equity of healthcare provision. Bulgaria's rising health expenditure will place a heavy burden on government budgets. The Government must either raise taxes or increase borrowing, reduce spending on healthcare or cut public spending in other essential areas such as social services, defence, or education. Reducing spending on healthcare is critical, but if it is not done through efficiency gains it will only lead to the hollowing out of the quality of the healthcare system and create greater polarisation as more affluent individuals move towards private healthcare services. This is the peril facing the Bulgarian healthcare system. Our Crisis scenario is an adjusted version of Dator's Collapse/Decline archetype, which is more severe and potentially disastrous in its outcome.

Transformation: In our multi-method model, transformation is the resilient scenario that can be created once the inherent bias and obsolete assumptions underlying the Continuation scenario are recognised and the risk of a Crisis scenario is acknowledged. Together, these two scenarios provide the background for achieving reperception – a shift in perspective – and for cultivating the willingness to explore transformation.

In Dator’s original model, each of the archetypes are conceptually independent, and none are assumed to lead to or emerge from the others. However, in this pragmatic adaptation, the Transformation scenario is treated differently – not as a passive archetypal view of the future, but as a preferred scenario to be consciously pursued.

The potential for transformation in relation to resilience, in this case, emerges from the acknowledgment of the risk of a Crisis scenario. Working with Bulgarian national stakeholders, it became clear that the scenario pathways are shaped by three key uncertainties that are especially influential for the healthcare system’s future trajectory:

- The role of the private sector
- The societal impact of climate and sustainability challenges
- The uptake of automation and AI

Each of these uncertainties were expected to influence a crisis in Bulgaria’s healthcare system in different ways. Treated as distinct lenses, they were used to examine three variations of the Crisis scenario and to explore potential entry points for constructing a resilient transformation pathway, grounded in the specific dynamics of each uncertainty.

This essentially leaves us with four versions of the Crisis scenario – a core crisis scenario and three variations of this through the lenses of the identified three key uncertainties:

- **Same old, same old** (core Crisis scenario): General acceptance of the status quo, with skepticism towards rapid changes or reforms. Prevailing distrust in the political system, contributing to a passive approach to healthcare improvements. If business as usual continues, a collapse of the healthcare system will happen.
- **Variation #1** (Private Sector Dominance): Growing acceptance of private sector solutions. Access to high-quality care depends significantly on personal financial means.

- **Variation #2** (Climate-Centric Governance): Public sentiment shifts from skepticism towards healthcare reform to a deep concern over the escalating impact of climate change. The healthcare system's ability to adapt is severely tested.
- **Variation #3** (AI-Driven Healthcare): AI is having a significant uptake in society bringing with it both opportunities and threats.

At this point in the process, we have moved away from Dator's original archetype scenarios and work only with the four remaining scenarios – the core Crisis archetype and the three variations of this.

Based on these four scenarios, stakeholders were asked to identify policies that would help create a more resilient healthcare system. These were then tested against the four scenarios in a windtunneling exercise, with the purpose of identifying policies that would work across the different futures. The windtunneling exercise is a method used to test strategies, policies, or decisions against multiple future scenarios. It helps assess how well these choices perform under different possible futures, revealing strengths, weaknesses, and areas needing adaptation. This work provides the basis for planning for the future and the initial steps in a roadmap and from this the Transformation scenario can be written.

Advantages of the hybrid approach

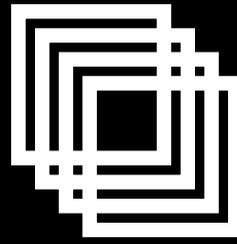
This multi-method approach has several advantages:

First and foremost, instead of trying to fit the world to the method, adjusting and adapting methods like done here rather fits the method to the problem for better solutions generation. The benefit of this approach is that it shifts from a descriptive and diagnostic approach, referring to archetypal pictures of the future, to being more prescriptive and actionable.

More concretely, it provides a means to move from conversation about beliefs to test policy against scenarios and provide robust policy advice. Yet, it still maintains the benefit of Dator's approach, as a discussion tool that, especially in the beginning of a process, can have high value when engaging with diverse stakeholders. Importantly, the reconfiguration in the process from archetypes to actionable scenarios maintains a unified framework while moving people from personal beliefs to actionable futures.

This hybrid scenario method has been used by CIFS in a resilience context, where it is particularly useful because of the crisis focus. But it could also be applied in business contexts to explore major societal shifts or disruptive changes. ■

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