

# PEOPLE AND DATA: CRITICAL COMPONENTS FOR CHINA'S INNOVATION

HLB SURVEY OF BUSINESS LEADERS 2022



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China has entered 2021 with a revived propensity for economic growth. However, the markets cooled down by the second half of the year as the optimism around governmental fiscal efforts became more moderate. Decelerating growth and economic tailwinds are making innovation an important focus for 2022. Almost unanimously, 99% of leaders in China agree that more rapid and effective innovation is critical to future growth.

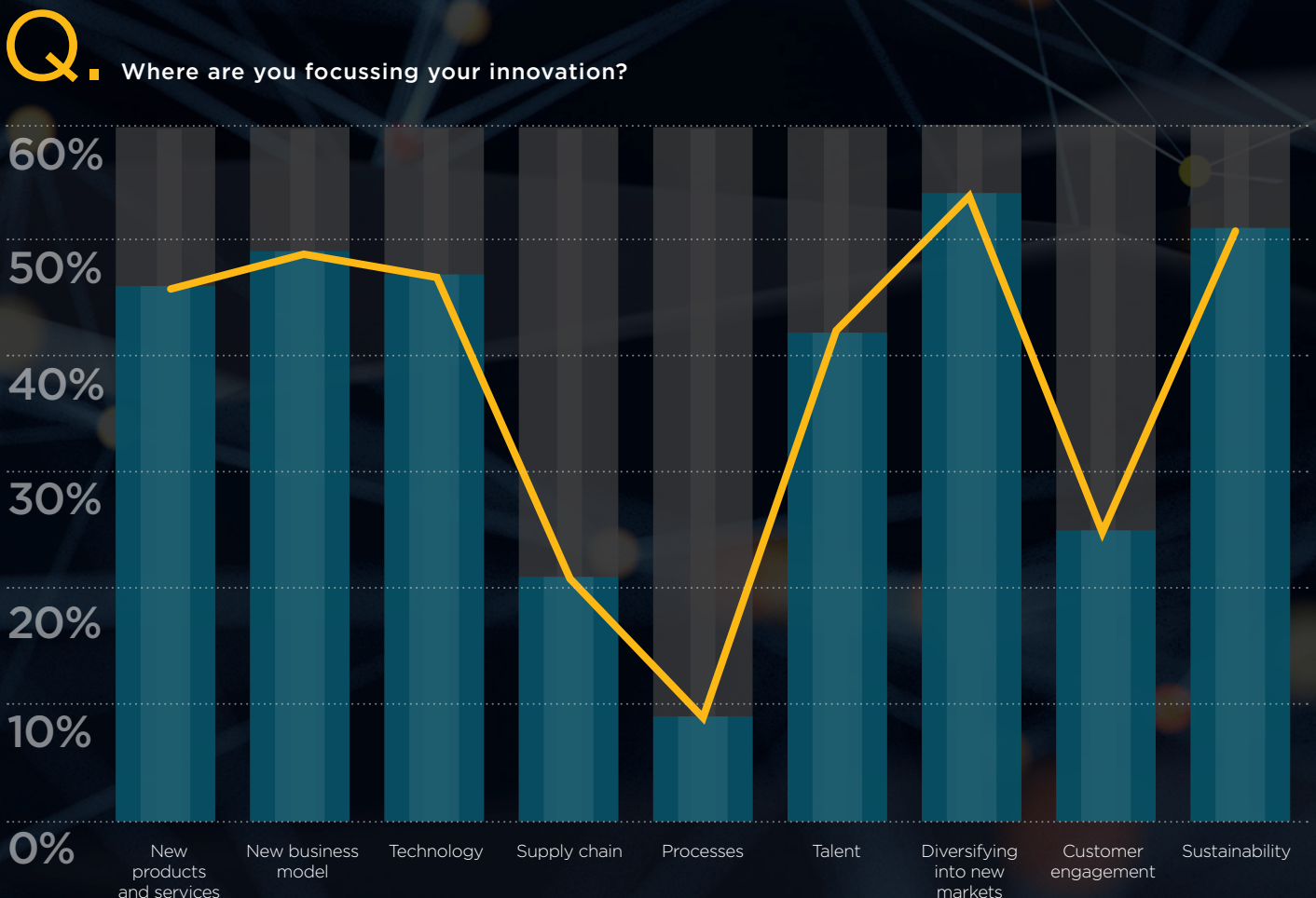
Considering this imperative, it's perhaps fortunate that over a quarter of our survey respondents consider themselves to be 'much more innovative' than their industry peers, whereas 42% see themselves slightly ahead of the competition. There is support for confidence around the innovation agenda.

