Scenario Danning Astep-by-Step Guide

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Futures Platform Publications are future-oriented harbingers of change, and methodological guides to foresight.

About the Authors

Tuomo Kuosa is a co-founder at Futures Platform, where he works as the Content Director and Lead Futurist. Kuosa holds a PhD from Turku School of Economics, and is an Associate Professor (Docent) of Strategic Foresight in the Finnish National Defence University.

Max Stucki works as the Foresight Analysis Manager at Futures Platform. He is responsible for supervising and developing the foresight analysis process. He has worked with numerous clients to help them prepare for the future.

Gökçe Sandal works as a Foresight Analyst and Content Marketing Specialist at Futures Platform. Her industry expertise includes consumer and lifestyle trends, cultural change, media and creative industries.

Siyada Witoon is a foresight solution advisor at Futures Platform. Her foresight experience spans various industries, including real estate development, spaces and aviation, and higher education. She is also a doctoral researcher at the Finland Futures Research Centre, specialising in long-term thinking and strategy development in knowledge-driven organisations.

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Preface

With so much uncertainty and volatility in today's world, organisations need more than traditional strategic planning to succeed. Trends can abruptly change course or collide, and disruptive events can upend entire industries overnight.

Adding to this complexity, some of today's most influential change drivers– like artificial intelligence and climate change– are forces of unprecedented nature. But while the need to be better prepared is acute, the countless ways things could play out makes it too easy to get lost in the woods. How can we navigate such uncharted territory?

Scenario planning is a critical tool that can guide us in working with the unknown. It challenges us to part ways with the idea of a linear and singular future, confront unpalatable challenges, and, ultimately, shape the future. In a world where unpredictability reigns, scenario planning emerges as the compass to navigate and weather the unexpected storms ahead.

The aim of this ebook is to demystify scenario planning and empower organisations to become active agents in creating prosperous futures. With the right processes and methods, scenario planning is a remarkably simple yet powerful tool that any organisation can utilise to conquer uncertainty, not only in strategic planning but also across various domains of management.

At Futures Platform, we are driven by the mission to make foresight accessible and collaborative, ensuring that everyone has a voice in shaping the future. With how-to guides and expert advice from our team of futurists, this e-book will guide you in establishing scenario planning as a continuous, systematic practice, ensuring your organisation not only survives but thrives in the face of an uncertain future.

CHAPTER 1

What is scenario planning?

- Scenarios take the uncertainty of the future as the starting point
- Scenarios work in tandem with trends and other forms of futures intelligence
- Scenarios open up the horizon to multiple futures
- Scenarios do not predict futures
- Scenarios are not static destinations
- Where can you utilise scenario planning?

Scenarios take the uncertainty of the future as the starting point

Unlike single-future forecasting, scenario planning explores the diverse ways the future may unfold through creative yet strategic narratives. Scenarios heighten our ability to perceive and prepare for multiple future possibilities, and they are particularly useful in navigating high uncertainty, investigating low-probability but high-impact events, and can take into account things that are hard to put into numbers.

Scenarios work in tandem with trends and other forms of futures intelligence

Positioned between the data-driven realm of trends and more speculative practices like sci-fi prototyping and weak signal analysis, scenarios offer a nuanced approach. With a fine balance between objective knowledge and intuitive logic, they form well-founded but still imaginative descriptions of possible futures.

In scenario work, objective data forms the foundation, which is then explored through creative techniques such as storytelling and world-building. Having its roots in cinema, scenarios employ compelling narratives with vivid details to immerse stakeholders in possible futures, fostering a deeper understanding and engagement with the strategic implications of the underlying objective data.

While trend analysis concentrates on a single trend and its likely development paths, scenarios examine the interplays between different trends and change drivers. They consider various future trajectories, even those deemed unlikely, to broaden the horizon and complement the more objective forms of analysis.

