protiviti®
Global Business Consulting

NC STATE Poole College of Management
Enterprise Risk Management Initiative

2022 & 2031

EXECUTIVE PERSPECTIVES ON **TOP RISKS**

Key issues being discussed in the boardroom and C-suite

Research Conducted by NC State University's ERM Initiative and Protiviti

Key Highlights From This Study

Major themes for 2022 and 2031

- The scope of global top risks is more expansive.
- People and culture are at the top of the agenda.
  - Job markets have been disrupted and executives are concerned about the viability of succession plans and attracting/retaining talent and labour.
  - Diversity, equity and inclusion have elevated in importance.
  - Future of work continues to be a defining business challenge for the next decade.
  - Workplace evolution is creating uncertainty around how to operate and sustain the culture.
  - Resistance to change is both a near-term and long-term concern.
  - Most ESG matters rate highly with respect to the "S"; climate change concerns are greatest in industries heavily reliant on fossil fuels.
- Buckle up; a disruptive and volatile decade lies ahead.
- Economic uncertainty remains significant and its long-term impact has increased.
- Reliable and predictive market intelligence will separate winners and losers.
- Cybersecurity and data privacy remain long-term concerns, as do regulatory matters.
- A long-term outlook helps companies be better prepared and more resilient.

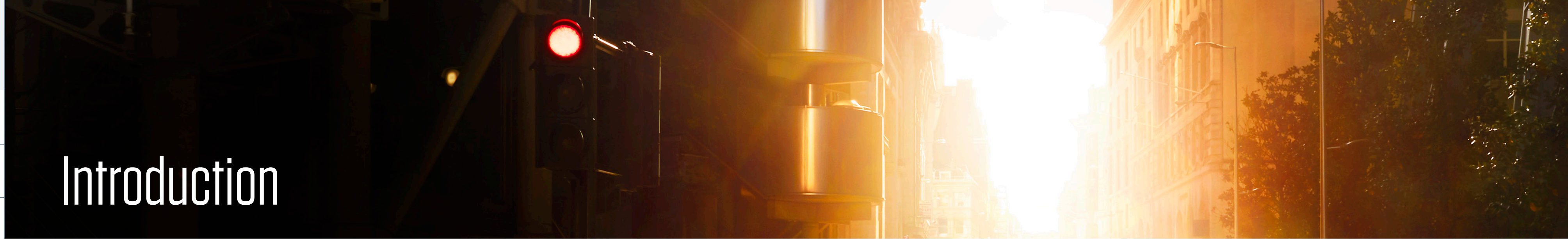
TOP RISKS FOR 2022

1. Pandemic-related government policies and regulation impact business performance
2. Succession challenges, ability to attract and retain top talent
3. Pandemic-related market conditions reduce customer demand
4. Adoption of digital technologies requires new skills or significant efforts to upskill/reskill existing employees
5. Economic conditions, including inflationary pressures, constrain growth opportunities
6. Increasing labour costs impact profitability targets
7. Resistance to change operations and the business model
8. Inability to utilise data analytics and "big data" to achieve market intelligence and increase productivity and efficiency
9. Cyber threats
10. Shifts in expectations about social issues and diversity, equity and inclusion (DEI) outpace organisation's response

TOP RISKS FOR 2031

1. Adoption of digital technologies requires new skills or significant efforts to upskill/reskill existing employees
2. Succession challenges, ability to attract and retain top talent
3. Rapid speed of disruptive innovation outpaces our ability to compete
4. Substitute products or services arise that affect our business model
5. Economic conditions, including inflationary pressures, constrain growth opportunities
6. Entrance of new competitors and other industry changes threaten market share
7. Impact of regulatory change and scrutiny on operational resilience, products, and services
8. Resistance to change operations and the business model
9. Hybrid work environment and changes in nature of work challenge ability to compete
10. Inability to utilise data analytics and "big data" to achieve market intelligence and increase productivity and efficiency

TABLE OF CONTENTS



Introduction

Ongoing challenges triggered by a once-in-a-century airborne pandemic continue to unfold and, combined with numerous other risk issues, serve to remind executives that the range of uncertainties has triggered an overwhelming landscape of ever-changing risks that they must manage. Staying abreast of emerging risk issues and opportunities is becoming increasingly difficult.

Boards of directors and executive management teams cannot afford to manage risks casually on a reactive basis, especially considering the rapid pace of disruptive innovation and technological developments in a rapidly advancing digital world. The need for resilience and agility at pivoting when the unexpected occurs is at all-time highs.

Protiviti and NC State University's ERM Initiative are pleased to provide this report focusing on the top risks currently on the minds of global boards of directors and executives. This report contains results from our 10th annual risk survey of directors and executives worldwide to obtain their views on the extent to which a broad collection of risks is likely to affect their organisations over the next year — 2022. In addition to insights about near-term risks in 2022, we also asked respondents to consider how these risks will affect their organisations a decade from now (in 2031).

Our respondent group of 1,453 executives, comprised primarily of board members and C-suite executives from all major regions of the world, provided their perspectives about the potential impact in 2022, and also in 2031, of 36 specific risks across three dimensions:[1]

- **Macroeconomic risks** likely to affect their organisation's growth opportunities
- **Strategic risks** the organisation faces that may affect the validity of its strategy for pursuing growth opportunities
- **Operational risks** that might affect key operations of the organisation in executing its strategy

In presenting the results of our research, we begin with a brief description of our methodology and an executive summary of the results. Following that overview, we discuss the overall risk concerns for 2022, including how they have changed from the two most recent surveys conducted for 2021 and 2020. We also provide a discussion of the top risk concerns for 2031 (and changes from our survey last year about 2030 top risk concerns). We follow with a review of results by size of organisation and type of executive position, as well as a breakdown by industry, geographic location and type of ownership structure (i.e., public company, privately held, or not-for-profit and governmental organisations). We conclude with a discussion of plans among organisations to improve their capabilities for managing risks and a call to action, offering executives and directors diagnostic questions to consider when evaluating risk assessment and risk management processes.

[1] One new risk was added in the 2022 survey. We added six new risks in 2021. These new risks are specifically focused on the effects of the COVID-19 pandemic and on the social and economic challenges in the last two years. See Table 1 for a list of the 36 risks addressed in this study.

TABLE OF CONTENTS

Methodology

We are pleased with the global reach of our survey this year, with strong participation from 1,453 board members and executives across a variety of industries. Our survey captures insights from C-suite executives and directors, 43% of whom represent companies based in North America, 20% in Europe, 20% in Asia and Australia/New Zealand, and the remaining 17% from Latin America, India, Africa and the Middle East.

Our survey was conducted online in September and October of 2021 to capture perspectives on 36 risks on the minds of executives as they peered into 2022. Each respondent was asked to rate 36 individual risk issues in terms of their relative impact using a 10-point scale, where a score of 1 reflects “No Impact at All” and a score of 10 reflects “Extensive Impact” to their organisation over the next year. We also asked them to consider how each of these risks was likely to affect their organisations 10 years in the future (i.e., in 2031).

For each of the 36 risk issues, we computed the average score reported by all respondents.

Using mean scores across respondents, we rank-ordered risks from highest to lowest impact. This approach enabled us to compare mean scores across the past three years to highlight changes in the perceived level of risk.

Consistent with our prior studies, we grouped all the risks based on their average scores into one of three classifications:

- Risks with an average score of **6.0 or higher** are classified as having a **“Significant Impact”** over the next 12 months (2022)/over the next decade (2031).
- Risks with an average score of **4.5 through 5.99** are classified as having a **“Potential Impact”** over the next 12 months (2022)/over the next decade (2031).
- Risks with an average score of **4.49 or lower** are classified as having a **“Less Significant Impact”** over the next 12 months (2022)/over the next decade (2031).

We refer to these risk classifications throughout our report, and we also review results for various subgroups (i.e., company size, position held by respondent, industry representation, geographic location, and organisation type). With respect to the various industries, we grouped related industries into combined industry groupings to facilitate analysis, consistent with our prior years’ reports.

Table 1 lists the 36 risk issues rated by our respondents, arrayed across three categories — Macroeconomic, Strategic and Operational.

List of 36 risk issues analysed

TABLE 1

MACROECONOMIC RISK ISSUES
• Anticipated volatility in global financial markets and currency exchange rates may create significantly challenging issues for our organisation to address
• Political uncertainty surrounding the influence and continued tenure of key global leaders may impact national and international markets to the point of significantly limiting our growth opportunities
• Evolving changes in global trade policies (e.g., post-Brexit implementations, escalating tariffs, border restrictions and shifts to multilateralism) may affect our ability to operate effectively and efficiently in international markets
• Our ability to access sufficient capital/liquidity may restrict growth opportunities for our organisation
• Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation
• The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees
• Geopolitical shifts, regional conflicts and instability in governmental regimes or expansion of global terrorism may restrict the achievement of our global growth and profitability objectives
• Anticipated increases in labour costs may affect our opportunity to meet profitability targets
• The current interest rate environment may have a significant effect on the organisation's operations
• Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business[2]
• Shifts in perspectives and expectations about social issues and priorities surrounding diversity, equity and inclusion are occurring faster than the pace at which our organisation is motivated and able to manage effectively (e.g., recruiting, retention, career advancement, reward systems, behavioural incentives, shared values and culture), which may significantly impact our ability to attract/retain talent and compete in the marketplace[2]

[2] These risks were new to the 2021 survey.

List of 36 risk issues analysed

TABLE 1 (CONTINUED)

STRATEGIC RISK ISSUES

- Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation's ability to compete and/or manage the risk appropriately, without making significant changes to our business model
- Rapidly expanding social media developments in the marketplace and rapidly developing platform technology innovations may significantly impact how we do business, interact with our customers, ensure regulatory compliance and/or manage our brand
- Regulatory changes and scrutiny may heighten, noticeably affecting the way our processes are designed and our products or services are produced or delivered
- Growing focus on climate change policies, regulations, and expanding disclosure requirements as well as expectations of key stakeholders about climate change, supply chain transparency, reward systems, and other governance and sustainability issues may require us to significantly alter our strategy and business model in ways that may be difficult for us to implement on a timely basis
- Ease of entrance of new competitors into the industry and marketplace or other significant changes in the competitive environment (such as major market concentrations due to M&A activity) may threaten our market share
- Our organisation may not be sufficiently resilient and/or agile to manage an unexpected crisis significantly impacting our reputation
- Growth opportunities through acquisitions, joint ventures and other partnership activities may be difficult to identify and implement
- Opportunities for organic growth through customer acquisition and/or enhancement may be significantly limited for our organisation
- Substitute products and services may arise from competitors that may enhance the customer experience and affect the viability of our current business model and planned strategic initiatives
- Sustaining customer loyalty and retention may be increasingly difficult due to evolving customer preferences and/or demographic shifts in our existing customer base
- Performance shortfalls may trigger activist shareholders who seek significant changes to our organisation's strategic plan and vision
- Market conditions imposed by and in response to COVID-19 and emerging variants, including shifts in consumer behaviour to digital channels, may continue to impact customer demand for our core products and services[2]
- Our organisation may not be able to adapt its business model to embrace the evolving "new normal" imposed on our business by the ongoing pandemic and emerging social change[2]

[2] These risks were new to the 2021 survey.

TABLE OF CONTENTS

List of 36 risk issues analysed

TABLE 1 (CONTINUED)

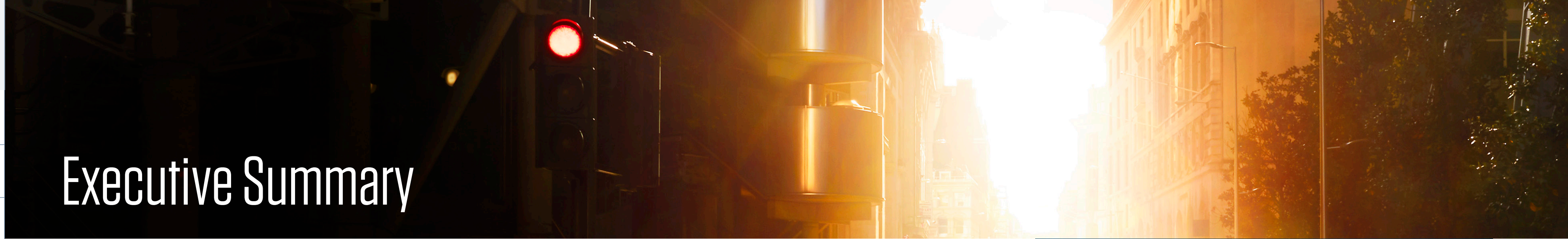
OPERATIONAL RISK ISSUES

- Changes in the overall work environment including shifts to hybrid work environments, evolving labour markets, expansion of digital labour, changes in the nature of work and who does that work, and M&A activities may lead to challenges to sustaining our organisation's culture and the way we do business[3]
- Uncertainty surrounding our organisation's core supply chain including the viability of key suppliers, scarcity of supplies, volatile shipping and delivery options, or stable prices in the supply chain ecosystem may make it difficult to deliver our products or services at acceptable margins
- Third-party risks arising from our reliance on outsourcing and strategic sourcing arrangements, IT vendor contracts, and other partnerships/joint ventures to achieve operational goals may prevent us from meeting organisational targets or impact our brand image
- Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets
- Our organisation may not be sufficiently prepared to manage cyber threats such as ransomware and other attacks that have the potential to significantly disrupt core operations and/or damage our brand
- Ensuring data privacy and compliance with growing identity protection expectations and regulations may require alterations demanding significant resources to restructure how we collect, store, share and use data to run our business
- Our existing operations, legacy IT infrastructure, lack of digital expertise in the workforce and insufficient digital savviness in the C-suite and boardroom may result in failure to meet performance expectations related to quality, time to market, cost and innovation as well as our competitors, especially those that are either "born digital" or investing heavily to leverage technology for competitive advantage
- Inability to utilise data analytics and "big data" to achieve market intelligence and increase productivity and efficiency may significantly affect our management of core operations and strategic plans
- Resistance to change in our culture may restrict our organisation from making necessary adjustments to the business model and core operations
- Our organisation's culture may not sufficiently encourage the timely identification and escalation of risk issues and market opportunities that have the potential to significantly affect our core operations and achievement of strategic objectives
- Our ability to meet expectations around protecting the health and safety of employees, customers, suppliers and the communities in which we operate may be insufficient to receive market permission to operate or encourage people to work for us or do business with us[2]
- Ongoing demands on or expectations of a significant portion of our workforce to "work remotely" or increased expectations for a transformed, collaborative hybrid work environment may negatively impact the effectiveness and efficiency of how we operate our business[2]

[2] These risks were new to the 2021 survey.

[3] This risk is new to the 2022 survey.

TABLE OF CONTENTS



Executive Summary

Massive disruptions in the global supply chain. Challenges in attracting and retaining talent to address needs all across the enterprise. COVID-19 variants. Cyber attacks and ransomware. Wildfires and flooding. Geopolitical tensions in specific regions and shifts on issues related to climate change. Long-overdue shifts in expectations related to diversity, equity and inclusion. Political divisiveness and gridlock. Artificial intelligence (AI), automation and other rapidly developing digital technologies. More permanent shifts to hybrid and remote work environments. Shifting customer preferences and demographics. Big data analytics.

The global marketplace is dramatically impacted by these and a host of other notable risk drivers triggering significant levels of uncertainties that make it extremely difficult for an organisation's leaders to anticipate what risks may lie just over the horizon. Unanticipated events are unfolding at record pace, leading to massive challenges to identify the best next steps for organisations of all types and sizes, regardless of where they reside in the world. As no one is immune to uncertainty, C-suites and boards need to be vigilant in scanning the horizon for emerging issues. Because it is impossible to anticipate everything of significance that lies in the future, organisations must focus on building trust-based, resilient cultures that can pivot at the speed of change.

One of the first questions an organisation seeks to answer in risk management is, "What are our most critical risks?" The organisation's answer to this question lays the foundation for management to respond with appropriate capabilities for managing these risks. This survey provides insights about top risks for the short term — 2022 — and the long term — 2031 — from 1,453 respondents in C-suite and board positions in organisations around the globe.

The top risks on the minds of all executives for 2022 are summarised in the sidebar.

TOP RISKS FOR 2022

1. Pandemic-related government policies and regulation impact business performance
2. Succession challenges, ability to attract and retain top talent
3. Pandemic-related market conditions reduce customer demand
4. Adoption of digital technologies requires new skills or significant efforts to upskill/reskill existing employees
5. Economic conditions, including inflationary pressures, constrain growth opportunities
6. Increasing labour costs impact profitability targets
7. Resistance to change operations and the business model
8. Inability to utilise data analytics and "big data" to achieve market intelligence and increase productivity and efficiency
9. Cyber threats
10. Shifts in expectations about social issues and diversity, equity and inclusion (DEI) outpace organisation's response

TABLE OF CONTENTS

Last year, we expanded our analysis to obtain insights about long-term risk perspectives on the minds of executives by asking them to rate these same 36 risks with regard to the expected impact on their organisations a decade later. This year, we asked participants to look ahead to the year 2031.

> "We thank the global participants who shared their views and made this year's survey possible, as their collective input reinforces what many business leaders are experiencing the world over. We hope that the insights and recommendations in our study provide a catalyst for dialogue in organisations all over the world around managing change and disruption."
>
> **PAT SCOTT**
> Executive Vice President, Global Industry, Client Programs and Marketing, Protiviti

The top risks on the minds of all executives for 2031 are summarised in the sidebar.

TOP RISKS FOR 2031

1. Adoption of digital technologies requires new skills or significant efforts to upskill/ reskill existing employees
2. Succession challenges, ability to attract and retain top talent
3. Rapid speed of disruptive innovation outpaces our ability to compete
4. Substitute products or services arise that affect our business model
5. Economic conditions, including inflationary pressures, constrain growth opportunities
6. Entrance of new competitors and other industry changes threaten market share
7. Impact of regulatory change and scrutiny on operational resilience, products, and services
8. Resistance to change operations and the business model
9. Hybrid work environment and changes in nature of work challenge ability to compete
10. Inability to utilise data analytics and "big data" to achieve market intelligence and increase productivity and efficiency

Analysis of the top risks for 2022 and the next decade reveals a number of key takeaways pointing to shifting priorities:

The scope of global top risks is more expansive. The spread between the top risk and, say, the 15th-rated risk over the next 12 months has narrowed considerably compared to prior years. The scope of risk concerns for the next 10 years pertains to the future of work and the workplace; talent acquisition, retention and succession; disruptive innovation, new competitors and sustaining customer loyalty; the economy; regulatory change; utilising data analytics and "big data"; and organisational culture and the impact of a hybrid work environment. There is a lot on the plate.

Near-term priorities appear to be shifting. Many of the same risks remain top of mind this year as last year; however, the way risks are being prioritised is changing. Looking out 12 months, three risks fell out of last year's top 10 – concerns pertaining to regulatory matters, competition with "born digital" companies and data privacy, falling to 12th, 15th and 21st, respectively. New additions to the top 10 risks list for 2022 centre around talent challenges including concerns about anticipated increases in labour costs, the inability to utilise data analytics and "big data," and shifts in DEI-related perspectives and expectations, which were rated 23rd, 11th and 16th in last year's survey, respectively. In addition, there are shifts within the top 10 risks, the most notable being talent management and succession, which jumped from the eighth-ranked risk last year to second for 2022.

TABLE OF CONTENTS

Longer-term priorities are also shifting. Looking out over the next decade, four risks dropped out of last year's top 10 list for 10 years ahead — risks associated with data privacy, sustaining customer loyalty, cybersecurity and competition with "born digital" players, falling to 11th (tie), 16th and 18th, respectively. New to the top 10 risks list for the next decade are concerns over the economy, ease of entrance of new competitors, resistance to change, and the effect of changes in the overall work environment on sustaining organisational culture and the manner in which operations are conducted. There is also evidence of shifting long-term priorities within the top 10 risks, the most notable being regulatory concerns, which dropped from the second-rated risk in last year's 10-year outlook to seventh overall in this year's 10-year outlook.

People and culture are at the top of the agenda. The number two risk overall for both 2022 and the next decade pertains to succession challenges and the ability to attract, retain and develop top talent in a tightening market. In addition, culture remains a priority. Concerns with resistance to change represent the seventh- and eighth-rated risks overall for 2022 and the next decade, respectively. Talented people and culture are related, as the latter attracts the former and, effectively led, the best and brightest engender innovative cultures fit for purpose in the digital age. There are several important themes related to people and culture:

- **Job markets have been disrupted.** In some countries, resignations and job openings are at or near record highs, terminations are at or near record lows, and/or hirings cannot keep pace with job openings. There is a need for specialised skills in an increasingly complex world.
- **Rising labour costs is the sixth-ranked risk for 2022.** The pandemic has spawned increased mobility in the workforce — including but not limited to changing locations and industries. Companies have open positions they are struggling to fill. People are less willing to work for minimum wage. This risk zoomed upward from 23rd in 2021 to sixth for 2022. Clearly executives are concerned about attracting and retaining talent and labour and must meet the table stakes the market requires to do so. The hardest hit include the retail, restaurant, leisure and hospitality sectors.
- **DEI has elevated in importance.** Shifts in perspectives and expectations about social issues and priorities surrounding DEI — the 10th rated risk overall for 2022 and 15th overall for the next decade — are forcing assessment of policies and processes around recruiting, retention, career advancement and reward systems, as well as consideration of such topics as digital equity and virtual inclusion. It is also requiring companies to engage the investor community and address rising expectations in ESG reporting.
- **Future of work continues to be a defining business challenge for the next decade.** Our survey results for this year and the prior year both indicate this risk is the fourth-ranked issue looking out 12 months and the top risk for the ensuing decade. Adoption of AI, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations and other digital advances are expected to displace as well as create millions of job functions. As the labour pool remains limited and labour costs rise, the business case for automating repetitive manual activities becomes more compelling. Thus, the state of labour markets is such that companies will need to take the initiative to upskill/reskill existing employees on a regular basis to fulfil the value proposition of new technological investments. The talent needed will not be found walking the streets.
- **Workplace evolution is creating uncertainty and the need for agility.** The pandemic accelerated trends that were already underway — specifically relating to remote work, e-commerce and automation. They have empowered many employees — particularly those whose physical presence in interacting with people and machines is not required at a specific location or in a specified environment — by giving them a desire for a voice and choice as to where and when they work, leading to various forms of a hybrid work environment for many companies. No one knows for sure

TABLE OF CONTENTS

what the post-pandemic norm will look like, and the number of companies implementing permanent work-from-anywhere policies continues to grow. More importantly, there is uncertainty over the impact of these changes on sustaining organisational culture and the way business is done. This is the ninth-rated overall risk concern looking out 10 years.

- **Most ESG issues rate highly with respect to the "S."** As noted above, people, culture and workplace issues are significant risks overall according to our survey. DEI-related challenges are a top 10 risk overall for 2022. There are risks associated with organisational culture, including resistance to change and the impact of the evolving workplace.
- **Climate change concerns are greatest in industries heavily reliant on fossil fuels.** Overall, climate change concerns represent one of the five risks reflecting the largest increases in severity between years. Oil and gas and power companies generating energy utilising fossil fuels rate climate concerns as a top risk. Most other respondents do not perceive significant alterations in their strategy and business model for climate change as a near-term concern at this time, although the risk heightens looking out 10 years. This finding does not suggest climate change isn't an important matter to these respondents; it simply alludes to the current perception of many C-suite executives and board members outside of fossil fuels-based industries that climate issues will not significantly impact their organisation's strategy and business model. Investor expectations, customer preferences, regulatory requirements and other market developments could change that perception. Interestingly, a lack of focus on greenhouse gas-emitting activities could pose additional talent retention challenges, especially with respect to younger generations.

Concerns with the global pandemic continue to linger near term. COVID-19 variants and the inability to vaccinate enough people in some countries or provide sufficient doses of vaccines to other countries have sustained the pandemic, hamstringing recovery efforts and dampening economic growth sentiments. The root cause for two of the top five risks overall for 2022 are pandemic-related and involve leadership concerns about government policies significantly impacting business performance and pandemic-imposed market conditions continuing to impact consumer behaviour and demand for products and services.

Buckle up; a disruptive and volatile decade lies ahead. The rapid speed of disruptive innovation, threat of substitute products and services, and ease of entrance of new competitors into the industry are all top risks looking out 10 years. Most of these risks were ranked higher over the next decade than for 2022. For example, disruptive innovation, substitute products, ease of entrance of new competitors, and sustaining customer loyalty and retention were rated third, fourth, sixth and 12th, respectively, for the next decade, whereas for 2022 they were rated 19th, 26th, 24th and 23rd, respectively. Combined with other risks related to talent, the workplace and organisational culture, and the economy, these risks portend a disruptive decade ahead.

Economic uncertainty remains significant and its long-term impact has increased. Concerns over the economy are fifth overall for both 2022 and the next decade. While the economy was a top 10 risk looking 12 months out last year, it was rated 16th last year overall when the focus was on the next decade. The lingering effects of the pandemic, uncertainty over both central bank policies and the long-term effects of unprecedented government deficits, constricting labour markets, the debate over inflation being transitory or structural, the ripple effects of rising energy costs, the continued erosion in consumer economic sentiment in some countries, and impact of supply chain congestion, disruption and related cost increases contribute to strained perceptions regarding the economy, presently and in the future.

Reliable and predictive market intelligence will separate winners and losers. Inability to utilise sufficiently advanced and predictive data analytics and "big data" to achieve actionable market intelligence and increase productivity, efficiency and innovation is a top risk, rated eighth and 10th overall for 2022 and the next decade, respectively. In rapidly changing markets, ongoing insightful and predictive analysis of data wins — particularly with respect to changing customer preferences.

Cybersecurity and data privacy remain long-term global concerns, as do regulatory matters. Cybersecurity is the ninth- and 16th-rated risk overall for 2022 and the next 10 years, respectively. A critical risk for a long time continues to be top of mind as nation-states, cyber criminals and others evolve new attack strategies.

Interestingly, data privacy is the 11th-rated risk for the next decade and is not rated among the top risks for 2022, reflecting recent emphasis on privacy due to regulatory developments and revealing it may be a longer-term strategic concern for respondents in terms of determining what data is captured and how that data is stored, used and secured.

In addition, concerns over regulatory scrutiny affecting the way processes are designed and products or services are produced or delivered are more long term, as this risk is rated seventh overall for the next decade but, interestingly, is not a top 10 risk looking out 12 months for the first time since we began this annual survey 10 years ago. This may suggest that respondents see gridlock and other public sector priorities as mitigating factors to regulatory changes affecting their business near term. But longer term, they see regulatory risk as an issue. For example, world leaders recently endorsed a global minimum tax of 15 percent on business profits to curb efforts to shift corporate profits to overseas tax havens.

A long-term outlook helps companies be better prepared and more resilient. Seven of the top 15 risks over the next decade are not in the top 15 list for 2022. With a disruptive decade ahead, organisations embracing the long view with a trust-based culture, effective utilisation of predictive data analytics and the ability to pivot at the speed of change are more likely to sustain their relevance. A longer-term perspective helps leaders "reality test" their assumptions about markets and the business environment so that they are more prepared for unexpected surprises as well as more decisive and agile in making timely adjustments to the strategy and business model. It can reveal a number of different challenges than those that may be emerging short-term. Thinking long term about enterprise risks can impact long-term resiliency and preparedness for the next decade, complementing the organisation's short-term risk awareness.

In addition to providing insights from the full sample about executive perspectives on risks for the short term (2022) and long term (a decade later — 2031), we conduct a number of separate analyses by examining different subsections of our sample. Here are some high-level insights:

Differences across sizes of organisations

- Executives from smaller organisations perceive the overall risk environment for 2022 to be higher than 2021; however, executives from all other sizes of organisations assess the risk environment for 2022 as lower relative to 2021. The largest two sizes of organisations perceive the overall risk environment for 2022 as somewhat lower than what they thought pre-pandemic (our 2019 survey looking forward to 2020), while the categories of smaller organisations (those under $1B) still view 2022 as riskier than pre-pandemic times.
- Risks triggered by the ongoing pandemic are top of mind for executives of all sizes of organisations. Concerns about economic conditions in 2022 appear as a top five risk for three of the four size categories.
- All organisations except the largest ones are focused on risks related to succession challenges and their ability to attract and retain top talent. Larger organisations represented by the top two size categories are concerned about their abilities to acquire and keep the talent they need to adopt and implement digital technologies and innovations.
- Small organisations, represented by the two smaller size categories, are particularly concerned about government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols, which may significantly impact their performance. This was the number one 2022 risk concern for these smaller organisations.
- As business leaders look ahead to 2031, the top five risks are mostly of a strategic nature. All sizes of organisations share concerns about the adoption of digital technologies (e.g., AI, automation in all its forms, natural language processing, visual recognition software, virtual

reality simulations) in the marketplace and their ability to locate and/or upskill and reskill existing employees. This was the number one 2031 risk concern for the three largest size groups, and second for the smallest group of organisations.

- All four sizes of organisations include the risk of succession challenges and the ability to attract and retain top talent in a tightening talent market as a top five 2031 risk concern.

Differences across executive positions represented

- There are varying views across different executive groups about the overall risk environment for 2022. Board members, chief risk officers (CROs), chief audit executives (CAEs) and chief data/digital officers (CDOs) have significantly decreased their 2022 risk expectations relative to 2021. In contrast, chief executive officers (CEOs), chief financial officers (CFOs), and chief information/technology officers (CIOs/CTOs) have the highest 2022 rating on this dimension. The increase is most dramatic for CEOs, jumping from 5.6 (the lowest rating) in 2021 to 6.6 in 2022 (the highest rating). Clearly there are differences of opinion about the overall risk environment.
- There is marked contrast in perspectives about specific risk concerns across the various positions. This suggests there may be significant value in explicit discussions of overall impressions about the risk environment among key leaders, especially at the highest levels of the organisation.
- The number of the 36 risks rated as "Significant Impact" risks for 2022 was about the same as in 2021 for board members, CFOs, CAEs, and Other C-Suite executives. However, the number of "Significant Impact" risks for CEOs increased from four in 2021 to 13 in 2022. That begs the question, "Who has the correct assessment of these risks?" Business leaders need to engage in robust conversations to tease out the underlying realities.
- Boards of directors and CEOs are both concerned about the impact of government policies surrounding public health practices, social distancing, return to work timetables, and crowd limits, and about market conditions imposed by and in response to COVID-19. Both rated those risks as their top two risk concerns.
- CFOs, CIOs/CTOs, and chief strategy/innovation officers (CSOs) are especially concerned about ongoing demands on or expectations of a significant portion of the workforce to "work remotely" or increased expectations for a transformed, collaborative hybrid work environment. Operational risks dominate the top five risk concerns for CAEs.
- Longer-term risk concerns from all executives reveal an overall reduction in risk concerns for 2031 across the board in relation to concerns over the short term. Only four of our position groups rate any of the 36 risks as "Significant Impact" risks for 2031. Perhaps the less immediate impact of these potential risk issues is driving this difference in risk perspectives for the next decade, for the passage of time enables organisations to make adjustments they may be unable to make over the near term. But, it is important to note that CEOs rated 10 risks as "Significant Impact" risks for 2031. CEOs are viewing the risk landscape differently.
- Interestingly, the CIO/CTO position group rated almost half (17 of 36) of the risks as "Significant Impact" risks for 2022; however, they rated none of the 36 risks at that level for 2031.

> "Last year, we referred to the future of work as one of the defining business challenges of the disruptive 2020s. This year, we're doubling down on that prediction. Not only is this risk the top issue for the next decade for the second straight year, but the increasing cost of labour and acute talent shortages are making the business case for automating manual-intensive activities more compelling."
>
> **KIM BOZZELLA**
> Global Leader, Technology Consulting, Protiviti

TABLE OF CONTENTS

Differences across industry groups

- Respondents across all industry groups, with the exception of the Technology, Media and Telecommunications industry group, perceive the overall magnitude and severity of risks in the environment as a whole to be lower for 2022 relative to 2021.
- There is a marked contrast in perspectives across industry groups about specific risk concerns, which suggests that the industry context is important to consider. But given that a number of organisations' business models may not fit neatly into an industry category, reviewing differences in risk concerns across multiple industries may help tease out risks that may be overlooked by some.
- There is significant disparity in the top five risks as opposed to previous years' surveys. The following industry groups all rate the macroeconomic risk of government policies surrounding public health practices as their top risk for 2022: Consumer Products and Services; Technology, Media and Telecommunications; and Healthcare. The other three industry groups all identify different top risks.
- Financial services organisations cite concerns about the interest rate environment as their top concern. Respondents from the Manufacturing and Distribution industry group identified risks tied to uncertainty surrounding the organisation's core supply chain as their top concern, while those from Energy and Utilities identified risks related to succession challenges and the ability to attract and retain talent as their top risk concern. Note: While Energy and Utilities is the only industry group to list succession challenges as the top risk concern, every industry has that risk in its top five list of risks.
- The Energy and Utilities industry group is the only group to identify concerns related to a growing focus on climate change policies, regulations and expanding disclosure requirements as a top five issue for either 2022 or 2031. This is a top five risk issue for that industry group for both 2022 and 2031. But, no other industry group rated that risk in its top five risks for either the short-term or longer-term time horizons. Thus, the perception that climate change is likely to impact strategies and business models is paramount for Energy and Utilities, but not so much for the other industry groups.
- The Healthcare industry group indicates the highest levels of risk concerns for 2022. Four of its top five risks for 2022 are rated at the "Significant Impact" level, while most other industry groups rate only one of their top five risks at that level (the Financial Services industry group rates two of their top five risks at that level).
- Strategic and macroeconomic risks dominate most longer-term risk forecasts. The risk related to the adoption of digital technologies requiring the need to upskill and reskill employees is cited as the first or second highest risk by five of the six industry groups for 2031. In addition, the strategic risk associated with the rapid speed of disruptive innovation is ranked by five of the industry groups as a top five risk.