China has been increasing its investment in Research & Development (R&D) activities for decades, being the world's second-biggest spender after the United States. In 2021, the local officials spent an unprecedented 2.79 trillion yuan (£335 billion) on R&D activities — 14.2% more compared to the year before<sup>1</sup>. From a greater degree of cellular connectivity to public cloud infrastructure, China's government has done a lot to propel society into the new tech-led area.

A larger cohort of China's leaders, 54%, plan to diversify into new markets as part of their innovation strategy. That's a logical move considering the ongoing trade tensions between China and the US, along with current geopolitical events, which once again can affect global supply chains.

**“I AGREE THAT ACCESS TO TALENT IS A PRESSING ISSUE IN CHINA. THE TALENT MARKET IS VERY HOT RIGHT NOW WITH BIG COMPANIES COMPETING TO RECRUIT GOOD CANDIDATES STRAIGHT FROM THE UNIVERSITIES. THERE'S INDEED A SHORTAGE OF PEOPLE WITH STRONG MANAGEMENT SKILLS, TECHNICAL SKILLS,”** Christine Cai, Partner

**Figure 1: Diversification, sustainability and new business models are top areas of focus**



Over half of survey respondents plan to launch new products and services in 2022. That's 10 percentage points higher compared to global peers. At the same time, local leaders also selected 'new products' as one of the main vectors of their innovation with 46% concentrating their efforts in this area. Another 49% are exploring new business models. Admirably, 51% of leaders also intend to pursue sustainability-oriented innovation initiatives as China has pledged to reach carbon neutrality before 2060.

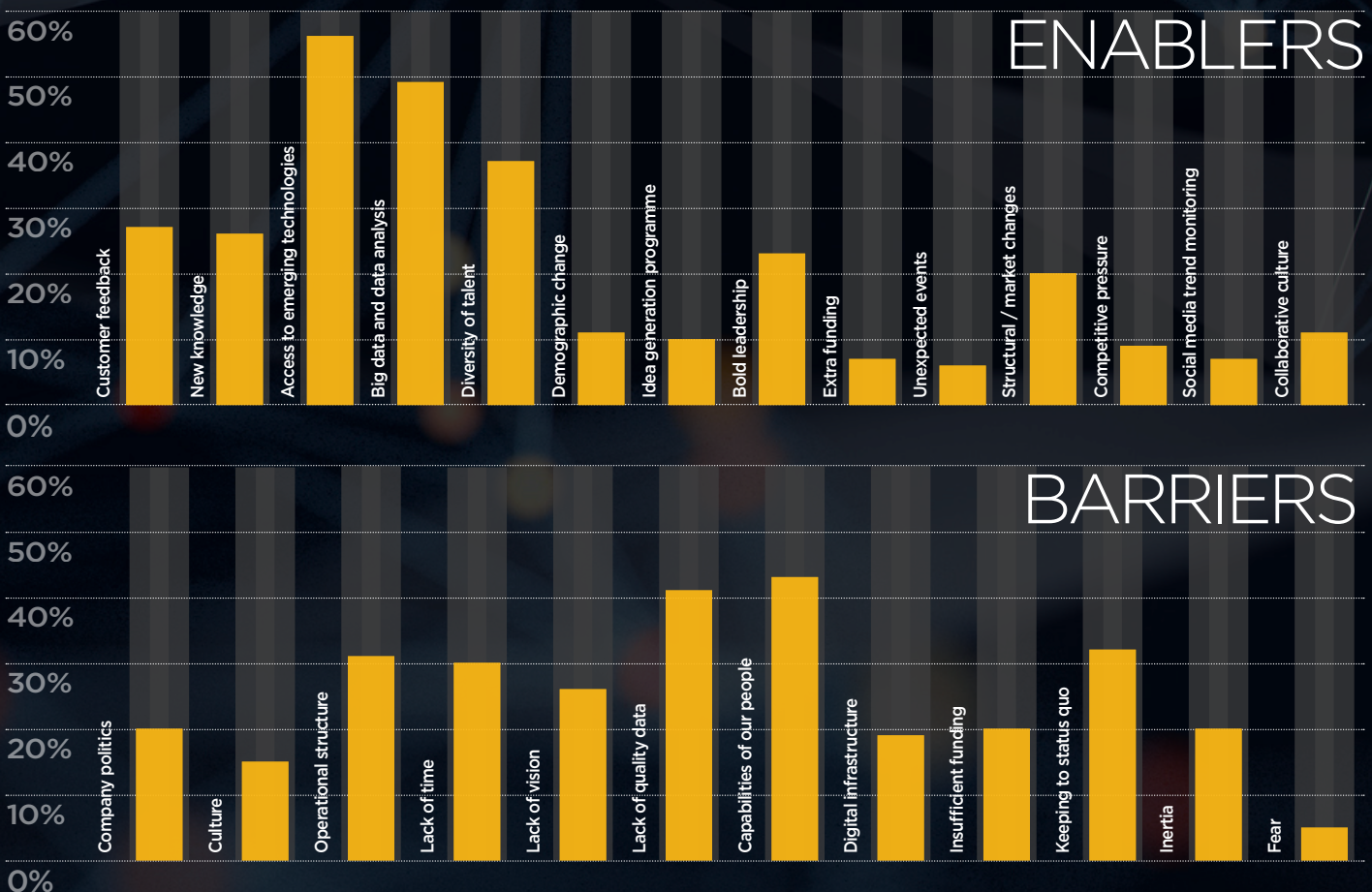
China's leaders have a lot of items on their agenda and are facing an expanded risk radar — but they are also committed to making it through another spell of turbulence. Having coped with the challenges presented by COVID-19, China's leaders aim to approach the new obstacles with even higher levels of perseverance. 95% of leaders agreed that they are able to innovate with greater speed than in the past. 88% are also more confident in their ability to innovate as compared with pre-pandemic times. What they need now is to funnel their commitment, resources, and business acumen into pursuing even more rapid and effective innovation activity in a fast-changing world.