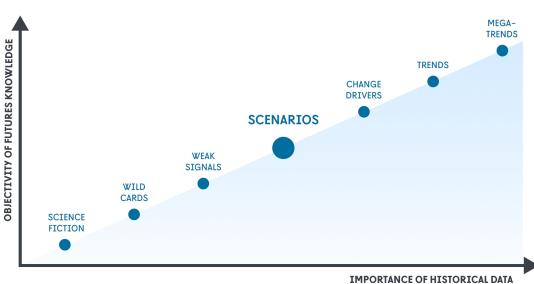


FIGURE 1 Types of Futures Intelligence

Scenarios open up the horizon to multiple futures

The future is neither singular nor predetermined. Scenario planning enables us go beyond the obvious best- and worst-case scenarios and articulate our futures in plural terms. Reality rarely conforms strictly to our expectations, making scenario-building an invaluable tool for exploring every conceivable direction and minimising oversights.

Scenarios do not predict futures

It's impossible to predict the future in all its details. Rather than rigid forecasts, scenario planning guides organisations to envision and prepare for a range of different futures. The emphasis is on identifying alternative paths and uncovering possibilities that traditional forecasting might overlook.

Scenarios are not static destinations

The future is in a perpetual state of flux, continuously being shaped and reshaped by new dynamics. Therefore, scenario planning should be an ongoing process, typically conducted annually in strategy work, but potentially more frequently in other contexts—especially in the face of frequent volatility and sudden changes. This ensures the vision does not become static yet again. When the terrain changes, maps need updating.

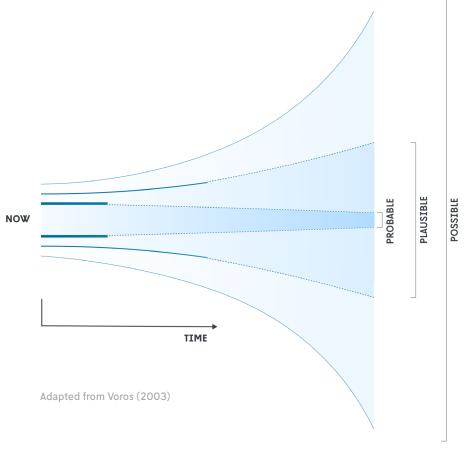


FIGURE 2 Futures Cone

Scenarios expand one's vision beyond the probable futures and uncover a broader range of possible futures.

Where can you utilise scenario planning?

1. Product and service development

Systematic scenario analysis helps organisations explore how today's changes may manifest in future environments, uncover unmet needs, and spot opportunities to serve tomorrow's consumers in novel ways.

2. Risk management

Examining a wide range of possible future scenarios helps decision-makers combat tunnel vision, expand their capacity to evaluate change, and identify blind spots.

3. Innovation and R&D

Simulating future environments through scenarios helps organisations investigate the potential impacts of new technologies, regulations, and societal changes and re-imagine products and services accordingly.

4. Long-term strategic planning and decision-making

Continuous scenario analysis makes room for agility in strategic processes, enhances the ability to make future-proof decisions under uncertainty, and ensures that your organisation will survive long into the future – no matter what the future may look like.

5. Fostering organisational future awareness

Scenario analysis uses compelling narratives that make foresight work accessible and engaging for all participants and helps organisations build a mutual framework for futures thinking. Instead of feeling overwhelmed by risks and change, it empowers people to embrace uncertainty in a positive, proactive, and creative way.

Organisations that systematically think about the future could be looking at up to 33% higher profitability and 200% higher market capitalisation growth within their industries.

Source: Rohrbeck, R., & Kum, M. E. (2018)

CHAPTER 2

The scenario planning process

- Defining scope and objectives
- Identifying key uncertainties and change drivers
- Grouping, voting, and rating
- Building the scenario narratives
- Method 1: Axes of Uncertainty
- Method 2: Futures Table
- Checklist: Key aspects to consider when writing scenarios
- Integrating the results of scenario work into strategic decision-making

1. Defining scope and objectives

The correct framing of your topic is vital to the rest of the scenario-building process, so think carefully about the topic you want to explore in your scenarios. You can start by listing down the main strategic concerns and key 'what if' questions for your organisation, cluster them based on similarity, and then select the most relevant or pressing issue as your topic.