Differences across geographic regions

- Globally, organisations from six of the eight geographic regions in our study agree that the overall magnitude and severity of risks are of a "Significant Impact" level in 2022. Only organisations in Asia and the Middle East rate the level of risk below the "Significant Impact" threshold.
- Respondents in Europe, Australia/New Zealand and Africa organisations rate the severity and magnitude of risks in 2022 as higher than 2021. North American organisations and those in Asia and the Middle East rate the magnitude and severity in 2022 as lower relative to 2021.
- There are notable differences in views about risks around the globe, which is especially important for multinational organisations to consider. Organisations in Australia/New Zealand and Africa rate all five risks as "Significant Impact" risks whereas organisations in North America rated none of their risks as "Significant Impact" risks.
- There is variation in the nature and types of risks included in the top five risks for the eight

geographic regions. Eighteen of the 36 risks appear in at least one geography's top five list of risks. Only two risks are common to at least four of the eight regions.

- The risk related to government policies surrounding public health practices or market conditions imposed by and in response to COVID-19 was included as a top five risk for every geographic region last year. But, for 2022 that risk is not in the top five for Europe or the Middle East.
- Looking further out into 2031, strategic risks become more heightened for all regions with the exception being India.
- The concern for 2031 over rapid speed of disruptive innovation is cited by five of the eight regions, while the macroeconomic risk associated with the adoption of digital technologies that may require new skills or significant efforts to upskill/reskill existing employees is cited by four of the regions.

Differences across public and non-public entities

- Privately held for-profit entities sense an overall heightened magnitude and severity of risks for 2022, but public companies and not-for-profit and governmental organisations perceive the level to be lower relative to 2021.
- The top five risks across the three groups are reasonably consistent. All three groups rank risks associated with government policies surrounding public health practices and succession planning and talent acquisition among their top five risks.
- Market conditions associated with COVID-19, economic conditions in markets currently served, preparation to manage cyber threats and the adoption of digital technologies are cited by at least two of the three types of organisations. Not-for-profit and governmental organisations are alone in citing resistance to change as a top five risk concern.
- All organisations are concerned about the adoption of digital technologies impacting the need for new skills for 2031, with all three groups rating that risk as their top risk concern. Both privately held for-profit organisations and not-for-profit and governmental organisations rate that risk as a "Significant Impact" risk for 2031. Additionally, there are universal concerns about succession and talent challenges for each of the three types of organisations.

Plans to improve risk management capabilities

In addition to asking respondents to rate each of the 36 risks for 2022 and 2031, we asked them to provide insights about plans to enhance their organisation's risk management capabilities in the coming year. Here are some key insights:

- In contrast with the finding that respondents note a decrease in their impression about the magnitude and severity of overall risks for 2022 relative to the prior year, they indicate a higher likelihood of deploying more resources to risk management in 2022 relative to 2021 (and 2020). This result is not too surprising, especially in light of the past two years of pandemic-related risk concerns shining the spotlight on the importance of resilience in the face of unexpected surprises.
- The three largest-sized groups of organisations all indicate plans to strengthen their risk management processes in 2022 as compared to 2021. All but the smallest firms indicate a higher level of investment in risk management processes for 2022.
- Interestingly, boards of directors, CEOs, CIOs/CTOs, and Other C-Suite executives all signal increased investment in risk management in the coming year.
- The Healthcare and Energy and Utilities industry groups express reduced likelihood to devote additional time and resources toward risk management in 2022 relative to 2021. This may simply reflect increased investments already made in 2021, as indicated by last year's findings. The Financial Services industry group leads in both absolute terms for 2022 (6.9) and in the magnitude of the increase from 2021 expectations (an increase of 0.8). The Consumer Products and Services, Manufacturing and Distribution, and Technology, Media and Telecommunications industry groups all indicate a higher likelihood to invest more in risk management capabilities in 2022 relative to 2021.

- Organisations based in Australia/New Zealand, Africa, North America and Europe indicate the greatest likelihood they will invest more in risk management capabilities in 2022 relative to our 2021 results.
- Public companies and privately held for-profit organisations indicate higher levels of likelihood that they will invest more time and resources in building out their risk management infrastructure in 2022 relative to 2021. On the other hand, not-for-profit and governmental organisations indicate no change in the level of investment in risk management capabilities in 2022 when compared to 2021.

The ever-changing risk landscape and the overall perceived magnitude and severity of risks should prompt boards and senior executives to closely scrutinise the approaches they use to keep an anticipatory eye on emerging risks. Unfortunately, some organisations continue to manage risks the way they have for many years, even though the profile of risks is changing dramatically as business and whole industries are transformed in the digital economy.

The need for greater transparency about the nature and magnitude of risks undertaken in executing an organisation's corporate strategy continues to be high as expectations of key stakeholders regarding risk management and risk oversight remain strong. To that end, we conclude this report by offering a number of questions for executives and boards to consider as they evaluate their organisations' approach to managing risks. It is our desire that this report will increase executive and board understanding of potential risks on the horizon so that they can proactively navigate issues and challenges as they emerge for the benefit of their organisation's reputation and brand image, key stakeholders, and society as a whole.

> "As they look forward to the next decade, organisations had best be prepared and ready to pivot. Companies should inculcate a trust-based culture, organise for speed, keep an eye on relevant trends and industry developments, deploy data-informed approaches to understand and act upon customer behaviour, incent necessary changes to processes, products and services, and invest in the talent that can make it happen."
>
> **JIM DELOACH**
> Managing Director, Protiviti

Top Risk Concerns for 2022

The list of top 10 global risks, as noted by all survey participants, for 2022 appears in Figure 1, along with their corresponding 2021 and 2020 scores (for those risks included in the prior years' surveys).

Top 10 risks for 2022

FIGURE 1

Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business

Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets

Market conditions imposed by and in response to COVID-19 and emerging variants, including shifts in consumer behaviour to digital channels, may continue to impact customer demand for our core products and services

The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees

Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation

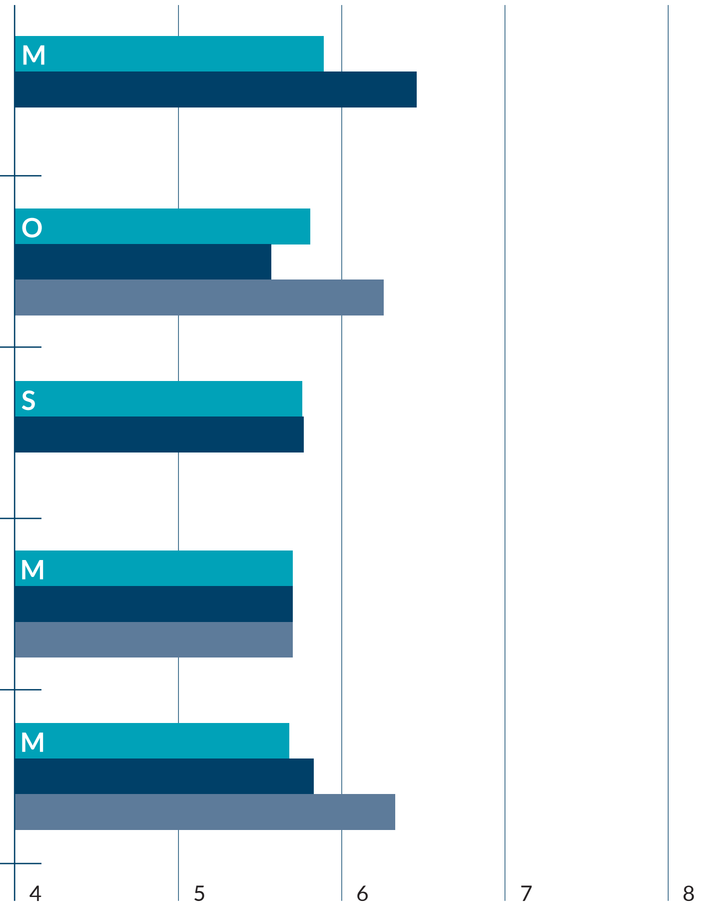


FIGURE 1 (CONTINUED)

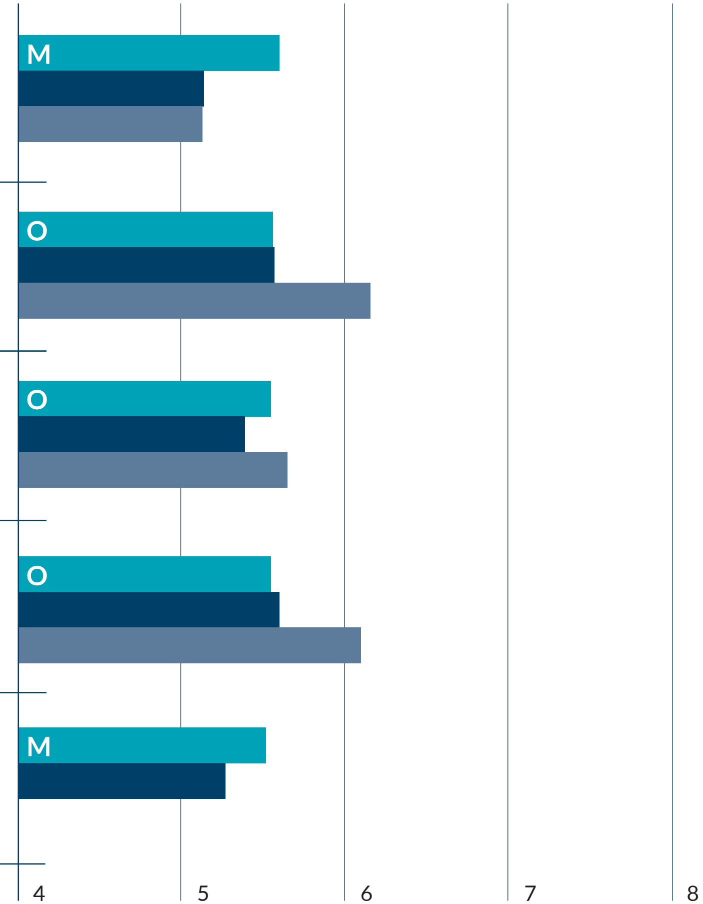
Anticipated increases in labour costs may affect our opportunity to meet profitability targets

Resistance to change in our culture may restrict our organisation from making necessary adjustments to the business model and core operations

Inability to utilise data analytics and "big data" to achieve market intelligence and increase productivity and efficiency may significantly affect our management of core operations and strategic plans

Our organisation may not be sufficiently prepared to manage cyber threats such as ransomware and other attacks that have the potential to significantly disrupt core operations and/or damage our brand

Shifts in perspectives and expectations about social issues and priorities surrounding diversity, equity and inclusion are occurring faster than the pace at which our organisation is motivated and able to manage effectively (e.g., recruiting, retention, career advancement, reward systems, behavioural incentives, shared values and culture), which may significantly impact our ability to attract/retain talent and compete in the marketplace



Legend

M Macroeconomic Risk Issue   S Strategic Risk Issue   O Operational Risk Issue   2022   2021   2020

TABLE OF CONTENTS

Macroeconomic risks dominate, with five of the top 10 risks for 2022 related to that category of risk. Four of the top 10 risks show increases over the prior year, three remain in line with prior year perceptions, while risk scores for the final three remaining top 10 risks are lower than the risk scores from last year. Interestingly, none of the risks in the top 10 is deemed to be at the "Significant Impact" level, perhaps reflecting the reality that organisations have now had more than 18 months to settle into the pandemic-impacted business environment.

Two pandemic-related risks continue to be at or near the top of the list for 2022.

- Concerns at a macroeconomic level about emerging government policies and regulations to address pandemic-related issues impacting business performance continue to be top of mind for board members and executives, staying in the top position for both 2022 and the prior year.
- Related to that, board members and executives also indicate significant concerns about the impact COVID-19 might continue to have on market conditions that could negatively affect consumer demand for core products and services during 2022; this risk is ranked third overall, consistent with its ranking in the prior year. This risk is the sole strategic category risk in the top 10 for 2022. All others reflect macroeconomic and operational issues.

Both of these risks are the top two risks for the Consumer Products and Services industry group for 2022.

Four additional macroeconomic risk concerns are also reflected on the list of 2022 top 10 risks in light of the massive global and systemic impact triggered by the ongoing pandemic and other events in the prior year:

- The rapid embrace of digital and virtual technologies and other digital platforms for product and service deliveries continues to be creating concerns among many board members and executives, who believe they may not have the talent and skills needed to successfully support and leverage those technologies to compete effectively in the marketplace.
- Respondents are focused on potential growth restrictions imposed by economic conditions, particularly in light of inflationary pressures, in markets they serve.
- The tight labour market and the war for talent are triggering concerns about heightened labour costs as organisations try to compete in attracting and retaining a highly skilled workforce.
- Executives also indicate that organisations may be too slow to address important shifts in perspectives and expectations in the marketplace related to social issues and priorities surrounding DEI, with respondents focused on how that may impact recruitment and retention of needed talent.

Executives are also focused on operational risks for 2022, with four of them included in the top 10 risk issues. Three of the risks dominating the operational issues are linked to retaining needed talent:

- Concerns about succession challenges and ability to attract and retain talent soared from the eighth position in the prior year to the second highest-ranked risk for 2022, perhaps in response to the numbers of individuals exiting the workforce, leaving millions of jobs unfilled as part of the so-called great resignation, in light of ongoing frustrations around compensation, lack of flexible work options, mental health issues and workplace challenges associated with the current pandemic-related environment.
- Respondents are also particularly focused on not having the talent and capabilities they need to fully leverage the advantages of predictive data analytics and "big data" to obtain market intelligence necessary to gain the insights needed to improve the customer experience, sustain competitive position and remain sufficiently profitable.
- They continue to worry that their organisation's overall culture may reflect a reluctance to make needed adjustments to the business model and core operations fast enough to address shifting marketplace conditions.

To no surprise, the fourth of the top operational risks relates to executive concerns that the organisation may not be sufficiently prepared for the never-ending range of cyber threats. Cyber risks remain in the top 10 list for 2022.

The following briefly highlights the risks comprising the overall top 10 list of risks for 2022:

1. **Government policies to address the pandemic may lead to regulations and protocols that significantly impact how we do business and our performance —** To address the ongoing global health crisis caused by COVID-19 and continuing as variants of the virus emerge, governments around the world continue to adjust policies, protocols and regulations surrounding travel and border controls and public health practices that have, in many cases, reimposed social distancing, masking, crowd limits and other restrictions that hamper customer demand, particularly in sectors dependent on concentration of people and the movement of products and services through the clogged supply chain. Continued revisions by governments of those policies have led to unprecedented levels of uncertainty for business leaders as they try to anticipate shifts in those policies to maximise the performance of their organisations. The efficacy of vaccines and the effective functioning of their distribution and administration impact this risk, as does the potential for litigation risks in the absence of prudence and caution for the sake of employee health and safety.
2. **Succession challenges and talent acquisition and retention —** The delayed return of the workforce to physical office environments is leading to longer-lasting shifts in preferences about how individuals want to work. Discussions about more permanent remote or hybrid working are continuing as organisations evaluate employee preferences and recognise the benefits those kinds of work environments have had on talent retention and productivity effectiveness. As unemployment has declined over the past year and individuals have decided to exit the workforce for a while (if not permanently), many organisations are finding that the talent they need does not match the talent available in the labour marketplace. Respondents continue to perceive that significant operational challenges may arise if their organisations are unable to build and sustain a workforce with the requisite skills needed to implement their growth strategies, forcing them to consider alternative forms of labour. This reality is forcing companies to broaden their labour model to encompass contractors, the contingent workforce (the so-called gig economy) as well as automation in its various forms to complement the professional core.
3. **Market conditions and shifts in consumer behaviour resulting from the pandemic may continue to impact customer demand —** COVID-19 forced organisations of all types around the world to suddenly alter how they deliver core products and services to their customers. Lockdowns, social distancing, and the shift of the workforce from organisations' facilities to remote locations and "work from anywhere" hybrid workplace arrangements have altered how consumers search for, buy and take delivery of key products and services. The lingering effects of the pandemic have led to consumers embracing new purchasing behaviours and delivery methods, which may negatively impact the viability of organisations that do not respond effectively to these shifting preferences and expectations.
4. **The adoption of digital technologies in transforming the business may require new skills that the organisation may not be able to attract or retain —** The rapid need to embrace digital technologies to reach customers in a virtual, socially distanced manner, as well as to support a remote workforce environment, has strained technology capabilities for many organisations. Those entities without access to the talent that understands the technologies and how they may be deployed may find themselves lagging

behind competitors that can react quickly to assimilate innovations into their business. Furthermore, as the future of work evolves through digital transformation, companies will need to upskill and reskill displaced workers to take on new job functions and fill talent gaps relating to the deployment of these new technologies.

5. **Increased concern among most executives about economic conditions restricting growth prospects in relevant markets, but with some exceptions —** Concerns related to overall economic issues in domestic and international markets remain in the top five risks for 2022. The broad, long-term economic impact of the pandemic, including concerns about inflation, continue to represent significant challenges for executives in many industries. Uncertainties associated with central bank policies around interest rates, the effects of slow-to-recover supply chains on the economic rebound from pandemic lows, the hamstringing effects on the economy of COVID variants, escalating fuel, food and other costs, and a slowdown in the Chinese economy are contributing factors to these concerns. Also, ongoing debates and apparent gridlock in the United States about various government spending initiatives, particularly related to infrastructure investments, have created tremendous uncertainties about the impact of potential spending programmes and the associated escalation of government debt on the economy.[4]

6. **Increasing labour costs —** Shortages of talent are spanning multiple sectors of the market, significantly reducing the capacities of organisations to deliver their core products and services. Some have altered their hours of operations in light of not having sufficient talent to open their doors. Certain industries such as trucking, hospitality and healthcare have been hit particularly hard. Organisations are responding to these pressures by increasing their wages to attract critical talent, and that is having a ripple effect across the workforce in many organisations as other employees are also demanding more competitive wages, particularly in light of the more difficult work environment triggered by the pandemic. The trend to a “living wage” has begun.

7. **Resistance to change —** As major business model disruptors emerge, respondents are growing even more focused on their organisation’s potential unwillingness or inability to pivot and make necessary timely adjustments to the business model, core operations and required skillsets that might be needed to respond to changes in the overall business environment and industry. Executives continue to be concerned about their companies’ resilience and ability to enable change, despite the reality that change has become a way of life for most companies. Whether covert or overt, resistance to necessary change spawned by disruptive innovations that alter business fundamentals can be catastrophic. It’s innovate or experience a quick end or a downward spiral of a thousand cuts.

8. **Leveraging sufficiently advanced and predictive data analytics and “big data” —** The amount of data obtained and retained by most organisations continues to increase exponentially along with expanding use of technologies across virtually every aspect of the business. Unfortunately, for many the way that data is stored often varies across different platforms, making the retrieval and analysis of data across an enterprise challenging. Despite a strong desire for data-informed decision-making, many organisations are struggling to find ways to leverage that data into actionable and predictive market intelligence that may significantly enhance the organisation’s competitive position. Without the right kind of talent with sophisticated data analytical skills and the use of focused AI solutions, organisations may be left behind others that are gifted at not only collecting data but also leveraging sufficiently advanced analytics to

[4] Note: After our survey period ended, the United States Congress passed a US$1.2 trillion infrastructure spending package.

reveal value-added insights and presenting the results timely to facilitate informed decision-making to increase productivity and efficiency and drive focused innovation and digital investments.

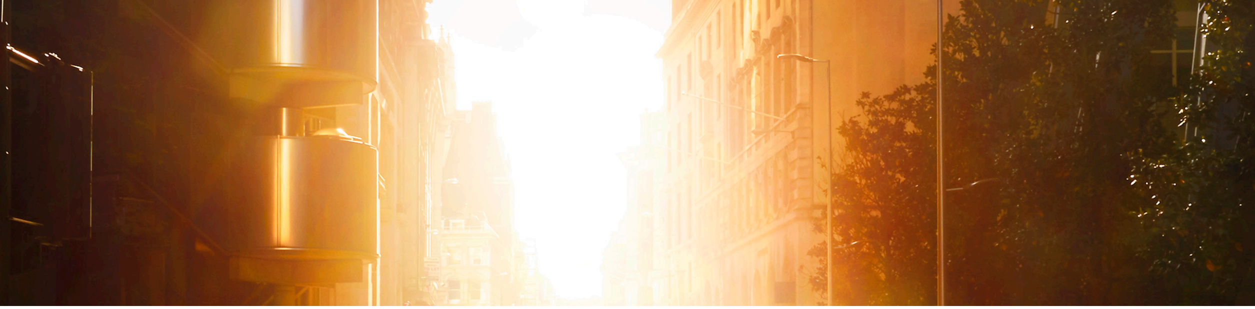
9. **Managing cyber threats —** It is no surprise that threats related to cybersecurity remain a major concern as organisations focus on how such events might interrupt core operations and erode brand image. The rush to "go virtual" in all aspects of operations may have inadvertently created unknown security weaknesses, particularly on the human perimeter. Cybersecurity is a moving target as innovative digital transformation initiatives, cloud computing adoptions, mobile device usage, automation, machine and deep learning, and other applications of exponential increases in computing power continue to outpace the security protections many companies have in place. Cyber threats extend beyond hackers gaining access to systems and encompass serious advanced persistent threats from nation-states and cyber criminals who demand ransomware payments to regain access to data and systems.

10. **Shifting perspectives on social issues —** Events surrounding several high-profile tragedies in 2020 related to racism and social justice matters have led to a long, overdue emphasis on DEI issues that are directly impacting how organisations manage human capital, compete in the marketplace and impact the broader society. The pace at which organisations are implementing needed changes to how they address a number of wide-ranging social issues may not be sufficient to meet escalating demands in the marketplace and that may, in turn, impact the organisation's ability to attract and retain customers, employees and suppliers.

"With the scope of risk issues expanding and shifting, an adaptive and resilient culture and mindset are needed to manage the accelerating pace of change as customer preferences evolve, digital transformation accelerates, the nature of work and the workplace itself are disrupted, new competitors enter the market, laws and regulations change, fresh cyber threats emerge, and the focus on ESG stakeholder expectations and ever-changing geopolitical dynamics add additional uncertainty to the picture."

MARK BEASLEY
Professor of Enterprise Risk Management, Poole College of Management, NC State University

TABLE OF CONTENTS



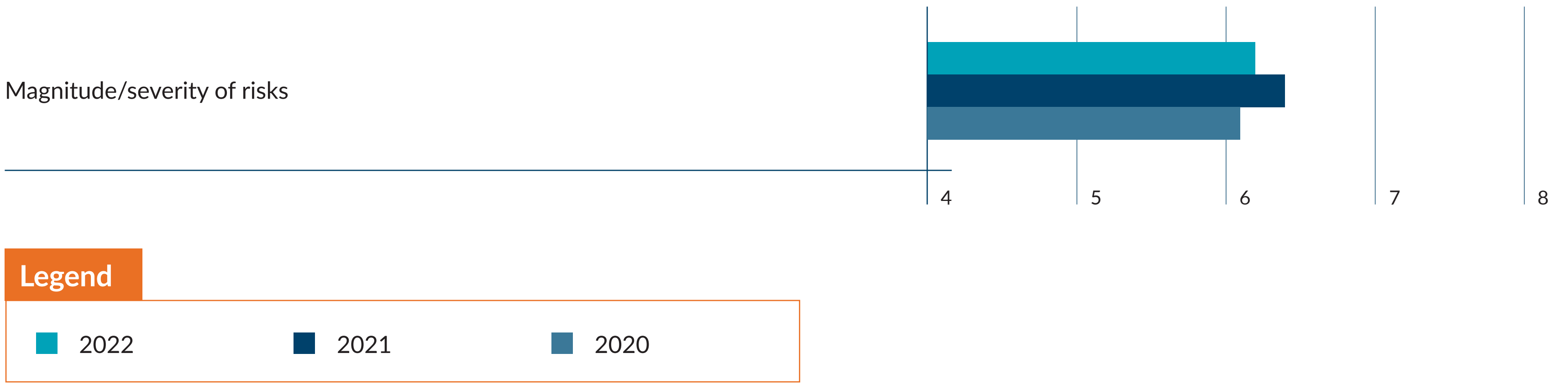
Significance of Risks Relative to Prior Years

Before asking respondents to assess the importance of each of the 36 risks, we asked them to indicate their perceptions about the overall risk environment using a 10-point scale where 1 = "Extremely Low" and 10 = "Extremely High."

As shown in Figure 2, the collective response suggests a decrease in the overall nature of the risk environment, with an average score of 6.2 in 2022 relative to 6.4 in 2021 and 6.1 in 2020. This overarching response suggests that board members and executives perceive the risk environment for 2022 as somewhat less risky than they did when looking forward to 2021, but still slightly higher than pre-pandemic conditions two years ago in anticipation of 2020.

Overall, what is your impression of the magnitude and severity of risks your organisation will be facing with respect to achieving its objectives and reaching or exceeding profitability (or funding) targets over the next 12 months?

FIGURE 2



Impressions about individual risks

Despite this overarching perception about the magnitude and severity of the overall risk environment, there is mixed reaction regarding how individual risk scores for the 36 individual risks for 2022 compare to the risk scores for those risks in the prior year. For 19 of the risks included in the prior year survey, individual risk scores increased over the scores for the same risks in the prior year, compared to 14 risks for which risk scores are lower for 2022 relative to 2021. Risk scores for two risks are unchanged (recall that one of the 36 risks is new for 2022).

Increases in individual risk scores mostly involve strategic and operational risks, given only three macroeconomic risks increased over the prior year. The finding that individual risk scores did not increase for as many macroeconomic risks is partially attributed to the fact that macroeconomic risks are already high, given they make up more of the top 10 risks for 2022 relative to strategic and operational risks. The variation in changes in individual risk scores between 2022 and the prior year suggests that there are a number of changing market conditions making it critically important that executives focus more specifically on different types of risks given their unique and shifting nature over time.

Majority view most top 10 risks as significant

Table 2 reveals the percentage of respondents who scored each of the top 10 risks as "Significant Impact" risks (6 or higher), as well as the percentage of respondents who rate each as a 5 (Medium) or as 4 or below (Low) for 2022. The perception that the risk environment for 2022 continues to be significant (an average of 6.2 on a 10-point scale) is supported by the fact that the majority of board members and executives rate nine of the top 10 risks as being "Significant Impact" risks. This suggests that these top risks have the potential to noticeably impact most organisations in the coming year. Interestingly, just under half of the executives rate the risk related to cyber threats as a "Significant Impact" risk.

Top 10 risks (with percentages of responses by impact level) – 2022[5]

TABLE 2

RISK DESCRIPTION	HIGH SIGNIFICANT IMPACT (6-10)	MEDIUM POTENTIAL IMPACT (5)	LOW LESS SIGNIFICANT IMPACT (1-4)
Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business	59%	13%	28%
Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets	57%	14%	29%
Market conditions imposed by and in response to COVID-19 and emerging variants, including shifts in consumer behaviour to digital channels, may continue to impact customer demand for our core products and services	57%	12%	31%
The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees	56%	15%	29%
Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation	54%	16%	30%
Anticipated increases in labour costs may affect our opportunity to meet profitability targets	53%	15%	32%
Resistance to change in our culture may restrict our organisation from making necessary adjustments to the business model and core operations	52%	15%	33%

[5] The risks presented in Table 2 are in the same top 10 risk order as reported in Figure 1. That list is based on each risk's overall average score (using our 10-point scale). Table 2 merely reflects the percentage of respondents selecting a particular point on the 10-point scale.

TABLE 2 (CONTINUED)

RISK DESCRIPTION	HIGH SIGNIFICANT IMPACT (6-10)	MEDIUM POTENTIAL IMPACT (5)	LOW LESS SIGNIFICANT IMPACT (1-4)
Inability to utilise data analytics and "big data" to achieve market intelligence and increase productivity and efficiency may significantly affect our management of core operations and strategic plans	53%	14%	33%
Our organisation may not be sufficiently prepared to manage cyber threats such as ransomware and other attacks that have the potential to significantly disrupt core operations and/or damage our brand	48%	18%	34%
Shifts in perspectives and expectations about social issues and priorities surrounding diversity, equity and inclusion are occurring faster than the pace at which our organisation is motivated and able to manage effectively (e.g., recruiting, retention, career advancement, reward systems, behavioural incentives, shared values and culture), which may significantly impact our ability to attract/retain talent and compete in the marketplace	53%	15%	32%

"The utilisation of focused data analytics to achieve reliable and predictive market intelligence and increase productivity, along with the risk and opportunity associated with disruptive innovation, have both increased in importance for 2022 and the next 10 years. These survey results are interrelated as organisations will need to 'think differently' and empower digital investments in the highest-impact strategic initiatives that connect to the experience enhancements that customers value most."

JOAN SMITH
Global Leader, Protiviti Digital

TABLE OF CONTENTS

Risks with largest increase from prior year

In order to highlight the most dramatic shifts in perceptions, we also investigate which risks increased the most from 2021 to 2022. Nineteen of the 36 risks that we surveyed in the prior year have average overall scores that are higher than the average scores in 2021. Two risks are unchanged from 2021, while the 14 remaining risks decreased from 2021. In Table 3, we show the five risks that increased the most from 2021.

The five risks with highest level of increase – 2022 vs. 2021

TABLE 3

RISK DESCRIPTION	TYPE OF RISK	2022 RESPONSE	2021 RESPONSE	PERCENTAGE CHANGE
Rapidly expanding social media developments in the marketplace and rapidly developing platform technology innovations may significantly impact how we do business, interact with our customers, ensure regulatory compliance and/or manage our brand	Strategic	4.94	4.36	13.3%
Uncertainty surrounding our organisation's core supply chain including the viability of key suppliers, scarcity of supplies, volatile shipping and delivery options, or stable prices in the supply chain ecosystem may make it difficult to deliver our products or services at acceptable margins	Operational	5.45	4.86	12.1%
Anticipated increases in labour costs may affect our opportunity to meet profitability targets	Macroeconomic	5.59	5.13	9.0%
Growing focus on climate change policies, regulations, and expanding disclosure requirements as well as expectations of key stakeholders about climate change, supply chain transparency, reward systems, and other governance and sustainability issues may require us to significantly alter our strategy and business model in ways that may be difficult for us to implement on a timely basis	Strategic	5.07	4.67	8.6%
Shifts in perspectives and expectations about social issues and priorities surrounding diversity, equity and inclusion are occurring faster than the pace at which our organisation is motivated and able to manage effectively (e.g., recruiting, retention, career advancement, reward systems, behavioural incentives, shared values and culture), which may significantly impact our ability to attract/retain talent and compete in the marketplace	Macroeconomic	5.51	5.26	4.8%

Not surprisingly, the risk increasing the most reflects operational concerns about supply chain disruptions as first-, second- and third-tier suppliers struggle to rebound production levels to pre-pandemic volumes, backups continue to clog seaports, shortages in warehouse workers hamper distribution and a strained ground transportation system due to shortages of drivers creates further bottlenecks — all by-products of the pandemic. With inventories eliminated, the outlook for quick-fix, short-term improvements is bleak as the sluggishness in the supply chain may take a while to improve. These developments are forcing companies to consider the role of "just in case" inventories in their business as well as multiple sourcing channels and, in some cases, nearshoring and reshoring options.

Two of the five risks increasing the most since 2021 are macroeconomic issues. Both of those reflect concerns related to human capital and culture, as respondents are especially worried about heightened labour costs on margins — especially in price-sensitive environments — and their organisation's ability to focus sufficiently on developing responses to shifts in perception and expectations tied to DEI.

The remaining two risks with the greatest increase from 2021 are of a strategic nature. One of those reflects increased concern about the impact of social media and the related rapid evolution of social media technology platforms and how those developments might disrupt how organisations interact with customers or impact negatively the organisation's brand and reputation. The other strategic risk is tied to increasing concerns related to effecting changes in policies, strategies and business models to address climate change developments in the marketplace and the related shift in stakeholder expectations about the responsibilities of organisations to respond appropriately to address this global challenge.

Risks with largest decrease from prior year

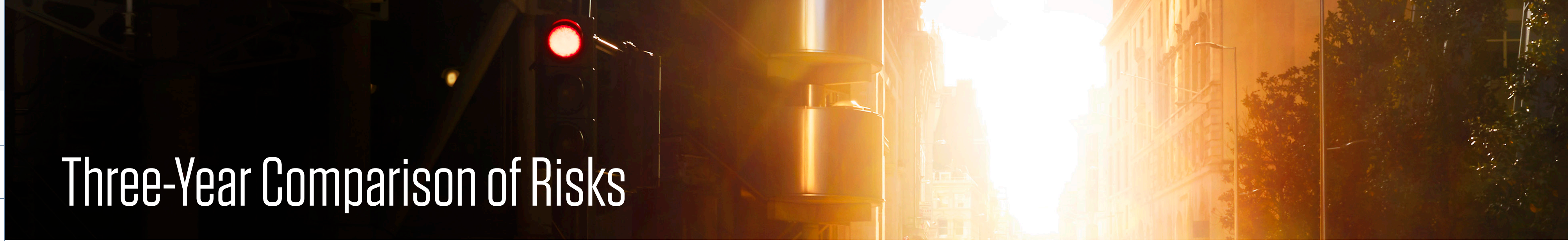
Fourteen risks actually decreased in severity from 2021. The five risks with the greatest decline are shown in Table 4 on the following page. While these represent the risks with the greatest decrease from 2021, it is important to note that two of the five remain top 10 risks for 2022.

