**MOST INNOVATIVE COMPANIES 2025** 

# In Disruptive Times, the Resilient Win

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# The Moving Target of Innovation Excellence

Successful companies are successful innovators. Whether you're a leader seeking to extend your lead, an incumbent committed to navigating disruption, or an upstart hoping to change the game, **innovation excellence** is essential to transform aspirations into results. And a review of BCG's two decades of innovation research and recommendations shows that while some things are evergreen, innovation excellence is a moving target.

Particularly in times of uncertainty and turbulence, organizations that can innovate rapidly and effectively have an edge. We are in such a moment now. Rapid advances in AI are accelerating the pace of digital disruption, and rising geopolitical tensions are threatening to transform the economic assumptions that shaped the innovation systems and supply chains of global companies.

This year's Most Innovative Companies report looks back in order to look forward. Rather than focusing on what's on the mind of innovation leaders today, we explore insights, trends, and concerns that emerge across the **18 editions** of the report that we've published over the past two decades. The first chapter focuses on some enduring truths about innovation and explores the challenges that confront European innovators. In later chapters we discuss how digital continues to change the game for innovators, and we offer a perspective on how innovation leaders can build advantage amid geopolitical uncertainty.

## Innovation Is Essential and Challenging

Because companies need to deliver profitable growth and total shareholder return (TSR), innovation has consistently ranked as a top corporate priority over two decades. Year in and year out, a strong majority of companies have viewed it as a top-three priority, showing only relatively small fluctuations even in the face of significant economic shocks such as the Great Recession or the onset of the COVID-19 pandemic. **(See Exhibit 1.)** This has been true across all regions, but China stands out with 95% of its respondents reporting innovation as a top three priority in 2024—the most of any region apart from India, which also came in at 95%. And China has ranked either highest or second-highest in prioritizing innovation in each of our six most recent reports.

But translating aspirations into results is hard. First, you have to back up aspiration with investment—and for two decades, most innovation leaders have done that, with a substantial majority each year reporting their intention to increase spending on innovation, and typically less than 10% intending to reduce spending. Even in the midst of the Great Recession, 58% planned to boost innovation investment.

But spending, however necessary it may be, is insufficient. There is no discernable correlation between R&D spending and TSR. You have to spend it on the right initiatives, and you have to build an innovation system and culture that rapidly and efficiently moves the most promising ideas in a portfolio of projects from concept to offering—while also systematically shutting down efforts that prove less promising. And you have to be able to do this over and over again.

## Innovation Has Remained a Priority Even in Challenging Economic Times



Where does innovation/R&D/product development rank among your company's priorities?

Sources: BCG Global Innovation Survey, 2005-2024; BCG analysis; World Bank.

<sup>1</sup>Annual percentage growth rate of GDP at market prices, based on constant local currency. Aggregates are based on constant 2015 prices and expressed in US dollars.

Unfortunately, too few companies' innovation systems are up to the task. From 2021 to 2024, the proportion of executives who said that they see their organizations as either a global innovation leader or an industry innovation leader fell by 24 percentage points. And objective data confirmed their feelings: innovation readiness-as measured by BCG's proprietary Innovation to Impact (i2i) **benchmark**—fell precipitously during the same period. Our **2021 report** found that just 20% of companies were ready to translate ambition into results. By the 2024 edition, a scant 3% of companies scored in the ready zone. Some of this decline undoubtedly reflects the impact of COVID-19, which threw a wrench into global innovation systems. But it also stemmed from the fact that most companies lacked the culture and processes necessary to make sharp decisions in the face of accelerating technological progress and increasing uncertainty.

Nevertheless, long-term innovation excellence is possible. From 2005 to 2023, BCG's innovation reports included a ranking of the year's 50 most innovative companies determined through an algorithm that took into account the views of global innovation executives and select financial metrics. Over those years, 178 unique companies earned a place on the list at least once. Double-clicking on those companies reveals that 14% were "serial innovators," earning a place in the ranking in ten or more years, and just 3% appeared in the ranking every year. Serial innovation is hard because innovation excellence has always been a moving target, with new challenges constantly arising in the strategic landscape: new rivals, new technologies, and (possibly now) new rules.

