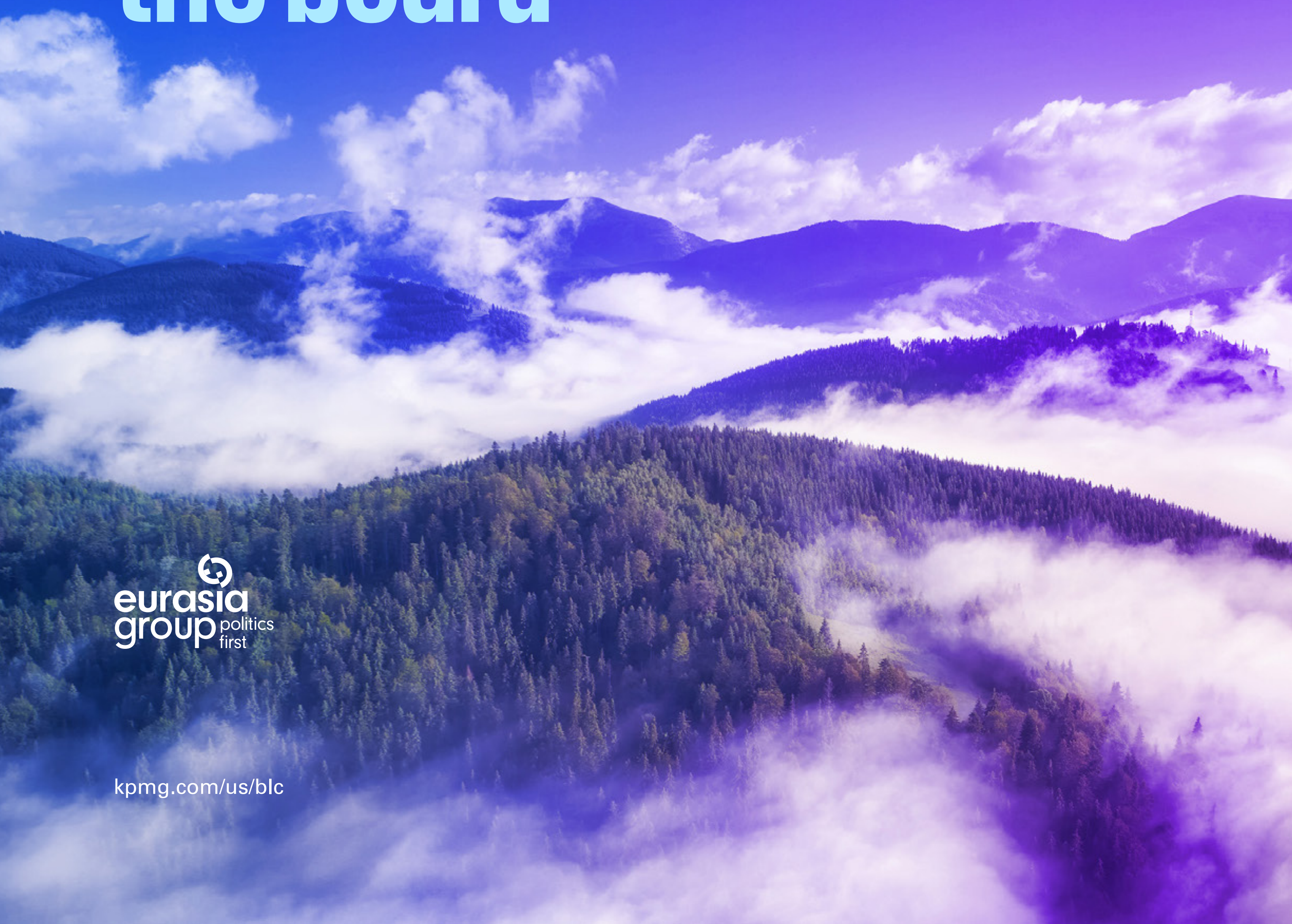
Climate in context
Geopolitics, business, and the board



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Not since World War Two and its aftermath has the convergence of geopolitics and business been more consequential: Global progress in tackling climate change is, of course, heavily dependent on countries fully delivering on stated commitments and announced policies—a big bet in an era of growing uncertainty, political instability, ongoing recession risk, and black swan crises. But the climate stakes are too high, and the long-term trajectory already set, not to remain hopeful. And where governments fall short, businesses—guided by their boards, and pressed by investors and regulators—have a major opportunity to pick up the slack. In many ways this is already happening—the private sector is gearing up.

