Smarter
technology
for all

Lenovo

Beyond Boundaries

Innovation for a changing future

Innovation accelerated

> **" Over the past year, COVID challenged everyone and changed everything – so we responded to the challenge with what we know best: innovation. Now, on the threshold of the next reality, innovation remains key to unlocking our full potential. As we transform from a leading device maker to a global technology powerhouse, capable of solving the most challenging problems faced by our customers and the wider world, this commitment to innovation is more crucial than ever.**
>
> **For us, innovation is by its nature unpredictable, and is applied in unexpected places – such as revolutionizing hybrid working environments and improving environmental and corporate governance practices. But none of this happens in a vacuum, which is why we talked to business leaders around the world about what comes next – and how together, a focus on innovation can help us change the world for the better. "**
>
> **Yuanquing Yang,**
> **CEO, Lenovo**

As a company undertaking its fourth transformation, we know a great deal about change, resilience, and growth. Innovation has always been at the heart of our approach: the key to unlocking potential in our business. This past year COVID has challenged the world - and Lenovo - in ways few imagined possible. No part of humanity has escaped its impact, and the fiber of society has been stretched but not broken.

We responded to this challenging environment with what we know best – innovation. This ranged from areas you might expect (our products) to the less predictable but equally important (such as enabling our employees to work remotely, making commitments to improve the climate, and pivoting our manufacturing to ensure we continued delivering for customers).

Lenovo is a different kind of multinational. We have 71,500 members of the Lenovo family speaking more than 100 languages. We do business in 180 markets, and 97% of Lenovo business managers are native to the markets where they work. This gift of being truly global has taught us there are many paths to innovation and just as many ways to be innovative. It is not just about products but the process, structures and thinking that bring our technology to your

doorstep - not just the 'what' you innovate but the 'how' too. We've also learned in the course of more than 35 years that innovation doesn't just happen; it must be intentionally designed, and getting it right is hard. But it is indispensable if we are to create the solutions our customers and the wider world need - and to fulfill our mission of bringing smarter technology for all.

To do this, innovation must be accelerated. This is why we commissioned 'Beyond Boundaries,' to temperature check the global state of innovation and provide businesses with the tools they need to prepare for and embrace this acceleration as we look to the future. The global research you'll read below is designed to inform a new framework for innovation. One that we at Lenovo will use to drive our transformation from a global devices company to a technology leader in global devices + solutions, services, and software. We think others will also find it a useful tool to think about the levers that catalyze innovation and apply it to their own businesses.

The more innovative we are - not just in the technology industry but every sector - the better. Only then can innovation be truly accelerated, making life better for us all.