## **Challenge: New Rivals**

Innovation is a competitive game in which the objective is to launch new offerings and continuously improve existing ones to strengthen your advantage in attracting and retaining the most attractive customers.

In industry after industry, we've seen new rivals emerge to compete with traditional players. Whether these challengers are disruptive upstarts or lower-cost rivals from rapidly developing economies, the playing field has become more crowded.

One major megatrend over the past 20 years has been the rise of China. In 2005, not a single Chinese company earned a place in our top 50 ranking, but by 2023 Chinese companies had captured 8 of the 50 slots. **(See Exhibit 2.)** Since 2009, when the first one made the list, a total of 13 Chinese companies have ranked. Although only one of these telecom giant Huawei—has emerged as a serial innovator, Chinese companies may be more consistent innovators than companies from other economic regions, as 85% of their ranked companies earned a place in the rankings at least twice, compared with 70% for the full sample.

# Chinese Innovators Have Gained Global Prominence over the Past Two Decades



Slots captured on BCG's Most Innovative Companies top 50 list, by year and region

Source: BCG Global Innovation Survey, 2005–2023. <sup>1</sup>Excluding China and India.

China's rise on the list has been largely at the expense of North America, which has fallen from a high of claiming nearly three-quarters of the slots on the list in 2007 to occupying about half of them in 2023. On the other hand, North American companies have demonstrated the most staying power, accounting for two-thirds of our serial innovators.

Europe's share of the top 50 has seen only slight expansions and contractions over the past two decades, but it faces other challenges. (See the sidebar "Europe's Innovation Challenge.")

## **Challenge: New Technologies**

In addition to the influx of new competitors, the past 20 years have seen the rise of a series of new technologies that could increase the efficiency and effectiveness of the innovation process and enable new kinds of customer offerings. Innovators have had to explore and embrace—where strategically appropriate—mobile, platforms (and their related ecosystems), big data, the Internet of Things (IoT), and now the evolving flavors of AI. The next chapter of this report distills lessons from how the best companies have navigated digital progress—and the implications of those successes for the question of how to surf the generative and agentic AI waves.

## **Emerging Challenge: New Rules**

Digital is one source of disruption, but it's not the only one. Currently, many long-held assumptions about globalization and trade that were foundational to companies' global innovation systems are coming into question. Although leaders are understandably focusing now on sourcing and supply chain concerns, innovation will be essential to navigating uncertainty in both the short term and the long term. Consequently, innovation must move up on the C-suite agenda. The third and final chapter lays out what companies need to do now to rethink innovation for a potentially new geopolitical era.

# **Europe's Innovation Challenge**

The good news is that Europe's 31% share of ranked companies exceeds its share of global GDP—but Europe knows that it faces an innovation challenge. The EU's 2024 **Draghi report on European competitiveness** could not be clearer on this point: "there is no EU company with a market capitalization over €100 billion that has been set up from scratch in the last fifty years, while all six US companies with a valuation above €1 trillion have been created in this period."

A look at the 55 European companies that earned at least one spot on our top 50 lists over the last 20 years suggests that the region's industry focus is partly responsible. (**See the exhibit.**) Only 9% of the region's top innovators were in technology hardware or software—in contrast to 18% for North America, 31% for China, and 19% for the rest of Asia-Pacific (which complements its commitment to tech with a strong showing in industrials).

Moreover, Europe's top innovators have shown less persistence than innovators elsewhere, as 36% of them have earned a ranking in only one year, the highest of any region. Europe can claim just 4 serial innovators of the 25 companies that qualify for that status globally: BMW, Daimler, Philips, and Siemens.

Europe's top innovators tended to earn lower positions on the list, too. Just 4% of Europe's ranking companies made the top 10, compared with 17% for China, 25% for North America, and 30% for the rest of Asia-Pacific. The heavier regional emphasis on industrial sectors than on tech and software in Europe could be a driver of this disparity. Beyond these three elements, many observers point to European companies' more conservative engineering cultures, the region's relatively bureaucratic regimes, and the EU's higher regulatory burden to explain Europe's underperformance. But European companies also underspend on innovation, relative to companies elsewhere. From 2005 to 2024, while North American firms increased their R&D intensity relative to their industry peers by 9%, European companies decreased it by 4.3 percentage points.