## BARRIERS TO INNOVATION

Despite having a strong commitment to innovation, 35% of surveyed leaders still view 'innovation capability' as a weakness they'd want to rectify in the next 12 months. To achieve this, China's leaders overwhelmingly place their bets on access to emerging technologies (56%) and big data and data analytics (49%). These two enablers have scored 10 to 20 percentage points ahead of other strategic vectors. The third top-ranking enabler is a "diversity of talent" — a factor China's leaders also valued more compared to global peers (37% vs 30%).

**Figure 2: Access to emerging technologies is the key enabler for innovation, however capabilities of people hold companies back**

**Q** Please select the top three factors which you think aid your organisation in improving your innovation capacity. Also select the top three barriers that hinder innovation in your organisation?



1. Stats.gov.cn 2022. China's R&D expenditure reached 2.79 trillion yuan in 2021. [online]. Available at: <[https://www.stats.gov.cn/english/PressRelease/202201/t20220127\\_1827065.html](https://www.stats.gov.cn/english/PressRelease/202201/t20220127_1827065.html)> [Retrieved March 21, 2022]

## Talent

'Capabilities of people' is the top one impediment to innovation, 43% of China's business leaders named. That's nearly 10 percentage points higher than global peers. China has a larger talent pool. Yet, 'talent acquisition' is a weakness area the majority of respondents want to address this year.

A short-term fix to the talent issue is unlikely. Similar to other developed economies, China is suffering from a progressive reduction in birth rates. The country already faces an estimated 11.8 million in annual labour force gap<sup>2</sup> — a chasm the new "Three-Child" policy won't be able to fully resolve. Talent shortages will also become more acute in this decade as older China's workers seek retirement. Though new policies are aimed at encouraging experienced staff to stay in the workforce to train a new generation of innovators.

Amidst the rapidly evolving market conditions and growing speeds of new product development, 96% of China's leaders also agree that a more diverse workforce — by age, gender, and cultural backgrounds — would be important for improving their innovation capability. For that to happen, China leaders will need to cultivate a more receptive workplace culture — an alternative to the current 996 working hour system that places a greater emphasis on individual effort, diversity of thought, and creativity in actions.