Your research topic must be focused yet still open-ended enough to nurture creative thinking. Avoid overly broad topics like "Future of Technology," which lack specific parameters or contextual information. Conversely, topics like the impact of a specific product release on quarterly sales are excessively narrow, limiting exploration of broader developments.

Next, **determine the year when your scenarios will be taking place** to further narrow your scope. An example topic may look like "How will the shift to digital impact our in-store retail strategies by 2040?" or "Urban Planning in Bangkok in 2060".

Before moving to the next stage, also **ensure that the topic is agreeable by all stakeholders** to ensure their engagement in the following stages.

2. Identifying key uncertainties and change drivers

The future of any topic is shaped by its key driving forces and their interactions. Change drivers include both internal factors, such as organisational culture shifts, and external forces like new legislations, demographic shifts, or technological advancements. Collectively, all these factors are named uncertainties, referring to the uncertainty of their future impact, direction, or pace.

Start searching for the key driving forces that will be influential in shaping the future direction of your topic within the chosen time horizon. **Strive for a balance between internal and external forces**, covering various angles such as market shifts, political influences, and societal and cultural changes. You can use existing frameworks like PESTLE analysis to map out the external change drivers.

FIGURE 3 PESTLE Analysis Framework

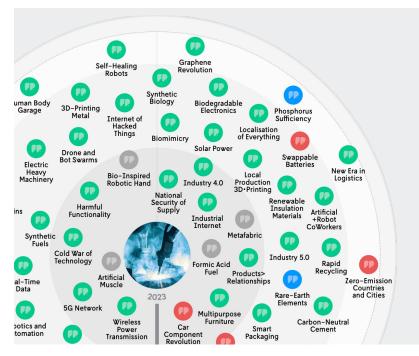


When searching for external change drivers, keep your scope wide. It's not just about the big trends; think about what might be losing momentum, the up-and-comers, and any unexpected wild card events. Collaboration is key in this phase – involving people with diverse expertise and seniority levels will help make sure you're scanning for change as widely as possible.

- **Megatrends** are global, long-term developments impacting business, economy, society, and culture on a vast scale. Some examples of megatrends are climate change, urbanisation, and digitalisation.
- **Trends** have recognisable developmental paths, often verifiable with quantitative data, and can move in both directions. For instance, the strengthening trend of plant-based meat substitutes versus the discontinuing trend of fossil fuel use.
- Weak signals are early information about potential discontinuities and emerging issues, such as nascent technologies with breakthrough potential. They might grow into trends or fade away without any significant impact.
- Wild cards are low-probability, high-impact events. By nature, they are sudden and disruptive, and can be either positive or negative. Some historical examples are the Chernobyl disaster, 9/11, the 2008 financial crisis, and the Covid-19 pandemic.

Change drivers and uncertainties must also have a specific direction. For instance, general concepts like "Agriculture" or "Demography" aren't change drivers as such, but "Robotisation of Agriculture" and "Ageing Population" are. These focused indicators guide you to explore different variables in your scenarios, such as how your organisation would fare in a future with partially robotised agriculture versus fully robotised agriculture.



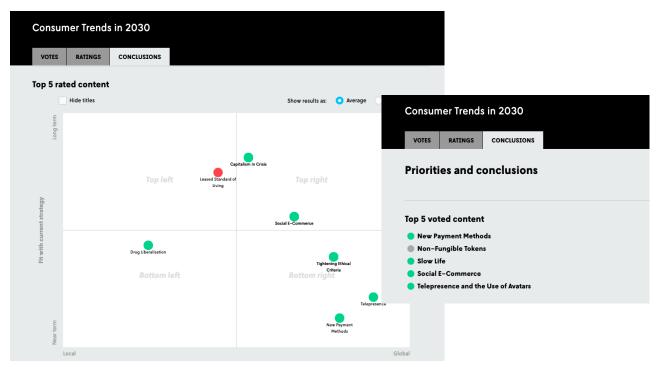


3. Grouping, voting, and rating

Once you've gathered all relevant change drivers, **involve a selected team of stakeholders to assess the change drivers you've identified** in the previous stage. Ask them to vote and rate them according to your specified criteria, for example, the level of uncertainty and threat.