In this collaboration between the KPMG Board Leadership Center (BLC) and Eurasia Group, our aim is to help widen the boardroom aperture on the global climate challenge—where it stands, and what's at stake—and to help boards position their companies for the risks, opportunities, and transformations ahead.

"As geopolitical interests converge with climate priorities in the West and beyond, we should see private investment becoming a primary engine for climate financing with a transformative impact," notes Stefano Moritsch, Global Geopolitics Lead at KPMG International.

Corporations and the investment community now understand the financial impact of climate change and have begun to reshape the way capital is allocated accordingly. Investors have responded positively to government announcements that explicitly connect the geopolitical issue of energy security to the decarbonization agenda. Greater transparency about the implications of climate change through disclosure and reporting requirements is quickly becoming the norm.

Energy-transition investing, technological improvements, energy efficiency, as well as business-to-business cooperation in low emissions markets, all constitute an unprecedented opportunity. True, this means companies will be spending more time, money, and effort navigating fragmented regulatory environments, dodging geopolitical curve balls, and investing in ambitious corporate sustainability strategies, says Moritsch. "But for businesses focused on long-term value creation, the end prize—a thriving society and marketplace, and a healthy planet for future generations and the businesses serving them—is clear and compelling."

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The past few years have also seen increasing levels of geopolitical turbulence, with escalating trade tensions, wars in Ukraine and the Middle East, the COVID-19 pandemic, renewed pressure on supply chains, and multibillion-dollar industrial policies, all of which have immediate consequences for corporate leaders. The ongoing geopolitical recession will continue to torpedo long-standing assumptions about globalization, administering tough lessons and forcing tougher decisions. But geopolitics cannot outrun climate, and one of the defining characteristics of the next few years will be the messy and deeply contested transition away from fossil fuels. As Eurasia Group Vice Chairman Gerald Butts observes, "this shift will confer once-in-a-generation benefits on the ones who get it right and consign obsolescence onto those who don't."

This may be the coolest year of the rest of our lives

According to the National Oceanic and Atmospheric Administration, the 10 hottest years on record are also the last 10 years, with 2023 the hottest of all. With El Niño peaking in the first half of 2024 and its knock-on effect on global temperatures, this year is almost certainly going to be even hotter. In 2024, El Niño will bring extreme weather events that will hit and hurt global supply chains, exacerbate food insecurity, stress-test water levels, worsen natural disasters, drive up migration flows, and wreak political instability around the globe, with the most drastic consequences for countries in the Indo-Pacific, Latin America, and Southern Africa.

The problems of stock and flow

Climate change is not merely a business trend; it represents an existential transformation. We are already far into the “change” part of climate change. Of the 1.74 trillion metric tonnes of carbon currently in the atmosphere, 75 percent of that has been emitted in the past 25 years, with carbon dioxide currently sitting at 425 parts per million. In 2021, we pumped a record 36.3 billion tonnes of carbon dioxide into the atmosphere; we outdid ourselves with another record 36.8 billion tonnes in 2022, and while the 2023 data is still being compiled, it is expected to land just shy of 40 billion tonnes. This is the “stock” problem; carbon dioxide in the atmosphere is utterly indifferent to time or place. Irrespective of whether it was emitted last century or last week, it’s all up there.

The stock problem may be the most important scientific number, but the “flow” problem is the stuff of geopolitics, with a seismic shift in major emitters away from advanced economies toward emerging markets. The flow of carbon dioxide has also intensified in volume, with emerging markets already catching up and surpassing the West, as happened in 2006 with China, and will take place in the near future with India. But this asymmetry—in historical emissions and industrial development—also undermines any attempt to save the global commons in a G-Zero world, which is characterized by weak international institutions and a disinclination to absorb the costs required to solve the world’s biggest problem.