Today's geopolitical uncertainty may present a significant opportunity for Europe. Traditionally, the US has been a global magnet for the best academic and tech talent. Could Europe pursue a radical ambition to become a software-first leader in responsible AI, perhaps—as proposed in the Draghi report—through continued investment in computing infrastructure and regulations that encourage enhanced AI collaboration within industries? That, together with the region's visa policies and intra-border mobility, could significantly enhance its value proposition to world-class talent. And Europe's high proportion of privately held companies, which face less pressure to drive quarterly results, put the region in a good position to shift its focus to long-term value creation.



# Europe's Innovation Challenge as Reflected in Our Annual Rankings of the Year's Most Innovative Companies, 2005–2023

### PRODUCT

Europe's innovators skew more industrial than high tech

Distribution of companies in the Most Innovative Companies top 50 list by region and industry (%)<sup>1</sup>



#### PERSISTENCE

Europe's innovators are more likely to have appeared on the list only once

Distribution of companies by region and frequency of appearance (%)<sup>1</sup>



#### POSITION

Europe's innovators have typically ranked lower on the list

Distribution of rankings (%)<sup>1</sup>



Source: BCG Global Innovation Survey, 2005-2023.

**Note:** The Product chart identifies the industry sector distribution of individual companies (by region) included on BCG's lists of the 50 Most Innovative Companies from 2005 to 2023. The Position chart tracks the ranking instances and positions of individual companies (by region) included on those charts. The Persistence chart identifies the number of times individual companies (by region) ranked on those lists. Because of rounding, not all bar segment totals add up to 100%.

<sup>1</sup>Africa, the Middle East, and Central and South America are excluded because only three companies from those regions were ranked during 2005–2023. <sup>2</sup>Excluding China.

<sup>3</sup>"Other" includes chemicals; consumer goods; durable goods; energy; financial institutions; insurance; materials; media; retail; telecommunications; transportation; and travel, tourism, and hospitality.



# Rising to the Digital Innovation Challenge

Today, the world's leading innovators are digital innovators. Although their products, services, and business models may not be primarily digital, digital tools have inevitably played a key role in shaping and speeding their path from initial concept to successful commercial offering. And in the two decades that BCG has been publishing its annual Most Innovative Companies research, the table stakes for digital excellence in innovation have evolved dramatically.

The word *digital* did not even appear in the first edition of the report, which was published in 2005. We had seen the rise of the internet, but the imperative for traditional businesses to embrace digital beyond having a website was not yet obvious. Amazon, one survivor of the bursting of the dot-com bubble, had just introduced Prime—but its initial commercial cloud offerings were still a year away. And although innovators were starting to contend with the implications of mobile for their offerings and processes, the iPhone would not debut for another two years. Few innovation executives in 2005 would have imagined that by 2025 mobile would be table stakes, cloud computing would be ubiquitous, and GenAI would be a major new competitive frontier. New technologies have the potential to significantly alter business economics and power fresh offerings and business models. Not every new technology has strategic value for every company, but companies need to study every new technology and embrace it if it can help. Critically, waves of new technology can build on one another and make catching the next wave easier. Thus, for example, organizations that had experience with big data adapted more easily to machine learning, and those with machine learning expertise had an edge in exploring AI.

The rest of this chapter reviews the key technology waves of the past two decades and offers some thoughts on how to ride the current GenAI wave.

## Innovation Across Multiple Waves of Technological Progress

Over the past two decades, innovators have had to navigate a series of technological rapids.

First, mobile and apps enabled new ways to connect with and collect data on customers, challenging nearly all companies to up their software game. Social platforms offered new possibilities for customer insight and crowdsourced innovation. IoT enabled new business models (such as selling outcomes rather than products) and offered insights on how to improve products and processes via real-world data gathered from connected devices.

Then the cloud came into being, giving innovators access to unparalleled computing power anywhere, along with opportunities to create rapid, scalable prototypes of new offerings. Robotics enabled new flexible manufacturing techniques. AI made possible more data-driven R&D decisions and dynamic new value propositions such as personalization. And GenAI and its latest manifestation, agentic AI, promise to turbocharge ideation and transform the talent model for innovation. All of these developments have redefined the state of the art for innovation analytics. (See the sidebar "The Expanding Possibilities of Innovation Analytics.") An analysis of trends in venture capital investment across these key technologies is illuminating. **(See Exhibit 3.)** After all, today's venture investments will shape tomorrow's breakthrough technologies. At the beginning of the period, companies involved in IoT captured nearly half of the investment total, but by the end of the period, AI and GenAI were capturing nearly all of it.