Beyond Boundaries:
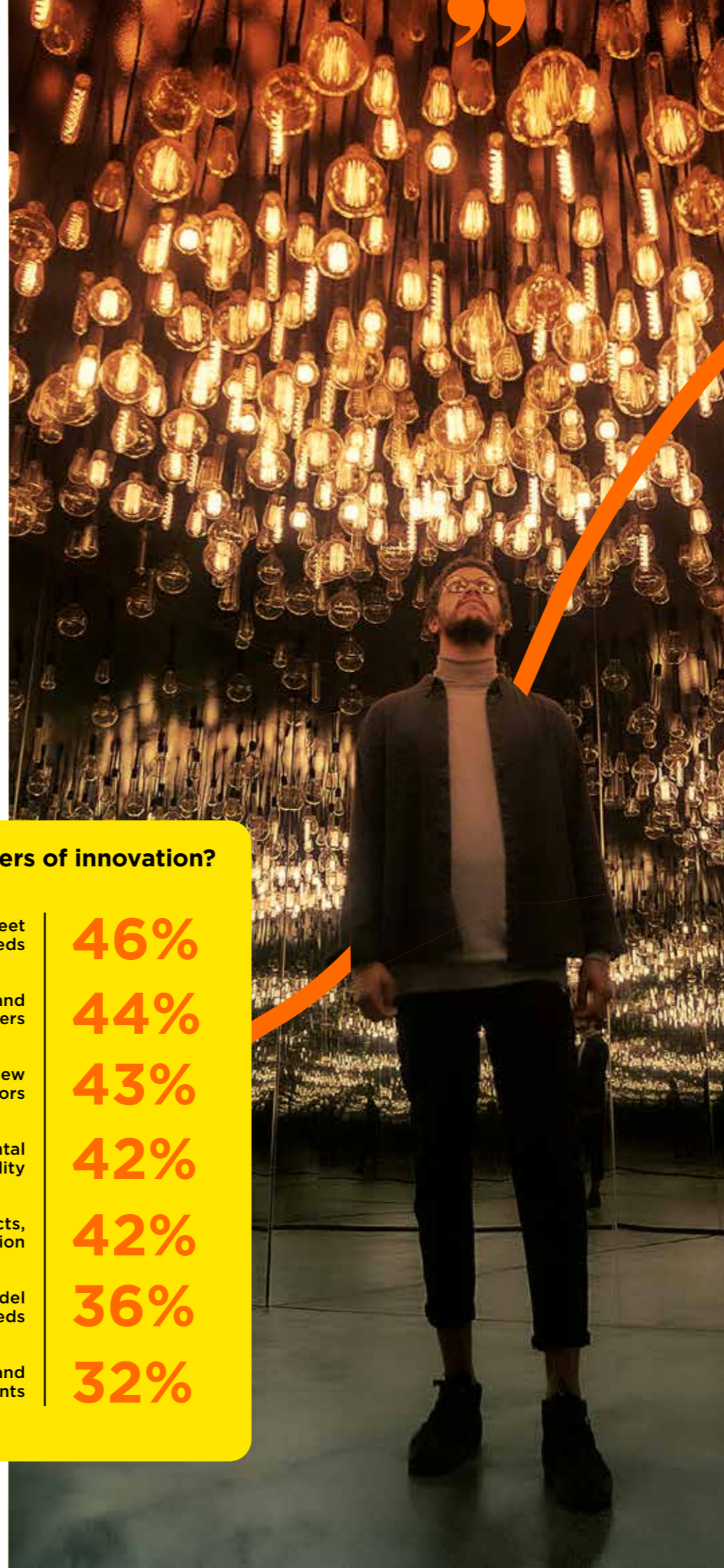## Innovation for a changing future

Are businesses ready for a new age of innovation? Many of their long-held assumptions and protocols, whether to do with meeting customer expectations or running a global operation, belong in a pre-COVID world. Across the economy, companies recognize that they need to think differently.

In our new global survey of 300 senior innovation professionals, six in 10 (58%) believe the opportunities of the post-crisis era have made them more open to taking risks. Two in three (67%) indicate that their businesses are more creative and more agile than they were before the crisis began. Daryl Cromer, Chief Technology Officer of PCs and Smart Devices at Lenovo, believes that COVID "drove an acceleration" in innovation. "People asked, how can we move faster? Things like remote medicine, which had been talked about for years, were suddenly being implemented in days."

A new horizon
It's not just the demand for new ideas that has changed: it's the ambitions that businesses set for their innovation activity. Innovators used to talk mostly in terms of disrupting the market

and winning the war for clients. Today, more than half (54%) tell us that the crisis has catalyzed their efforts to use innovation to improve their social and environmental performance. At the same time, sustainability scores highly as a strategic driver of innovation when compared with core ambitions such as meeting customer demand (see chart 1).

CHART 1: SUSTAINABILITY IS CLOSE BEHIND CORE TRADITIONAL DRIVERS OF INNOVATION

What are your strategic drivers of innovation?

Adapting our existing offering to meet changing customer needs	**46%**
Evolving our business to meet demand from new global customers	**44%**
Defending our business from new entrants and disruptors	**43%**
Improving our environmental sustainability	**42%**
Creating more inclusive products, for a diverse population	**42%**
Rethinking our core business model to meet changing customer needs	**36%**
Evolving our business to meet demand from new customer segments	**32%**

"People became more open to change after Covid"

says Pamela Mar, EVP of Knowledge and Applications at Fung Academy, which develops new thinking and capabilities for Fung Group, based in Hong Kong, S.A.R of China. "Questions about social and environmental issues keep coming up. Everyone was online and had time to find out what materials were in their clothes and how sustainable they were."