Exacerbating this problem, the inertia of the status quo is tectonic, making it near impossible to dislodge incumbents incentivized financially by short-term stability and long-term survival. The result is an entrenched equilibrium—a structural and self-satisfying system—that only an overwhelming exogenous force can disrupt. Climate change may be that force.

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Levers of change: Alternatives, incentives, readiness

Three factors will determine whether the moment of disruption has arrived: the availability of viable alternatives, the incentives to implement them, and the readiness of the market to adapt and accommodate them. This speaks to a key question that companies are facing today: Where do we sit when it comes to solving the flow problem? Are there viable alternatives available and are we ready to adopt them?

At its core, climate change is a question of energy, with electricity, heat, and transportation accounting for more greenhouse gas (GHG) emissions than all other GHG sources combined. The good news is that technological innovations, plummeting prices through scale effects, and the irreversibility of demographics are all pointing in the same direction.

When it comes to viable alternatives, it is not unreasonable to expect the West to generate almost all of their power from carbon-neutral sources within a decade, with emerging markets not far behind. While China remains the world's largest emitter, the scale of its investments in green energy outpaces anything happening in the West. Even if industrial policies temporarily slow down the speed of the transition, the overall direction of travel is clear. In the transportation sector, electric vehicles (EVs) are also hitting a tipping point, where technological innovations in batteries are converging with policies that phase out internal combustion engines. We are witnessing in real time the wholescale creation of the energy transition's supply side picture.

The demand side is equally inevitable, shaping its future trajectory through demographics. Young people today have an urgent and outsized incentive to avert the worst effect of climate change. For them, it is foreseeable, it is palpable, and it is material. Millennials, Gen Z, and Generation Alpha, the latter of whom are about to become teenagers, may form the largest cohort in history, and they are clear-eyed about the coming consequences, which are already manifesting.

Signposts ahead

That's the big picture and it is optimistic; but this does not mean the energy transition's glidepath will be easy. In fact, it is almost guaranteed to not be, with incumbents digging their heels in, leading to misallocated capital, stranded assets, and powerful countervailing forces. We know how the story must end, but the next few chapters will be turbulent. Understanding how they unfold and the key signposts to watch is crucial for everyone. Here are a few to keep an eye on:

Migration: It is unjust, but true that climate change will hit the most vulnerable populations hardest. Those who are least responsible will suffer the most grievous and immediate harm, and their only recourse will be to flee its effects. The future of climate change–induced migration will happen on an order of magnitude we haven't seen thus far. It will turbocharge long-simmering ultra-nationalist movements in the West, emboldening populists and upending long-standing political equilibriums, all the while feeding into a sense of permanent polycrisis.

Coping mechanisms: Decades of the stock problem means that the climate of the present and future will not resemble the past. We are already witnessing those consequences, with loss of life and livelihoods, and spiraling financial and insurance costs. The ability to identify scalable coping mechanisms must happen faster if we are to avert the consequences of progressively worse weather-related events.

Technology advancements: When the past can no longer serve as a probabilistic model for forecasting, we are compelled to adjust our expectations for the future. Climate change is already happening, but it makes it extremely difficult to predict what comes next, even though the stakes have never been higher. This is where advancements in technology, specifically artificial intelligence, can play a key role. However, the rollout of technological solutions is conditional on adequate resources commensurate with the scale of the challenge.

Advancing the boardroom conversation

Efforts to prepare for the U.S. Securities and Exchange Commission's (SEC) March 2024 climate disclosure rules, California's climate laws, and evolving global climate and sustainability reporting frameworks will challenge corporations and require deeper board engagement to oversee management's implementation plans.

But boards no longer view climate issues solely as a matter of risk and regulatory compliance. They're also recognizing the value creation opportunity for their companies: new markets and assets, alternative energy sources, resource efficiency, new products and services, and infrastructure and supply chain resilience.[1] Benefits may include immediate and longer-term revenue, employee and customer loyalty, and, ultimately, brand value. Such focus requires boards to drive an emphasis on innovation, and "integrate climate considerations into business metrics."[2]

[1] KPMG LLP, Climate risk and resilience, 2023.