TABLE OF CONTENTS

The five risks with highest level of decrease – 2022 vs. 2021

TABLE 4

RISK DESCRIPTION	TYPE OF RISK	2022 RESPONSE	2021 RESPONSE	PERCENTAGE CHANGE
Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business	Macroeconomic	5.90	6.47	8.8%
Ensuring data privacy and compliance with growing identity protection expectations and regulations may require alterations demanding significant resources to restructure how we collect, store, share and use data to run our business	Operational	5.34	5.64	5.3%
Political uncertainty surrounding the influence and continued tenure of key global leaders may impact national and international markets to the point of significantly limiting our growth opportunities	Macroeconomic	4.94	5.13	3.7%
Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation	Macroeconomic	5.69	5.84	2.6%
Regulatory changes and scrutiny may heighten, noticeably affecting the way our processes are designed and our products or services are produced or delivered	Strategic	5.49	5.59	1.8%



Three-Year Comparison of Risks

Each year, we provide an analysis of the overall three-year trends for the risks surveyed to provide insights about trending of individual risks. As discussed previously, to help identify differences in risk concerns across respondent type, we group all the risks based on their average scores into one of three classifications. Consistent with our prior studies, we use the following colour-coding scheme to highlight risks visually using these three categories.

CLASSIFICATION	RISKS WITH AN AVERAGE SCORE OF	
Significant Impact	6.0 or higher	
Potential Impact	4.5 through 5.99	
Less Significant Impact	4.49 or lower	

In Table 5, we summarise the impact assessments for each of the 36 risks for the full sample arranged by the three categories of risks we analyse: macroeconomic, strategic and operational. For each risk, the column labelled "2022 Rank" indicates that risk's relative position among the 36 risks for 2022, with rank "1" representing the risk with the highest overall impact score for 2022.

Despite the uncertainties triggered by the events of 2020, respondents, on average, rate none of the 36 risks as a "Significant Impact" risk, which is similar to the prior year when only one of the individual risks was rated at that level. This is in contrast to two years earlier (pre-pandemic), when respondents rated seven of the 30 risks as "Significant Impact" risks as they looked forward to 2020. All of the 36 risks are in the middle range of concern, given they fall into the category of "Potential Impact" risks. This is consistent with the two previous years, when only two in 2021 and one in 2020 were deemed as having "Less Significant Impact." This suggests that most of the 36 risks examined in this study are highly relevant concerns to be considered by board members and executives.

TABLE OF CONTENTS

Perceived impact for 2021 relative to prior years — full sample

TABLE 5

MACROECONOMIC RISK ISSUES	2022 RANK	2022	2021	2020
Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business	1	🟡	🔴	N/A
The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees	4	🟡	🟡	🟡
Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation	5	🟡	🟡	🔴
Anticipated increases in labour costs may affect our opportunity to meet profitability targets	6	🟡	🟡	🟡
Shifts in perspectives and expectations about social issues and priorities surrounding diversity, equity and inclusion are occurring faster than the pace at which our organisation is motivated and able to manage effectively (e.g., recruiting, retention, career advancement, reward systems, behavioural incentives, shared values and culture), which may significantly impact our ability to attract/retain talent and compete in the marketplace	10	🟡	🟡	N/A
Anticipated volatility in global financial markets and currency exchange rates may create significantly challenging issues for our organisation to address	28	🟡	🟡	🟡
Our ability to access sufficient capital/liquidity may restrict growth opportunities for our organisation	30	🟡	🟡	🟡
The current interest rate environment may have a significant effect on the organisation's operations	31	🟡	🟡	🟡
Political uncertainty surrounding the influence and continued tenure of key global leaders may impact national and international markets to the point of significantly limiting our growth opportunities	32	🟡	🟡	🟡

TABLE 5 (CONTINUED)

MACROECONOMIC RISK ISSUES (CONTINUED)	2022 RANK	2022	2021	2020
Geopolitical shifts, regional conflicts and instability in governmental regimes or expansion of global terrorism may restrict the achievement of our global growth and profitability objectives	35	🟡	🟡	🟡
Evolving changes in global trade policies (e.g., post-Brexit implementations, escalating tariffs, border restrictions and shifts to multilateralism) may affect our ability to operate effectively and efficiently in international markets	36	🟡	🟡	🟡

STRATEGIC RISK ISSUES	2022 RANK	2022	2021	2020
Market conditions imposed by and in response to COVID-19 and emerging variants, including shifts in consumer behaviour to digital channels, may continue to impact customer demand for our core products and services	3	🟡	🟡	N/A
Regulatory changes and scrutiny may heighten, noticeably affecting the way our processes are designed and our products or services are produced or delivered	12	🟡	🟡	🔴
Our organisation may not be sufficiently resilient and/or agile to manage an unexpected crisis significantly impacting our reputation	18	🟡	🟡	🟡
Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation's ability to compete and/or manage the risk appropriately, without making significant changes to our business model	19	🟡	🟡	🟡
Our organisation may not be able to adapt its business model to embrace the evolving "new normal" imposed on our business by the ongoing pandemic and emerging social change	20	🟡	🟡	N/A
Opportunities for organic growth through customer acquisition and/or enhancement may be significantly limited for our organisation	22	🟡	🟡	🟡

TABLE OF CONTENTS

TABLE 5 (CONTINUED)

STRATEGIC RISK ISSUES (CONTINUED)	2022 RANK	2022	2021	2020
Sustaining customer loyalty and retention may be increasingly difficult due to evolving customer preferences and/or demographic shifts in our existing customer base	23	●	●	●
Ease of entrance of new competitors into the industry and marketplace or other significant changes in the competitive environment (such as major market concentrations due to M&A activity) may threaten our market share	24	●	●	●
Growth opportunities through acquisitions, joint ventures and other partnership activities may be difficult to identify and implement	25	●	●	●
Substitute products and services may arise from competitors that may enhance the customer experience and affect the viability of our current business model and planned strategic initiatives	26	●	●	●
Growing focus on climate change policies, regulations, and expanding disclosure requirements as well as expectations of key stakeholders about climate change, supply chain transparency, reward systems, and other governance and sustainability issues may require us to significantly alter our strategy and business model in ways that may be difficult for us to implement on a timely basis	29	●	●	●
Rapidly expanding social media developments in the marketplace and rapidly developing platform technology innovations may significantly impact how we do business, interact with our customers, ensure regulatory compliance and/or manage our brand	33	●	●	●
Performance shortfalls may trigger activist shareholders who seek significant changes to our organisation's strategic plan and vision	34	●	●	●

TABLE OF CONTENTS

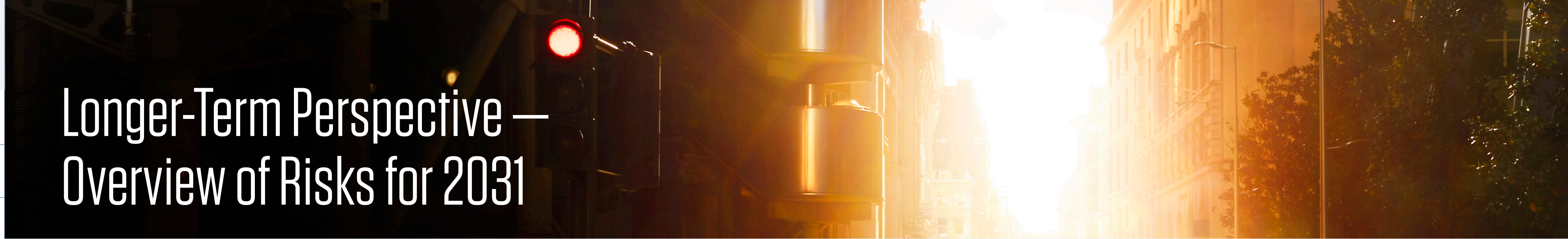
TABLE 5 (CONTINUED)

OPERATIONAL RISK ISSUES	2022 RANK	2022	2021	2020
Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets	2	🟡	🟡	🔴
Resistance to change in our culture may restrict our organisation from making necessary adjustments to the business model and core operations	7	🟡	🟡	🔴
Inability to utilise data analytics and "big data" to achieve market intelligence and increase productivity and efficiency may significantly affect our management of core operations and strategic plans	8	🟡	🟡	🟡
Our organisation may not be sufficiently prepared to manage cyber threats such as ransomware and other attacks that have the potential to significantly disrupt core operations and/or damage our brand	9	🟡	🟡	🔴
Our organisation's culture may not sufficiently encourage the timely identification and escalation of risk issues and market opportunities that have the potential to significantly affect our core operations and achievement of strategic objectives	11	🟡	🟡	🟡
Changes in the overall work environment including shifts to hybrid work environments, evolving labour markets, expansion of digital labour, changes in the nature of work and who does that work, and M&A activities may lead to challenges to sustaining our organisation's culture and the way we do business (new for 2022)	13	🟡	N/A	N/A
Third-party risks arising from our reliance on outsourcing and strategic sourcing arrangements, IT vendor contracts, and other partnerships/joint ventures to achieve operational goals may prevent us from meeting organisational targets or impact our brand image	14	🟡	🟡	🟡

TABLE OF CONTENTS

TABLE 5 (CONTINUED)

OPERATIONAL RISK ISSUES (CONTINUED)	2022 RANK	2022	2021	2020
Our existing operations, legacy IT infrastructure, lack of digital expertise in the workforce and insufficient digital savviness in the C-suite and boardroom may result in failure to meet performance expectations related to quality, time to market, cost and innovation as well as our competitors, especially those that are either "born digital" or investing heavily to leverage technology for competitive advantage	15	🟡	🟡	🔴
Uncertainty surrounding our organisation's core supply chain including the viability of key suppliers, scarcity of supplies, volatile shipping and delivery options, or stable prices in the supply chain ecosystem may make it difficult to deliver our products or services at acceptable margins	16	🟡	🟡	🟡
Ongoing demands on or expectations of a significant portion of our workforce to "work remotely" or increased expectations for a transformed, collaborative hybrid work environment may negatively impact the effectiveness and efficiency of how we operate our business	17	🟡	🟡	N/A
Ensuring data privacy and compliance with growing identity protection expectations and regulations may require alterations demanding significant resources to restructure how we collect, store, share and use data to run our business	21	🟡	🟡	🔴
Our ability to meet expectations around protecting the health and safety of employees, customers, suppliers and the communities in which we operate may be insufficient to receive market permission to operate or encourage people to work for us or do business with us	27	🟡	🟡	N/A



Longer-Term Perspective — Overview of Risks for 2031

Last year, we expanded our analysis to obtain insights about long-term risk perspectives on the minds of board members and executives. We repeated that request this year and, in addition to asking about their views of risks for 2022, we asked them to provide insights about the impact of those same risks over the next decade — into 2031.

The top 10 global risks for 2031 appear in Figure 3 (because this is our second year to ask executives about risks a decade ahead, there are corresponding prior year results only from our 2021 survey — these results reflect perceptions of risk issues for 2030).

Top 10 risks for 2031

FIGURE 3

The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees

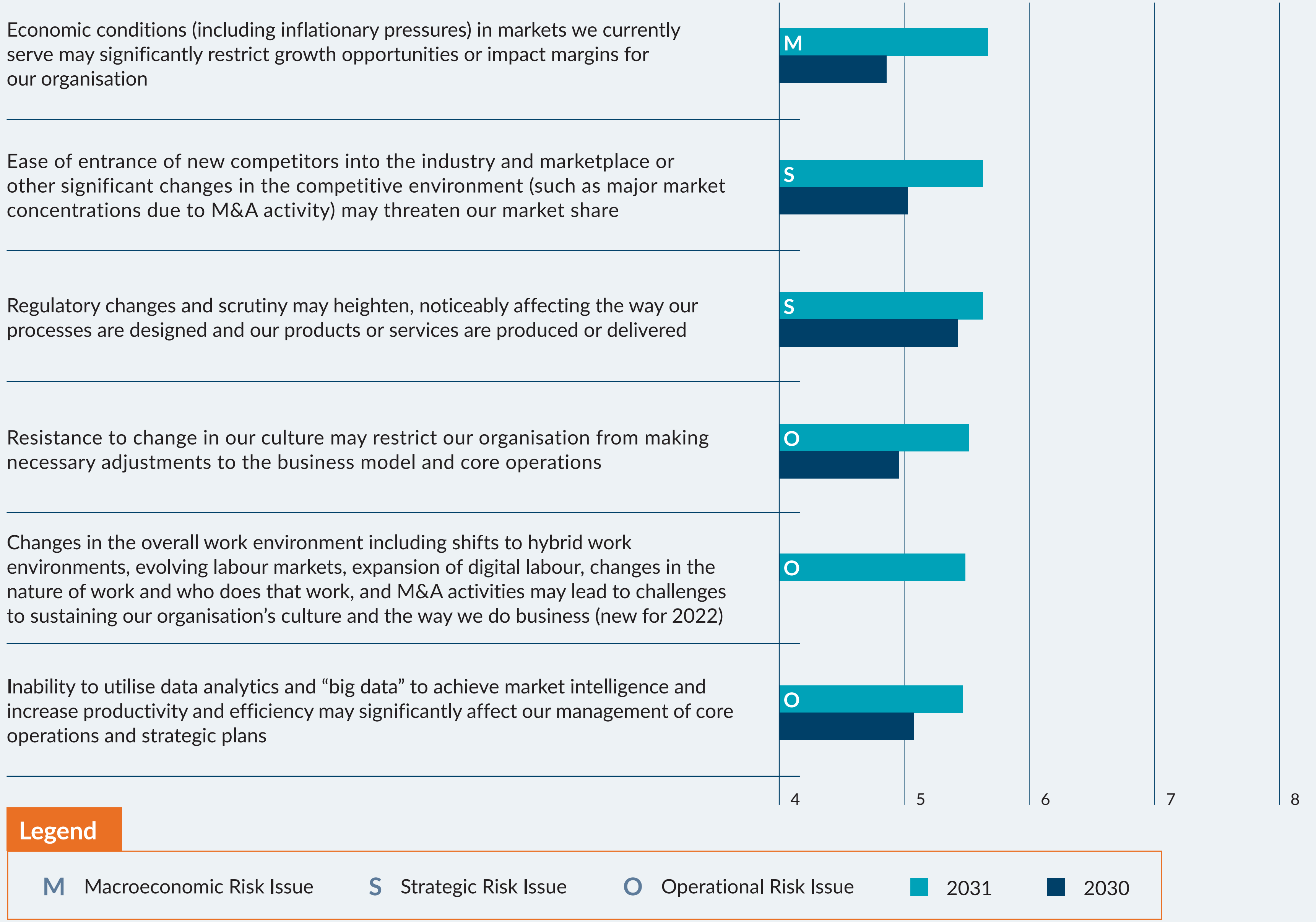
Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets

Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation's ability to compete and/or manage the risk appropriately, without making significant changes to our business model

Substitute products and services may arise from competitors that may enhance the customer experience and affect the viability of our current business model and planned strategic initiatives

TABLE OF CONTENTS

FIGURE 3 (CONTINUED)



Note: We did not rank risks a decade out in our study conducted two years ago.

TABLE OF CONTENTS

There is interesting overlap between the top 10 risks for 2031 and the top 10 risks for 2022. Five of the top 10 risks appear for both 2022 and 10 years later. These risks include the concerns about the ability to adopt digital technologies, succession challenges, economic conditions, resistance to change, and inability to utilise data analytics and "big data." Three of these five risks are operational risks.

Respondents are mostly focused on risks impacting their competitive positioning in 2031, with six of the top 10 in 2031 linked to the competitive positioning of their brands, products and services. The top risk concern for 2031 surrounds concerns that the organisation may not have the skills needed to adopt the digital technologies (e.g., AI, automation, etc.) necessary to compete in the marketplace. In summarising last year's results, we referred to this risk as "one of the defining business challenges for the next decade." Our results this year reinforce that assertion.

The respondents are also concerned that the rapid speed of disruptive innovations may outpace their ability to respond, and they are mindful that substitute products and services may emerge from competitors that enhance the customer experience and affect the viability of their current business models and planned strategic priorities. Those challenges are compounded by respondent concerns about threats to market positioning due to the ease of entrance of new competitors into the industry and marketplace. Finally, there are concerns that heightened regulatory changes and scrutiny may affect how products or services are designed, produced and delivered.

It is interesting that the risk around economic conditions impacting growth and margins landed in the top 10 risk concerns for 2031, whereas it did not in last year's outlook for the ensuing decade. It is significant that the survey respondents are expressing concern about economic headwinds over the long term as well as the near term. Central bank monetary and interest rate policies, the spectre of structural inflation, the duration of time for supply chains to recover, the performance of the Chinese and other large economies, the long-term effects of ballooning government deficits, and growing geopolitical tensions may be contributing interrelated factors to these longer-term concerns.

It is also interesting that concerns over resistance to change within the organisation are included in the top 10 risks for the next decade, whereas they were not in last year's results. Viewing the top risks over the next decade calls to mind the importance of preparing for the future by inculcating a trust-based, diverse and inclusive culture to enhance organisational preparedness, agility and decisiveness. It points to the need for a higher level of strategic thinking skills and relentless communication from the top. It highlights the importance of scenario analysis, early warning systems, response plans and innovative cultures that enable early movers to act on the megatrends that executives and directors consider relevant over the coming decade and respond to changes in external macroeconomic factors. Preparing the organisation to pivot in the face of the unexpected can break down the barriers of resistance so that the organisation embraces rather than resists change. Organisations choosing to position themselves proactively as early movers are more likely to face the future confidently and thrive than those that do not.

As for the other five risks of the top 10 risks for 2031 that are not in the top 10 list for 2022, as shown in Table 6, four of them represent strategic risk issues. The fifth risk relates to operational concerns about changes in the nature of work and who does that work as well as the transition to a hybrid "work-from-anyplace" environment affecting the organisation's culture and way of doing business, which has strategic implications as well. Interestingly, that risk was the 13th-rated risk for 2022, narrowly missing the cut for the top 10 list. The overarching theme among these five risks reflects board member and executive concerns that the innovations over the next 10 years may significantly impact customer demand for existing products and services as we know them today, and the organisation may fail to sufficiently recognise trends in market data that may signal shifts in customer preferences and behaviour affecting their organisation's offerings.

Top 10 risks for 2031 not in top 10 list for 2022

TABLE 6

RISK DESCRIPTION	TYPE OF RISK	2022 RANK	2022 RESPONSE	2031 RANK	2031 RESPONSE
Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation's ability to compete and/or manage the risk appropriately, without making significant changes to our business model	Strategic	19	5.39	3	5.79
Substitute products and services may arise from competitors that may enhance the customer experience and affect the viability of our current business model and planned strategic initiatives	Strategic	26	5.16	4	5.69
Ease of entrance of new competitors into the industry and marketplace or other significant changes in the competitive environment (such as major market concentrations due to M&A activity) may threaten our market share	Strategic	24	5.22	6	5.63
Regulatory changes and scrutiny may heighten, noticeably affecting the way our processes are designed and our products or services are produced or delivered	Strategic	12	5.49	7	5.63
Changes in the overall work environment including shifts to hybrid work environments, evolving labour markets, expansion of digital labour, changes in the nature of work and who does that work, and M&A activities may lead to challenges to sustaining our organisation's culture and the way we do business	Operational	13	5.48	9	5.49

Recall that risks with an average score of 6.0 or higher are classified as "Significant Impact" risks, while risks with average scores of 4.5 through 5.99 are classified as having a "Potential Impact." Risks with average scores below 4.5 are classified as having a "Less Significant Impact." In Figure 3, we see that only the top-rated risk is classified as a "Significant Impact" risk for 2031, given its average risk score of 6.0.

Table 7 presents the percentage of respondents who rate the top 10 risks into one of these three classifications. A majority of respondents rate five of the top 10 risks as a "Significant Impact" risk for 2031.

Top 10 risks (with percentages of responses by impact level) – 2031[6]

TABLE 7

RISK DESCRIPTION	HIGH SIGNIFICANT IMPACT (6-10)	MEDIUM POTENTIAL IMPACT (5)	LOW LESS SIGNIFICANT IMPACT (1-4)
The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees	57%	15%	28%
Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets	55%	15%	30%
Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation's ability to compete and/or manage the risk appropriately, without making significant changes to our business model	52%	16%	32%
Substitute products and services may arise from competitors that may enhance the customer experience and affect the viability of our current business model and planned strategic initiatives	51%	15%	34%
Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation	50%	21%	29%

[6] The risks presented in Table 7 are in the same top 10 risk order as reported in Figure 3. That list is based on each risk's overall average score (using our 10-point scale). Table 7 merely reflects the percentage of respondents selecting a particular point on the 10-point scale.

TABLE 7 (CONTINUED)

RISK DESCRIPTION	HIGH	MEDIUM	LOW
	SIGNIFICANT IMPACT (6-10)	POTENTIAL IMPACT (5)	LESS SIGNIFICANT IMPACT (1-4)
Ease of entrance of new competitors into the industry and marketplace or other significant changes in the competitive environment (such as major market concentrations due to M&A activity) may threaten our market share	49%	17%	34%
Regulatory changes and scrutiny may heighten, noticeably affecting the way our processes are designed and our products or services are produced or delivered	51%	14%	35%
Resistance to change in our culture may restrict our organisation from making necessary adjustments to the business model and core operations	49%	17%	34%
Changes in the overall work environment including shifts to hybrid work environments, evolving labour markets, expansion of digital labour, changes in the nature of work and who does that work, and M&A activities may lead to challenges to sustaining our organisation's culture and the way we do business	48%	19%	33%
Inability to utilise data analytics and "big data" to achieve market intelligence and increase productivity and efficiency may significantly affect our management of core operations and strategic plans	47%	18%	35%

As might be expected, not one of the six new risks added last year to address potential concerns tied to the ongoing pandemic and shifts in perspectives and expectations about social issues and priorities made the top 10 list of risks for 2031. For those pandemic- and social-related risks, the 2022 average risk scores were much higher than their corresponding 2031 average risk scores. In fact, when examining the top five risks where the difference between the 2022 and 2031 average scores is greatest, all five top differences represent risks related to the pandemic added to last year's survey. These results suggest that survey participants believe the pandemic will subside in time — perhaps to endemic status — and their organisations will be successful in making the necessary adjustments to their operations over time to adapt to its behavioural aftereffects.

Table 8 shows the risks with the biggest differences between 2022 and 2031 scores, and all represent the new pandemic-related risks added to last year's survey. In effect, these results suggest that the respondents believe that these risks shall pass with time.

Five risks with largest positive differences between 2022 and 2031

TABLE 8

RISK DESCRIPTION	TYPE OF RISK	2022 RESPONSE	2021 RESPONSE	DIFFERENCE
Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business	Macroeconomic	5.90	5.14	0.76
Market conditions imposed by and in response to COVID-19 and emerging variants, including shifts in consumer behaviour to digital channels, may continue to impact customer demand for our core products and services	Strategic	5.77	5.22	0.55
Our organisation may not be able to adapt its business model to embrace the evolving "new normal" imposed on our business by the ongoing pandemic and emerging social change	Strategic	5.36	4.91	0.45
Ongoing demands on or expectations of a significant portion of our workforce to "work remotely" or increased expectations for a transformed, collaborative hybrid work environment may negatively impact the effectiveness and efficiency of how we operate our business	Operational	5.45	5.02	0.43
Our ability to meet expectations around protecting the health and safety of employees, customers, suppliers and the communities in which we operate may be insufficient to receive market permission to operate or encourage people to work for us or do business with us	Operational	5.12	4.77	0.35

Table 9 on the following page shows the average risk score for 2031 for each of the 36 risks included in our survey organised by risk category: macroeconomic, strategic and operational. Only one of the risks is at the "Significant Impact" level as executives think about 2031. All other risks are at the "Potential Impact" level. None are at the "Less Significant Impact" level.

TABLE OF CONTENTS

Perceived impact for 2031 relative to prior years — full sample

TABLE 9

MACROECONOMIC RISK ISSUES	2031 RANK	2031	2030
The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees	1	●	●
Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation	5	●	●
Anticipated increases in labour costs may affect our opportunity to meet profitability targets	13	●	●
Shifts in perspectives and expectations about social issues and priorities surrounding diversity, equity and inclusion are occurring faster than the pace at which our organisation is motivated and able to manage effectively (e.g., recruiting, retention, career advancement, reward systems, behavioural incentives, shared values and culture), which may significantly impact our ability to attract/retain talent and compete in the marketplace	15	●	●
Our ability to access sufficient capital/liquidity may restrict growth opportunities for our organisation	24	●	●
Anticipated volatility in global financial markets and currency exchange rates may create significantly challenging issues for our organisation to address	26	●	●
Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business	27	●	●
Political uncertainty surrounding the influence and continued tenure of key global leaders may impact national and international markets to the point of significantly limiting our growth opportunities	30	●	●
The current interest rate environment may have a significant effect on the organisation's operations	31	●	●
Geopolitical shifts, regional conflicts and instability in governmental regimes or expansion of global terrorism may restrict the achievement of our global growth and profitability objectives	34	●	●
Evolving changes in global trade policies (e.g., post-Brexit implementations, escalating tariffs, border restrictions and shifts to multilateralism) may affect our ability to operate effectively and efficiently in international markets	36	●	●

TABLE 9 (CONTINUED)

STRATEGIC RISK ISSUES	2031 RANK	2031	2030
Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation's ability to compete and/or manage the risk appropriately, without making significant changes to our business model	3	●	●
Substitute products and services may arise from competitors that may enhance the customer experience and affect the viability of our current business model and planned strategic initiatives	4	●	●
Ease of entrance of new competitors into the industry and marketplace or other significant changes in the competitive environment (such as major market concentrations due to M&A activity) may threaten our market share	6	●	●
Regulatory changes and scrutiny may heighten, noticeably affecting the way our processes are designed and our products or services are produced or delivered	7	●	●
Sustaining customer loyalty and retention may be increasingly difficult due to evolving customer preferences and/or demographic shifts in our existing customer base	12	●	●
Rapidly expanding social media developments in the marketplace and rapidly developing platform technology innovations may significantly impact how we do business, interact with our customers, ensure regulatory compliance and/or manage our brand	17	●	●
Growing focus on climate change policies, regulations, and expanding disclosure requirements as well as expectations of key stakeholders about climate change, supply chain transparency, reward systems, and other governance and sustainability issues may require us to significantly alter our strategy and business model in ways that may be difficult for us to implement on a timely basis	19	●	●
Our organisation may not be sufficiently resilient and/or agile to manage an unexpected crisis significantly impacting our reputation	20	●	●
Market conditions imposed by and in response to COVID-19 and emerging variants, including shifts in consumer behaviour to digital channels, may continue to impact customer demand for our core products and services	22	●	●

TABLE OF CONTENTS

TABLE 9 (CONTINUED)

STRATEGIC RISK ISSUES (CONTINUED)	2031 RANK	2031	2030
Opportunities for organic growth through customer acquisition and/or enhancement may be significantly limited for our organisation	25	●	●
Growth opportunities through acquisitions, joint ventures and other partnership activities may be difficult to identify and implement	28	●	●
Our organisation may not be able to adapt its business model to embrace the evolving "new normal" imposed on our business by the ongoing pandemic and emerging social change	32	●	●
Performance shortfalls may trigger activist shareholders who seek significant changes to our organisation's strategic plan and vision	33	●	●

OPERATIONAL RISK ISSUES	2031 RANK	2031	2030
Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets	2	●	●
Resistance to change in our culture may restrict our organisation from making necessary adjustments to the business model and core operations	8	●	●
Changes in the overall work environment including shifts to hybrid work environments, evolving labour markets, expansion of digital labour, changes in the nature of work and who does that work, and M&A activities may lead to challenges to sustaining our organisation's culture and the way we do business (new for 2022)	9	●	N/A
Inability to utilise data analytics and "big data" to achieve market intelligence and increase productivity and efficiency may significantly affect our management of core operations and strategic plans	10	●	●
Ensuring data privacy and compliance with growing identity protection expectations and regulations may require alterations demanding significant resources to restructure how we collect, store, share and use data to run our business	11	●	●

TABLE 9 (CONTINUED)

OPERATIONAL RISK ISSUES (CONTINUED)	2031 RANK	2031	2030
Third-party risks arising from our reliance on outsourcing and strategic sourcing arrangements, IT vendor contracts, and other partnerships/joint ventures to achieve operational goals may prevent us from meeting organisational targets or impact our brand image	14	🟡	🟡
Our organisation may not be sufficiently prepared to manage cyber threats such as ransomware and other attacks that have the potential to significantly disrupt core operations and/or damage our brand	16	🟡	🟡
Our existing operations, legacy IT infrastructure, lack of digital expertise in the workforce and insufficient digital savviness in the C-suite and boardroom may result in failure to meet performance expectations related to quality, time to market, cost and innovation as well as our competitors, especially those that are either “born digital” or investing heavily to leverage technology for competitive advantage	18	🟡	🟡
Uncertainty surrounding our organisation’s core supply chain including the viability of key suppliers, scarcity of supplies, volatile shipping and delivery options, or stable prices in the supply chain ecosystem may make it difficult to deliver our products or services at acceptable margins	21	🟡	🟢
Our organisation’s culture may not sufficiently encourage the timely identification and escalation of risk issues and market opportunities that have the potential to significantly affect our core operations and achievement of strategic objectives	23	🟡	🟡
Ongoing demands on or expectations of a significant portion of our workforce to “work remotely” or increased expectations for a transformed, collaborative hybrid work environment may negatively impact the effectiveness and efficiency of how we operate our business	29	🟡	🟢
Our ability to meet expectations around protecting the health and safety of employees, customers, suppliers and the communities in which we operate may be insufficient to receive market permission to operate or encourage people to work for us or do business with us	35	🟡	🟢

The remainder of this report includes our in-depth analysis of perceptions about specific risk concerns. We begin with a summary of the feedback from responses to an open-ended question seeking additional emerging risk areas specific to their organisation. We then identify and discuss variances in the responses when viewed by organisation size and type, industry, geography, as well as by respondent role. In addition, on page 180 we pose key questions as a call to action for board members and executive management to consider that can serve as a diagnostic to evaluate and improve their organisation’s risk assessment and management processes.

TABLE OF CONTENTS

Anticipation of Change Is a Prevailing View

In our survey, we invited survey respondents to answer an open-ended question seeking additional emerging risk areas specific to their organisation looking ahead 10 years. Participants could list any emerging risk issues, such as extreme but plausible events they envision significantly affecting their organisation, that they believed were not captured explicitly in the other survey questions they answered. Specifically, we asked:

Looking ahead 10 years, are there additional emerging risk areas specific to your organisation that we have not addressed? If so, please list any other emerging risk issues (such as extreme but plausible events you envision) significantly affecting your organisation that were not captured in the prior questions.

The word cloud below visually portrays the text of over 325 participants' responses expressed in multiple languages (which have been translated to English). The words in the cloud that appear largest are the ones mentioned most by the participants, offering insights on trends and patterns in the responses received.

Many of the statements noted in the cloud directly relate to some of the 36 risk issues the participants were asked to rate in our study. Despite that, the exercise gave the participants the opportunity to express in their own words what was top of mind for them as they looked out 10 years. Interestingly, “climate” and “change” were mentioned the most. Other notable words include “government,” “technology,” “development,” “geopolitical” and “China.” Last year’s word cloud referenced “pandemic,” which is no longer prominent this year.

While these issues are clearly on the minds of executives as they face the next decade, they also relate to a number of our overall survey results. For example, our findings show regulatory risk as a top 10 risk over the next decade but not over the next 12 months, which relates, in part, to climate and environmental matters. In addition, the Energy and Utilities industry group views the impact of climate change on the strategy and business model as a top five risk issue over the next decade. The other industry groups do not. As we noted earlier in this report, this finding does not suggest climate change isn’t an important matter; it simply alludes to the *current* perception of many survey respondents outside of fossil fuels-based industries that climate issues will not significantly impact their organisation’s strategy and business model. The presence of “climate” in this year’s word cloud supports this point.

Analysis Across Different Sizes of Organisations

The sizes of organisations, as measured by total organisational revenue, vary across our 1,453 respondents, as shown in the accompanying table. The mix of sizes of organisations represented by respondents is very similar to the mix of respondents in our prior years' surveys. About 63% of our respondents are in organisations with revenues between $100 million and $10 billion.

MOST RECENT FISCAL YEAR REVENUES	NUMBER OF RESPONDENTS
Revenues $10 billion or greater	196
Revenues $1 billion to $9.99 billion	464
Revenues $100 million to $999 million	452
Revenues less than $100 million	341
Total number of respondents	**1,453**

The overall outlook about risk conditions differs across sizes of organisations. We asked respondents to provide their overall impression of the magnitude and severity of risks their organisation will be facing using a 10-point scale where 1 = "Extremely Low" and 10 = "Extremely High."