The crisis gave people a new way of looking at the world, explains Mary Jacques, Director of Global Environmental Affairs & Sustainability at Lenovo. "I think it really helped people see how connected we all are to the environment and to each other," she says. "We saw the huge impact that global issues like climate change and pandemics can have on so many lives, and how we all need to act together towards a collective goal for the sake of the global community. We felt connected for a higher purpose: to try to get through this together. I'm now seeing that focus continue with climate change. I'm optimistic that this sense of interconnectedness will now translate into action."

Three frontiers of innovation
As the world reopens, and as consumer awareness of sustainability increases, businesses need to keep up the innovation momentum. The challenge is that few are sure how to go about this. Most (61%) say they can't agree on how to upgrade their innovation activity, and our research highlights contradictions that suggest many are still held back by outdated corporate behaviors and protocols, which are incompatible with the creative mindset.

The priority is to embed a culture in which senior leaders champion experimentation and encourage everyone to think beyond boundaries. With that goal in mind, our research highlights three cultural frontiers, where businesses are making progress but need to push themselves to reach the next level of success: Diversity, team dynamics, and agile working.

Diversity:
Bring everyone together and enable them to be their authentic selves at work

> "Creating our product diversity office has helped us take a big step closer to 'diversity by design' and providing smarter technology for all"

Calvin Crosslin,
Chief Diversity Officer at Lenovo

Most accept that bringing together different voices is crucial when generating new ideas. In our survey, 61% say their ability to innovate has been enhanced by their developing a more global mindset.

"When I started traveling to China, Japan, Korea, and India, I saw how local the markets were," recalls Daryl Cromer. "Businesses sometimes forget the local perspective and look at the market

through their own lens, but you need to understand the customer issues and pain points, find the root causes. Only then can you see the commonalities and the differences." Incorporating the perspectives of people from different cultures is only part of the challenge. Many recognize the need to prioritize individuals with diverse abilities: 59% say they engage gender, age, neurodiversity, and physical ability, as well as ethnicity, in their innovation.

Aram Kradjian, Chief Engineer of Research at Jaguar Land Rover, asserts that "the biggest innovation breakthroughs in history" happened when diverse fields and backgrounds came together. "For me, diversity and inclusion is the heart of a strong innovation culture where the richness of ideas creates innovation that is inclusive for all customers," he says.

It is also a question of balancing creativity with conscientiousness. "Not everyone is innovative," notes Daryl Cromer, "but then the

most innovative are not the most practical. Within our teams, we have a range of personalities. You need left brain vs. right brain."

Despite these ambitions, we find many businesses struggling to bring people together successfully. Those involved closely in innovation tell us that their top challenge, overall, is their ability to build diverse teams – which is where carefully designed processes, infrastructure and policies come into play.

Calvin Crosslin, Lenovo's Chief Diversity Officer, offers an example of how company policy can make a difference. "Creating our product diversity office has helped us take a big step closer to 'diversity by design' and providing smarter technology for all," he says. "By putting checks and balances in place, we ensure we are engaging diverse voices inside and outside our organization and creating a model for accessible innovation. For example, Lenovo has been actively working with the disability activist Haben Girma to give us that outside-in perspective."