If you build it, they will come—and organizations are hard at work building up their digital innovation capabilities. The share of companies that mentioned digital in connection with innovation in their corporate earnings calls doubled from 2005 to 2024, and the best innovators are extending their lead. Today, all innovators discuss digital innovation more than they did in the past, but serial innovators are doing so nearly four times as much as other companies. (See Exhibit 4.)

The point isn't to adopt every technology but rather to go deep on the ones that give you a strategic edge. And since technologies evolve and often build on one another, it's essential to move quickly to build organizational literacy in technologies that might matter, instead of taking a waitand-see attitude toward them. The next section focuses on Nintendo's digital innovation journey.

### **EXHIBIT 3**

# Waves of Digital Progress Are Evident in Venture Capital Commitments



Relative share of venture funding for seven key technologies (%)

Sources: Tracxn Funding Database; BCG analysis.

Note: Data captures all recorded venture capital funding rounds in the Tracxn database with these tagged technologies.

# The Expanding Possibilities of Innovation Analytics

Over the past 20 years, successive waves of digital progress have transformed the discipline of innovation analytics. What started as laboriously created snapshots of specific sets of highly curated data has evolved into a dynamic discipline that can perform real-time analysis of multiple sources of unstructured data. The field has evolved in three phases, all enhanced—and some enabled—by technological progress.

**Landscaping.** The field began here, leveraging network analytics and natural language processing to reveal patterns in selected large data sets. For example, exploring large databases of patents might enable a company to accomplish a number of valuable objectives:

- Identify unexpected and attractive adjacent growth opportunities by mapping the citation networks for their patents.
- Discover potential partners or acquisition targets by seeing which companies' patents are most attractive in strategically important technology domains.
- Find the best places to locate an innovation center on the basis of proximity to key researchers and technology talent.

**Sensing.** The next phase of innovation analytics brought the ability to monitor relevant data flows for insight, opening the way for strategic activities such as these:

- Mine social media streams to map evolving customer sentiment.
- Study event transcripts, news wires, blogs, websites, and other online sources to spot sentiment shifts in stakeholders such as investors, employees, and policymakers.
- Examine venture capital flows and earnings call transcripts for clues to changes in the focus and strategic intent of competitors.

**Predicting and Advising.** The rise of big data, machine learning, and AI enabled the next phase of innovation analytics. Today, AI agents can monitor trends in data and provide real-time alerts to innovation teams. Tomorrow, they may be able to scour a pharmaceutical company's past efforts in order to make recommendations about which compounds within its research portfolio have the greatest potential, or to help an equipment company identify white spaces for new products and services by exploring data and causes for customer downtime.



Over the Past Two Decades, Discussion of Digital Innovation in Earnings Calls Has Risen Significantly, Particularly Among Serial Innovators

Share of earnings call paragraphs mentioning digital topics in innovation (%)



Sources: BCG Market Sensing (2005-2025); BCG analysis.

**Note:** Nearly all US listed firms have earnings calls, but fewer European and Asian companies do earnings calls if not engaged with US markets. <sup>1</sup>Companies that have ranked in the Most Innovative Companies top 50 for ten or more years (excluding Huawei, which conducted no earnings calls). <sup>2</sup>Includes all global, publicly listed firms that conduct earnings calls.

# Surfing the Waves: Nintendo's Switch in Time

In the early 2000s, Nintendo's leadership in the video game industry—built on its GameCube console, its GameBoy portables, and legendary games such as Super Mario and Pokémon—faced a challenge from above. New, high-end, higher-priced consoles leveraged advances in computing power and the rise of the internet to offer novel value propositions. Sony's PlayStation 2 was faster and featured DVD-quality video, and Microsoft's Xbox showcased highend graphics and online gaming via Xbox Live.