Only the smallest organisations (those with revenues less than $100 million) perceive an increase in the magnitude and severity of risks for their organisations, while the larger organisations indicate that the magnitude and severity of risks has slightly decreased from their perceptions in 2021. The largest organisations are also the least concerned relative to organisations in the other size categories, with their perception falling from 6.6 in 2021 to 5.9 in 2022. Overall, there is an increase only for organisations with revenues less than $1 billion, when compared to two years ago.

FIGURE 4

Overall, what is your impression of the magnitude and severity of risks your organisation will be facing with respect to achieving its objectives and reaching or exceeding profitability (or funding) targets over the next 12 months?

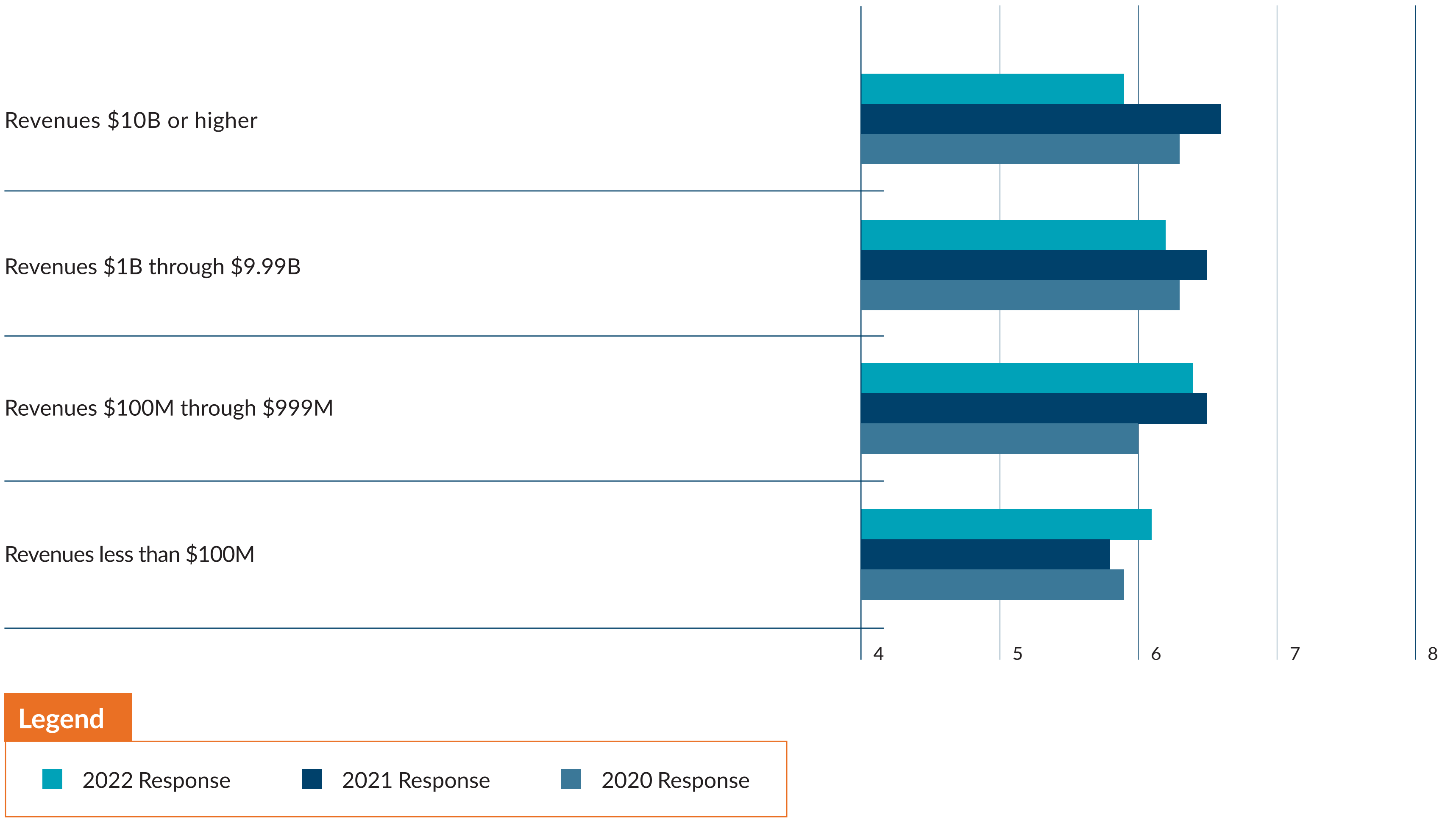


TABLE OF CONTENTS

2022 risk issues

Risks triggered by the ongoing pandemic are prominent on the minds of executives in all sizes of organisations. Macroeconomic concerns specific to the potential impact on performance from government policies surrounding public health, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols appear as a top five risk for all organisations, regardless of size. Concerns about economic conditions in 2022 appear as a top five risk for three of the four size categories; only firms with revenues between $100 million and $999 million omitted this risk. Three of the four size groups (all but the largest organisations) also include the risk associated with succession challenges and their ability to attract and retain top talent in their top five list of risks.

Large organisations, represented by the top two size categories, are concerned about their ability to attract and retain the talent needed to adopt digital technologies (e.g., AI, automation in all of its forms, natural language processing, visual recognition software, etc.). Small organisations, represented by the two smaller size categories, are particularly concerned about the government policies discussed in the previous paragraph, which may significantly impact their performance. This was the number one 2022 risk concern for these smaller organisations.

2031 risk issues

For all four size categories, the top five risks for 2031 are mostly of a strategic nature with one common macroeconomic risk and operational risk concern.

All sizes of organisations share concerns about the adoption of digital technologies (e.g., AI, automation in all of its forms, natural language processing and other technologies) in the marketplace and their ability to recruit and/or upskill and reskill existing employees. This was the number one 2031 risk concern for the three largest size groups and second for the smallest organisations. As well, all four size groups include the risk of succession challenges and the ability to attract and retain top talent in a tightening talent market as a top five 2031 risk concern (as is also true for the coming year, 2022).

All four size categories of organisations are also concerned that the rapid speed of disruptive innovation may outpace their ability to compete. It's innovate or die over the next 10 years. In addition, the two largest-sized categories are focused on risks related to regulatory changes and heightened regulatory scrutiny, while three of the four size categories (all but those with revenues between $100 million and $999 million) expressed concerns about whether substitute products and services might arise over the next decade and affect the viability of their current business model and planned strategic initiatives.

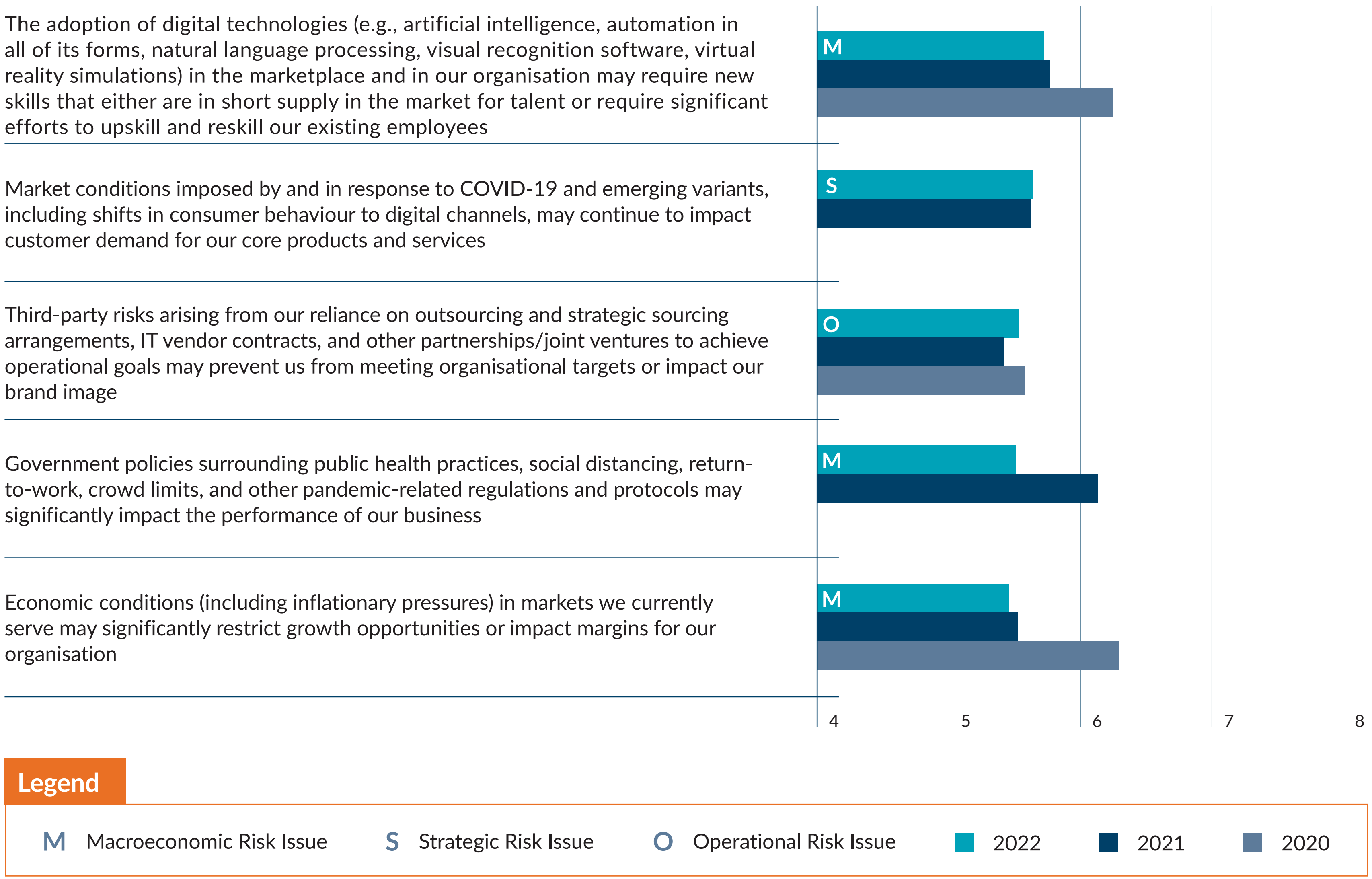
Smaller companies, represented by those in the two smallest categories of organisations, note that 2031 may reveal risks tied to the potential ease of entrance of new competitors into the industry and marketplace or other significant changes in the competitive environment (such as major market concentrations due to M&A activity) that may threaten market share.

Figures 5-8 summarise the top-rated risks by size of organisation separately for 2022 and 2031. Only the top five risks are reported for each year and, if available, prior year risk scores are provided.

TABLE OF CONTENTS

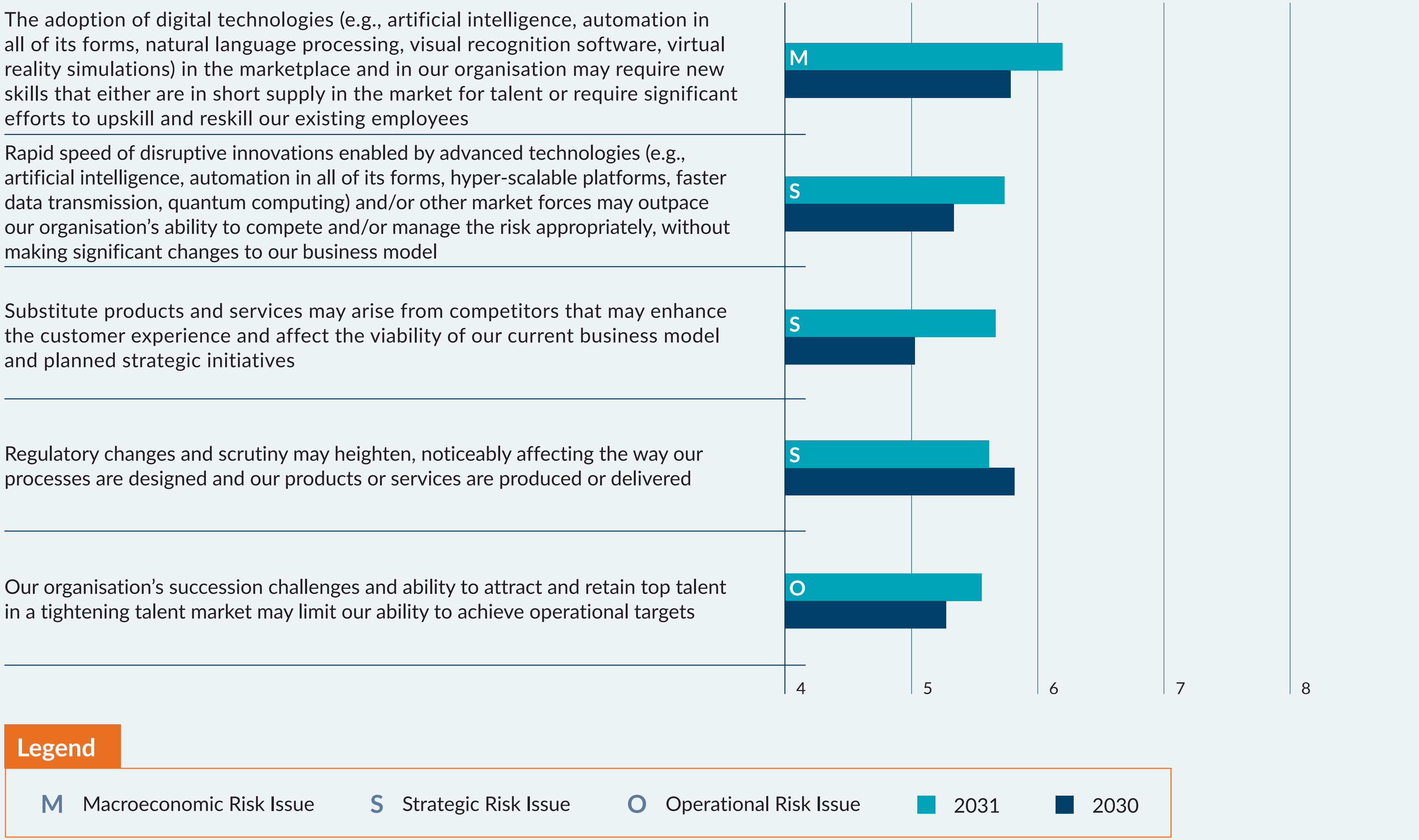
Revenues $10B or greater – 2022

FIGURE 5A



Revenues $10B or greater – 2031

FIGURE 5B



Revenues $1B to $9.99B – 2022

FIGURE 6A

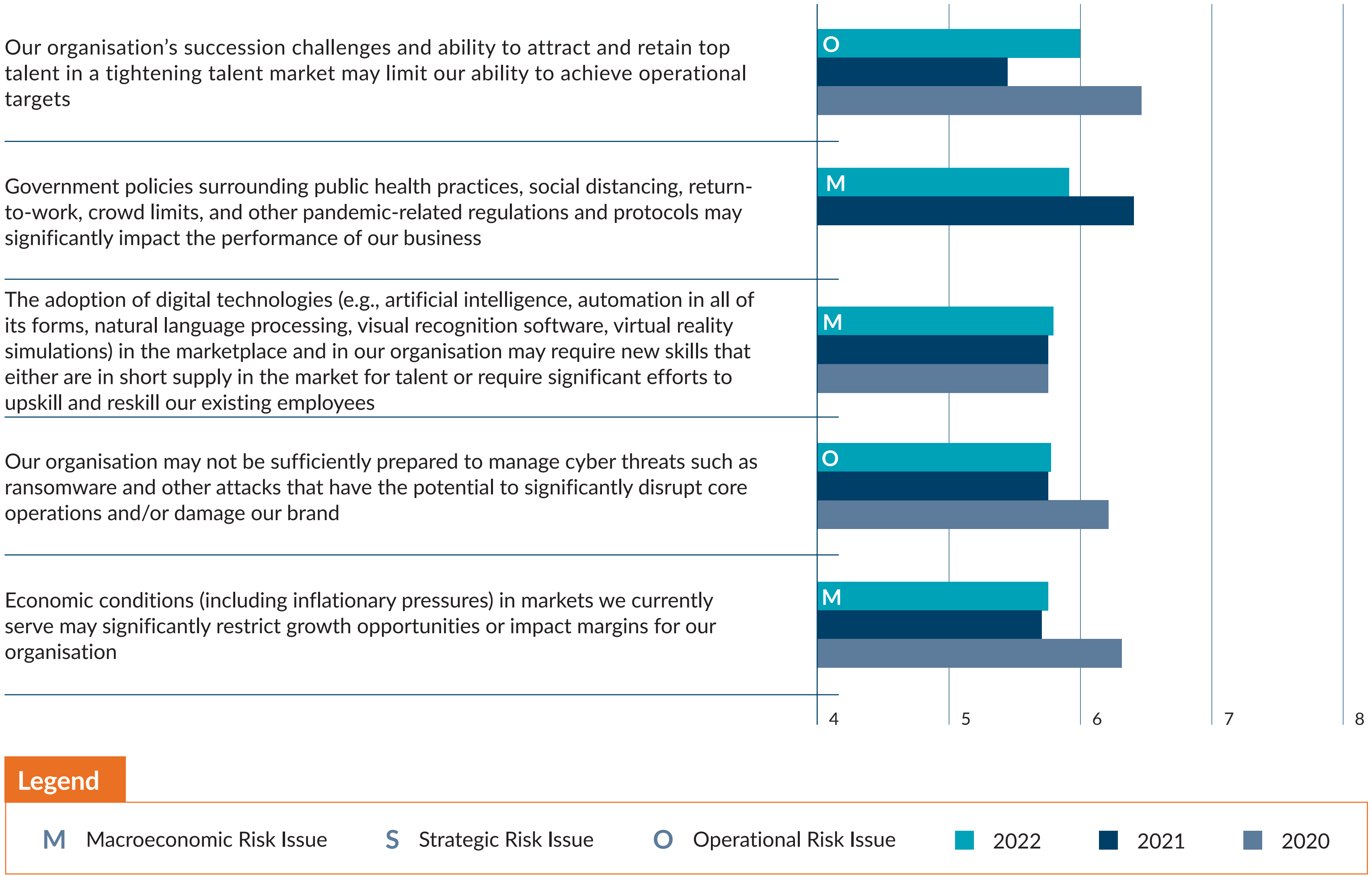


TABLE OF CONTENTS

Revenues $1B to $9.99B – 2031

FIGURE 6B

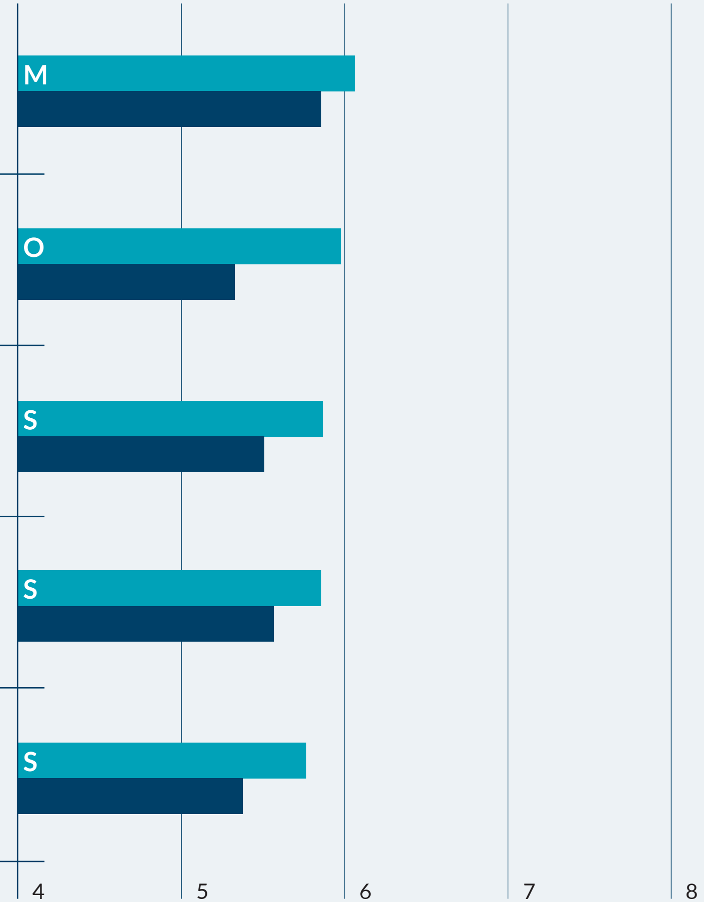
The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees

Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets

Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation's ability to compete and/or manage the risk appropriately, without making significant changes to our business model

Regulatory changes and scrutiny may heighten, noticeably affecting the way our processes are designed and our products or services are produced or delivered

Substitute products and services may arise from competitors that may enhance the customer experience and affect the viability of our current business model and planned strategic initiatives



Legend

M Macroeconomic Risk Issue S Strategic Risk Issue O Operational Risk Issue 2031 2030

Revenues $100M to $999M – 2022

FIGURE 7A

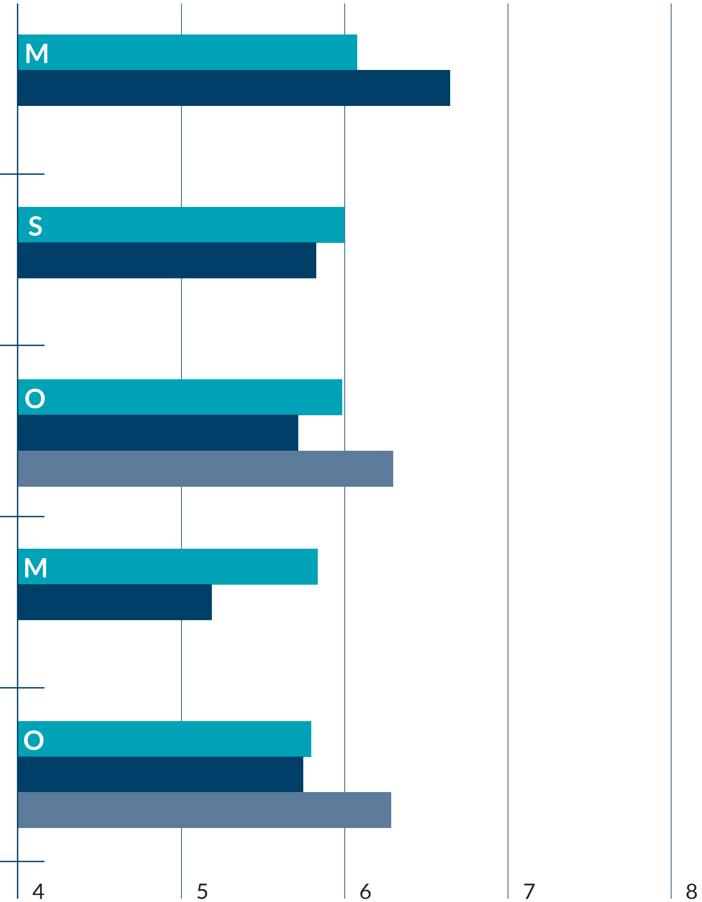
Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business

Market conditions imposed by and in response to COVID-19 and emerging variants, including shifts in consumer behaviour to digital channels, may continue to impact customer demand for our core products and services

Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets

Shifts in perspectives and expectations about social issues and priorities surrounding diversity, equity and inclusion are occurring faster than the pace at which our organisation is motivated and able to manage effectively (e.g., recruiting, retention, career advancement, reward systems, behavioural incentives, shared values and culture), which may significantly impact our ability to attract/retain talent and compete in the marketplace

Resistance to change in our culture may restrict our organisation from making necessary adjustments to the business model and core operations



Legend

M Macroeconomic Risk Issue S Strategic Risk Issue O Operational Risk Issue 2022 2021 2020

Revenues $100M to $999M – 2031

FIGURE 7B

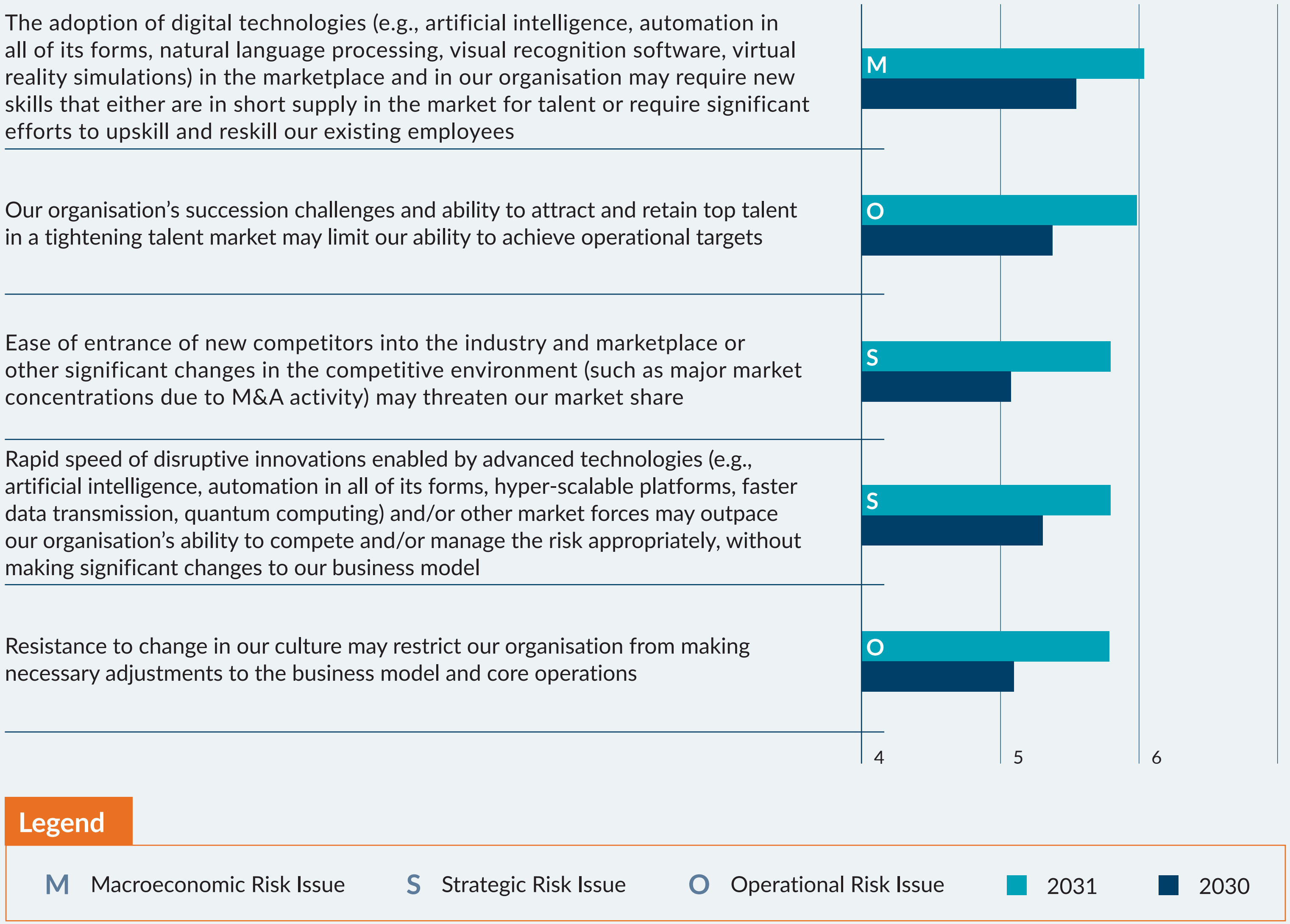


TABLE OF CONTENTS

Revenues less than $100M – 2022

FIGURE 8A

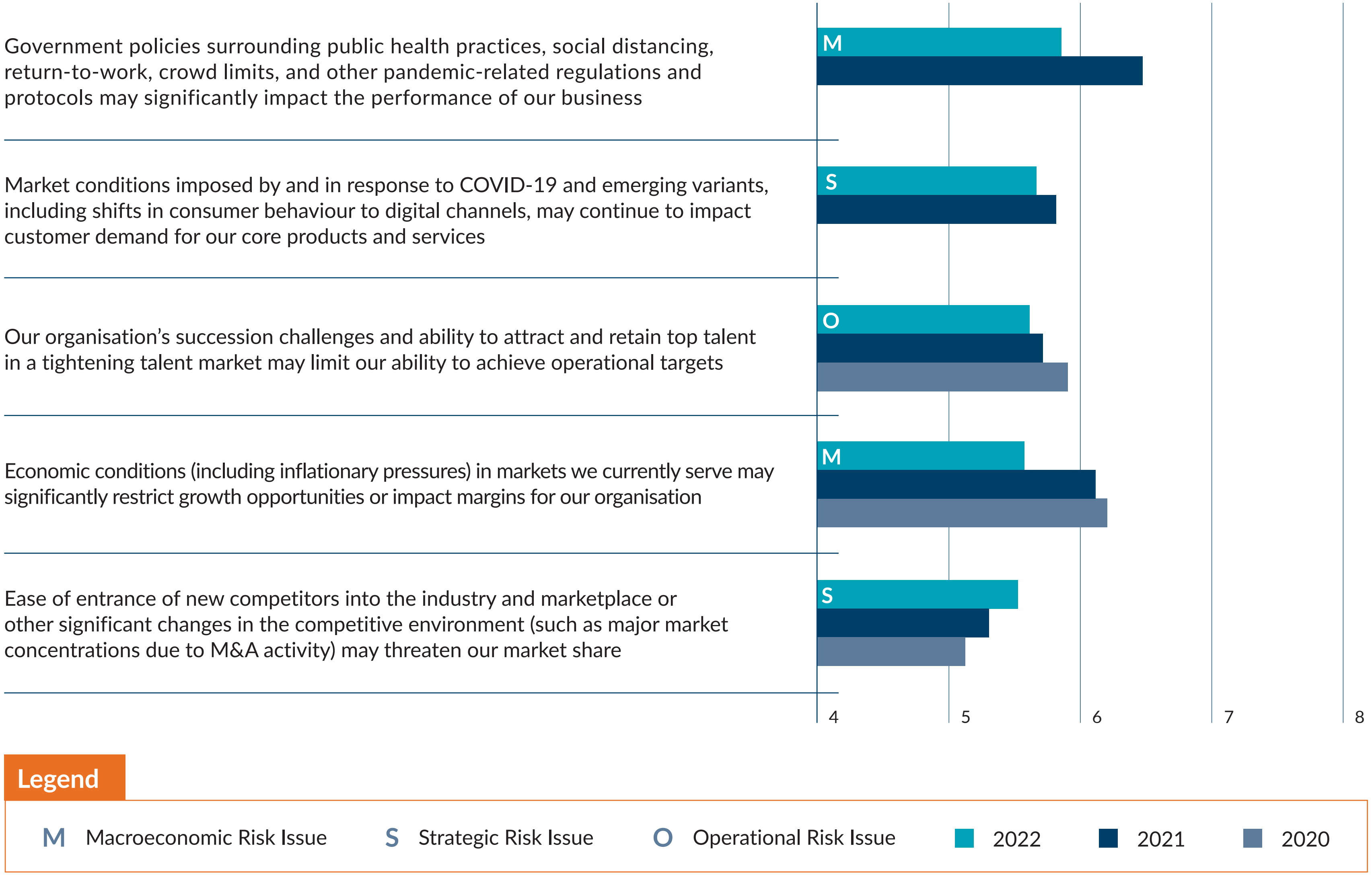


TABLE OF CONTENTS

Revenues less than $100M – 2031

FIGURE 8B

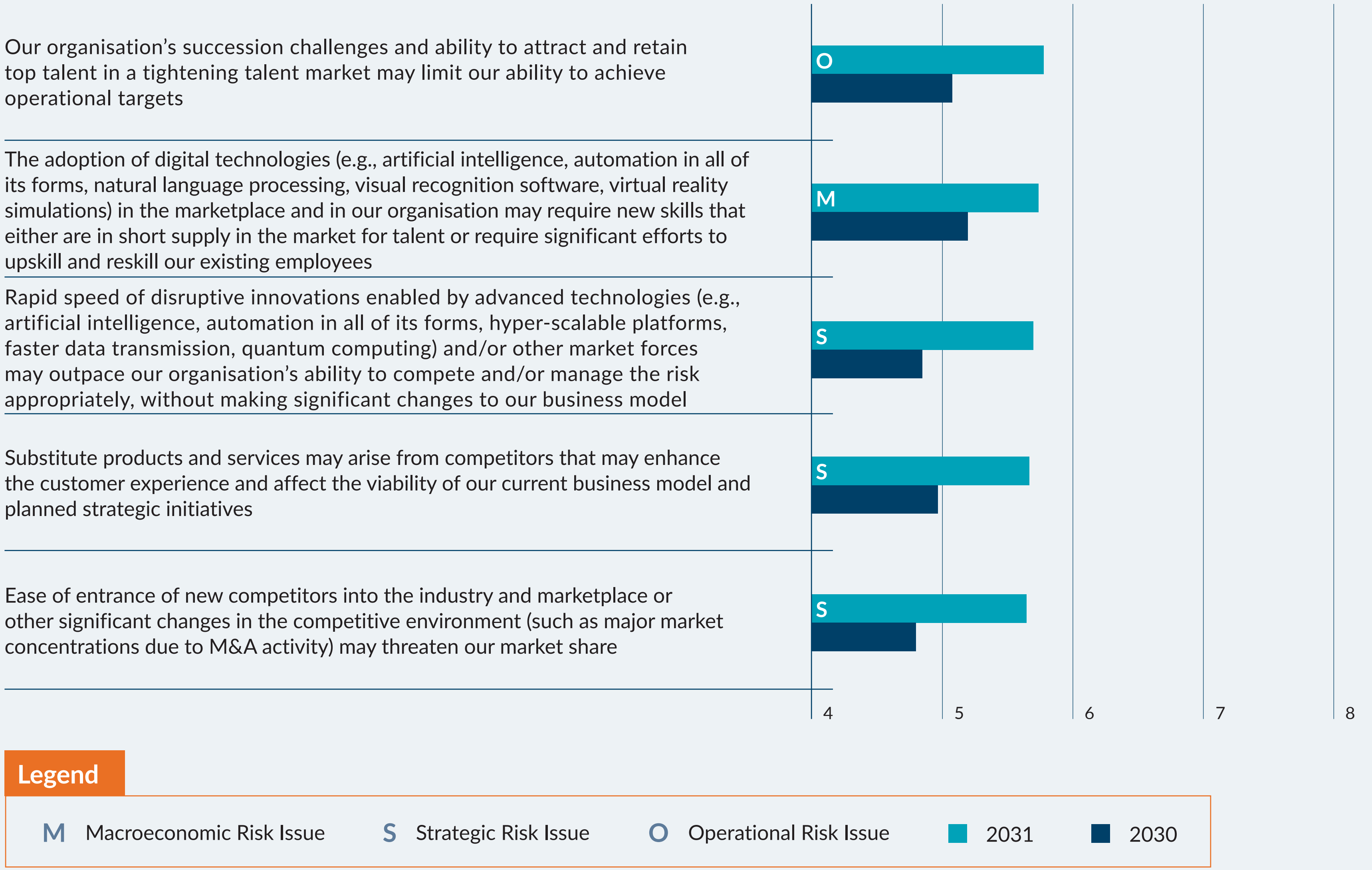


TABLE OF CONTENTS

Analysis Across Executive Positions Represented

We targeted our survey to individuals currently serving on the board of directors or in senior executive positions so that we could capture C-suite and board perspectives about risks on the horizon for 2022 and 2031. Respondents to the survey serve in both board and executive positions. We received responses from 241 members of a board of directors, and it is reasonable to expect that some C-suite executives also serve on one or more boards. An additional 267 respondents serve as chief executive officers for their organisations. As indicated in the accompanying table, 108 responses were received from individuals who did not fit within one of our executive categories. Their responses are included in the full sample of 1,453 but are not separately analysed.