## Data and analytics

Unlike their global peers, China's business leaders reported fewer organisational barriers to innovation. Lack of time, inertia, or operational structures are seen as less of a constraint. After 'people capabilities', China's leaders ranked 'lack of quality data as the second most important factor for improving innovation capacity.

This might appear surprising with China's ubiquitous levels of connectivity, smartphone usage, and services digitisation. Indeed, government and private repositories store billions of data records, but it is difficult to access them.

Data access is a major obstacle — effective data processing and transformation into insights is the second. Chinese Big Tech firms such as Alibaba, Tencent, and Huawei among others have shown the immense scope of possibilities data analytics presents. However, small and mid-market companies

are far from having the same level of internal data processing capabilities. It follows that 49% of our survey respondents named big data and data analytics as a crucial factor for improving the innovation capability — far ahead of aspects such as 'bold leadership' which global leaders named as the second most important enabler for them.

## Funding

China's business leaders are not held back by the lack of funding as much as global businesses. They are two times less likely (7% vs 15%) to be seeking extra funding for improving their innovation capabilities. Likewise, China's leaders are more strategic with their financial reserves. Only 21% admitted they don't have a separate budget, set aside for innovation versus 45% of global leaders.

**“LARGER, MULTINATIONAL COMPANIES MAY NOT SEE FUNDING AS AN ISSUE. HOWEVER, SMALL AND MEDIUM ENTERPRISES IN CHINA AREN'T ALWAYS IN GOOD FINANCIAL SHAPE AND MAY NOT ALWAYS HAVE SEPARATE BUDGETS FOR THEIR R&D.”**

Ben He, Partner

China has a booming domestic market with an over 6% GDP growth rate over the last decade. Even with temporarily depleted international and domestic demands, local businesses ended the year with net positive gains. Respectively, 65% now plan to fund their innovation via cash flow. "I think from the beginning of the pandemic a lot of economies became more inward-looking, focused on domestic markets. But China's economic and trade policies have long been poised to promote internal market growth, which gave local leaders an upper hand when international supply chains were disrupted", notes Coco Liu, Chief Regional Officer for the Asia Pacific at HLB.

<sup>2</sup> Weforum.org 2021. China needs 11.8 million workers. Here's how to close its labour gap. [online]. Available at: <<https://www.weforum.org/agenda/2021/07/how-to-fix-china-labour-shortage/>>[Retrieved March 21, 2022]



“CHINA IS REALLY LOOKING AT THE DEVELOPMENT OF LEGAL AND REGULATORY SYSTEMS FOR BIG DATA. THESE POLICIES WILL REMOVE BARRIERS TO HIGH-QUALITY DATA ACCESS AND WILL ALSO HELP WITH THE DEVELOPMENT OF MORE ACCESSIBLE DATA INFRASTRUCTURE (DATA BANKS, DATA TRUSTS) TO PROPEL INNOVATION,”

Patrick Zhao, Partner

A strong domestic market gives China's leaders an advantage — and so do their creative approaches to funding innovation. Compared to Western counterparts, China's respondents are more likely to rely on equity fundraising (54% vs 25%) and seek cost-sharing arrangements with industry partners (48% vs 25%).

Local cash-heavy businesses are also more inclined to seek out strategic alliances (37% vs 28%) and engage in M&A activity (25% vs 21%) as part of their strategy to achieve growth in 2022. In fact, China saw a record 26% increase in private equity-backed transactions in 2021, now equalling one-fifth of all deals by yuan value<sup>3</sup>. Apart from private company buy-outs, many of the deals were led by state-backed institutional investors.

China leaders are less constrained by time, commitment, or funding. Their list of operational barriers is more muted with emerging technologies and data access, dominating the innovation agendas. With legal frameworks for regulating access and usage of citizens' data being developed by local regulators, leaders will likely soon get access to new tools for safely collecting, processing, and converting raw data into innovative actions.

## TECHNOLOGY AS A GATEWAY TO BUSINESS CONTINUITY AND SUSTAINABILITY

Emerging technologies have become a universal lever used by business leaders to innovate. China is no exception when it comes to harbouring a belief in the power of tech. What separates them from business leaders in other parts of the world are the overall levels of digital maturity, as well as the use cases they are prioritising.