Room for improvement

Our study highlights areas where many businesses need to stretch themselves around diversity. More than two in three respondents (64%) admit that they hire maverick thinkers only to rein them in when they become disruptive. Meanwhile, 59% suggest it's easier to disrupt the status quo if you dress, talk, behave and otherwise "fit the mold" of what is expected in a traditional corporation.
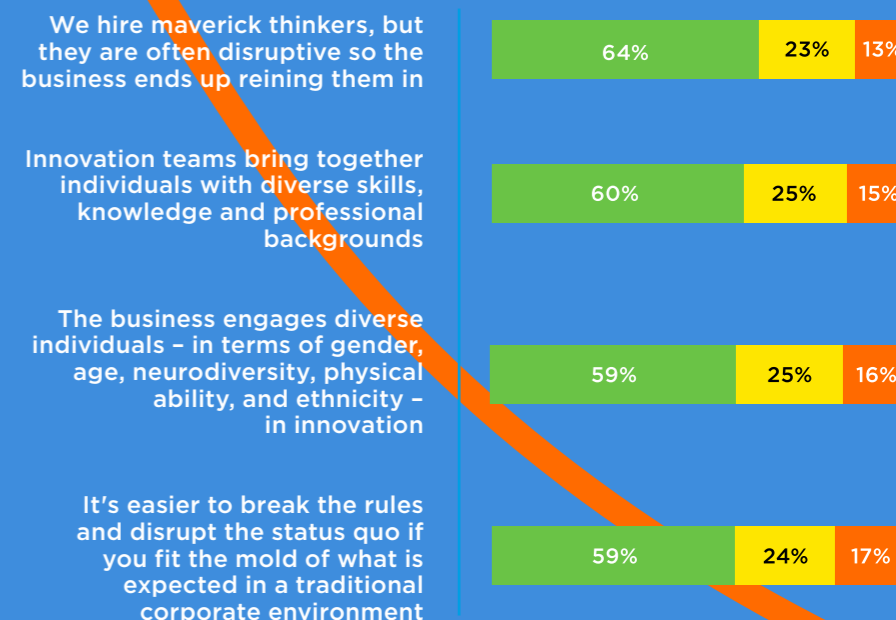
If they don't challenge their preconceptions, there is also a risk that businesses will make incorrect assumptions about the profile of individuals employed in specific innovation roles. If they fail to question the gender balance of their engineering and product development teams, for example, they may end up developing products that women don't want.

"Diversity in terms of gender is becoming much more important," says Yoichiro Hirai, Head of APAC and Japan at BCG Digital Ventures. "If you're developing a service for a certain target, and the person you have in mind is female – but you're not female – then you need a female person in your team. That's for sure."
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CHART 2: BUSINESSES WANT DIVERSITY, BUT ARE WARY OF WORKPLACE DISRUPTION

Are these statements true in your organization?

■ Yes   ■ Neutral   ■ No

Statement	Yes	Neutral	No
We hire maverick thinkers, but they are often disruptive so the business ends up reining them in	64%	23%	13%
Innovation teams bring together individuals with diverse skills, knowledge and professional backgrounds	60%	25%	15%
The business engages diverse individuals – in terms of gender, age, neurodiversity, physical ability, and ethnicity – in innovation	59%	25%	16%
It's easier to break the rules and disrupt the status quo if you fit the mold of what is expected in a traditional corporate environment	59%	24%	17%

Team dynamics:
Promote the free and safe exchange of ideas and experience

"What you need is intelligent failure, where you failed in the right way and approached it with the scientific method.

Scott Anthony, Innovation Author and consultant

We find another cultural frontier when we compare how organizations talk about their workplaces in general terms, and then how they describe specific day-to-day interactions among their teams. Building a working environment that promotes fresh thinking and experimentation is easier said than done, especially when it comes to risk-taking and fast failure. In our research, more than half (54%) of respondents say they have an excellent culture of innovation. But, for two in three (65%), failing fast remains an aspiration, with executives regularly expressing concern or regret about being connected to a discontinued project.

"People say you should encourage failure," says Scott Anthony, Senior Partner at Innosight. "It's a trope from Silicon Valley. But failure is painful, it hurts, and it's unacceptable if it's because people have simply taken poorly thought-out risks. What you need is intelligent failure, where you failed in the right way and approached it with the scientific method."