EXECUTIVE POSITION	NUMBER OF RESPONDENTS
Board of Directors (BD)	241
Chief Executive Officer (CEO)	267
Chief Financial Officer (CFO)	135
Chief Risk Officer (CRO)	180
Chief Audit Executive (CAE)	149
Chief Information/Technology Officer (CIO/CTO)	201
Chief Strategy/Innovation Officer (CSO)	59
Chief Data/Digital Officer (CDO)	57
Other C-Suite[7] (OCS)	56
All Other[8]	108
Total number of respondents	**1,453**

[7] This category includes titles such as chief operating officer, general counsel and chief compliance officer.

[8] These 108 individuals either did not provide a response allowing for classification by position or would best be described as middle management or business advisers/consultants. We do not provide a separate analysis for this category.

To determine if perspectives about top risks differ across executive positions, we separately examine responses we received from board members and from eight executive positions with the greatest number of respondents: chief executive officer (CEO), chief financial officer (CFO), chief risk officer (CRO),[9] chief audit executive (CAE), chief information/technology officer (CIO/CTO), chief strategy/innovation officer (CSO), chief data/digital officer (CDO), and Other C-Suite executives. Similar to our analysis of the full sample and across the different sizes of organisations, we analyse responses about overall impressions of the magnitude and severity of risks across executive position held. The scores in Figure 9 reflect responses to the question about their overall impression of the magnitude and severity of risks their organisation will be facing using a 10-point scale where 1 = "Extremely Low" and 10 = "Extremely High."

The overall impression among executives with respect to the magnitude and severity of risks in the environment is decidedly mixed. Board members, CROs, CAEs and CDOs have significantly decreased their 2022 risk expectations relative to 2021. CEOs, CFOs, CIOs/CTOs, and Other C-Suite executives have the highest 2022 rating on this dimension. For CEOs, the increase is most dramatic, jumping from 5.6 in 2021 (the lowest rating) to 6.6 in 2022 (the highest). This increase in risk expectations may be the result of an overall concern about how quickly business conditions are changing and performance expectations are broadening, as well as how quickly they could change going forward, particularly as it relates to strategic direction and operations. Perhaps CEOs feel the pressure associated with these market dynamics more acutely than their direct reports and other executives.

By contrast, five of the executive groups (including board members) lowered their future impressions of the risk environment. Our two new executive groups (CSOs and CDOs were included for the first time in 2021) exhibited lower levels of concern (relative to other executive positions) about the 2022 risk environment and, as noted above, exhibited declines from their 2021 ratings.

"An interesting aspect of our annual study is the differing points of view among the participating executives and directors regarding the magnitude and severity of risks. The disparity noted in our results suggests the need for dialogue at the highest levels of an organisation to ensure that everyone is on the same page about the most important risks that should command the organisation's focus and resources."

BRUCE BRANSON
Professor of Accounting and Associate Director of Enterprise Risk Management Initiative, Poole College of Management, NC State University

[9] We grouped individuals with different but equivalent executive titles into these positions when appropriate. For example, we included "Vice President — Risk Management" with the CRO group and "Director of Finance" was included with the CFO group. Different regions may use different titles for executives with equivalent responsibilities.

TABLE OF CONTENTS

FIGURE 9

Overall, what is your impression of the magnitude and severity of risks your organisation will be facing with respect to achieving its objectives and reaching or exceeding profitability (or funding) targets over the next 12 months?

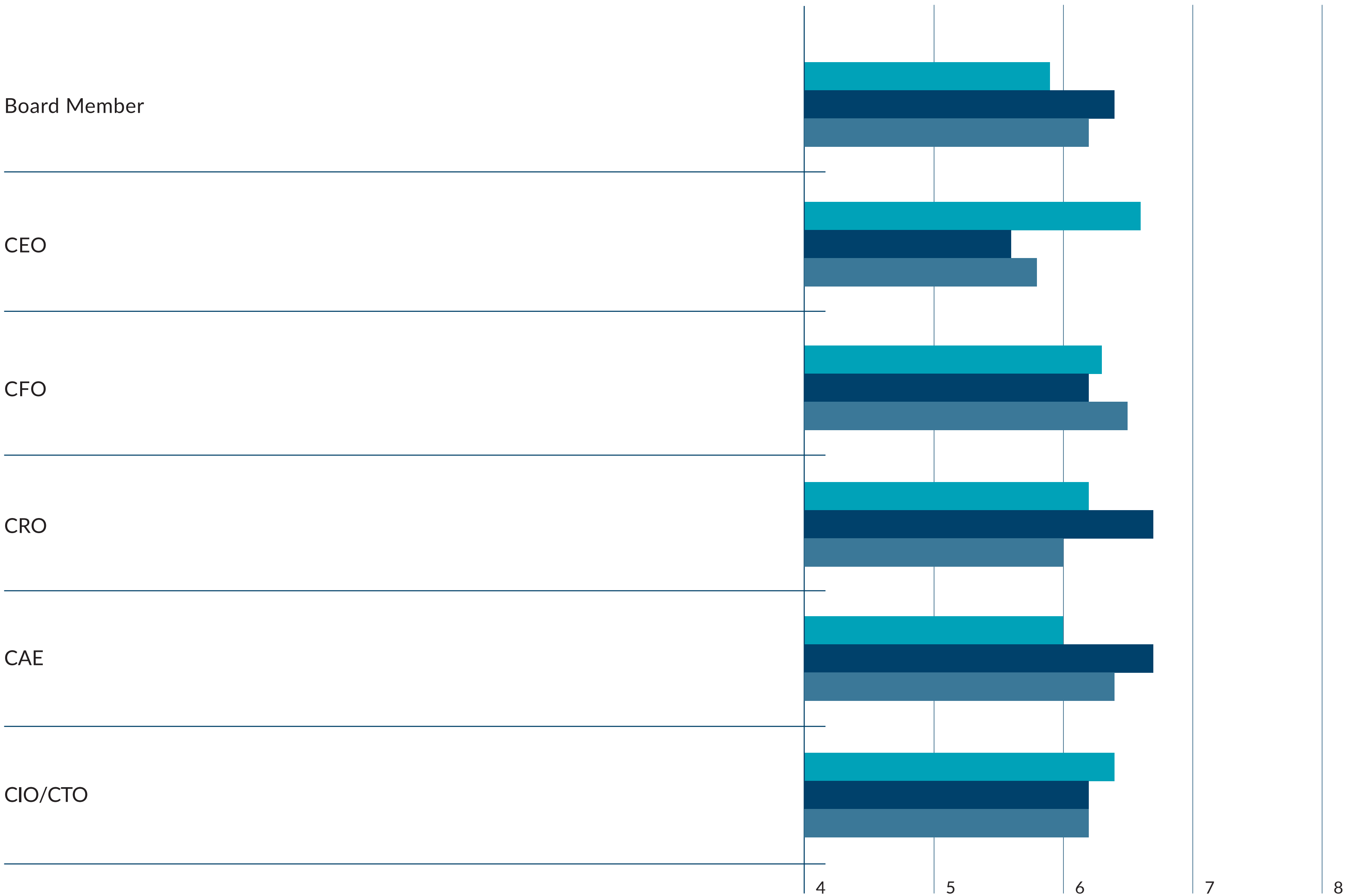


TABLE OF CONTENTS

FIGURE 9 (CONTINUED)

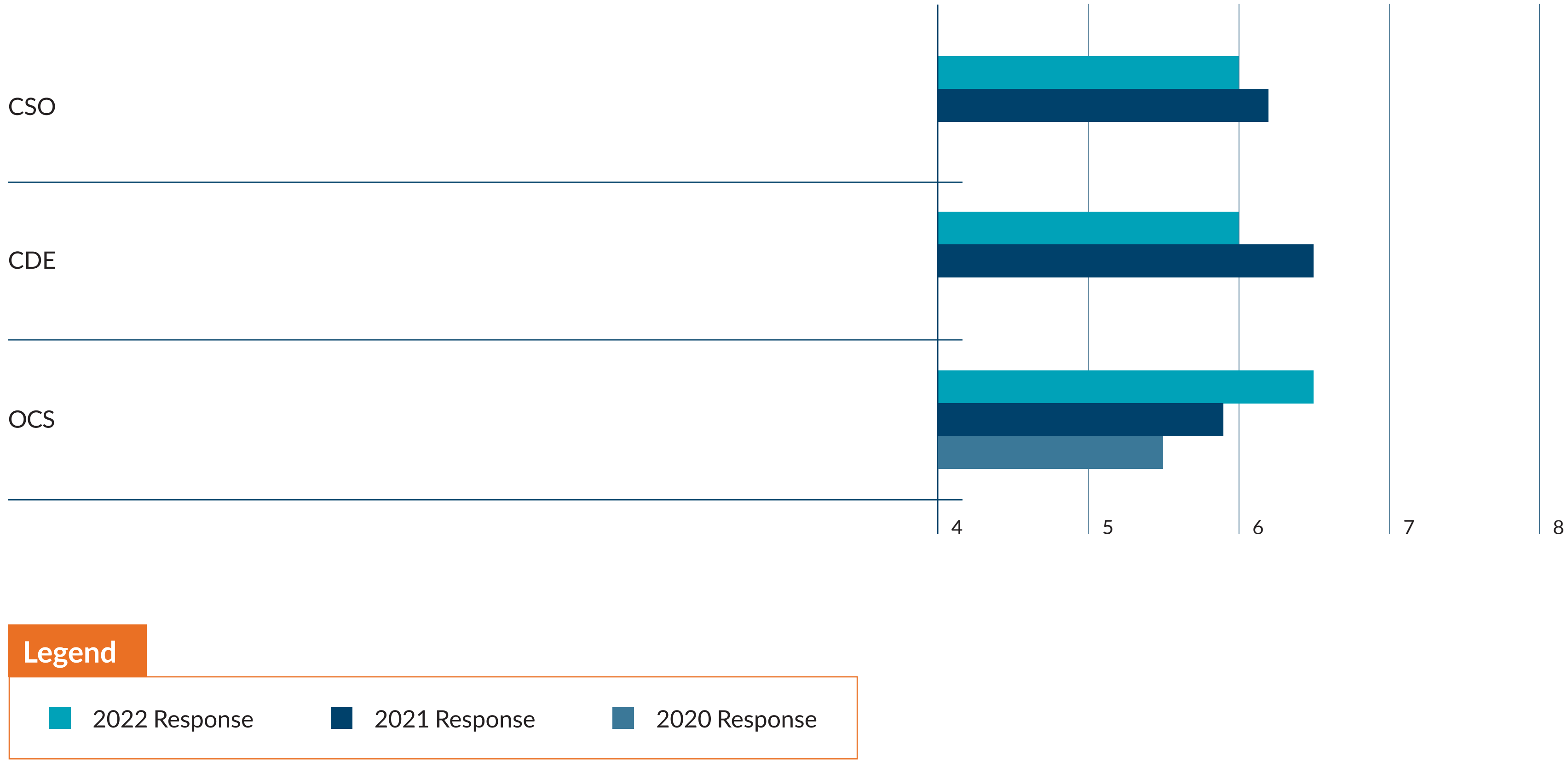


TABLE OF CONTENTS

There is marked contrast in perspectives across various executive positions, which suggests there may be significant value in explicitly discussing overall impressions about the risk environment among key leaders, especially at the highest level of the organisation. Enterprise risk assessments should benefit from the influx of multiple perspectives.

Consistent with prior reports, we use the colour-coding scheme below to highlight risks visually using three categories. In Table 10, we provide a summary of the impact assessments for each of the 36 risks for 2022 by category of executive using this colour-coding scheme:

CLASSIFICATION	RISKS WITH AN AVERAGE SCORE OF	
Significant Impact	6.0 or higher	🔴
Potential Impact	4.5 through 5.99	🟡
Less Significant Impact	4.49 or lower	🟢

Role

TABLE 10

MACROECONOMIC RISK ISSUES	BOARD	CEO	CFO	CRO	CAE	CIO/ CTO	CSO	CDO	OTHER C-SUITE
Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business	🟡	🔴	🟡	🟡	🟡	🔴	🔴	🔴	🟡
The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees	🟡	🔴	🟡	🟡	🟡	🔴	🟡	🟡	🟡
Anticipated increases in labour costs may affect our opportunity to meet profitability targets	🟡	🔴	🟡	🟡	🟡	🔴	🟡	🟡	🟡

TABLE 10 (CONTINUED)

MACROECONOMIC RISK ISSUES (CONTINUED)	BOARD	CEO	CFO	CRO	CAE	CIO/ CTO	CSO	CDO	OTHER C-SUITE
Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation	🟡	🔴	🟡	🟡	🟡	🟡	🟡	🟡	🟡
Shifts in perspectives and expectations about social issues and priorities surrounding diversity, equity and inclusion are occurring faster than the pace at which our organisation is motivated and able to manage effectively (e.g., recruiting, retention, career advancement, reward systems, behavioural incentives, shared values and culture), which may significantly impact our ability to attract/retain talent and compete in the marketplace	🟡	🟡	🟡	🟡	🟡	🔴	🟡	🟡	🟡
Our ability to access sufficient capital/liquidity may restrict growth opportunities for our organisation	🟡	🔴	🟡	🟢	🟢	🟡	🟡	🟡	🟡
Anticipated volatility in global financial markets and currency exchange rates may create significantly challenging issues for our organisation to address	🟡	🟡	🟡	🟡	🟢	🟡	🟡	🟡	🟡
The current interest rate environment may have a significant effect on the organisation's operations	🟡	🟡	🟡	🟡	🟢	🟡	🟡	🟡	🟡
Political uncertainty surrounding the influence and continued tenure of key global leaders may impact national and international markets to the point of significantly limiting our growth opportunities	🟡	🟡	🟡	🟢	🟢	🟡	🟡	🟡	🟡
Geopolitical shifts, regional conflicts and instability in governmental regimes or expansion of global terrorism may restrict the achievement of our global growth and profitability objectives	🟡	🟡	🟡	🟢	🟢	🟡	🟡	🟡	🟢
Evolving changes in global trade policies (e.g., post-Brexit implementations, escalating tariffs, border restrictions and shifts to multilateralism) may affect our ability to operate effectively and efficiently in international markets	🟢	🟡	🟡	🟢	🟢	🟡	🟢	🟡	🟡

TABLE OF CONTENTS

TABLE 10 (CONTINUED)

STRATEGIC RISK ISSUES	BOARD	CEO	CFO	CRO	CAE	CIO/ CTO	CSO	CDO	OTHER C-SUITE
Our organisation may not be sufficiently resilient and/or agile to manage an unexpected crisis significantly impacting our reputation	🟡	🔴	🟡	🟡	🟡	🔴	🔴	🔴	🟡
Our organisation may not be able to adapt its business model to embrace the evolving "new normal" imposed on our business by the ongoing pandemic and emerging social change	🟡	🔴	🟡	🟡	🟢	🔴	🟡	🔴	🟢
Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation's ability to compete and/or manage the risk appropriately, without making significant changes to our business model	🟡	🔴	🟡	🟡	🟡	🔴	🟡	🟡	🟡
Market conditions imposed by and in response to COVID-19 and emerging variants, including shifts in consumer behaviour to digital channels, may continue to impact customer demand for our core products and services	🟡	🔴	🟡	🟡	🟡	🔴	🟡	🟡	🟡
Ease of entrance of new competitors into the industry and marketplace or other significant changes in the competitive environment (such as major market concentrations due to M&A activity) may threaten our market share	🟡	🔴	🟡	🟡	🟡	🟡	🟡	🟡	🟡
Opportunities for organic growth through customer acquisition and/or enhancement may be significantly limited for our organisation	🟡	🟡	🟡	🟡	🟡	🔴	🟡	🟡	🟡

TABLE 10 (CONTINUED)

STRATEGIC RISK ISSUES (CONTINUED)	BOARD	CEO	CFO	CRO	CAE	CIO/ CTO	CSO	CDO	OTHER C-SUITE
Regulatory changes and scrutiny may heighten, noticeably affecting the way our processes are designed and our products or services are produced or delivered	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡
Growing focus on climate change policies, regulations, and expanding disclosure requirements as well as expectations of key stakeholders about climate change, supply chain transparency, reward systems, and other governance and sustainability issues may require us to significantly alter our strategy and business model in ways that may be difficult for us to implement on a timely basis	🟡	🟡	🟡	🟡	🟢	🟡	🟡	🟡	🟡
Substitute products and services may arise from competitors that may enhance the customer experience and affect the viability of our current business model and planned strategic initiatives	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟢
Sustaining customer loyalty and retention may be increasingly difficult due to evolving customer preferences and/or demographic shifts in our existing customer base	🟡	🟡	🟡	🟡	🟢	🟡	🟡	🟡	🟡
Growth opportunities through acquisitions, joint ventures and other partnership activities may be difficult to identify and implement	🟡	🟡	🟡	🟡	🟢	🟡	🟡	🟡	🟢
Rapidly expanding social media developments in the marketplace and rapidly developing platform technology innovations may significantly impact how we do business, interact with our customers, ensure regulatory compliance and/or manage our brand	🟡	🟡	🟡	🟡	🟢	🟡	🟢	🟢	🟡
Performance shortfalls may trigger activist shareholders who seek significant changes to our organisation's strategic plan and vision	🟢	🟡	🟡	🟢	🟢	🟡	🟡	🟡	🟢

TABLE OF CONTENTS

TABLE 10 (CONTINUED)

OPERATIONAL RISK ISSUES	BOARD	CEO	CFO	CRO	CAE	CIO/ CTO	CSO	CDO	OTHER C-SUITE
Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets	🟡	🔴	🟡	🔴	🔴	🔴	🟡	🟡	🟡
Ongoing demands on or expectations of a significant portion of our workforce to "work remotely" or increased expectations for a transformed, collaborative hybrid work environment may negatively impact the effectiveness and efficiency of how we operate our business	🟡	🔴	🔴	🟡	🟡	🔴	🔴	🟡	🟢
Our organisation's culture may not sufficiently encourage the timely identification and escalation of risk issues and market opportunities that have the potential to significantly affect our core operations and achievement of strategic objectives	🟡	🟡	🟡	🟡	🟡	🔴	🟡	🔴	🟡
Our ability to meet expectations around protecting the health and safety of employees, customers, suppliers and the communities in which we operate may be insufficient to receive market permission to operate or encourage people to work for us or do business with us	🟡	🟡	🟡	🟢	🟢	🔴	🟡	🔴	🟢
Changes in the overall work environment including shifts to hybrid work environments, evolving labour markets, expansion of digital labour, changes in the nature of work and who does that work, and M&A activities may lead to challenges to sustaining our organisation's culture and the way we do business (new for 2022)	🟡	🟡	🟡	🟡	🟡	🔴	🟡	🟡	🟡
Uncertainty surrounding our organisation's core supply chain including the viability of key suppliers, scarcity of supplies, volatile shipping and delivery options, or stable prices in the supply chain ecosystem may make it difficult to deliver our products or services at acceptable margins	🟡	🔴	🟡	🟡	🟡	🟡	🟡	🟡	🟡

TABLE OF CONTENTS

TABLE 10 (CONTINUED)

OPERATIONAL RISK ISSUES (CONTINUED)	BOARD	CEO	CFO	CRO	CAE	CIO/ CTO	CSO	CDO	OTHER C-SUITE
Our existing operations, legacy IT infrastructure, lack of digital expertise in the workforce and insufficient digital savviness in the C-suite and boardroom may result in failure to meet performance expectations related to quality, time to market, cost and innovation as well as our competitors, especially those that are either "born digital" or investing heavily to leverage technology for competitive advantage	🟡	🟡	🟡	🟡	🟡	🔴	🟡	🟡	🟡
Inability to utilise data analytics and "big data" to achieve market intelligence and increase productivity and efficiency may significantly affect our management of core operations and strategic plans	🟡	🟡	🟡	🟡	🟡	🔴	🟡	🟡	🟡
Resistance to change in our culture may restrict our organisation from making necessary adjustments to the business model and core operations	🟡	🟡	🟡	🟡	🟡	🔴	🟡	🟡	🟡
Third-party risks arising from our reliance on outsourcing and strategic sourcing arrangements, IT vendor contracts, and other partnerships/joint ventures to achieve operational goals may prevent us from meeting organisational targets or impact our brand image	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡
Our organisation may not be sufficiently prepared to manage cyber threats such as ransomware and other attacks that have the potential to significantly disrupt core operations and/or damage our brand	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡
Ensuring data privacy and compliance with growing identity protection expectations and regulations may require alterations demanding significant resources to restructure how we collect, store, share and use data to run our business	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡

2022 risk issues

For 2022, board members, CFOs, CAEs and Other C-Suite executives report their level of concern about specific risk issues to be essentially unchanged, as reflected by their ratings of the 36 risks at the highest impact level (red circles). For 2021, board members reported three "Significant Impact" risks, and CFOs, CAEs and Other C-Suite executives reported one, one and zero, respectively. These numbers for 2022 are zero, one, one and zero, respectively. For CEOs, interestingly, their "Significant Impact" risks increased from four in 2021 to 13 in 2022. CIOs/CTOs reduced the number of risks they rated as "Significant Impact" from 25 to 17 (which was the highest count across all positions in 2022). CSOs and CDOs, however, dramatically reduced their "Significant Impact" risk counts from 22 and 29 to three and five, respectively. Thus, there are noticeable differences in views about 2022 risk conditions across executive type. Last year's survey assessment of significant risks may have been an outlier due to the pandemic. Now as the market advances beyond the pandemic, it appears that CEOs are recognising the complexities around executing strategies and meeting performance targets in an ever-changing business environment. The disparity of views among executives and directors begs for more engagement in conversations with one another to figure out what is the most appropriate view.

2031 risk issues

For 2031, overall risk perceptions are significantly reduced across the board relative to 2022. Only four executive position groups rate any risks as "Significant Impact" risks (seven of the nine position groups did so for 2022). CEOs rate 10 risks as "Significant Impact" for 2031 while CROs and CAEs rate four risks in this category. Other C-Suite executives placed five of the 36 risks in this category. The most interesting finding relates to the CIO/CTO position group. For 2022, this group rates almost half (17 of 36) of the risks as "Significant Impact" risks. However, for 2031, none of the 36 risks are rated in this category by the CIO/CTO group.

Table 11 shows the average risk scores for both 2022 and 2031 together to highlight differences in views about individual risks across different executive positions.

TABLE OF CONTENTS

Perceived impact for 2022 and 2031 — by role

TABLE 11

MACROECONOMIC RISK ISSUES	YEAR	BOARD	CEO	CFO	CRO	CAE	CIO/CTO	CSO	CDO	OTHER C-SUITE
Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business	2022	Yellow	Red	Yellow	Yellow	Yellow	Red	Red	Red	Yellow
	2031	Yellow	Yellow	Yellow	Teal	Yellow	Yellow	Yellow	Yellow	Yellow
The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees	2022	Yellow	Red	Yellow	Yellow	Yellow	Red	Yellow	Yellow	Yellow
	2031	Yellow	Red	Yellow	Red	Red	Yellow	Yellow	Yellow	Red
Anticipated increases in labour costs may affect our opportunity to meet profitability targets	2022	Yellow	Red	Yellow	Yellow	Yellow	Red	Yellow	Yellow	Yellow
	2031	Yellow	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Teal	Yellow
Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation	2022	Yellow	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	2031	Yellow	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Red
Shifts in perspectives and expectations about social issues and priorities surrounding diversity, equity and inclusion are occurring faster than the pace at which our organisation is motivated and able to manage effectively (e.g., recruiting, retention, career advancement, reward systems, behavioural incentives, shared values and culture), which may significantly impact our ability to attract/retain talent and compete in the marketplace	2022	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Yellow	Yellow	Yellow
	2031	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow

TABLE OF CONTENTS

TABLE 11 (CONTINUED)

MACROECONOMIC RISK ISSUES (CONTINUED)	YEAR	BOARD	CEO	CFO	CRO	CAE	CIO/ CTO	CSO	CDO	OTHER C-SUITE
Our ability to access sufficient capital/liquidity may restrict growth opportunities for our organisation	2022	🟡	🔴	🟡	🟢	🟢	🟡	🟡	🟡	🟢
	2031	🟡	🔴	🟡	🟡	🟢	🟡	🟡	🟡	🟡
Anticipated volatility in global financial markets and currency exchange rates may create significantly challenging issues for our organisation to address	2022	🟡	🟡	🟡	🟡	🟢	🟡	🟡	🟡	🟡
	2031	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡
The current interest rate environment may have a significant effect on the organisation's operations	2022	🟡	🟡	🟡	🟡	🟢	🟡	🟡	🟡	🟡
	2031	🟡	🟡	🟡	🟡	🟢	🟡	🟢	🟢	🟡
Political uncertainty surrounding the influence and continued tenure of key global leaders may impact national and international markets to the point of significantly limiting our growth opportunities	2022	🟡	🟡	🟡	🟢	🟢	🟡	🟡	🟡	🟢
	2031	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡
Geopolitical shifts, regional conflicts and instability in governmental regimes or expansion of global terrorism may restrict the achievement of our global growth and profitability objectives	2022	🟡	🟡	🟡	🟢	🟢	🟡	🟡	🟡	🟢
	2031	🟡	🟡	🟡	🟡	🟢	🟡	🟢	🟢	🟡
Evolving changes in global trade policies (e.g., post-Brexit implementations, escalating tariffs, border restrictions and shifts to multilateralism) may affect our ability to operate effectively and efficiently in international markets	2022	🟢	🟡	🟡	🟢	🟢	🟡	🟢	🟡	🟢
	2031	🟡	🟡	🟢	🟢	🟢	🟡	🟢	🟢	🟢

TABLE 11 (CONTINUED)

STRATEGIC RISK ISSUES	YEAR	BOARD	CEO	CFO	CRO	CAE	CIO/ CTO	CSO	CDO	OTHER C-SUITE
Our organisation may not be sufficiently resilient and/or agile to manage an unexpected crisis significantly impacting our reputation	2022	● yellow	● red	● yellow	● yellow	● yellow	● red	● red	● red	● yellow
	2031	● yellow	● yellow	● yellow	● yellow	● yellow	● yellow	● yellow	● yellow	● yellow
Our organisation may not be able to adapt its business model to embrace the evolving "new normal" imposed on our business by the ongoing pandemic and emerging social change	2022	● yellow	● red	● yellow	● yellow	● green	● red	● yellow	● red	● green
	2031	● yellow	● yellow	● yellow	● green	● green	● yellow	● yellow	● yellow	● green
Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation's ability to compete and/or manage the risk appropriately, without making significant changes to our business model	2022	● yellow	● red	● yellow	● yellow	● yellow	● red	● yellow	● yellow	● yellow
	2031	● yellow	● red	● yellow	● red	● yellow	● yellow	● yellow	● green	● red
Market conditions imposed by and in response to COVID-19 and emerging variants, including shifts in consumer behaviour to digital channels, may continue to impact customer demand for our core products and services	2022	● yellow	● red	● yellow	● yellow	● yellow	● red	● yellow	● yellow	● yellow
	2031	● yellow	● yellow	● yellow	● yellow	● yellow	● yellow	● yellow	● green	● yellow
Ease of entrance of new competitors into the industry and marketplace or other significant changes in the competitive environment (such as major market concentrations due to M&A activity) may threaten our market share	2022	● yellow	● red	● yellow	● yellow	● yellow	● yellow	● yellow	● yellow	● yellow
	2031	● yellow	● red	● yellow	● yellow	● yellow	● yellow	● yellow	● yellow	● yellow
Opportunities for organic growth through customer acquisition and/or enhancement may be significantly limited for our organisation	2022	● yellow	● yellow	● yellow	● yellow	● yellow	● red	● yellow	● yellow	● yellow
	2031	● yellow	● yellow	● yellow	● yellow	● yellow	● yellow	● yellow	● yellow	● yellow

TABLE 11 (CONTINUED)

STRATEGIC RISK ISSUES (CONTINUED)	YEAR	BOARD	CEO	CFO	CRO	CAE	CIO/ CTO	CSO	CDO	OTHER C-SUITE
Regulatory changes and scrutiny may heighten, noticeably affecting the way our processes are designed and our products or services are produced or delivered	2022	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡
	2031	🟡	🟡	🟡	🔴	🔴	🟡	🟡	🟢	🔴
Growing focus on climate change policies, regulations, and expanding disclosure requirements as well as expectations of key stakeholders about climate change, supply chain transparency, reward systems, and other governance and sustainability issues may require us to significantly alter our strategy and business model in ways that may be difficult for us to implement on a timely basis	2022	🟡	🟡	🟡	🟡	🟢	🟡	🟡	🟡	🟡
	2031	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟢	🟡
Substitute products and services may arise from competitors that may enhance the customer experience and affect the viability of our current business model and planned strategic initiatives	2022	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟢
	2031	🟡	🔴	🟡	🟡	🟡	🟡	🟡	🟡	🟡
Sustaining customer loyalty and retention may be increasingly difficult due to evolving customer preferences and/or demographic shifts in our existing customer base	2022	🟡	🟡	🟡	🟡	🟢	🟡	🟡	🟡	🟡
	2031	🟡	🔴	🟡	🟡	🟡	🟡	🟡	🟡	🟡
Growth opportunities through acquisitions, joint ventures and other partnership activities may be difficult to identify and implement	2022	🟡	🟡	🟡	🟡	🟢	🟡	🟡	🟡	🟢
	2031	🟡	🟡	🟡	🟡	🟡	🟡	🟢	🟡	🟡
Rapidly expanding social media developments in the marketplace and rapidly developing platform technology innovations may significantly impact how we do business, interact with our customers, ensure regulatory compliance and/or manage our brand	2022	🟡	🟡	🟡	🟡	🟢	🟡	🟢	🟢	🟡
	2031	🟡	🟡	🟡	🟡	🟡	🟡	🟢	🟡	🟡

TABLE OF CONTENTS

TABLE 11 (CONTINUED)

STRATEGIC RISK ISSUES (CONTINUED)	YEAR	BOARD	CEO	CFO	CRO	CAE	CIO/ CTO	CSO	CDO	OTHER C-SUITE
Performance shortfalls may trigger activist shareholders who seek significant changes to our organisation's strategic plan and vision	2022	Teal	Yellow	Yellow	Teal	Teal	Yellow	Yellow	Yellow	Teal
	2031	Yellow	Yellow	Yellow	Yellow	Teal	Yellow	Yellow	Teal	Yellow

OPERATIONAL RISK ISSUES	YEAR	BOARD	CEO	CFO	CRO	CAE	CIO/ CTO	CSO	CDO	OTHER C-SUITE
Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets	2022	Yellow	Red	Yellow	Red	Red	Red	Yellow	Yellow	Yellow
	2031	Yellow	Red	Yellow	Red	Red	Yellow	Yellow	Yellow	Red
Ongoing demands on or expectations of a significant portion of our workforce to "work remotely" or increased expectations for a transformed, collaborative hybrid work environment may negatively impact the effectiveness and efficiency of how we operate our business	2022	Yellow	Red	Red	Yellow	Yellow	Red	Red	Yellow	Teal
	2031	Yellow	Yellow	Yellow	Teal	Teal	Yellow	Yellow	Yellow	Teal
Our organisation's culture may not sufficiently encourage the timely identification and escalation of risk issues and market opportunities that have the potential to significantly affect our core operations and achievement of strategic objectives	2022	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Yellow	Red	Yellow
	2031	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Our ability to meet expectations around protecting the health and safety of employees, customers, suppliers and the communities in which we operate may be insufficient to receive market permission to operate or encourage people to work for us or do business with us	2022	Yellow	Yellow	Yellow	Teal	Teal	Red	Yellow	Red	Teal
	2031	Yellow	Yellow	Yellow	Teal	Teal	Yellow	Yellow	Yellow	Teal

TABLE 11 (CONTINUED)

OPERATIONAL RISK ISSUES (CONTINUED)	YEAR	BOARD	CEO	CFO	CRO	CAE	CIO/ CTO	CSO	CDO	OTHER C-SUITE
Changes in the overall work environment including shifts to hybrid work environments, evolving labour markets, expansion of digital labour, changes in the nature of work and who does that work, and M&A activities may lead to challenges to sustaining our organisation's culture and the way we do business (new for 2022)	2022	🟡	🟡	🟡	🟡	🟡	🔴	🟡	🟡	🟡
	2031	🟡	🔴	🟡	🟡	🟡	🟡	🟡	🟡	🟡
Uncertainty surrounding our organisation's core supply chain including the viability of key suppliers, scarcity of supplies, volatile shipping and delivery options, or stable prices in the supply chain ecosystem may make it difficult to deliver our products or services at acceptable margins	2022	🟡	🔴	🟡	🟡	🟡	🟡	🟡	🟡	🟡
	2031	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡
Our existing operations, legacy IT infrastructure, lack of digital expertise in the workforce and insufficient digital savviness in the C-suite and boardroom may result in failure to meet performance expectations related to quality, time to market, cost and innovation as well as our competitors, especially those that are either "born digital" or investing heavily to leverage technology for competitive advantage	2022	🟡	🟡	🟡	🟡	🟡	🔴	🟡	🟡	🟡
	2031	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡
Inability to utilise data analytics and "big data" to achieve market intelligence and increase productivity and efficiency may significantly affect our management of core operations and strategic plans	2022	🟡	🟡	🟡	🟡	🟡	🔴	🟡	🟡	🟡
	2031	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡
Resistance to change in our culture may restrict our organisation from making necessary adjustments to the business model and core operations	2022	🟡	🟡	🟡	🟡	🟡	🔴	🟡	🟡	🟡
	2031	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡

TABLE OF CONTENTS

TABLE 11 (CONTINUED)

OPERATIONAL RISK ISSUES (CONTINUED)	YEAR	BOARD	CEO	CFO	CRO	CAE	CIO/ CTO	CSO	CDO	OTHER C-SUITE
Third-party risks arising from our reliance on outsourcing and strategic sourcing arrangements, IT vendor contracts, and other partnerships/joint ventures to achieve operational goals may prevent us from meeting organisational targets or impact our brand image	2022	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡
	2031	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡
Our organisation may not be sufficiently prepared to manage cyber threats such as ransomware and other attacks that have the potential to significantly disrupt core operations and/or damage our brand	2022	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡
	2031	🟡	🟡	🟡	🟡	🔴	🟡	🟢	🟢	🟡
Ensuring data privacy and compliance with growing identity protection expectations and regulations may require alterations demanding significant resources to restructure how we collect, store, share and use data to run our business	2022	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡
	2031	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡	🟡

TABLE OF CONTENTS

Figures 10-18 on the following pages highlight the top five risks identified by each position. For 2022, seven of the nine executive positions (except for CROs and CAEs) rank concerns about the impact of government policies to respond to pandemic conditions in their top five risks for 2022 — with six of the seven ranking it first or second. Four of these (CEOs, CIOs/CTOs, CSOs and CDOs) rate this concern as a "Significant Impact" risk. Macroeconomic risk concerns dominate the top five risks on the minds of boards, CEOs, CFOs and Other C-Suite executives. CROs and CAEs both rank three operational risks in their respective top five lists. For 2031, five position groups (board members, CEOs, CROs, CAEs and Other C-Suite executives) rate the risk related to the challenges of adopting new digital technologies as either first or second (all but CAEs rated it first).