Next, based on the desired scope of your scenarios, **select 2–10 of the top voted change drivers to focus on your scenarios**. Including more drivers will add more detail to your scenarios, but exceeding ten may make the scenarios too broad and challenging to explore meaningfully. If you aim to explore scenarios with a high number of change drivers, consider dividing them into distinct sets, and build scenarios for each set separately. While this process may require extra effort, it can assist in identifying the crucial few drivers that will be essential for your final analysis.

FIGURE 4 Rating and voting results of change drivers, visualised on Futures Platform



4. Building the scenario narratives

There are several methods for scenario-building, depending on the intended scope and use case. We outline two methods here: the **Axes of Uncertainty** and the **Futures Table**. The *Axes of Uncertainty* method is useful for examining two critical uncertainties. If you have more than two uncertainties you want to explore and you aim for more multi-dimensional scenarios, opt for the *Futures Table*.

Method 1: Axes of Uncertainty

This method generates four distinct scenarios, each centered around two critical uncertainties. It's easy to use and suitable for various levels of strategy analysis. It's also highly customisable, allowing you to sketch out quick scenario outlines or delve into as much detail as needed.

1. Define two axes

Select the two most critical drivers identified from the voting and rating results to serve as axes X and Y. These drivers should be such that their future directions wield substantial impact on your organisation's strategies, business model, or operations. Additionally, the selected drivers should carry a considerable degree of uncertainty, meaning that their future development shouldn't be too obvious.

2. Describe the ends of the drivers

Draw a matrix, assigning each line to represent one driver. Next, define the ends of the drivers: think of them as a spectrum with two extremes. For instance, for an oil firm, the axes can be defined as the oil price (high vs low) and oil consumption (high vs low), reflecting their impact on demand and profitability.

3. Define the perspective

Clearly define the specific context that will be the focal point in your scenarios, and ensure alignment among all participants involved in the process. You may choose to adopt a general approach and describe a future state from various perspectives related to your drivers. Alternatively, you can focus on specific aspects such as consumer behavior, the sociopolitical climate, or the market and competitor landscape within your defined parameters.

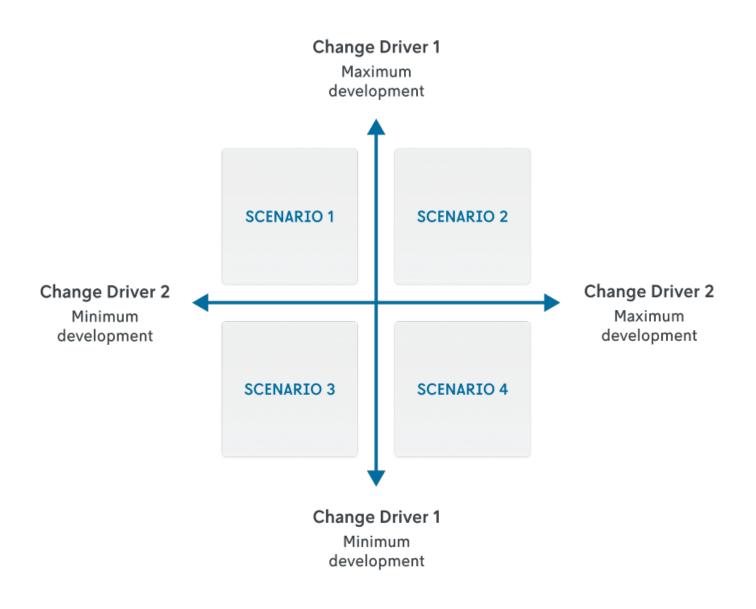
4. Write the scenario narratives

In each quadrant, describe how things may unfold within the established parameters. Describe the future state in a manner that addresses the strategic questions and perspectives outlined in the previous step. To inspire creativity within your team, you can provide them with initial questions to guide their thinking, such as:

- In a scenario where the oil price (axis X) is low (extreme 1) and the oil consumption (axis Y) remains low as well (extreme 2), how does the future unfold?
- How might the market react to these shifts?
- What changes can be anticipated in the regulatory landscape?
- What strategic actions would our organisation need take to thrive in this environment?