A challenge to leaders
Respondents may also be frustrated in their efforts to create a less hierarchical workforce. While Yoichiro Hirai makes the point that "innovation can only happen under strong visionary leadership," we see signs that some leaders are failing to inspire the entrepreneurial spirit in others. We find junior executives showing reluctance to challenge the ideas of senior leadership in six out of every 10 businesses. Moreover, 62% say that senior managers in their firm talk over their juniors and ultimately decide which direction to take.
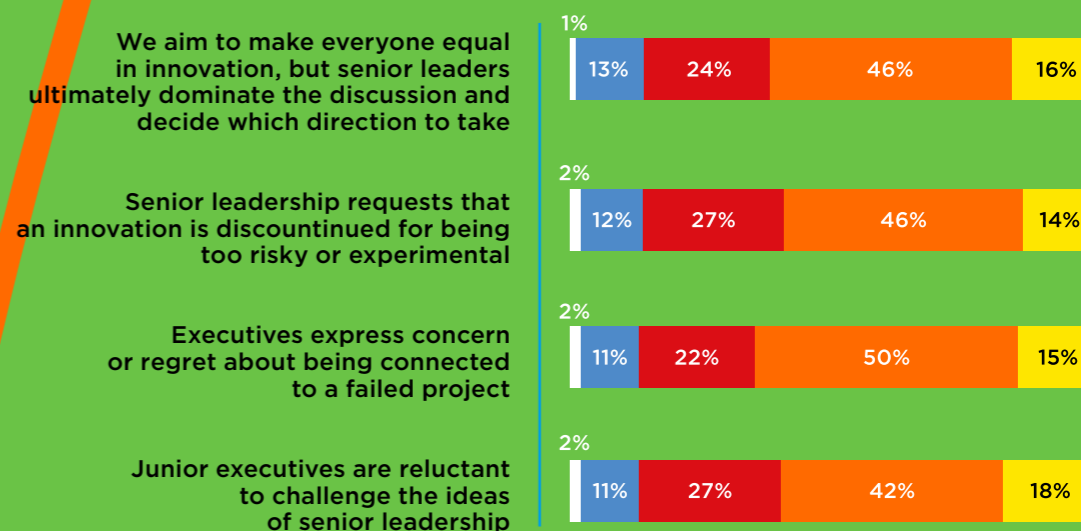
Scott Anthony describes the "innovation theater" that can take place in workplaces. "Many go through the motions, bring in all the bean bags and foosball tables, but don't do the hard work to create a culture where the behaviors that drive success come naturally," he says.

CHART 3: BUSINESSES HAVE GOOD INTENTIONS FOR THEIR CULTURE OF INNOVATION, BUT THE REALITY IS OFTEN DIFFERENT

To what extent do the following take place in your organization?

Not at all	Hardly ever	Neutral	To some extent	To a great extent

		Not at all	Hardly ever	Neutral	To some extent	To a great extent
We aim to make everyone equal in innovation, but senior leaders ultimately dominate the discussion and decide which direction to take		1%	13%	24%	46%	16%
Senior leadership requests that an innovation is discountinued for being too risky or experimental		2%	12%	27%	46%	14%
Executives express concern or regret about being connected to a failed project		2%	11%	22%	50%	15%
Junior executives are reluctant to challenge the ideas of senior leadership		2%	11%	27%	42%	18%

Pamela Mar agrees that there are plenty of places where innovation is still managed top-down. "What you need to do is involve people in innovation from the start and let them know that they have authority to shape it and drive it," she says. "People should say, 'Here is something that could be useful to you. I'm going to give you this knowledge and I will remain by your side as you operationalize it.'"

One key element, according to Gareth Davies, Head of Global Logistics at Lenovo, is to establish a set of standards that guide employee behavior. "Innovation needs to be able to develop and grow," he says. "Your role is to nurture it, and remove barriers. We started tackling that by bringing in a set of principles to live by: respect, commitment, collaboration, transparency, and openness."