Interestingly, both CEOs and CDOs rate all of their individual top five risks as "Significant Impact" risks for 2022. They have much greater concern about a number of specific risks than other executives, who generally rate only one or two of their top five risks at that level of significance. Also of note: For almost all position groups, except for CROs and CAEs, the 2031 risk landscape appears to be of more concern than when we asked about 2030 risk perceptions in last year's study. For the seven executive groups (board members, CEOs, CFOs, CIOs/CTOs, CSOs, CDOs, and Other C-Suite executives), all five risk concerns for 2031 are rated higher than when we asked these executives about these risks for 2030 in last year's survey.

Once again, the results reflect how different roles offer varying perspectives when assessing risks in disparate environments and over longer versus shorter time horizons. Accordingly, they emphasise the critical importance of bringing numerous stakeholder viewpoints into consideration when engaged in risk discussions. It is of paramount importance that both the board and the management team engage in dialogue regarding the critical enterprise risks, given the different perspectives each brings to the table and the potential for a lack of consensus. Without clarity of focus, the executive team may not be aligned both internally and with the board on what the top risks are. Worse, they may not be appropriately addressing the most important risks facing the organisation, thereby leaving the organisation potentially vulnerable to certain risk events.

Board Members – 2022

FIGURE 10A

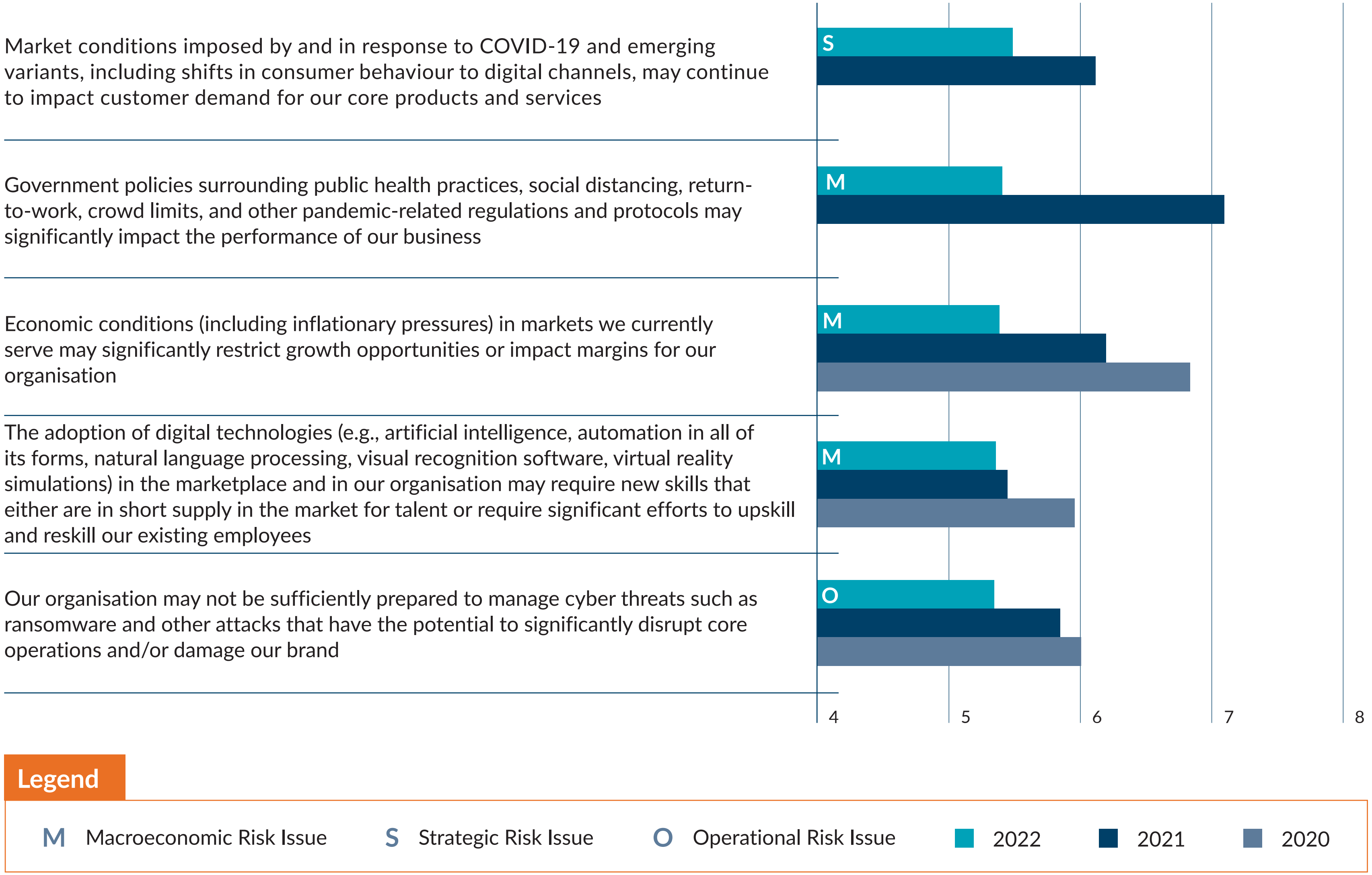
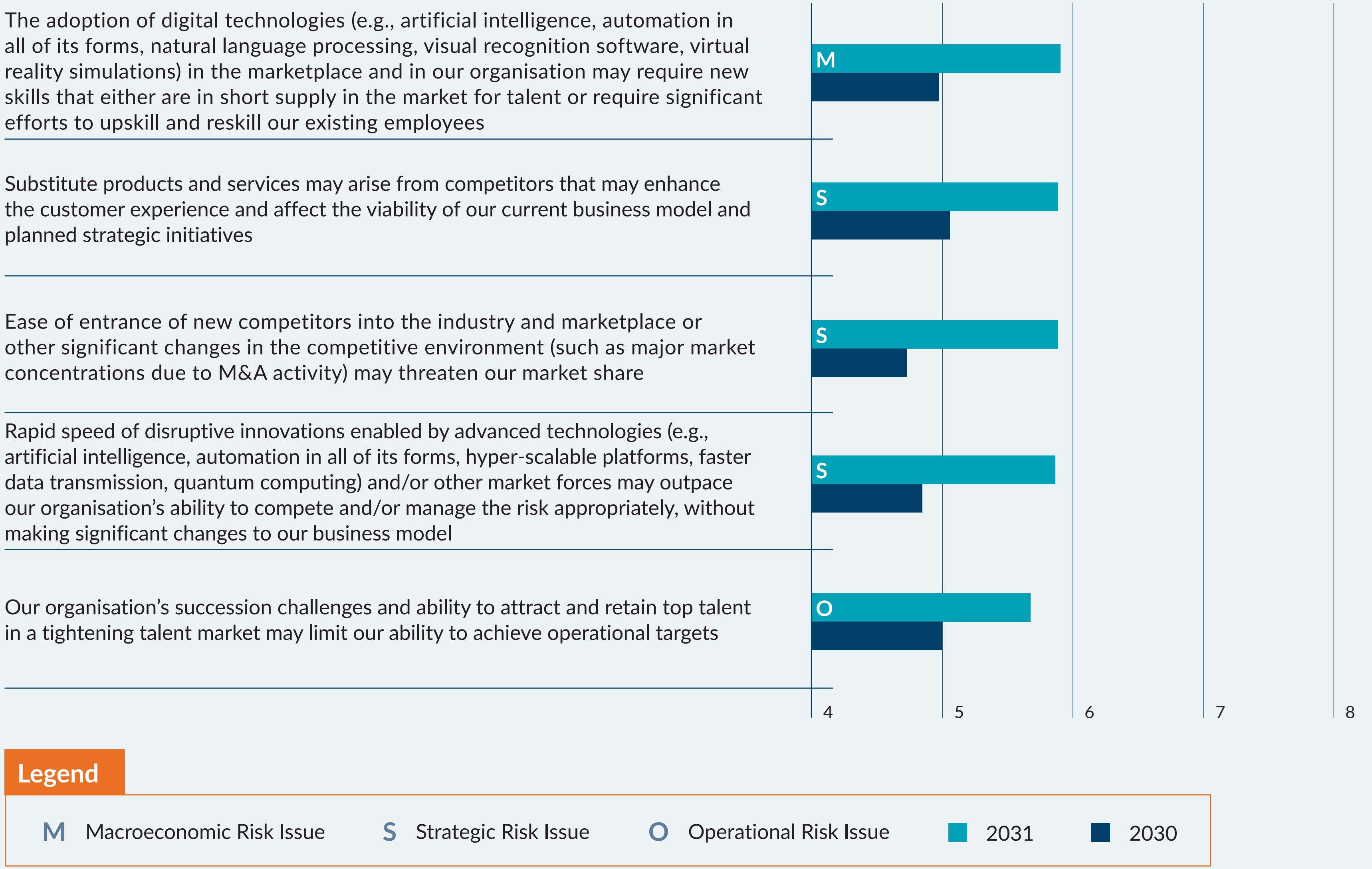


TABLE OF CONTENTS

Board Members – 2031

FIGURE 10B



CEOs – 2022

FIGURE 11A

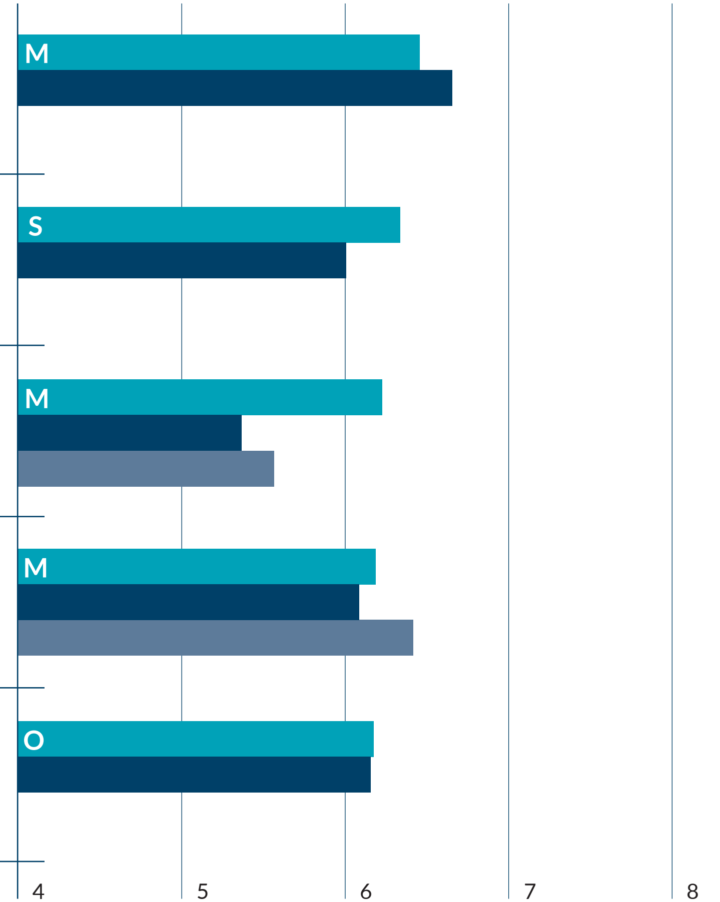
Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business

Market conditions imposed by and in response to COVID-19 and emerging variants, including shifts in consumer behaviour to digital channels, may continue to impact customer demand for our core products and services

Anticipated increases in labour costs may affect our opportunity to meet profitability targets

Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation

Ongoing demands on or expectations of a significant portion of our workforce to "work remotely" or increased expectations for a transformed, collaborative hybrid work environment may negatively impact the effectiveness and efficiency of how we operate our business



Legend

M Macroeconomic Risk Issue

S Strategic Risk Issue

O Operational Risk Issue

2022

2021

2020

TABLE OF CONTENTS

CEOs – 2031

FIGURE 11B

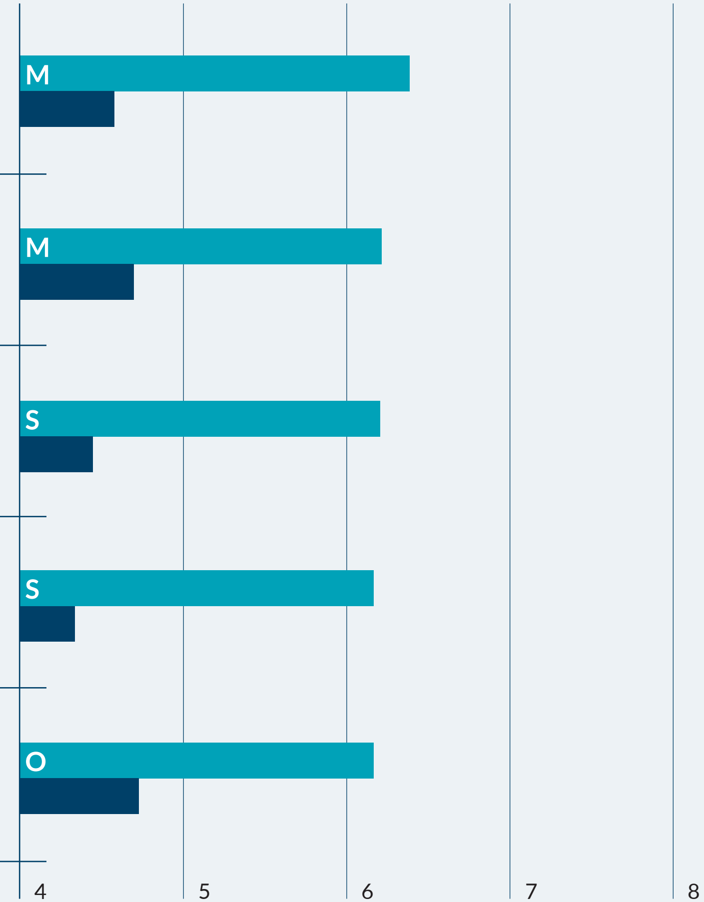
The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees

Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation

Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation's ability to compete and/or manage the risk appropriately, without making significant changes to our business model

Substitute products and services may arise from competitors that may enhance the customer experience and affect the viability of our current business model and planned strategic initiatives

Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets



Legend

M Macroeconomic Risk Issue S Strategic Risk Issue O Operational Risk Issue ■ 2031 ■ 2030

TABLE OF CONTENTS

CFOs – 2022

FIGURE 12A

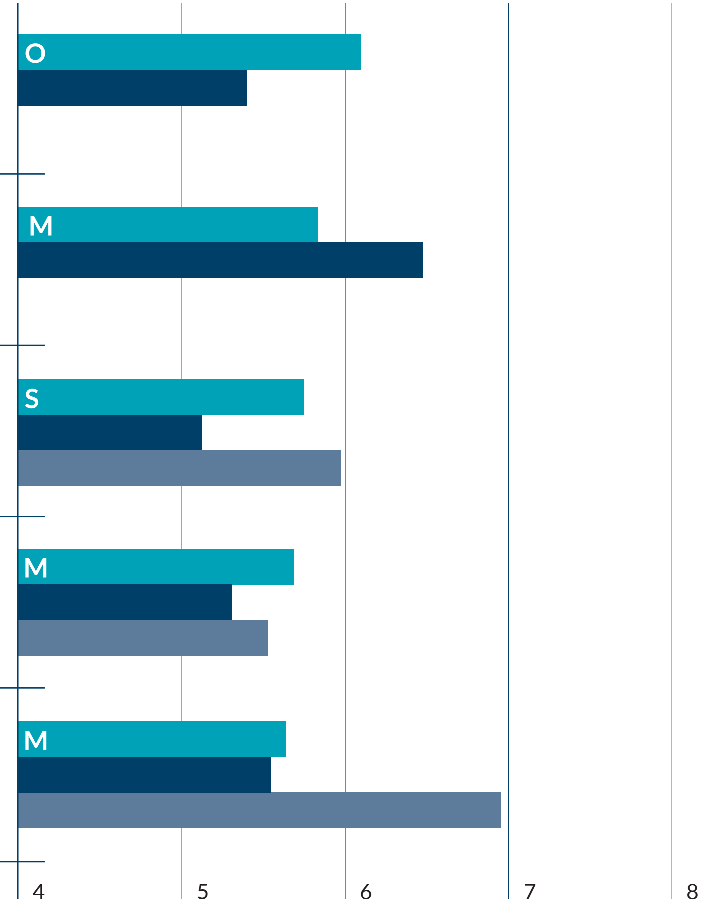
Ongoing demands on or expectations of a significant portion of our workforce to "work remotely" or increased expectations for a transformed, collaborative hybrid work environment may negatively impact the effectiveness and efficiency of how we operate our business

Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business

Our organisation may not be sufficiently resilient and/or agile to manage an unexpected crisis significantly impacting our reputation

Anticipated increases in labour costs may affect our opportunity to meet profitability targets

Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation



Legend

M Macroeconomic Risk Issue S Strategic Risk Issue O Operational Risk Issue 2022 2021 2020

CFOs – 2031

FIGURE 12B

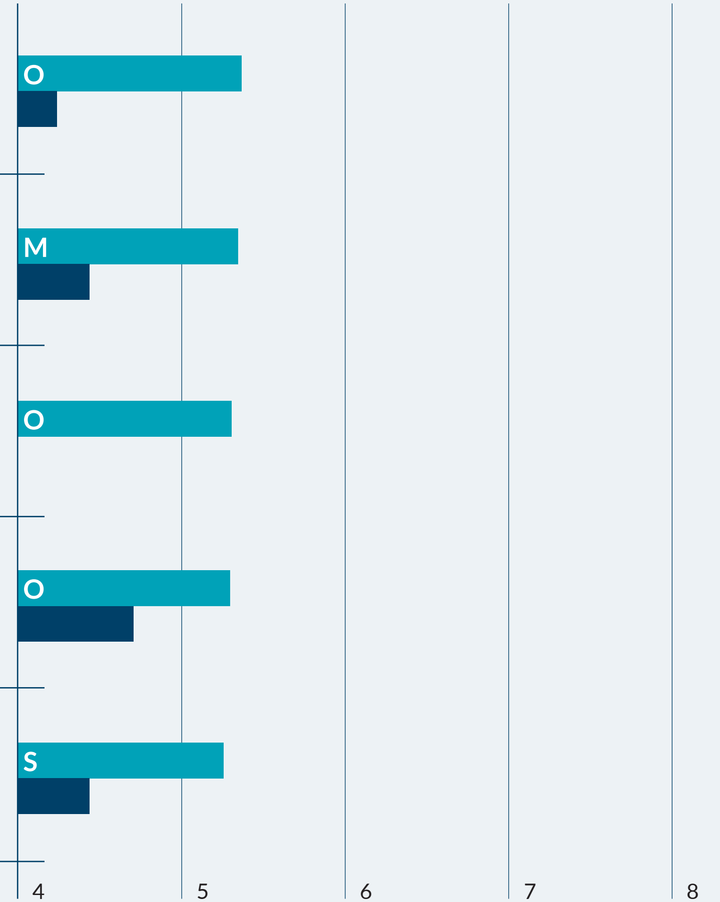
Ongoing demands on or expectations of a significant portion of our workforce to "work remotely" or increased expectations for a transformed, collaborative hybrid work environment may negatively impact the effectiveness and efficiency of how we operate our business

Our ability to access sufficient capital/liquidity may restrict growth opportunities for our organisation

Changes in the overall work environment including shifts to hybrid work environments, evolving labour markets, expansion of digital labour, changes in the nature of work and who does that work, and M&A activities may lead to challenges to sustaining our organisation's culture and the way we do business (new for 2022)

Resistance to change in our culture may restrict our organisation from making necessary adjustments to the business model and core operations

Ease of entrance of new competitors into the industry and marketplace or other significant changes in the competitive environment (such as major market concentrations due to M&A activity) may threaten our market share



Legend

M Macroeconomic Risk Issue   S Strategic Risk Issue   O Operational Risk Issue   ■ 2031   ■ 2030

TABLE OF CONTENTS

CROs – 2022

FIGURE 13A

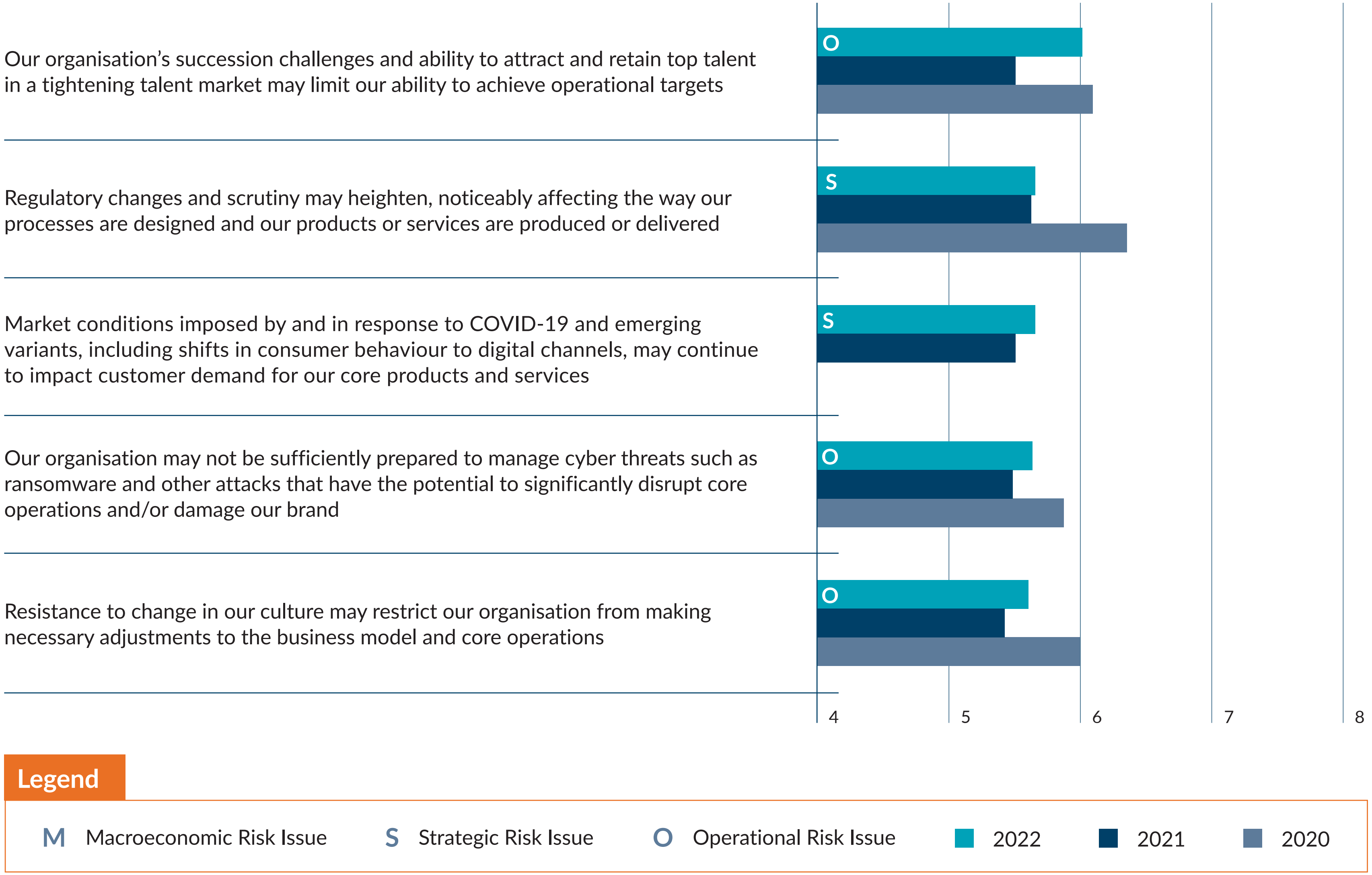
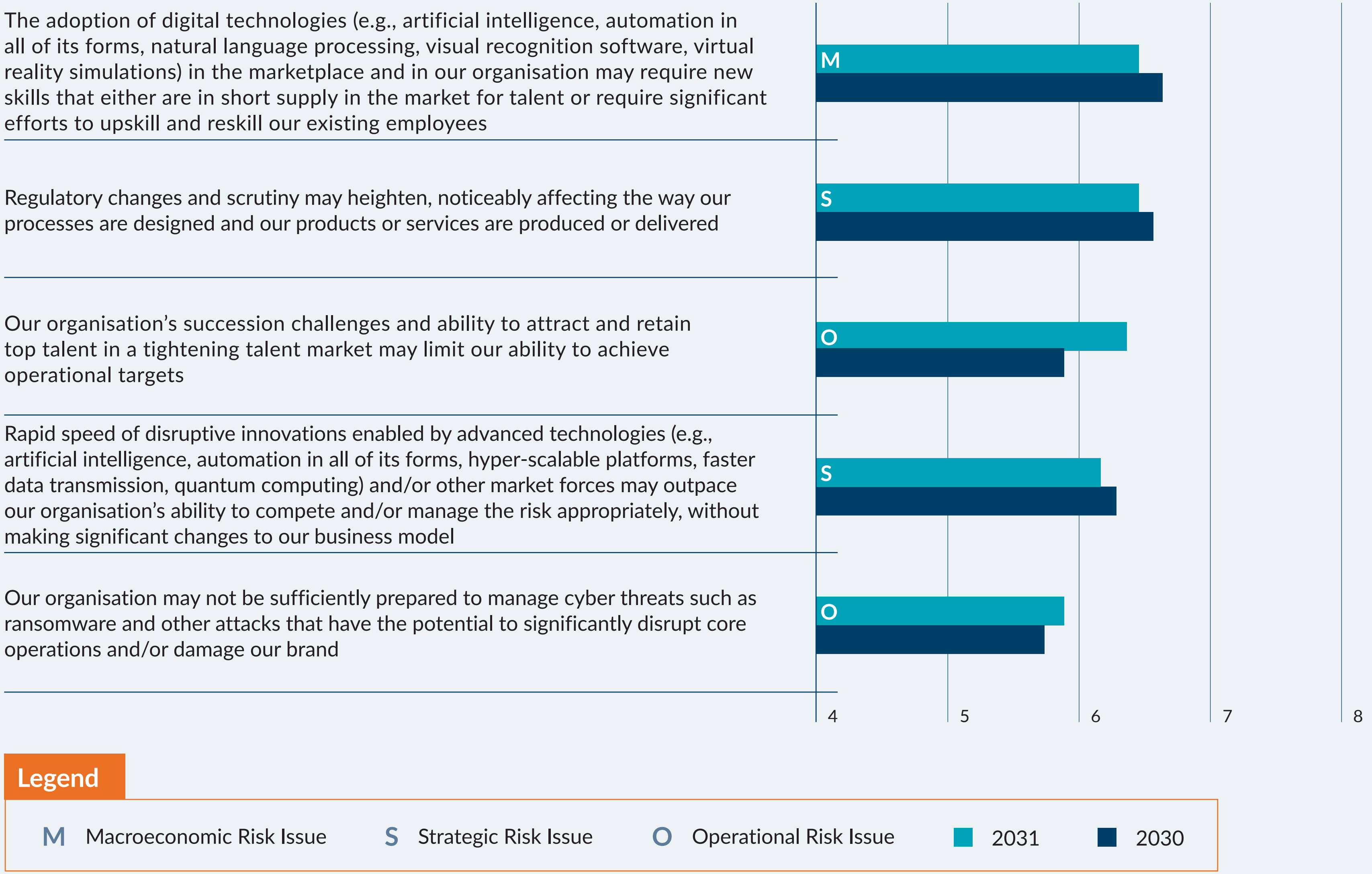