After completing all of the scenario narratives, **assign a title to each scenario** that is easily memorable, distinguishable, and encapsulates its unique characteristics.





Method 2: Futures Table

This method offers a structured and thorough approach to **build scenarios that examine the alternative future development paths of several change drivers**, and the potential interactions between them.

1. Build and fill in your futures table

- Create a table with multiple columns and rows. You can either hand-draw one or utilise any digital spreadsheet or team collaboration software.
- In Column 1, place the identified drivers that will set the stage for your analysis.
- Specify development options, denoted as *Future States*, in the next columns. This is
 where you'll chart different future possibilities on how your chosen change drivers
 may develop in the future. A commonly used framework is to categorise them into
 four, named as minimum development, modest development, large development,
 and maximum development.
- You can customise the Future States columns according to your context and scope. For instance, for less-detailed scenarios, you can use three columns labeled "Weakening", "Business as Usual", and "Strengthening" instead of the four mentioned above. This adaptation allows you to map out how each driver would develop if losing momentum, maintaining the status quo, or gaining momentum.
- Provide clear, concise descriptions for each Future State, typically 1–3 sentences long. This is where you describe how the future state of each change driver would look based on the parameter. Avoid redundancy – each Future State description of a change driver must be distinct, and offer unique insights into the potential outcomes based on the given parameter.

	Future State 1	Future State 2	Future State 3	Future State 4
Change Driver 1	A1	Α2	A3	Δ4
Change Driver 2	B1	B2	В3	B4
Change Driver 3	C1	C2	C3	C4

FIGURE 6 Futures Table

2. Choose development paths

The next step is choosing development paths for your scenarios. Each path will serve as the foundation for one individual scenario. Therefore, **choose as many paths as the number of scenarios you intend to create.**

For every scenario, pick one Future State option from each driver. The principles guiding the selection of these future states may vary. One commonly used method is to initiate the process with, for instance, box A1. Subsequently, choose another box from the next row that complements A1, either logically or causally. This same principle is then systematically applied across all columns. Once the first development path is complete, form the next paths with the same logic.

Each selection of the logically compatible future states is a development path that is now called a *future image*.

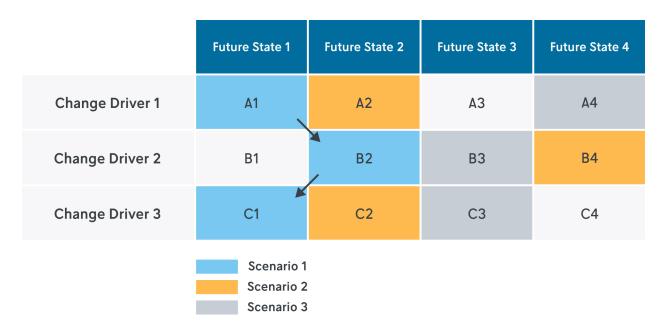


FIGURE 7 Futures Table, filled

3. Write the scenario narratives

Construct fully-fledged scenario narratives where you delve into the future images with more detail and explore the implications and interconnections between each driver.

After completing all of the scenario narratives, **assign a title to each scenario** that is easily memorable, distinguishable, and encapsulates its unique characteristics.

Checklist: Key aspects to consider when writing scenarios

Regardless of the method you use, there are some fundamental principles all scenario narratives should follow. Below is a checklist to ensure your scenarios are well-crafted, engaging and useful in your strategy processes.