[2] Boardroom climate competence: Advancing the board-management conversation, KPMG Board Leadership Center and Plan C Advisors, September 2023.

The physical impacts on business operations are increasing as extreme and unusual weather proliferates, yet the challenges of adaptation and mitigation are burdened by economic and geopolitical realities. At the same time, a wealth of innovation in greener products and ways of doing business offer tremendous opportunities for value creation across a wide span of industries. These factors are driving the evolution in the board-management conversation, along with increasing stakeholder pressure for transparency, attacks on greenwashing, and a focus on data sourcing and verification in preparation for upcoming regulatory disclosure requirements. Board members and management today are engaging more frequently in discussions on climate change and are seeking a broader array of perspectives from across the organization.

"The business implications of climate change and an energy transition become clearer every day," notes John Rodi, partner and leader of the KPMG Board Leadership Center. "How to get ahead of this and position the company for a very different future is becoming a standing agenda item in boardrooms."

As highlighted below, our work and interactions with boards—including in-depth interviews with seasoned directors and business executives[3]—provide insights into critical shifts in the board-management conversation associated with climate change, particularly around value creation, risk, talent, and communication.

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Value creation

Board-management discussions are focusing on areas that include:

Operating efficiency. Climate-related initiatives often provide an impetus for companies to operate more efficiently and reduce costs over the long term.

Government incentives. With the advent of the Inflation Reduction Act at the federal level, as well as numerous state and local programs, financial incentives are increasingly available in connection with EVs; solar, wind, and other types of renewable energy; battery storage; green hydrogen; carbon capture; and other climate-focused initiatives.[4]

Evolving products and services. While climate may disrupt many existing lines of business, it also opens the door for new products and services.

In our conversations with board directors and business leaders about effectively engaging with management on climate issues—and about the board's overall effectiveness overseeing climate-related risks and opportunities—several key themes stood out, including the following:

- Understand the landscape. The response of businesses to the implications of climate change is evolving, and boards, together with their management teams, need to keep pace.
- Engage across the enterprise. In the past, boards frequently received their climate updates from the chief executive officer (CEO), supported by a chief sustainability officer (CSO) or head of risk. With climate considerations increasingly viewed as core to value creation and corporate strategy, boards should ensure they are accessing perspectives from across all relevant parts of the organization.
- Align on the timeframe for investments. Given the long-term nature of some climate-linked opportunities, expectations around timeframes for success can support or defeat a project.
- Link climate-related value creation to the company's purpose. Perhaps the most important way boards can influence their companies' approaches to climate issues is to convey to management the importance of linking to the company's purpose.

[3] Ibid.

[4] Bank of America Institute, IRA ripple effect: 10 areas of impact, August 2023.

Risk

The risks of climate change are no longer hypothetical. The summer of 2023 offered a glimpse of what the future may hold in a warmer world, with devastating wildfires in Canada[5] and Hawaii,[6] floods in Norway[7] and China,[8] drought in the US Midwest threatening grain yields,[9] and severe heat and storms across a large part of the US leading to power outages. Not surprisingly, "directors are feeling a responsibility to understand how climate might impact their businesses."

Physical risk. Boards need to assess the robustness of the company's crisis management processes. In the past, it might have been sufficient for management to undergo a tabletop planning exercise to prepare for a production halt in an individual facility due to natural disasters common to the area. While such an exercise is still important, the board should expect an expanded lens so that the company is also ready for extreme weather events that were previously rare or even unheard of in areas where company operations are located, as well as in the supply chain. In addition, given the increasing possibility that numerous facilities will be impacted simultaneously—perhaps one by wildfires, one by flooding, and another by damage and/or lengthy power outages in the aftermath of a storm—the scope of management's readiness for new and unexpected complexity should be examined.

Transition risk. The policy, legal, technology, market, and reputation risks associated with transitioning to a lower-carbon economy,[10] known broadly as transition risk, is another critical area of increasing board-management engagement, both as a matter of opportunity and of managing risk.