TABLE OF CONTENTS

CROs – 2031

FIGURE 13B



CAEs – 2022

FIGURE 14A

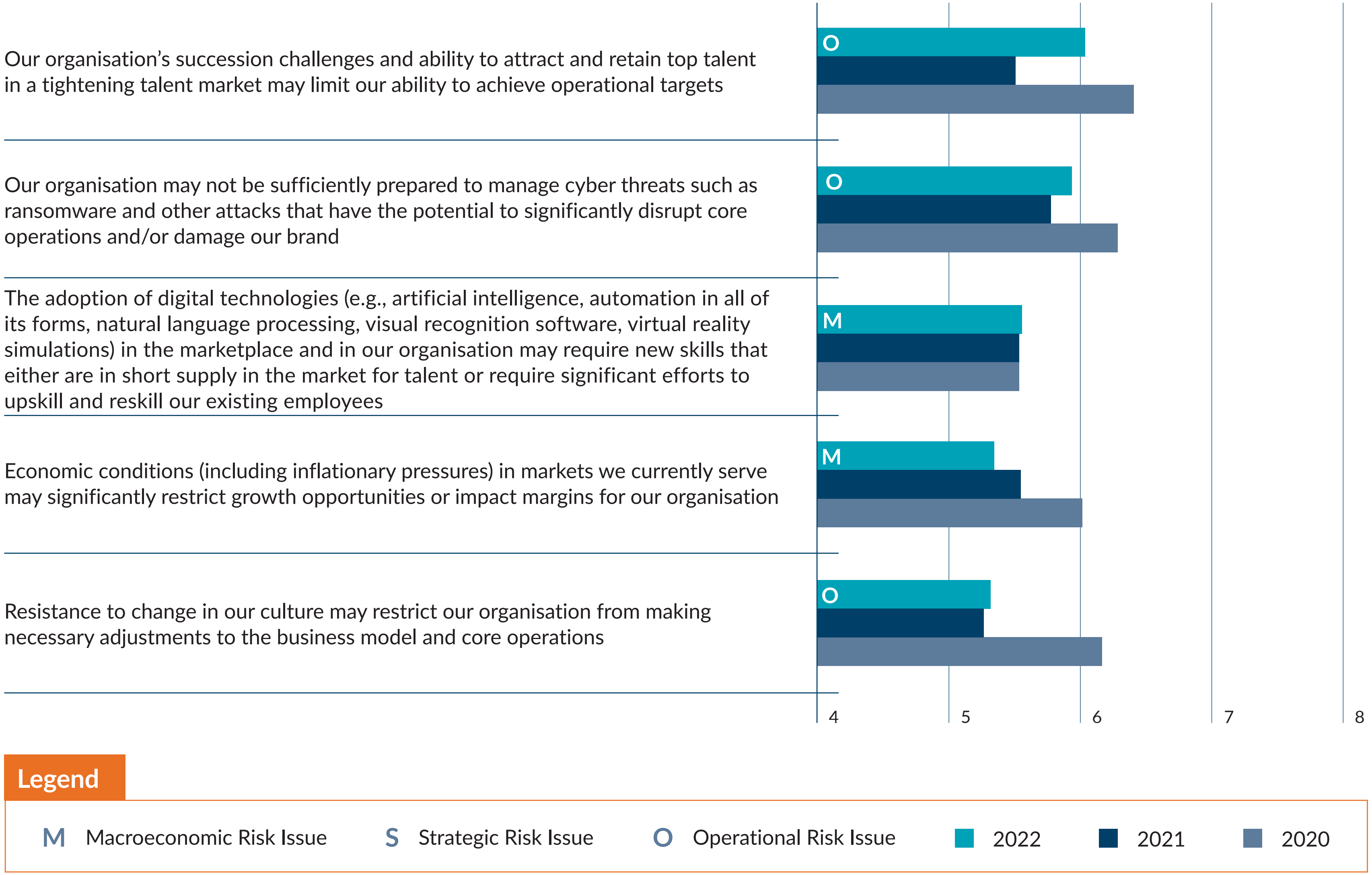
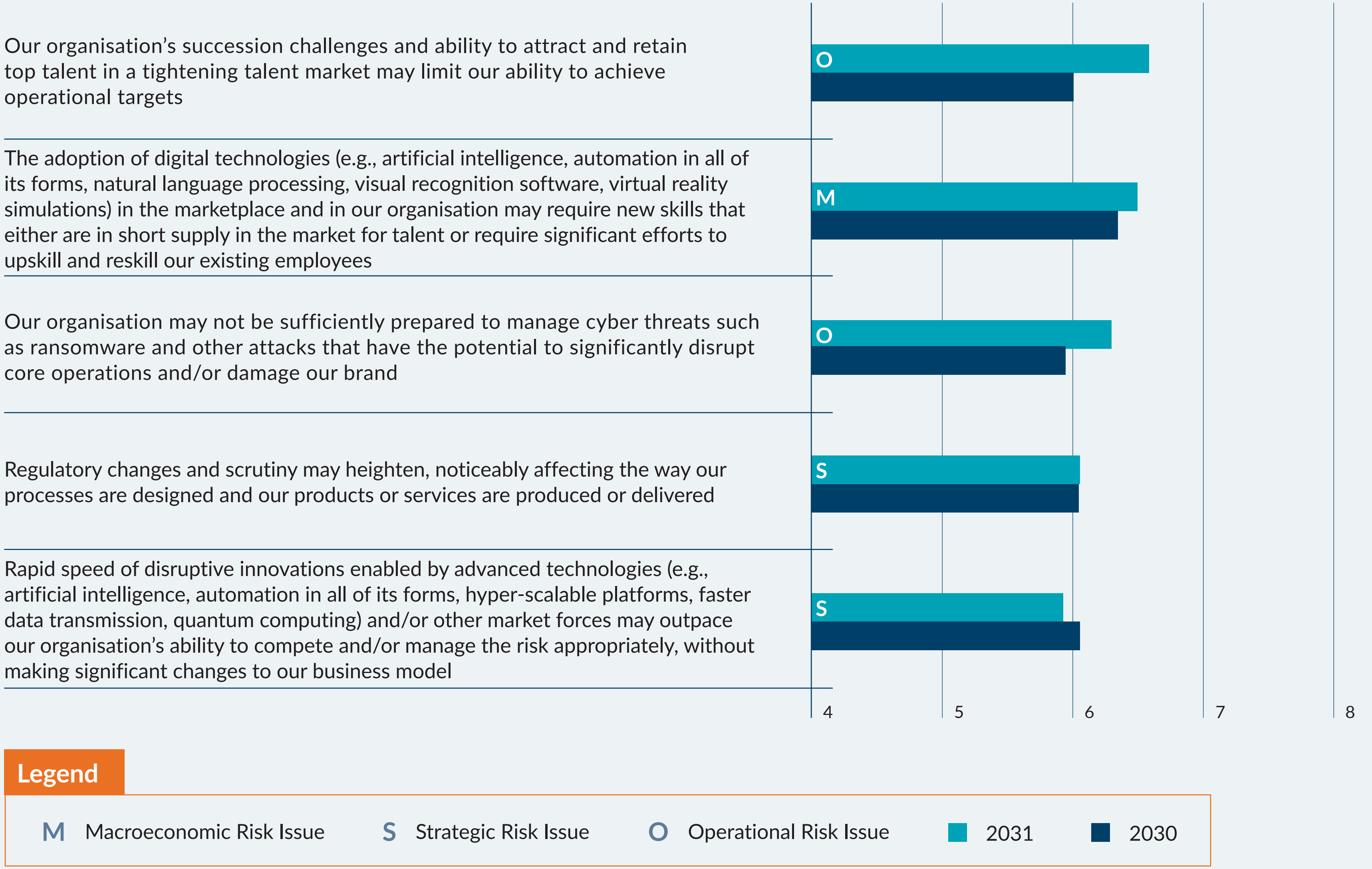


TABLE OF CONTENTS

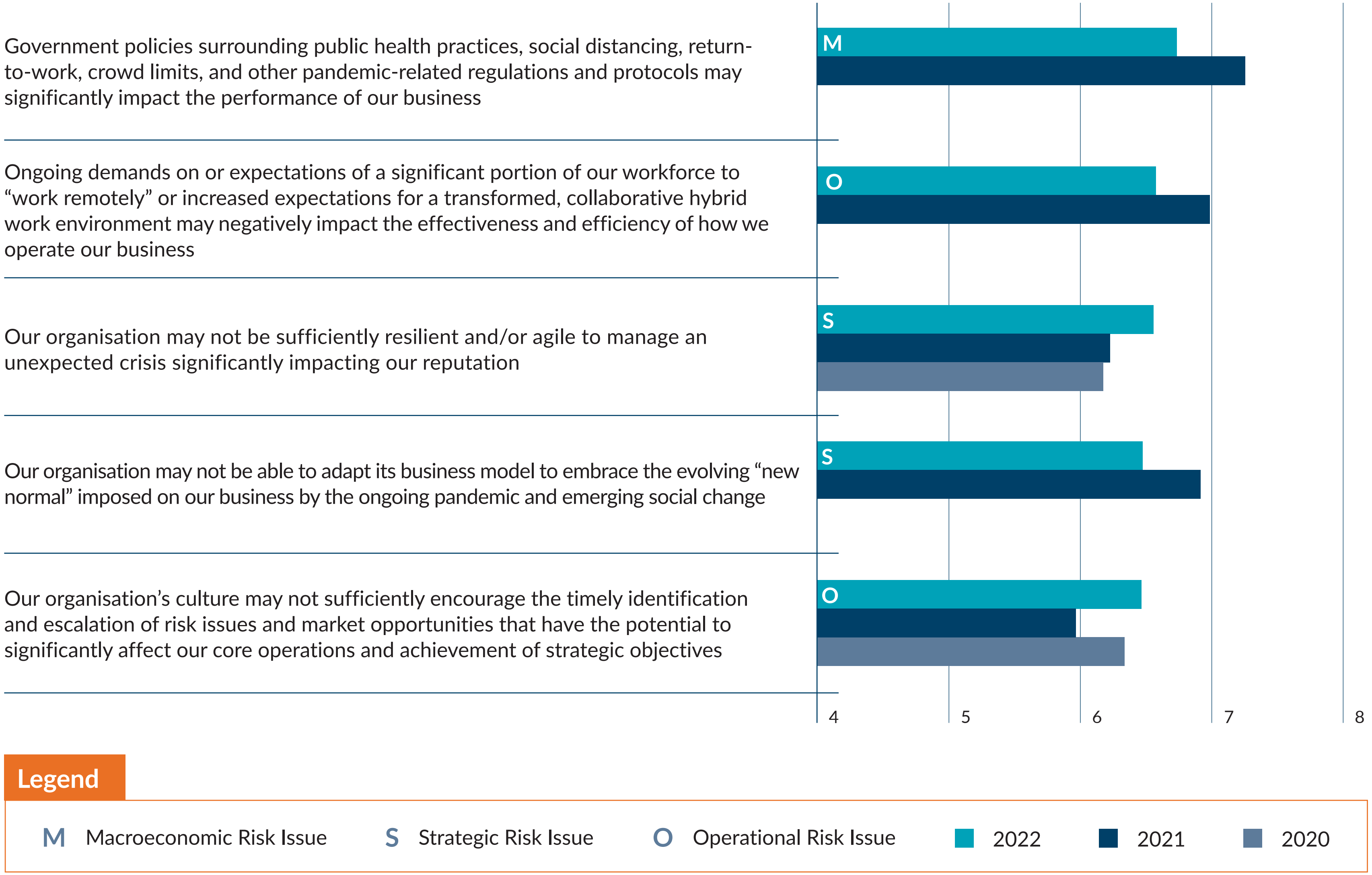
CAEs – 2031

FIGURE 14B



CIOs/CTOs – 2022

FIGURE 15A



CIOs/CTOs – 2031

FIGURE 15B

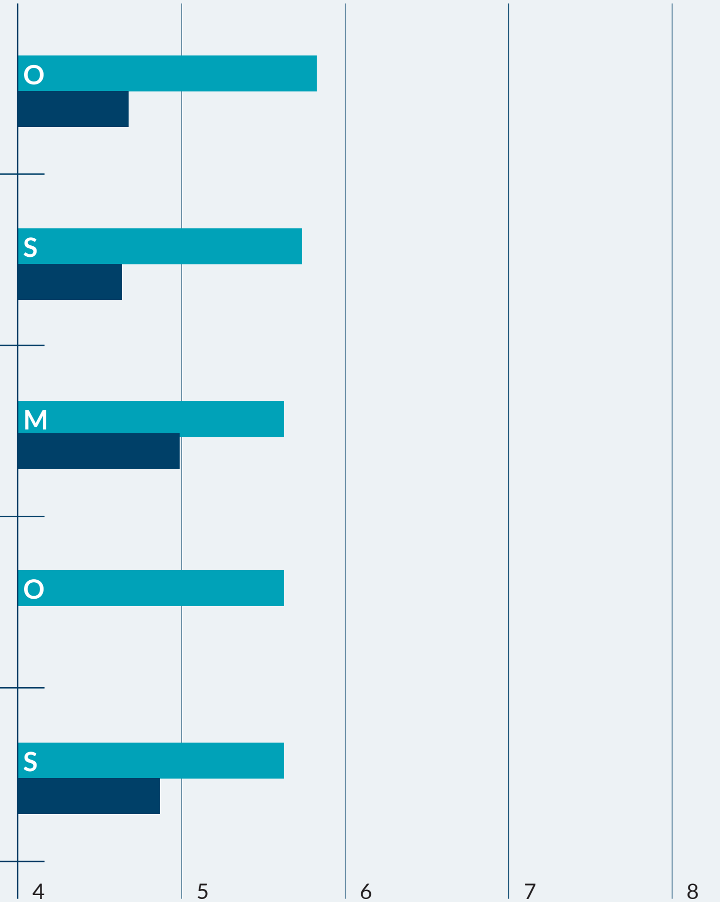
Resistance to change in our culture may restrict our organisation from making necessary adjustments to the business model and core operations

Our organisation may not be sufficiently resilient and/or agile to manage an unexpected crisis significantly impacting our reputation

Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business

Changes in the overall work environment including shifts to hybrid work environments, evolving labour markets, expansion of digital labour, changes in the nature of work and who does that work, and M&A activities may lead to challenges to sustaining our organisation's culture and the way we do business (new for 2022)

Our organisation may not be able to adapt its business model to embrace the evolving "new normal" imposed on our business by the ongoing pandemic and emerging social change



Legend

M Macroeconomic Risk Issue   S Strategic Risk Issue   O Operational Risk Issue   2031   2030

TABLE OF CONTENTS

CSOs – 2022

FIGURE 16A

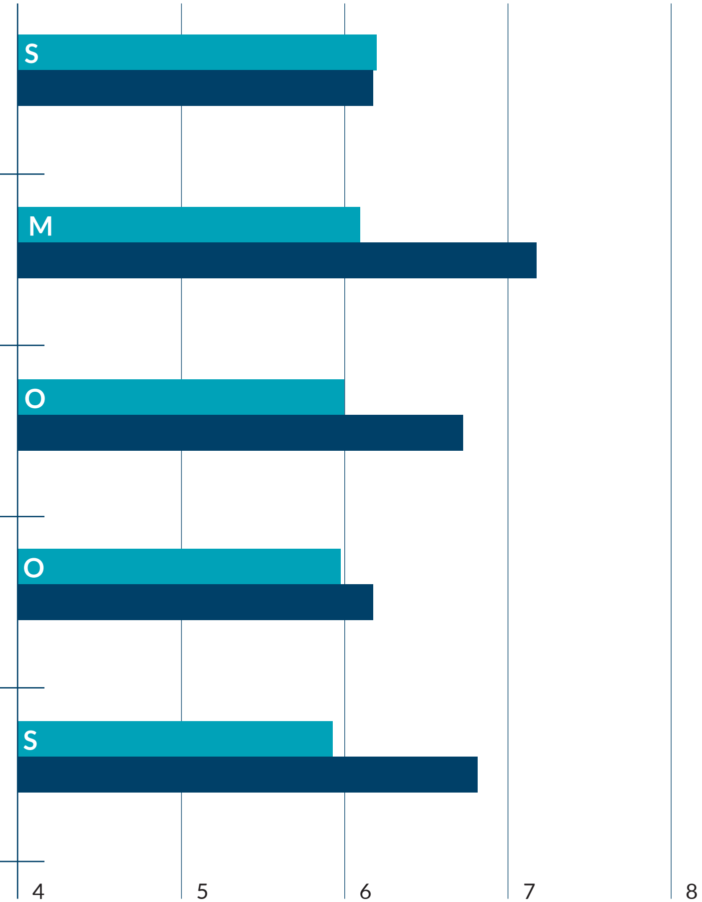
Our organisation may not be sufficiently resilient and/or agile to manage an unexpected crisis significantly impacting our reputation

Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business

Ongoing demands on or expectations of a significant portion of our workforce to "work remotely" or increased expectations for a transformed, collaborative hybrid work environment may negatively impact the effectiveness and efficiency of how we operate our business

Our organisation's culture may not sufficiently encourage the timely identification and escalation of risk issues and market opportunities that have the potential to significantly affect our core operations and achievement of strategic objectives

Market conditions imposed by and in response to COVID-19 and emerging variants, including shifts in consumer behaviour to digital channels, may continue to impact customer demand for our core products and services

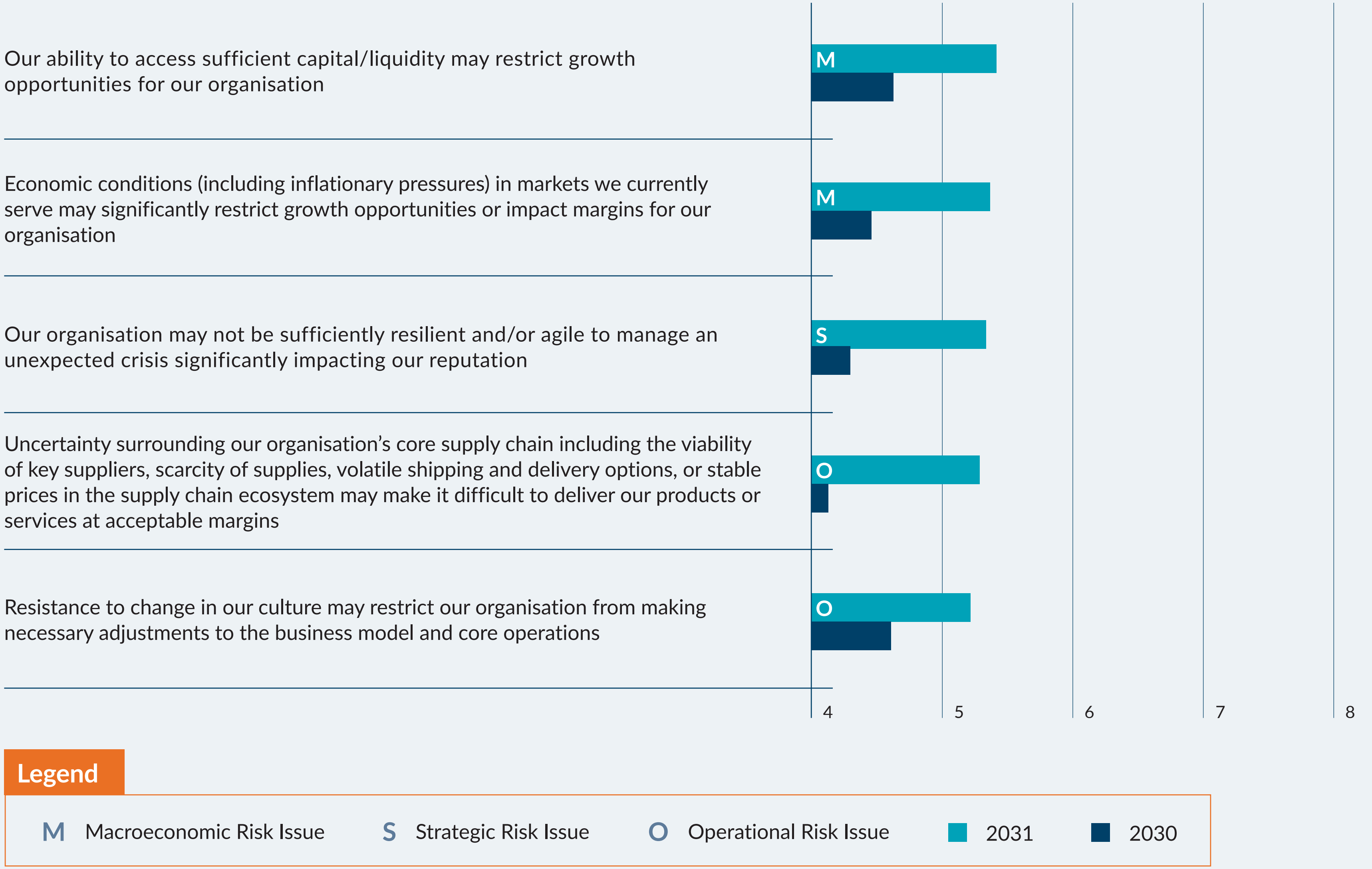


Legend

M Macroeconomic Risk Issue S Strategic Risk Issue O Operational Risk Issue 2022 2021 2020

CSOs – 2031

FIGURE 16B



CDOs – 2022

FIGURE 17A

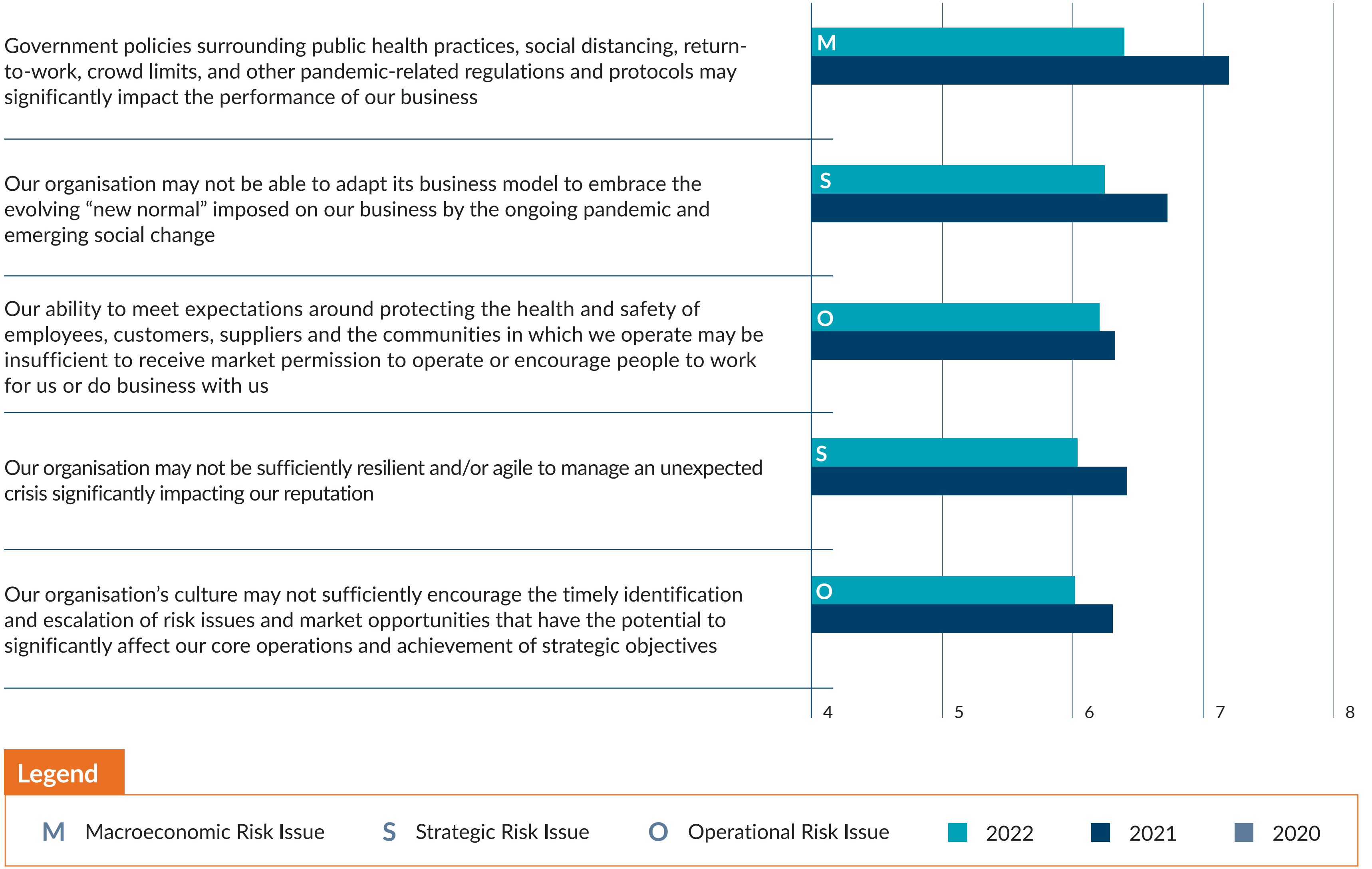


TABLE OF CONTENTS

CDOs – 2031

FIGURE 17B

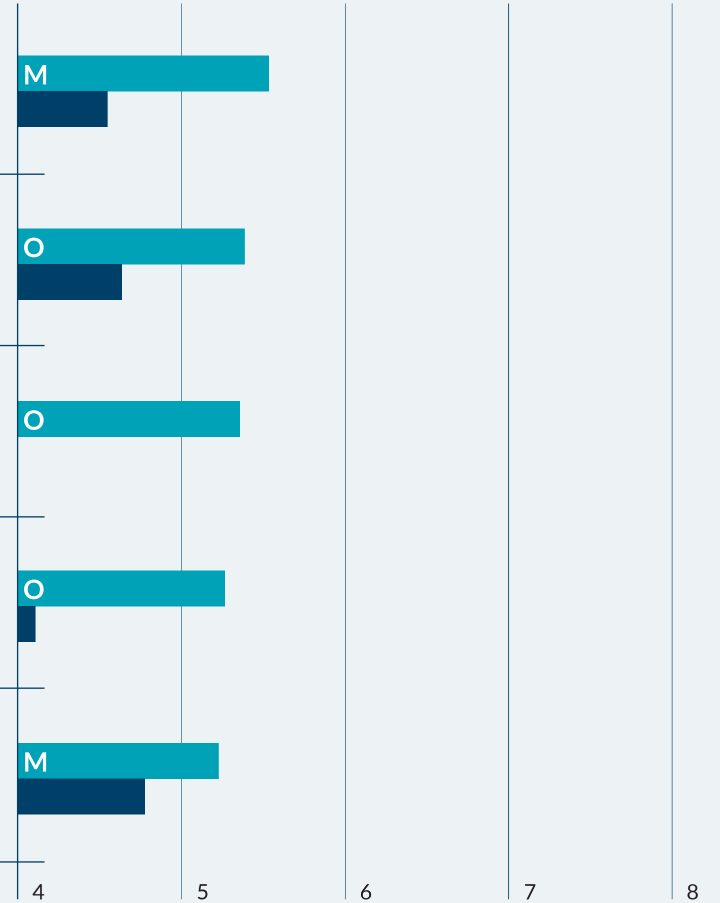
Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation

Resistance to change in our culture may restrict our organisation from making necessary adjustments to the business model and core operations

Changes in the overall work environment including shifts to hybrid work environments, evolving labour markets, expansion of digital labour, changes in the nature of work and who does that work, and M&A activities may lead to challenges to sustaining our organisation's culture and the way we do business (new for 2022)

Uncertainty surrounding our organisation's core supply chain including the viability of key suppliers, scarcity of supplies, volatile shipping and delivery options, or stable prices in the supply chain ecosystem may make it difficult to deliver our products or services at acceptable margins

Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business



Legend

M Macroeconomic Risk Issue S Strategic Risk Issue O Operational Risk Issue ■ 2031 ■ 2030

TABLE OF CONTENTS

Other C-Suite – 2022

FIGURE 18A

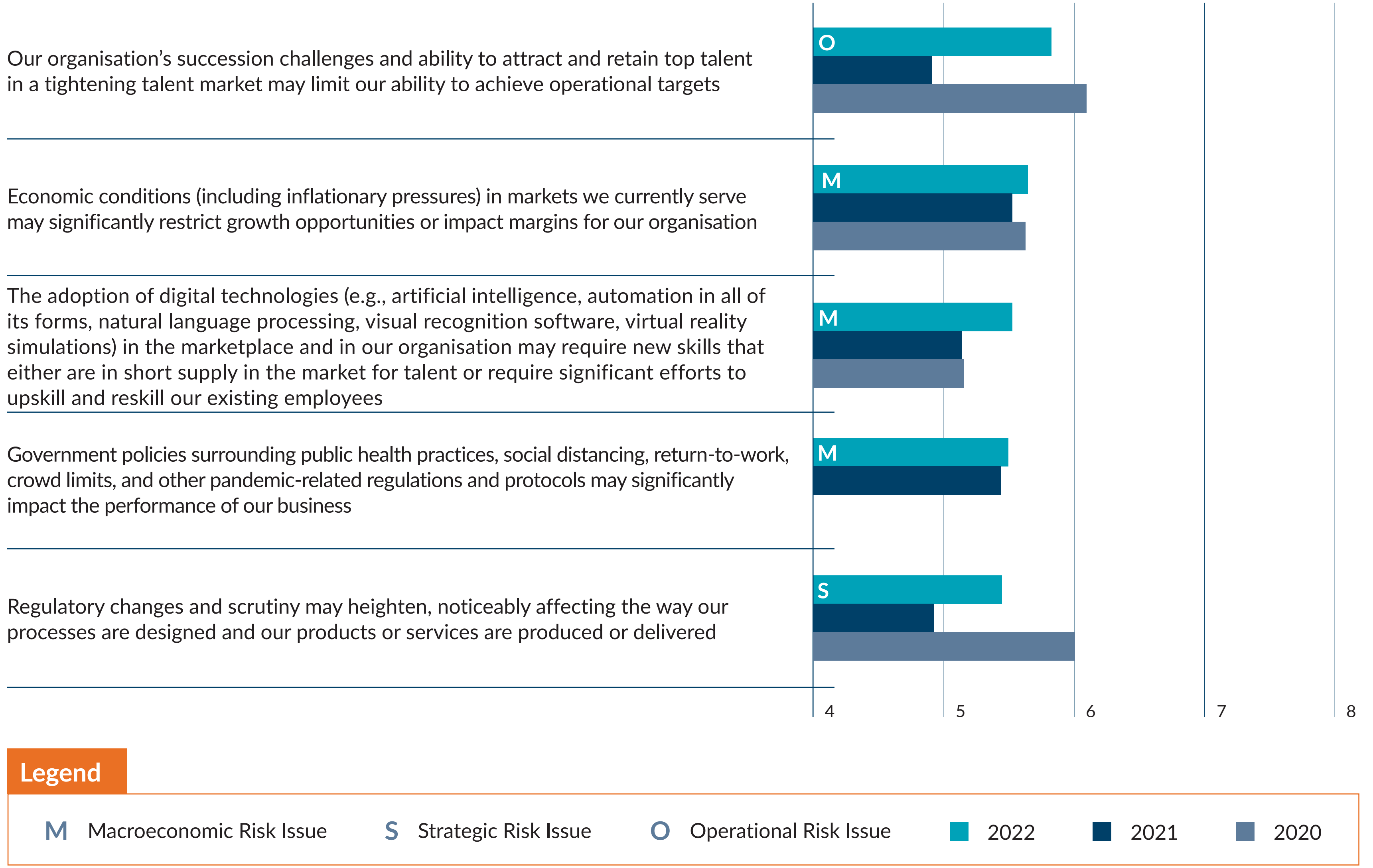


TABLE OF CONTENTS

Other C-Suite – 2031

FIGURE 18B

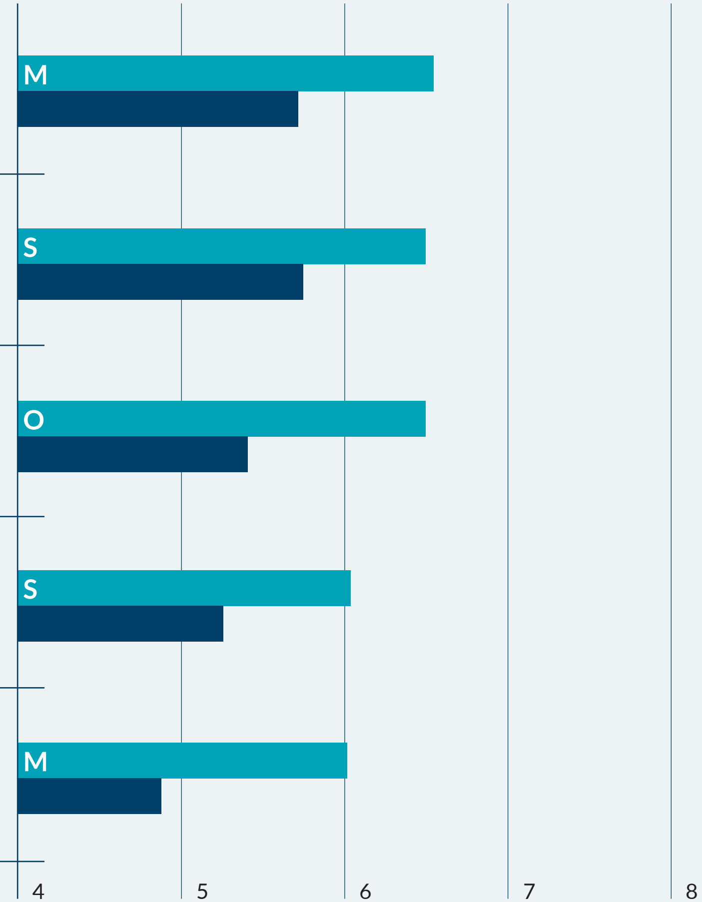
The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees

Regulatory changes and scrutiny may heighten, noticeably affecting the way our processes are designed and our products or services are produced or delivered

Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets

Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation's ability to compete and/or manage the risk appropriately, without making significant changes to our business model

Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation



Legend

M Macroeconomic Risk Issue | S Strategic Risk Issue | O Operational Risk Issue | 2031 | 2030

TABLE OF CONTENTS

Analysis Across Industry Groups

Respondents to our survey represent organisations in a number of industry groupings. We analyse responses across six industry groups[10] to determine whether industries rank-order risks differently. Similar to our analysis of the full sample and across the different sizes of organisations and types of respondents, we analyse responses about overall impressions of the magnitude and severity of risks across industry groups. Again, the scores in Figure 19 reflect responses using a 10-point scale where 1 = "Extremely Low" and 10 = "Extremely High."

INDUSTRY GROUP	NUMBER OF RESPONDENTS
Financial Services (FS)	319
Consumer Products and Services (CPS)	319
Manufacturing and Distribution (MD)	288
Technology, Media and Telecommunications (TMT)	173
Healthcare (HC)	88
Energy and Utilities (EU)	131
Other industries (not separately reported)	135
Total number of respondents	**1,453**

[10] This year we classified certain firms into new industry groups when compared to 2021 and earlier years. We feel the new industry group classifications better characterise these firms. We reclassified firms to reflect these changes for 2021 and 2020 as well, to preserve comparability with the 2022 results provided in this report. This does mean that certain industry group results in this year's report for 2021 and 2020 data differ from results in the reports from those years.