- Ensure that each scenario possesses internal logic. While they don't need to conform to today's logical standards, they must have consistency within their own narrative. Think of a sci-fi movie set in a fantasy land—it may defy current norms, yet it maintains a coherent logic within its own context.
- Bring data to life through engaging storylines. Avoid presenting facts statically; instead, employ storytelling techniques to make your narratives compelling. Enrich your scenarios with vivid details, examples, characters, or even visual illustrations. Collaborating with writers or involving creative teams within your organisation can also help enhance the creativity of your scenarios.
- Connect all scenarios to tangible business opportunities and threats by thoroughly examining the impacts of the each future state on your organisation. This ensures that your scenarios are not merely theoretical exercises but have practical implications for decision-making.
- Avoid excessive similarity among scenarios, and ensure each scenario possesses distinct characteristics that set it apart. Each scenario in your set should offer a unique interpretation of your research question or topic. Ideally, they should be mutually exclusive, meaning that no two scenario can happen simultaneously.
- Move beyond the desirable and plausible futures to challenge conventional thinking and uncover possibilities that may not be immediately apparent. Ask daring questions – what if there's no good future for your organisation in its present form?

5. Integrating the results of scenario work into strategic decision-making

After finalising the scenario descriptions, it is crucial to **establish a clear**, **structured**, **and measurable process for implementing the results of your scenario work** into your organisation's functions and decision-making processes.

This step is paramount in ensuring that your scenario work isn't shelved and forgotten, but is actively used to enhance strategic preparedness and adaptability. Depending on your organisational needs, here are a few ways you can utilise your scenarios:

Strategy Stress-Testing

- Evaluate how your current strategy would fare under each scenario. Identify its strengths and weaknesses, along with the strategic risks and opportunities.
- Identify areas where the current strategy may need adjustments or enhancements, and evaluate whether you need to develop entirely new strategies.
- You can also group and cross-analyse your scenarios to evaluate the opportunities vs risks in each scenario. The cumulative results can inform decision-making, for example, as part of a cost-efficiency analysis.

Stakeholder & Competitor Analysis

 Analyse how your suppliers, consumers and competitors might act in each scenario to uncover potential shifts in markets and consumer behavior. What should you prepare for? How can you innovate to serve unmet needs or solve problems that don't yet exist?

Action Plan Mapping

- Develop action plans to capitalise on identified opportunities and fortify operations against potential threats.
- Categorise and map actions according to timeframes, e.g. the near future (1-3 years), medium-term (4-6 years), and long-term (7-9 years and beyond).

Regular Monitoring of Scenarios

- Schedule periodic reviews of your scenarios to re-assess them in light of the latest developments. Are they still valid? Is the world moving closer to or further away from the given scenario?
- Set up measurable metrics to track the development of scenarios over time. You can
 do this with the help of the **backcasting method**, where you work backward from
 each of your scenarios to the present and identify events and milestones that must
 occur for each scenario to become reality, creating a timeline of indicators. Use
 these identified milestones to monitor the scenarios and adapt strategies over time.



CHAPTER 3

Scenario planning in action: Four scenarios on smart cities

- Scenario 1: A Digital Renaissance in City Planning
- Scenario 2: High Risks and High Gains in a Fully Digital City
- Scenario 3: Privacy over Everything: A Balancing Act in Smart City Development
- Scenario 4: The Global Race to Digitalise Leads to a Fragmented Cybersecurity Landscape

To demonstrate scenario analysis in practice, this section presents four scenarios on **the future of cybersecurity in smart cities**, sourced from Futures Platform's foresight database. Each scenario describes a different potential trajectory for smart city development, focusing on the year **2035**.

The scenarios were built based on the following set of change drivers:

- · Public-private cooperation in smart city development
- Digitalisation
- Public investments in cybersecurity
- Developments in IoT
- · Influence of organised crime and malevolent parties
- · Data security and privacy regulations

All four scenario descriptions also include a **development timeline** section, which lists three to four steps that could plausibly happen to move us closer to the given scenario. The purpose of this section is to give readers a list of signs and indicators to look out for when monitoring future developments.

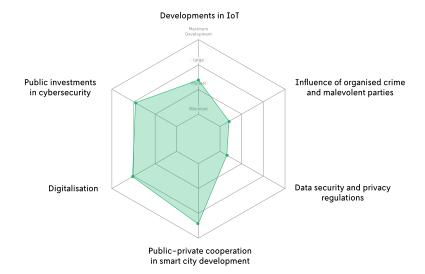
About Futures Platform's scenario-building methodology

These scenarios were built by Futures Platform's team of futurists, using our **proprietary scenario-building method based on Principal Component Analysis (PCA)**. It is an advanced statistical method designed to investigate multiple uncertainties and the correlations between them, aiming to identify plausible scenario settings out of the millions of options.