### Technology to help with talent crunch

Much of China's R&D budgets go towards “infrastructure projects” — high-speed Internet, 5G connectivity, IoT setups, government-backed data storage facilities, and cloud platforms. When a technical mortar is established by the government, local leaders can concentrate more on advanced ‘value-add’ technologies.

Given the challenges around securing a future workforce to drive innovation and growth, China's business leaders are sizing up robotic process automation (44%) and artificial intelligence (43%) as the top two technology enablers for future business successes.

Both RPA and AI are strong contenders for improving operational efficiency — an area 59% leaders wish to further address this year. Intelligent automation can not only augment existing staff capabilities' but also provide talent with more time to pursue more creative, added-value work over manual and menial tasks.

Yet, both systems require high-quality data to function properly — a precarious constraint for many local leaders. Once again, China's government is stepping in to regulate data usage and put in place guidelines for artificial intelligence ethics.

Investment in IoT is the third most important tech priority, selected by 41% of survey respondents. Smart sensors play a crucial role in China's vast and advanced logistics sector, capable of moving billions of goods in and out of the country. Overall, IoT applications have a wider role in China's transportation industry. In urban areas, large networks of IoT devices, paired with supporting cloud infrastructure, are being deployed for traffic management, road accident detection, public transport routing, and progressive transition to electrification — another major innovation vector in China.

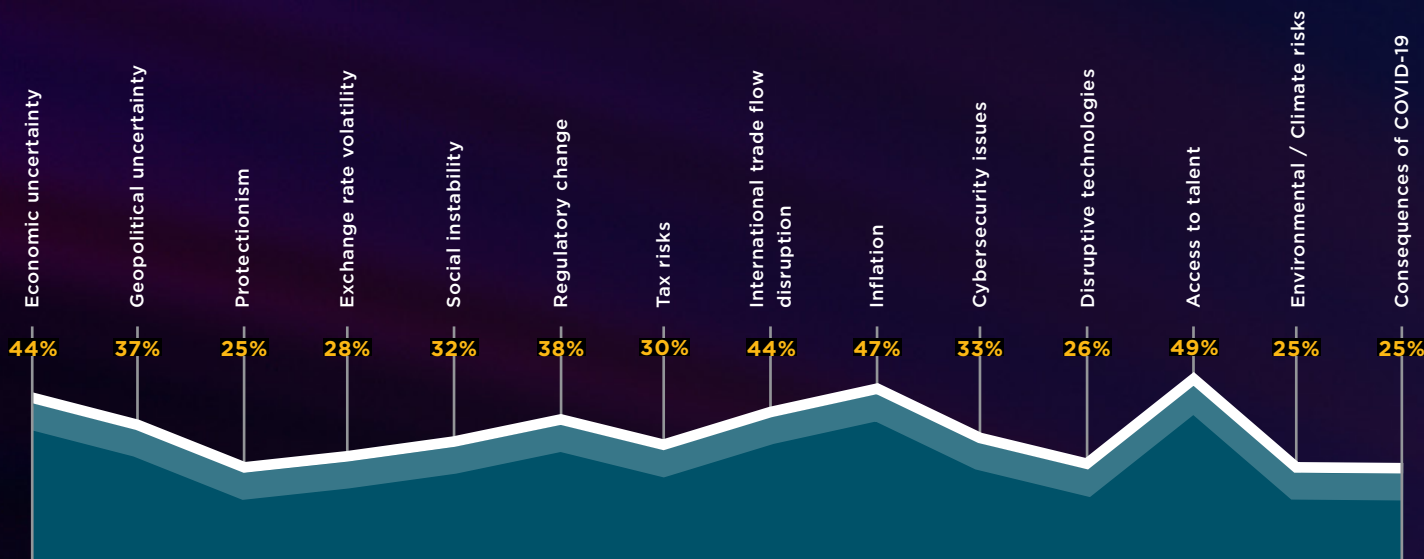
<sup>3</sup> WSJ.com 2022. Private Equity Surges in China as Broader M&A Market Stalls. [online]. Available at: <<https://www.wsj.com/articles/private-equity-surges-in-china-as-broader-m-a-market-stalls-11644711109>> [Retrieved March 21, 2022]



Figure 3: Access to talent is the top overall business risk for leaders in China



To what extent do the following risks to your business concern you?