Global market access. As climate becomes a crucial topic of regulation around the world, compliance in all markets in which the company does business is becoming more complex and may affect the company's strategy enterprise-wide. Particularly notable: the SEC final rules on climate change disclosure; and in the EU, the phasing in of regulations both with respect to disclosure (the Corporate Sustainability Reporting Directive [CSRD]), and in the form of a tax applied to carbon-intensive products produced outside and imported into the EU (the Carbon Border Adjustment Mechanism [CBAM]).[11]

Polarization risk. An additional risk that is challenging boards' ability to engage on climate issues is the prospect that business conversations that incorporate climate-related topics will be sidetracked or completely derailed by politicization of the topic.

Regulatory fragmentation risk. If mutually agreeable solutions to tackle climate change were hard to find in a globalized world where some form of international consensus existed, they will become even more quixotic at a time of mistrust and polarizing political division between nations. This means that companies will need to stay on top of an increasingly fragmenting climate policy regulatory agenda to make the most of opportunities—i.e., massive green energy subsidies, critical minerals procurement, trade incentives—as well as mitigate risks.

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[5] Ally J. Levine, Nia Williams, and Prinz Magtulis, Canadian wildfires burning land at record pace, Reuters, July 24, 2023.

[6] Marco Garcia, Maui fires: recovery to take years, Reuters, August 11, 2023.

[7] Terje Solsvik and Victoria Klesty, Norwegian river dam partly collapses, government expects more floods, Reuters, August 9, 2023.

[8] Simone McCarthy, Kathleen Magramo, and Berry Wang, China floods: More than a million displaced as Hebei region reels after record rains, CNN, August 5, 2023.

[9] Simone McCarthy, Kathleen Magramo, and Berry Wang, China floods: More than a million displaced as Hebei region reels after record rains, CNN, August 5, 2023.

[10] According to the US Department of Agriculture August 2023 Wheat Outlook, approximately 52% of US spring wheat production is within an area experiencing drought as of August 8, 2023, compared to only 18% as of the same time in 2022.

[11] As part of the CSRD, impacted companies must report on an audited "double materiality" basis for their entire operations, including US and other non-EU businesses that meet certain thresholds for EU-based revenue. Both CSRD and CBAM are effective in 2023 but applicability will phase in over a number of years. For more, see KPMG Financial w on CSRD requirements for non-EU companies.

Talent

How does the board engage with management to assess whether the organization is prepared? The board-management conversation should focus on whether there is appropriate expertise and accountability at the senior levels, whether there is widespread organizational climate-related capability, and the sufficiency of the company's processes and incentives to create the conditions for success. Of course, leadership, starting with the CEO, pulls it all together.

Evolution of the CSO. Relevant climate-related expertise at a senior level can add value as the company broadly considers climate impacts as an input to strategy.

Climate capability across the organization. Sustainability is not only the job of the CSO. As one director said, "Is sustainability shared in the supply chain? Is it shared by the sustainability team? Is it shared by the management team? Is it shared by the product team, which is responsible for the packaging? Is it shared by the marketing team, which is responsible for global product management? All of these areas impact the climate."

Attracting talent. Climate can also be a value creator in terms of attracting talent. Boards should understand this dynamic and encourage management to communicate climate action as part of company culture and recruiting.

Maintaining a climate-competent board. Climate literacy and continuing education at the board level are critical for all boards, and some boards may also need directors with deeper climate expertise as board members.

Communication

A web of reporting and regulatory disclosure frameworks dots the globe and makes consistent information and messaging its own challenge. From SEC rules, the CSRD, the Greenhouse Gas Protocol, the International Sustainability Standards Board, the Task Force on Climate-related Disclosures, and the new California disclosure legislation,[12] companies are increasingly facing the task of managing voluminous and sometimes competing requests for information from multiple stakeholders. Changes in both the regulatory landscape and investor expectations are driving enhanced board scrutiny and a focus on clear and consistent communication.