Nintendo responded by deploying these same technologies in a different way, creating equally revolutionary new products at lower prices and significantly outselling the competition. In 2005, Nintendo released the DS, the first portable gaming device that leveraged Wi-Fi to support online gaming away from home—featuring dual screens and innovative touchscreen controls unlike anything then available from rival products. And the following year, Nintendo's Wii console introduced motion-sensing technology to enhance players' gaming experience, eventually selling more than 100 million units.

The next wave of technology—mobile and smartphones presented a different challenge, this time from below. As mobile-native games such as Clash of Clans gained adherents, they threatened to reduce the relevance of Mario and other core Nintendo franchises. Here, to gain speed and allow its engineers to remain focused on the company's next-generation high-end release, the company opted to partner, licensing the Pokémon intellectual property to Niantic to create the first mainstream application of augmented reality in gaming. The result, Pokémon Go, was a huge success, generating 500 million downloads in two months. Nintendo separately partnered with DeNA to create new mobile-first games such as Super Mario Run and with Google Cloud to support the simultaneous release of these games in more than 150 countries.

Although these mobile moves did not contribute as significantly to Nintendo's top line as past consoles had, they kept its franchises front and center for customers and paved the way for the blockbuster launch of the Nintendo Switch in 2017. Switch erased the distinction between consoles and portables, and in combination with Switch Online—Nintendo's first significant subscription business—enabled customers to engage with everything from classic 1980s franchises to Nintendo's latest offerings. Since launch, Switch has sold over 139 million units and more than a billion games, and the company has just launched Switch 2. As evidence of Nintendo's continued innovation, Switch 2 leverages AI to enhance graphics performance and incorporate facial recognition in games.

## **Mastering the AI Wave**

Last year's report included **a chapter on GenAI** that explored the potential of the new technology to reshape the full innovation cycle, from strategizing to creating and to scaling offerings. What a difference a year makes. Today's transformer models—exemplified by the rise of agentic AI—are radically more powerful and reliable. The rise of agentic AI—in which special-purpose agents work independently on specific tasks—promises to be especially disruptive. For example, an agent could write 5,000 lines of workable code in an afternoon, while a typical human software engineer might write 200 in a day.

Leading companies are already embracing agentic AI. Microsoft's CEO, Satya Nadella, estimates that agents now write 30% of the company's code. At a leading financial institution, agents debug 100% of the company's code. An agent helped consumer products company Reckitt reduce its product concept development time by up to 60% while also significantly improving the quality of the resulting products.

It's easy to imagine components companies developing agents to help customers incorporate their products into larger offerings or using agents to generate multiple virtual prototypes and conduct online customer research to refine them. As the technology progresses, agentic features may become essential to the value propositions of complex products. It also seems clear that agentic AI will drive two significant shifts. First, the speed of competition will skyrocket as agents master more and more tasks that humans now perform. Second, the innovation talent model must change. Speed is great, but it confers only a temporary advantage. Innovators will need to focus their people on figuring out what to do with that speed: identifying future profit pools in areas where there's a right to win, and figuring out what it will take to build a sustainable competitive advantage. GenAI will be a thought partner and colleague as humans focus on defining the prompts, validating the results, and applying business and societal context to ensure responsible outcomes.

As AI accelerates the competitive tempo, innovation excellence will become ever more important. The companies most likely to win will be those that are already comfortable with AI. It's hard to be a fast follower when you can't match the speed of the market. And if you want to catch the next wave, you have to be in the water.



# A C-Suite Innovation Agenda for Turbulent Times

In 2005, when we published our first Most Innovative Companies report, globalizing a company's innovation footprint was a hot topic. Rapidly developing economies (RDEs) such as China and India offered high-quality engineering and manufacturing talent at relatively low cost. Not only did investing in RDEs enable companies to shorten time to market and boost returns on innovation by investing more brainpower in priority projects, but also it put them in a better position to imagine new offerings targeting the rising middle classes of those emerging markets. Most global companies pursued the opportunity and saw significant benefits.

Now, two decades after our first report, the assumptions and economics underlying globalization are in question, and trade frictions are rising. It's impossible to know whether this moment is just a frozen instant in a pendulum swing or marks the advent of a new set of rules destined to persist for decades. Faced with this turbulence and uncertainty, C-suite leaders understandably focus on shortterm issues such as supply chain disruptions—but that's not enough. It's essential for them to start asking now how innovation can help the company navigate the short term and position it to win in a potential post-globalization era.