### Tech to help with 'green' business transformations

China's executives are even more focused than their global peers on the innovation opportunities presented by non-digital technologies, especially in the renewable energy sector. 72% (vs 61% of global leaders) view renewables (solar, wind, tidal energy) as a key advancement towards more innovation opportunities. Also, 59% (vs 46% globally) identified electrification of the transportation sector as an innovative leeway towards future business successes.

Last year, 89% of China's leaders already saw opportunities to profit from the low-carbon economy of the future. In 2022, we expect many to take more concrete steps towards realising the 'green agenda', especially as the local government also stepped into this domain.

Apart from meeting the net-zero targets, China is also looking for ways to reduce its dependence on fossil fuels. By 2030, the country plans to raise the proportion of its renewable and non-fossil-fuel energy consumption to 20%<sup>4</sup> and further curb China's reliance on coal. Local authorities also seek rapid transport sector decarbonisation. In densely populated urban areas, heavy traffic often surges air pollution to dangerous levels. China already accounts for almost half of global electric vehicles (EVs) deployments<sup>5</sup>.

Globally, the race towards renewables adoption is on. China already has a strong head start as the country upped its investment in green energy production dramatically over the past five years. They are now urging businesses to 'play their part'. Strict pollution emissions policies and generous

incentives for consumers is likely to accelerate transition timescales.

### INNOVATING WITH PERSEVERANCE

Despite looming macro-economic challenges, set into motion by global geopolitical events,

China's leaders are committed to navigating their way out of another crisis (should there be one). Over two-thirds believe that global economic growth will increase over the next 12 months despite the risks of continued global conflict and de-globalisation.

The consequences of the COVID-19 pandemic, which concerned 67% of China's leaders last year<sup>6</sup>, are perceived as the least threatening risk in 2022. China's business leaders feel more pressed by microeconomic factors such as access to talent — the topmost barrier to successful innovation and the top overall business risk for 49% of leaders in China, outranking inflation (47%) as well as trade flow disruption and economic uncertainty (joint 3rd 44%). The talent risks will be exacerbated by looming demographic shifts of a rapid population ageing (now covered above), as well as cultural shifts in how the new generation of workers interpret career success.

China's business leaders will be relying on success in their innovation programmes to drive future growth prospects, largely driven by the vast availability of connected infrastructure and growing levels of data accessibility. But their ability to secure the people they need to innovate and grow will be critical to success going forward.

4 Nature.com 2020. China's plan to cut coal and boost green growth. [online]. Available at: <<https://www.nature.com/articles/d41586-020-02464-5>> [Retrieved March 21, 2022]

5 Zhang, R., & Hanaoka. 2021. Deployment of electric vehicles in China to meet the carbon neutral target by 2060. Resources, Conservation, and Recycling Volume 170. [online] Available at: <<https://www.sciencedirect.com/science/article/pii/S0921344921002317>> [Retrieved March 21, 2022]

6 HLB Global Survey Of Business Leaders 2021: China Cut. [online]. Available at <<https://www.hlb.global/wp-content/uploads/sites/2/2021/03/HLB-Survey-of-Business-Leaders-2021-China-Outlook.pdf>> [Retrieved March 21, 2022]

“CHINA HAS IMPLEMENTED MANY POLICIES TO HELP MEET THE EMISSION CRITERIA. THERE’S A SET OF RESTRICTIVE POLICIES, AIMED AT RESTRICTING CARBON EMISSIONS, FORCING COMPANIES TO LOOK FOR MECHANISMS TO DO SO. BUT THERE ARE ALSO FAVOURABLE POLICIES, AIMED AT PROMOTING AND SUPPORTING SUSTAINABILITY EFFORTS. THESE HAVE ACCELERATED DEVELOPMENTS OF ALL SECTORS, ESPECIALLY THE ENERGY ONE,”

Eric Dong, CEO

#### METHODOLOGY

As part of its global survey of business leaders, between September and November 2021, HLB has collected 81 survey responses from business leaders in China from a range of industry backgrounds. Responses were collected via an online survey tool or telephone interview. The base for all figures is 81 unless otherwise indicated.

More data and information about this survey is available upon request. Please visit [www.hlb.global/surveyofbusinessleaders](http://www.hlb.global/surveyofbusinessleaders) or contact [marketing@hlb.global](mailto:marketing@hlb.global)





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