Agile working:
Encourage flexibility, but protect against burnout

> **"** When organizations tweak culture to drive innovation, they typically focus on the hard side and not the soft side. **"**

Tim Heard
Manager at 11:FS

One of the silver linings of the pandemic was that it helped larger businesses become more creative, often because they were working outside the confines of an office setting. The shift to videoconferencing made collaboration with global teams as achievable as interacting with colleagues in the same building. For good reason, six in 10 credit remote working for giving their employees more room to think and come up with ideas.

"It is proven that if you take people out of their day-to-day jobs, they become more creative," says Tim Heard, Manager at 11:FS, Co-founder of Circle of Intrapreneurs, and formerly the first Head of

Intrapreneurship at a major global bank. "Remote working can also exacerbate a two-tier organizational structure, where people at home are creating more things in discretionary organizational space."

But he also notes that businesses have yet to deal with the reality of managing employees as they transition back and forth between a home and an office environment, and the impact that this will have on culture. "Until businesses can work out how to create an interface between the two tiers, it's just going to lead to more cultural issues," he warns.

Our survey also finds that remote working can take its toll on people's creative zeal. More than half (55%) of respondents say that their employees lost the drive to innovate at some point during the crisis, due to personal pressures. "The negative is that there are fewer opportunities for random connections to trigger the most powerful recombinant innovations being created, which is the main power of cities and big offices," explains Ian Small, Innovation Champion, Civil Infrastructure at AECOM, the global engineering firm. "The positive is the lack of commuting, and less oversight

allows people more time to work on side projects once they have an idea. The virtual meeting culture means that there is potential for wider networks as the geographic constraint is removed, but it is harder to create the connections in the first place."

As vaccines are rolled out, and as businesses start to think about how they will use a mix of on-site and remote working in the future, there is a risk that their crisis-era agility will be lost.

Striking the balance
Leadership teams should ask what they can do to enable the creative mindset wherever their employees are working, while preventing burn-out among those that are struggling to adjust to the new set-up. Regular and transparent conversations will be more essential than ever before.

"Culture is a fluffy term, but you can break it down into hard culture – like performance frameworks – and soft culture, which is the day-to-day conversations in the organization," says Tim Heard. "When organizations tweak culture to drive innovation, they typically focus on the hard side and not the soft side."

Conclusion:
The speed of a new world

"You've got to balance innovation with the world that you live in," observes Lenovo's Gareth Davies. **"If you go too fast, you're going to run into trouble."**

In recent years, the dialogue around innovation has often focused on the importance of making everything faster and more immediate. While it's true that speed remains vital to business success, COVID has reminded executives of the need to build cultures that enable long-term creative thinking, sustainability, and the development of truly groundbreaking ideas. All of this takes time, patience, and managerial buy-in.

Our research highlights the importance of following through on the promises of an innovation culture: amplifying all voices, overcoming legacy behaviors, and addressing the challenges of hybrid working. There is, however, reason to be optimistic about the world that businesses can create if they unlock their creativity and help build a more sustainable future.

"You should look at every new idea as the potential start of a long relationship," says Pamela Mar. It's not about saying, "Can I make money from this idea today?" People always have other things on their minds. You need to think instead about the 12 or 18-month horizon. You want to plant a seed of innovation in people's heads."

About the research

The data in this report is based on a survey of 300 senior executives, carried out by Longitude in April 2021. All respondents were closely involved in the innovation process at their organization and worked at C-level or C-1.

In which country/region are you based?

United States	**23%**	Italy	**4%**
Canada	**11%**	Japan	**6%**
China	**6%**	Singapore	**6%**
France	**5%**	Spain	**4%**
Germany	**6%**	United Arab Emirates	**10%**
Hong Kong	**4%**	United Kingdom	**8%**
India	**8%**		

What was your organization's total revenue in its last financial year?

$500m to $999.99m	**24%**
$1bn to $4.99bn	**43%**
$5bn to $9.99bn	**17%**
$10bn to $19.99bn	**11%**
More than $20bn	**5%**

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Mary Jacques
Director, Global Environmental Affairs
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Staff Member (SESM), Lenovo

Calvin Crosslin
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