Oversight of disclosure as a matter of compliance. While voluntary sustainability reports may previously have received a light board or committee review, existing government scrutiny and upcoming mandatory disclosures in the US and the EU require a deeper level of oversight, comparable to oversight of financial disclosure. This begins with clarity as to who on the board or what committee has responsibility for oversight, and which communications that draw on the company's climate goals and metrics will be reviewed—earnings releases, quarterly and annual reports, proxy statements, investor presentations, promotional material, and more.

[12] Coral Davenport, California Governor to Sign Landmark Climate Disclosure Bill, *The New York Times*, Sept. 18, 2023.

Beyond compliance—moving toward alignment. Cutting through the noise across regulatory filings, sustainability reports, analyst days, marketing and advertising, and customer and employee relations, the company must communicate its approach to climate in a manner that is coordinated with strategy, verifiable by third parties, transparent to all stakeholders, and, above all, consistent. "Having the leader of the company driving the message makes all the difference," said one executive.

Boards should engage with management and ask the following questions:

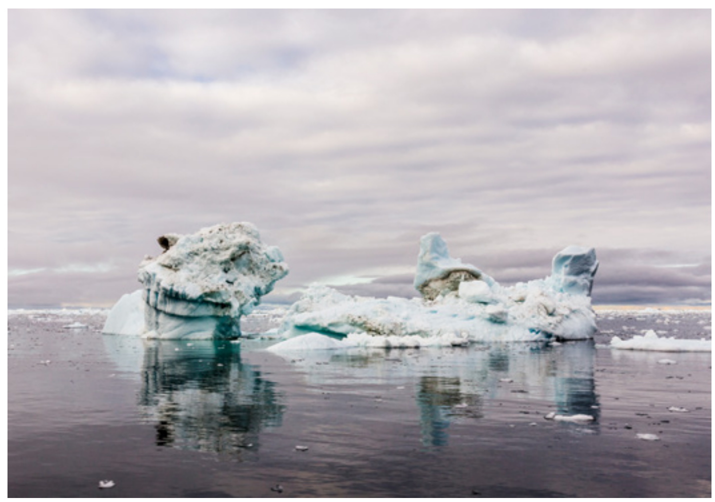
- Is the company's message clear, concise, and consistent?
- Is company leadership, including the board, able to articulate how the company's strategy incorporates climate risk and opportunity?
- What is the nature of reported and disclosed climate data? How has it been validated, assured, or audited?
- Who is the company sharing information with (third parties, employees, customers), and is that information consistent with what is being shared publicly?
- How does the board organize itself to set the tone and review (as needed) climate-related communications?

How the board and management approach climate-related issues will vary from company to company, influenced by the company's specific issues and the culture of the organization and of the board. But as we've seen through our interactions with directors, no matter how each company addresses it, the company benefits from this increased dialogue touching on matters of value creation, risk, talent, and communication.

Anything but usual

The impact of climate change will be global in every sense of the word—affecting countries, individuals, corporations, markets, investors, and the finite resources that they all depend upon. "Many businesses and boards recognize the urgency and are turning that realization into deeper conversations—and actions—to move their companies beyond business-as-usual," says Susan Angele, a senior advisor at the KPMG Board Leadership Center.

To be sure, tackling a global, existential challenge that is at times abstract and acute is anything but usual. It is perhaps the ultimate test of capitalism's ability to innovate, collaborate, and operate with the global commons in mind. It is where geopolitics meets business—and where today's boardroom conversations on climate change and energy transition stand to have a profound impact on the future.



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Contributors and Contacts

Gerald Michael Butts
Vice Chairman,
Eurasia Group

John H. Rodi
Partner and Leader,
KPMG Board Leadership Center

Stefano Moritsch
Global Geopolitics Lead,
KPMG International

Scott Young
Director, Strategic Initiatives &
Director, Geo-technology
Eurasia Group

Susan Angele
Senior Advisor,
KPMG Board Leadership Center

Amanda North
Founder and CEO,
Plan C Advisors

Contact

kpmg.com/us/blc
T: 1-800-808-5764
E: us-kpmgmktblc@kpmg.com

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