Utilising Principal Component Analysis (PCA), the method strategically selects data points to maximise both plausibility and diversity. This ensures that each chosen scenario is roughly equally probable, taking into account the variance associated with each principal component.

Through our computational process, we calculate a numerical value for each uncertainty in every scenario, ranging from the minimum to the maximum. By aggregating these values, we get an interpretable state of the future. These numerical values are then visualised using spiderweb images specific to each scenario. You can find more details about this method on our <u>website</u>.

SCENARIO 1 A Digital Renaissance in City Planning



A convergence of factors—a stable security environment, supportive regulations, and technological advancements—ushers a digital renaissance for cities. No longer confined to reactive cybersecurity measures, cities now proactively weave digital solutions into the very fabric of urban development. With the widespread adoption of the Security by Design (SbD) approach, digitalisation becomes a core element of urban life.

Within this landscape, a collaborative ethos prevails, and cooperative procurements between municipalities and tech suppliers becomes the new norm. Decisions are made based on meticulous cost-benefit analyses, ensuring that each digital stride is both impactful and sustainable. Empowered by a permissive regulatory framework, local governments customise smart city solutions to their specific needs, cultivating a landscape where technology harmonises with and enhances each city's unique character.

The thoughtful design and seamless implementation of smart city infrastructures contribute to widespread public acceptance. The tangible benefits of these projects outweigh any potential drawbacks, creating a landscape where technology becomes an integral and appreciated part of urban life.

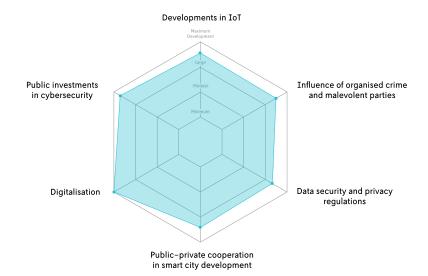
Development Path

2026: Cities proactively fix major cybersecurity issues, recognising the importance of digital services in development.

2030: Organised crime's global influence diminishes.

2035: A ripple effect: A growing number of cities flourish worldwide with smart solutions, inspiring others to pursue similar bespoke digital paths.

SCENARIO 2 High Risks and High Gains in a Fully Digital City



Cities are fully digitalised. Residents use digital services and virtual environments extensively, blurring the once distinct lines between the physical and the virtual realms. The cityscape undergoes a profound transformation as a pervasive digital layer integrates into various facets, including smart buildings, services, entertainment, and more.

Residents enjoy unparalleled efficiency and convenience. Yet, this hyper-connected ecosystem is not without its challenges. Though infrequent, digital disruptions and even total breakouts happen in some cities, leading to chaos. However, these occasional disruptions are mostly accepted as a trade-off for the convenience that digitalisation brings.

Operating like finely tuned machines, smart cities demand continuous maintenance and unwavering cybersecurity efforts to function seamlessly and thwart potential threats. In response to the ever-evolving tactics of hackers, cities make substantial investments in cybersecurity, perpetually striving to stay one step ahead and safeguard their infrastructures within a volatile security landscape.

Development Path

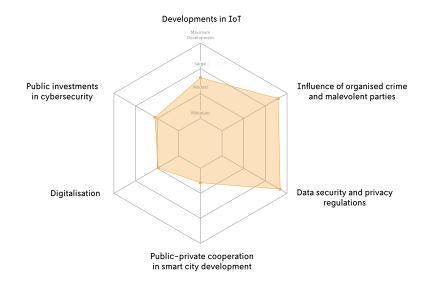
2026: Digitalisation revolutionises public services, enhancing accessibility and usability while trimming costs. The smart city concept gains more popularity around the world.

2030: Several megacities experience total blackouts, sparking widespread fear and leading to severe costs and dysfunctions.

2035: Trust is gradually rebuilt as cities invest heavily in cybersecurity, safeguarding critical urban functions.