History teaches that only one thing is certain: inaction is not an option.

## **Questioning Longstanding Assumptions About Globalization**

Over the past few decades, companies and their customers have benefited from the world's becoming more connected and trade more frictionless. From 2005 to 2024, global exports of goods increased by an average of 4.4% per year and more than doubled in value from \$10.2 trillion to \$23.3 trillion. (See Exhibit 5.) Trade between China and Southeast Asia saw both the largest absolute increase and the fastest growth; and trade between China and Europe, the US and Europe, and the US and China also saw high absolute growth and a strong growth rate. The shift has resulted in lower prices for customers and given companies access to global markets. It has led to the rise of tech hubs with world-class expertise in specific areas, to greater cross-border mobility for expert talent, and to complex dynamic global supply chains that enable companies to acquire the most cost-effective inputs regardless of where they are produced.

## Over the Past Two Decades, the World Has Become More Interconnected

Change in trade of goods through major corridors, 2005 vs. 2024 (\$billions)<sup>1</sup>



Sources: UN Comtrade; S&P (China 2024 data); BCG analysis.

**Note:** 2023 trade data used in place of unavailable 2024 trade data; mirrored data for Russia 2024. ASEAN = Association of South East Asian Nations; CAGR = compound annual growth rate; GCC = Gulf Cooperation Council. <sup>1</sup>Corridors shown in this map accounted for ~45% of global trade in 2024.

The process of globalization has also caused a shift in some jobs from developed to developing countries—and this process of de-industrialization has had understandable political ramifications, fueling protectionist sentiment across the developed world. It has also contributed to geopolitical turbulence and uncertainty regarding the rules of the road for globalization going forward. At what level will economic barriers (such as tariffs) eventually settle? What noneconomic barriers (such as restrictions on immigration or intellectual property transfers) will characterize the next phase of globalization?

## **Inaction Is Not an Option**

Although the situation remains unsettled and the shape of the future stable geopolitical regime unclear, history suggests that companies that allow uncertainty to paralyze them rarely prosper. The best companies have the foresight and resilience to benefit from uncertainty. Having imagined multiple possible shifts in the competitive landscape, they are ready with ideas for new offerings and other moves that extend their advantage over rivals. Innovation can play an essential role in ensuring that a company is ready to move when the dust starts to settle. Is there a chance to expand innovation ambition into new domains or a necessity to exit others? An imperative to rebalance the company's project portfolio in response to new customer priorities? An opportunity to recruit critical talent and build capabilities? A need to rethink the shape of the business's innovation footprint?

The best innovators outperform when times are tough. In the two biggest crises of the past two decades—the Great Recession and the COVID-19 pandemic—the most innovative companies in our sample outperformed global stock indices. (**See Exhibit 6.**) Coming out of the Great Recession in 2009, the best innovators achieved a TSR that was nearly 14 percentage points higher than the overall market's. And during the first year of COVID-19, they outperformed by nearly 24 percentage points.

## Over the Past Two Decades, the Best Innovators Outperformed in Crises

TSR



Sources: BCG Global Innovation Survey, 2005-2023; CapitalIQ; BCG analysis.

**Note:** Chart compares the one-year TSR performance of the publicly listed companies that ranked among the top 50 companies in BCG's Most Innovative Companies reports from 2005 through 2023 with that of the MSCI World stock index. Annual reweighting of basket. pp = percentage points; TSR = total shareholder return.

In 2009, in response to the Great Recession, serial innovator Walmart revamped its lower-price-point Great Value private label portfolio, adding new products, reformulating others, and simplifying packaging. These measures helped drive the company's 3.2% increase in same-store sales that year, up from just 1% in the prior one. Also in 2009, Pfizer, an eight-time entrant in BCG's Most Innovative Companies top 50 rankings, acquired Wyeth. The move accelerated its ambition for leadership in biopharmaceuticals and vaccines and created billions in value for Pfizer. In the bigger picture, the acquisition marked a turning point in the company's evolution into a more diversified, innovation-driven biopharma leader.