SCENARIO 3

Privacy over Everything: A Balancing Act in Smart City Development



In a globally insecure and tense geopolitical landscape, cyber threats loom larger than ever. Organised crime flourishes, with criminals increasingly adopting a crime-as-a-service model, amplifying the scale of illegal enterprises. Some states actively engage in the trade of stolen information for hybrid warfare operations.

These developments cast long shadows over the smart city development landscape. Due to intense public and governmental pressures, digital development in urban spaces treads cautiously. Sensitive information leaks contribute to negative public sentiment. Consequently, stringent regulations emerge, limiting the potential of digital solutions to streamline and economise smart city services. Cities navigate a complex landscape where caution may sometimes hinder innovation.

While the digitisation of city services continues to some extent, the strides made are not substantial enough to usher in a complete overhaul. Physical offline services remain a focal point in cities.

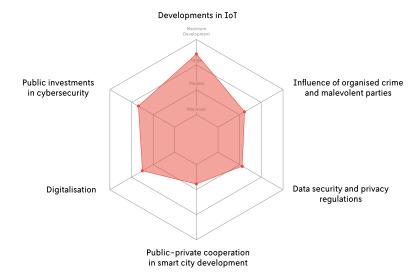
Development Path

2026: Data breaches in numerous cities lead to dark web sales, fueling fear and caution among the public and governments alike.

2030: Public sentiment turns sharply against digitalisation, stalling smart city initiatives.

2035: Stringent privacy regulations take centre stage, complicating new digital initiatives and dampening private sector enthusiasm.

The Global Race to Digitalise Leads to a Fragmented Cybersecurity Landscape



In the race to attract residents, cities undergo a rapid process of digitalisation, adopting a "move fast and break things" approach. To outpace competitors, cities swiftly implement smart solutions, often neglecting long-term planning and comprehensive risk analysis. The consequence is a series of one-size-fits-all approaches implemented worldwide, each city grappling with unique contexts without customising solutions to precise needs.

Low-latency networks facilitate automatic and real-time connections among devices, effectively steering the physical environment. However, the integration of system management is minimal, and responsibilities among involved parties are unclear. This gives rise to a fragmented cybersecurity environment, where cybersecurity standards and measures vary widely between different countries, cities, and even service providers.

The absence of clear cybersecurity strategies, coupled with high levels of IoT and ubiquitous digital infrastructures collecting resident data across multiple touchpoints, transforms cities into valuable data banks and prime targets for hackers. Extensive data gathering and wireless connections provide numerous avenues for hackers to exploit vulnerabilities.

Development Path

2026: The advent of enhanced low-latency networks expands the scope of public data collection.

2030: More and more cities leverage big data for economic benefits and service improvements.

2035: Instances of hacked and falsified data impacting governmental decisions come to light, sparking widespread concern throughout the public sphere.

About Futures Platform



Futures Platform is the leading strategic foresight tool that brings together a visual collaborative platform, the expertise of professional futurists, and cutting-edge artificial intelligence that augments human analysis. It's an all-in-one toolbox for foresight and management teams, ensuring strategy, innovation and decision-making processes are future-proof.

At its core, the platform features a library of more than 1500 analyses of future trends, scenarios and emerging change signals – from technological and environmental to societal and market shifts, with a focus on the long term. These compact, easy-to-digest analyses by futurists are enhanced by an AI-powered news search engine, providing additional information and real-time updates on the latest developments.

The collaboration features allow teams to map future changes on visual foresight radars, build scenarios, collect insights, and evaluate identified future changes. On top of this, a team of professional futurists and foresight consultants are there to help and guide organisations on their foresight work, from custom scenario analyses and horizon scans to building organisational foresight capabilities to the next level.

www.futuresplatform.com













Also by Futures Platform



Futures Intelligence: How to Turn Foresight into Action

A practical handbook on futures intelligence that breaks down different types of futures knowledge, including trends, scenarios, weak signals, horizon scanning and more.

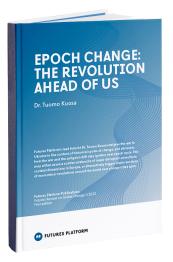
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