When COVID-19 hit, Zara leaned on its flexible manufacturing and supply chain to shift production closer to end customers, enabling it to make its fast fashion even faster and allowing it to adapt better than rivals to shifting customer preferences and outside shocks (such as supply chain slowdowns). Early in the pandemic, the company leveraged its agile logistics model to help Spanish government agencies source medical supplies. The company's 77% increase in online sales in 2020 bested all rivals, and in 2021 its parent company Inditex was rewarded with its third appearance in the Most Innovative Companies rankings.

## Scenario Thinking Is Essential

Although we can't know the future, we can imagine possible futures—and assess the challenges, opportunities, and actions that each implies. At a minimum, scenario thinking of this kind increases the management team's preparedness—and the organization's resilience—by forcing it to consider how to prosper in a set of distinct, plausible, but edge-case strategic environments.

Each industry—and the position of each company within it—is different, so we won't propose generic scenarios. Instead, we'll offer some best practices on how to construct your own:

- **Be clear on your objectives.** Achieving clarity will likely entail a combination of testing your organization's resilience to possible shocks and identifying potential new opportunities that those shocks might present.
- **Set an endpoint.** For purposes of setting an innovation agenda, you will probably want to focus on the next five years.

- Identify your short list of most important uncertainties. Attention to current geopolitical and trade uncertainty is obvious and natural, but you should also decide on two or three other dimensions of uncertainty that are especially important to your organization. Perhaps it's the speed of evolution of a critical new technology, or the future interest rate environment, or an important customer trend.
- **Define your scenarios.** After contemplating the ways in which these uncertainties may evolve and interact, craft at least three—but probably not more than five—distinct and surprising, yet internally consistent and plausible scenarios that combine various permutations of how your uncertainties might resolve. At all costs, avoid scenarios that are too close to the strategic status quo.

It makes sense for the full senior management team to be involved in at least the last two steps of this process. This approach will ensure that the group feels it has ownership of the scenarios—and will therefore avoid the pitfall of having executives criticize the scenarios in the next step instead of engaging with them.

## Four Critical Questions for Leaders

Once you have your scenarios in hand, we suggest that you bring the management team together for an exercise in thinking through each scenario by answering four critical questions that are related to key aspects of your innovation system:

- **Ambition.** How would you shift your target innovation domains in response to likely shifts in profit pools? What new challenges will customers face that your company is well positioned to solve? Will lost market access or increased input costs shrink your addressable market, disrupting the economics that drive your advantage in some domains?
- **Portfolio.** Which projects in your innovation portfolio should you double down on, redesign, or discontinue and what new projects should you add? On the upside, are there opportunities to compensate for a loss of global scale by localizing products to earn a price premium? Are there ways to innovate around newly costly or scarce inputs?

- **Talent.** What talent constraints or opportunities are likely to arise, and how should you respond? Where do you see chances to pick up specific world-class experts or plan ahead for teams that might run into visa issues? Might some of your key experts be unable to co-locate to drive priority projects?
- **Footprint.** What are the implications of the scenario for your innovation footprint? Could any of your innovation centers become stranded assets? Do shifts in profit pools provide a rationale for establishing new innovation operations in promising geographies?

The point isn't that one of the scenarios might occur in its entirety, but rather that the array of scenarios can help you challenge traditional assumptions, reveal unexpected tailwinds and headwinds, and expand your sense of the possible. The beauty of this approach is that after you've thought through your scenario-specific action plans, you can examine them for patterns. Does your review uncover no- or minimal-regret moves that make sense in all or most scenarios and leave you better positioned regardless of how things turn out? For scenario-specific moves, are there identifiable early warning signs that the company can monitor as triggers?

Think about this not in a vacuum but through the lens of business competition. In each scenario, are you better positioned than rivals or are you at a disadvantage? Where competitors have the edge, what moves would you make to turn the tables? Where you're relatively well positioned, what would you do to extract additional advantage while your rivals' eyes are off the ball? Disruption can be an opportunity. Don't waste it.

At the end of the day, innovation has always been about looking around corners to envision what new offerings are most likely to drive long-term growth and value. Disruption of one kind or another has always been a fact of life. But unlike past crises such as recessions and pandemics that ran their course and were followed by a return to something resembling the status quo ante, this one may result in a very different global landscape for business. That's all the more reason for innovators to train their creativity on imagining worlds that might come into being and on working out their advantaged position in them.

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If you would like to discuss this report, please contact the authors.

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