Overall, what is your impression of the magnitude and severity of risks your organisation will be facing with respect to achieving its objectives and reaching or exceeding profitability (or funding) targets over the next 12 months?

FIGURE 19

TABLE OF CONTENTS

Respondents from every industry group, with the exception of the Technology, Media and Telecommunications industry group, perceive that the magnitude and severity of risks their organisations face will be less in 2022, as compared to perceptions in anticipation of the prior year. There is marked contrast in perspectives across different industry groups, which suggests that the industry context is important to consider as business leaders anticipate risks on the horizon. However, given that a number of organisations' business models may not fit neatly into a particular industry group, there is value in observing what risks are on the minds of executives in other industries.

Consistent with prior reports, we use the colour-coding scheme below to highlight risks visually using three categories. In Table 12, we provide a summary of the impact assessments for each of the 36 risks for 2022 by category of executive using this colour-coding scheme:

CLASSIFICATION	RISKS WITH AN AVERAGE SCORE OF	
Significant Impact	6.0 or higher	
Potential Impact	4.5 through 5.99	
Less Significant Impact	4.49 or lower	

Table 12 shows the average risk scores for 2022 to highlight differences in views about individual risks across different industry groups. In Table 13, we show 2031 results along with 2022 results.

TABLE OF CONTENTS

Industry

TABLE 12

MACROECONOMIC RISK ISSUES	FS	CPS	MD	TMT	HC	EU
Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business	🟡	🔴	🟡	🟡	🔴	🟡
Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation	🔴	🟡	🟡	🟡	🟡	🟡
Anticipated increases in labour costs may affect our opportunity to meet profitability targets	🟡	🟡	🟡	🟡	🔴	🟡
The current interest rate environment may have a significant effect on the organisation's operations	🔴	🟡	🟡	🟡	🟢	🟡
Anticipated volatility in global financial markets and currency exchange rates may create significantly challenging issues for our organisation to address	🟡	🟡	🟡	🟡	🟡	🟡
Our ability to access sufficient capital/liquidity may restrict growth opportunities for our organisation	🟡	🟡	🟡	🟡	🟡	🟡
The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees	🟡	🟡	🟡	🟡	🟡	🟡
Shifts in perspectives and expectations about social issues and priorities surrounding diversity, equity and inclusion are occurring faster than the pace at which our organisation is motivated and able to manage effectively (e.g., recruiting, retention, career advancement, reward systems, behavioural incentives, shared values and culture), which may significantly impact our ability to attract/retain talent and compete in the marketplace	🟡	🟡	🟡	🟡	🟡	🟡

TABLE OF CONTENTS

TABLE 12 (CONTINUED)

MACROECONOMIC RISK ISSUES (CONTINUED)	FS	CPS	MD	TMT	HC	EU
Political uncertainty surrounding the influence and continued tenure of key global leaders may impact national and international markets to the point of significantly limiting our growth opportunities	🟡	🟡	🟡	🟡	🟢	🟡
Geopolitical shifts, regional conflicts and instability in governmental regimes or expansion of global terrorism may restrict the achievement of our global growth and profitability objectives	🟡	🟡	🟡	🟡	🟢	🟢
Evolving changes in global trade policies (e.g., post-Brexit implementations, escalating tariffs, border restrictions and shifts to multilateralism) may affect our ability to operate effectively and efficiently in international markets	🟢	🟢	🟡	🟡	🟢	🟡

STRATEGIC RISK ISSUES	FS	CPS	MD	TMT	HC	EU
Market conditions imposed by and in response to COVID-19 and emerging variants, including shifts in consumer behaviour to digital channels, may continue to impact customer demand for our core products and services	🟡	🔴	🟡	🟡	🔴	🟡
Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation's ability to compete and/or manage the risk appropriately, without making significant changes to our business model	🟡	🟡	🟡	🟡	🟡	🟡
Regulatory changes and scrutiny may heighten, noticeably affecting the way our processes are designed and our products or services are produced or delivered	🟡	🟡	🟡	🟡	🟡	🟡
Ease of entrance of new competitors into the industry and marketplace or other significant changes in the competitive environment (such as major market concentrations due to M&A activity) may threaten our market share	🟡	🟡	🟡	🟡	🟡	🟡

TABLE OF CONTENTS

TABLE 12 (CONTINUED)

STRATEGIC RISK ISSUES (CONTINUED)	FS	CPS	MD	TMT	HC	EU
Our organisation may not be sufficiently resilient and/or agile to manage an unexpected crisis significantly impacting our reputation	●	●	●	●	●	●
Growth opportunities through acquisitions, joint ventures and other partnership activities may be difficult to identify and implement	●	●	●	●	●	●
Opportunities for organic growth through customer acquisition and/or enhancement may be significantly limited for our organisation	●	●	●	●	●	●
Sustaining customer loyalty and retention may be increasingly difficult due to evolving customer preferences and/or demographic shifts in our existing customer base	●	●	●	●	●	●
Performance shortfalls may trigger activist shareholders who seek significant changes to our organisation's strategic plan and vision	●	●	●	●	●	●
Our organisation may not be able to adapt its business model to embrace the evolving "new normal" imposed on our business by the ongoing pandemic and emerging social change	●	●	●	●	●	●
Rapidly expanding social media developments in the marketplace and rapidly developing platform technology innovations may significantly impact how we do business, interact with our customers, ensure regulatory compliance and/or manage our brand	●	●	●	●	●	●
Growing focus on climate change policies, regulations, and expanding disclosure requirements as well as expectations of key stakeholders about climate change, supply chain transparency, reward systems, and other governance and sustainability issues may require us to significantly alter our strategy and business model in ways that may be difficult for us to implement on a timely basis	●	●	●	●	●	●
Substitute products and services may arise from competitors that may enhance the customer experience and affect the viability of our current business model and planned strategic initiatives	●	●	●	●	●	●

TABLE OF CONTENTS

TABLE 12 (CONTINUED)

OPERATIONAL RISK ISSUES	FS	CPS	MD	TMT	HC	EU
Uncertainty surrounding our organisation's core supply chain including the viability of key suppliers, scarcity of supplies, volatile shipping and delivery options, or stable prices in the supply chain ecosystem may make it difficult to deliver our products or services at acceptable margins	🟡	🟡	🔴	🟡	🟡	🟡
Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets	🟡	🟡	🟡	🟡	🔴	🟡
Changes in the overall work environment including shifts to hybrid work environments, evolving labour markets, expansion of digital labour, changes in the nature of work and who does that work, and M&A activities may lead to challenges to sustaining our organisation's culture and the way we do business (new for 2022)	🟡	🟡	🟡	🟡	🟡	🟡
Third-party risks arising from our reliance on outsourcing and strategic sourcing arrangements, IT vendor contracts, and other partnerships/joint ventures to achieve operational goals may prevent us from meeting organisational targets or impact our brand image	🟡	🟡	🟡	🟡	🟡	🟡
Our organisation may not be sufficiently prepared to manage cyber threats such as ransomware and other attacks that have the potential to significantly disrupt core operations and/or damage our brand	🟡	🟡	🟡	🟡	🟡	🟡
Ensuring data privacy and compliance with growing identity protection expectations and regulations may require alterations demanding significant resources to restructure how we collect, store, share and use data to run our business	🟡	🟡	🟡	🟡	🟡	🟡
Our existing operations, legacy IT infrastructure, lack of digital expertise in the workforce and insufficient digital savviness in the C-suite and boardroom may result in failure to meet performance expectations related to quality, time to market, cost and innovation as well as our competitors, especially those that are either "born digital" or investing heavily to leverage technology for competitive advantage	🟡	🟡	🟡	🟡	🟡	🟡

TABLE OF CONTENTS

TABLE 12 (CONTINUED)

OPERATIONAL RISK ISSUES (CONTINUED)	FS	CPS	MD	TMT	HC	EU
Inability to utilise data analytics and "big data" to achieve market intelligence and increase productivity and efficiency may significantly affect our management of core operations and strategic plans	●	●	●	●	●	●
Resistance to change in our culture may restrict our organisation from making necessary adjustments to the business model and core operations	●	●	●	●	●	●
Our organisation's culture may not sufficiently encourage the timely identification and escalation of risk issues and market opportunities that have the potential to significantly affect our core operations and achievement of strategic objectives	●	●	●	●	●	●
Our ability to meet expectations around protecting the health and safety of employees, customers, suppliers and the communities in which we operate may be insufficient to receive market permission to operate or encourage people to work for us or do business with us	●	●	●	●	●	●
Ongoing demands on or expectations of a significant portion of our workforce to "work remotely" or increased expectations for a transformed, collaborative hybrid work environment may negatively impact the effectiveness and efficiency of how we operate our business	●	●	●	●	●	●

2022 risk concerns

Figure 19 reveals that respondents from every industry group, with the exception of the Technology, Media and Telecommunications industry group, perceive that the magnitude and severity of risks in the overall environment affecting their organisation will be decreased in 2022 from 2021 levels. Examining Table 12 suggests that the decrease in overall risk impression is not a function of industry groups ranking fewer individual risks as "Significant Impact" risks nor ranking more individual risks as "Less Significant Impact." Rather, the decrease is a result of an overall sense that the business environment will be less risky in 2022. This is not a surprise since last year's survey results were determined following the height of the pandemic experience with the related uncertainty around the emerging "next normal."

When comparing the number of risks appearing in both 2022 and 2021 surveys that are rated as "Significant Impact" risks, there is not a significant difference in the collective number of risks at that level across all industries for 2022 compared to 2021. In addition, respondents have significantly decreased the number of risks that are considered "Less Significant Impact." The overall difference in their perceptions about the risk environment and their perceptions about specific risks suggests there is a sense among the respondents that, overall, there has been a general easing of individual risk concerns for most organisations.

The most risks rated "Significant Impact" are macroeconomic risks for 2022. The Financial Services industry group increased the number of "Significant Impact" macroeconomic risks in 2022 to two, from one in 2021. The Healthcare industry group recognised two of the macroeconomic risks as "Significant Impact" in 2022, whereas in 2021 it rated four macroeconomic risks as "Significant Impact." The Consumer Products and Services industry group is the only other industry group to record a "Significant Impact" risk. Both the Manufacturing and Distribution and Energy and Utilities industry groups report no "Significant Impact" macroeconomic risks for 2022, compared to one in 2021.

2031 risk concerns

Most industry groups appear more concerned about risk conditions in 2031 as compared to 2022. Both the Financial Services and Healthcare industry groups rate their top five risks for 2031 as "Significant Impact" risks (see Table 13). In addition, the Technology, Media and Telecommunications and Energy and Utilities industry groups rate three and two risks, respectively, as "Significant Impact" risks. This is a significant departure from our prior survey in which only the Healthcare industry group rated three risks as "Significant Impact" risks for the next decade.

"In reviewing year-over-year risk levels in all six industry groups we examined looking out 12 months and over the next decade, our respondents are apparently more comfortable with the risk landscape near term as the pandemic transitions to an endemic state. But they are casting a wary eye toward the prospect of increasingly complex and competitive markets as the disruptive 2020s unfold."

PAT SCOTT
Executive Vice President, Global Industry, Client Programmes and Marketing, Protiviti

TABLE OF CONTENTS

Perceived impact for 2022 and 2031 — by industry group

TABLE 13

MACROECONOMIC RISK ISSUES	YEAR	FS	CPS	MD	TMT	HC	EU
Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business	2022	● (yellow)	● (red)	● (yellow)	● (yellow)	● (red)	● (yellow)
	2031	● (yellow)	● (yellow)	● (yellow)	● (yellow)	● (yellow)	● (teal)
Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation	2022	● (red)	● (yellow)	● (yellow)	● (yellow)	● (yellow)	● (yellow)
	2031	● (red)	● (yellow)	● (yellow)	● (yellow)	● (yellow)	● (yellow)
Anticipated increases in labour costs may affect our opportunity to meet profitability targets	2022	● (yellow)	● (yellow)	● (yellow)	● (yellow)	● (red)	● (yellow)
	2031	● (yellow)	● (yellow)	● (yellow)	● (yellow)	● (red)	● (yellow)
The current interest rate environment may have a significant effect on the organisation's operations	2022	● (red)	● (yellow)	● (yellow)	● (yellow)	● (teal)	● (yellow)
	2031	● (red)	● (teal)	● (yellow)	● (yellow)	● (teal)	● (yellow)
Anticipated volatility in global financial markets and currency exchange rates may create significantly challenging issues for our organisation to address	2022	● (yellow)	● (yellow)	● (yellow)	● (yellow)	● (yellow)	● (yellow)
	2031	● (yellow)	● (yellow)	● (yellow)	● (yellow)	● (yellow)	● (yellow)
Our ability to access sufficient capital/liquidity may restrict growth opportunities for our organisation	2022	● (yellow)	● (yellow)	● (yellow)	● (yellow)	● (yellow)	● (yellow)
	2031	● (yellow)	● (yellow)	● (yellow)	● (yellow)	● (yellow)	● (yellow)
The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees	2022	● (yellow)	● (yellow)	● (yellow)	● (yellow)	● (yellow)	● (yellow)
	2031	● (red)	● (yellow)	● (yellow)	● (red)	● (red)	● (yellow)

TABLE OF CONTENTS

TABLE 13 (CONTINUED)

MACROECONOMIC RISK ISSUES (CONTINUED)	YEAR	FS	CPS	MD	TMT	HC	EU
Shifts in perspectives and expectations about social issues and priorities surrounding diversity, equity and inclusion are occurring faster than the pace at which our organisation is motivated and able to manage effectively (e.g., recruiting, retention, career advancement, reward systems, behavioural incentives, shared values and culture), which may significantly impact our ability to attract/retain talent and compete in the marketplace	2022	🟡	🟡	🟡	🟡	🟡	🟡
	2031	🟡	🟡	🟡	🟡	🟡	🟡
Political uncertainty surrounding the influence and continued tenure of key global leaders may impact national and international markets to the point of significantly limiting our growth opportunities	2022	🟡	🟡	🟡	🟡	🟢	🟡
	2031	🟡	🟡	🟡	🟡	🟢	🟡
Geopolitical shifts, regional conflicts and instability in governmental regimes or expansion of global terrorism may restrict the achievement of our global growth and profitability objectives	2022	🟡	🟡	🟡	🟡	🟢	🟢
	2031	🟡	🟡	🟡	🟡	🟢	🟢
Evolving changes in global trade policies (e.g., post-Brexit implementations, escalating tariffs, border restrictions and shifts to multilateralism) may affect our ability to operate effectively and efficiently in international markets	2022	🟢	🟢	🟡	🟡	🟢	🟡
	2031	🟢	🟢	🟡	🟡	🟢	🟡

STRATEGIC RISK ISSUES	YEAR	FS	CPS	MD	TMT	HC	EU
Market conditions imposed by and in response to COVID-19 and emerging variants, including shifts in consumer behaviour to digital channels, may continue to impact customer demand for our core products and services	2022	🟡	🔴	🟡	🟡	🔴	🟡
	2031	🟡	🟡	🟡	🟡	🟡	🟢

TABLE 13 (CONTINUED)

STRATEGIC RISK ISSUES (CONTINUED)	YEAR	FS	CPS	MD	TMT	HC	EU
Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation's ability to compete and/or manage the risk appropriately, without making significant changes to our business model	2022	🟡	🟡	🟡	🟡	🟡	🟡
	2031	🔴	🟡	🟡	🟡	🔴	🟡
Regulatory changes and scrutiny may heighten, noticeably affecting the way our processes are designed and our products or services are produced or delivered	2022	🟡	🟡	🟡	🟡	🟡	🟡
	2031	🔴	🟡	🟡	🟡	🔴	🟡
Ease of entrance of new competitors into the industry and marketplace or other significant changes in the competitive environment (such as major market concentrations due to M&A activity) may threaten our market share	2022	🟡	🟡	🟡	🟡	🟡	🟡
	2031	🔴	🟡	🟡	🔴	🟡	🟡
Our organisation may not be sufficiently resilient and/or agile to manage an unexpected crisis significantly impacting our reputation	2022	🟡	🟡	🟡	🟡	🟡	🟡
	2031	🟡	🟡	🟡	🟡	🟡	🟡
Growth opportunities through acquisitions, joint ventures and other partnership activities may be difficult to identify and implement	2022	🟡	🟡	🟡	🟡	🟡	🟡
	2031	🟡	🟡	🟡	🟡	🟡	🟡
Opportunities for organic growth through customer acquisition and/or enhancement may be significantly limited for our organisation	2022	🟡	🟡	🟡	🟡	🟡	🟡
	2031	🟡	🟡	🟡	🟡	🟡	🟡

TABLE OF CONTENTS

TABLE 13 (CONTINUED)

STRATEGIC RISK ISSUES (CONTINUED)	YEAR	FS	CPS	MD	TMT	HC	EU
Sustaining customer loyalty and retention may be increasingly difficult due to evolving customer preferences and/or demographic shifts in our existing customer base	2022	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	2031	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Performance shortfalls may trigger activist shareholders who seek significant changes to our organisation's strategic plan and vision	2022	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	2031	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Our organisation may not be able to adapt its business model to embrace the evolving "new normal" imposed on our business by the ongoing pandemic and emerging social change	2022	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
	2031	Yellow	Yellow	Yellow	Yellow	Yellow	Green
Rapidly expanding social media developments in the marketplace and rapidly developing platform technology innovations may significantly impact how we do business, interact with our customers, ensure regulatory compliance and/or manage our brand	2022	Yellow	Yellow	Yellow	Yellow	Yellow	Green
	2031	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Growing focus on climate change policies, regulations, and expanding disclosure requirements as well as expectations of key stakeholders about climate change, supply chain transparency, reward systems, and other governance and sustainability issues may require us to significantly alter our strategy and business model in ways that may be difficult for us to implement on a timely basis	2022	Yellow	Yellow	Yellow	Yellow	Green	Yellow
	2031	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Substitute products and services may arise from competitors that may enhance the customer experience and affect the viability of our current business model and planned strategic initiatives	2022	Yellow	Yellow	Yellow	Yellow	Yellow	Green
	2031	Red	Yellow	Yellow	Red	Yellow	Yellow

TABLE OF CONTENTS

TABLE 13 (CONTINUED)

OPERATIONAL RISK ISSUES	YEAR	FS	CPS	MD	TMT	HC	EU
Uncertainty surrounding our organisation's core supply chain including the viability of key suppliers, scarcity of supplies, volatile shipping and delivery options, or stable prices in the supply chain ecosystem may make it difficult to deliver our products or services at acceptable margins	2022	yellow	yellow	red	yellow	yellow	yellow
	2031	teal	yellow	yellow	yellow	yellow	yellow
Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets	2022	yellow	yellow	yellow	yellow	red	yellow
	2031	red	yellow	yellow	yellow	red	yellow
Changes in the overall work environment including shifts to hybrid work environments, evolving labour markets, expansion of digital labour, changes in the nature of work and who does that work, and M&A activities may lead to challenges to sustaining our organisation's culture and the way we do business (new for 2022)	2022	yellow	yellow	yellow	yellow	yellow	yellow
	2031	yellow	yellow	yellow	yellow	yellow	yellow
Third-party risks arising from our reliance on outsourcing and strategic sourcing arrangements, IT vendor contracts, and other partnerships/joint ventures to achieve operational goals may prevent us from meeting organisational targets or impact our brand image	2022	yellow	yellow	yellow	yellow	yellow	yellow
	2031	yellow	yellow	yellow	yellow	yellow	yellow
Our organisation may not be sufficiently prepared to manage cyber threats such as ransomware and other attacks that have the potential to significantly disrupt core operations and/or damage our brand	2022	yellow	yellow	yellow	yellow	yellow	yellow
	2031	yellow	yellow	yellow	yellow	yellow	yellow
Ensuring data privacy and compliance with growing identity protection expectations and regulations may require alterations demanding significant resources to restructure how we collect, store, share and use data to run our business	2022	yellow	yellow	yellow	yellow	yellow	yellow
	2031	yellow	yellow	yellow	yellow	yellow	yellow

TABLE OF CONTENTS

TABLE 13 (CONTINUED)

OPERATIONAL RISK ISSUES (CONTINUED)	YEAR	FS	CPS	MD	TMT	HC	EU
Our existing operations, legacy IT infrastructure, lack of digital expertise in the workforce and insufficient digital savviness in the C-suite and boardroom may result in failure to meet performance expectations related to quality, time to market, cost and innovation as well as our competitors, especially those that are either "born digital" or investing heavily to leverage technology for competitive advantage	2022	●	●	●	●	●	●
	2031	●	●	●	●	●	●
Inability to utilise data analytics and "big data" to achieve market intelligence and increase productivity and efficiency may significantly affect our management of core operations and strategic plans	2022	●	●	●	●	●	●
	2031	●	●	●	●	●	●
Resistance to change in our culture may restrict our organisation from making necessary adjustments to the business model and core operations	2022	●	●	●	●	●	●
	2031	●	●	●	●	●	●
Our organisation's culture may not sufficiently encourage the timely identification and escalation of risk issues and market opportunities that have the potential to significantly affect our core operations and achievement of strategic objectives	2022	●	●	●	●	●	●
	2031	●	●	●	●	●	●
Our ability to meet expectations around protecting the health and safety of employees, customers, suppliers and the communities in which we operate may be insufficient to receive market permission to operate or encourage people to work for us or do business with us	2022	●	●	●	●	●	●
	2031	●	●	●	●	●	●
Ongoing demands on or expectations of a significant portion of our workforce to "work remotely" or increased expectations for a transformed, collaborative hybrid work environment may negatively impact the effectiveness and efficiency of how we operate our business	2022	●	●	●	●	●	●
	2031	●	●	●	●	●	●

Figures 20-25 on the following pages summarise the top-rated risks by industry group separately for 2022 and 2031. Only the top five risks are reported and, where available, scores for 2021, 2020 (for comparisons to 2022) and 2030 (for comparisons to 2031) are also provided.

One noticeable observation from these results is the significant disparity in the top five risks as opposed to previous surveys. Three industry groups rate the macroeconomic risk of government policies surrounding public health practices as their top risk in 2022: Consumer Products and Services; Technology, Media and Telecommunications; and Healthcare. The other three industry groups all identify different top risks: the Financial Services industry group cites the interest rate environment, the Manufacturing and Distribution industry rates uncertainty surrounding the organisation's core supply chain, and the Energy and Utilities industry group rates the risk related to succession challenges and ability to attract and retain talent as their respective top risk concerns. While Energy and Utilities is the only industry group to list concern over the risk related to succession challenges and ability to attract and retain talent as its top risk, every industry group has this risk in its top five.

Turning to strategic risk issues, the Healthcare and Consumer Products and Services industry groups continue to rank the strategic risk related to market conditions imposed by and in response to COVID-19 as a "Significant Impact" risk. These are the only two industry groups to recognise at least one strategic risk as "Significant Impact." Three industry groups — Financial Services; Manufacturing and Distribution; and Technology, Media and Telecommunications — rank the risk related to regulatory change and enhanced regulatory scrutiny as a top five risk.

Examining operational risks, the Manufacturing and Distribution industry group lists uncertainty surrounding the organisation's core supply chain as its top risk and as being a "Significant Impact" risk. Both the Manufacturing and Distribution and Energy and Utilities industry groups have three of their top five risks as operational risks. Surprisingly, in 2021 the Energy and Utilities industry group did not have an operational risk as a top five risk.

Strategic and macroeconomic risks dominate most longer-term risk forecasts. However, the top-rated 2031 risks among the six industry groups are evenly distributed between macroeconomic, strategic and operational risks. The risk related to the adoption of digital technologies is cited as the first or second highest risk by five of the six industry groups. In addition, the strategic risk associated with the rapid speed of disruptive innovation is ranked by five of the industry groups as a top five risk. Overall, five of the 11 macroeconomic and six of the 13 strategic risks are represented in the various industry groups' top five rankings.

Consistent with the 2022 risk ratings, industry groups consider fewer of the 2031 risks as "Less Significant Impact." In our 2021 survey, the Financial Services, Consumer Products and Services, Technology, Media and Telecommunications, and Healthcare industry groups each rated at least four of the macroeconomic risks as "Less Significant Impact." However, this year only the Healthcare industry group rates four macroeconomic risks as "Less Significant Impact" for 2031.

Examining long-term strategic risks, the Financial Services and Technology, Media and Telecommunications industry groups experienced the biggest decrease in long-term risks determined to have "Less Significant Impact," with a drop from six to zero in the current survey.

One possible surprise among the 2031 top five risks is that only the Energy and Utilities industry group cites a growing focus on climate change policies, regulations and expanding disclosure requirements, as well as expectations of key stakeholders about climate change, diversity and inclusion, and other governance and sustainability issues impacting existing strategies and business models, as a top five future risk. This finding suggests there is a perception outside of fossil fuels-based industries that climate issues will not significantly impact an organisation's strategy and business model. Whether or not that perception is correct is a point of debate as markets double down on the

TABLE OF CONTENTS

transition to a net-zero carbon environment. Over time, the perception that these issues could impact strategies and business models could change in response to investor expectations, customer preferences, the quest for talent, regulatory requirements and other market developments.

With the exception of the Financial Services and Technology, Media and Telecommunications industry groups, each of the other industry groups rank at least one operational risk among their 2031 top five risks. The risk associated with succession challenges and the ability to attract top talent is ranked in the top five by four of the industry groups, while succession challenges and the ability to attract top talent is ranked in the top five by the Consumer Products and Services and Manufacturing and Distribution industry groups.

These noted differences in perceptions of risk issues across the different industry groups highlight the importance of understanding industry drivers and emerging developments in order to identify the most significant enterprise risks and emerging risk concerns in each industry.

Following each set of bar charts by industry group, we provide additional commentary about industry-specific risk drivers.

> "Just about everyone and the community of nations agree that mitigation of the effects of climate change is an urgent matter. The key question is whether leaders believe that climate change forces significant alterations of their organisation's strategy and business model that may be difficult to implement on a timely basis. Our survey indicates that that perception is much higher, relative to other risk issues, in industries directly dependent on fossil fuels."
>
> **JIM DELOACH**
> Managing Director, Protiviti

TABLE OF CONTENTS

Financial Services – 2022

FIGURE 20A

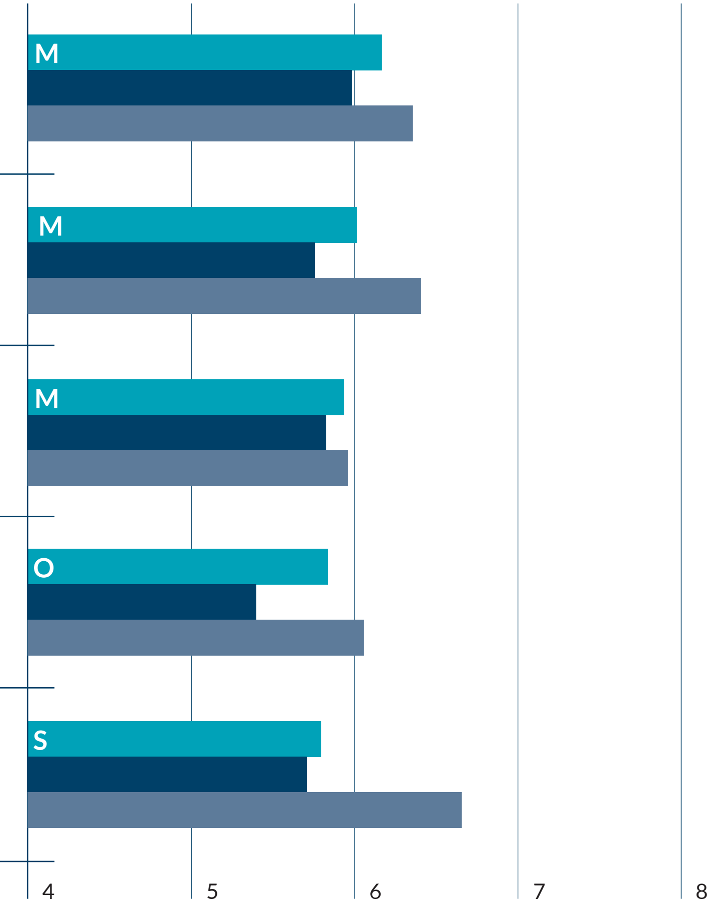
The current interest rate environment may have a significant effect on the organisation's operations

Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation

The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees

Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets

Regulatory changes and scrutiny may heighten, noticeably affecting the way our processes are designed and our products or services are produced or delivered



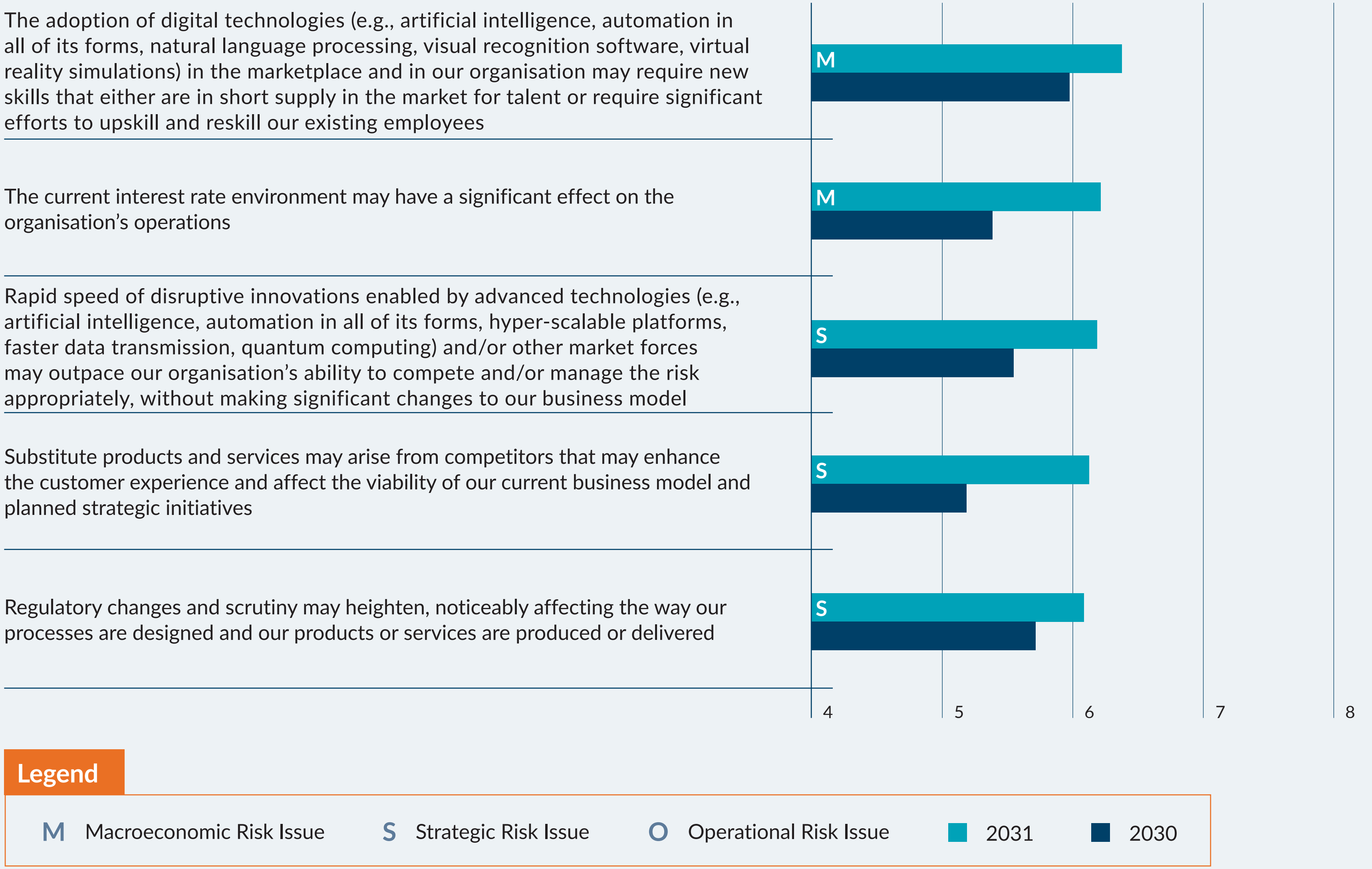
Legend

M Macroeconomic Risk Issue S Strategic Risk Issue O Operational Risk Issue ■ 2022 ■ 2021 ■ 2020

TABLE OF CONTENTS

Financial Services – 2031

FIGURE 20B



Financial institutions demonstrate resiliency in responding to COVID and start to look forward out to the horizon.

Last year, our survey focused on identifying the top risks in 2021 (conducted in the fourth quarter of 2020) reflected a financial services industry that was still consumed with responding to the most significant global pandemic in the past 100 years. Many of the areas of focus highlighted in last year's survey involved short-term operational challenges, including ongoing efforts to shift employees into work-from-home environments and develop new routines to serve clients remotely. These issues were coupled with broader economic concerns brought on by the pandemic, including an expected credit downturn caused by massive unemployment increases and business shutdowns, as well as profitability pressure from interest rates again being slashed down to or near 0% and investment portfolio losses caused by declining asset values.

A year later, the financial services industry (and the world at large) has very clearly not yet returned to a pre-COVID normal, but the situation has evolved and stabilised significantly. Our 2022 survey results demonstrate increasing confidence on the part of financial institutions that they will navigate the remaining stages of this crisis effectively wherever it leads. Industry leaders are now taking the time to refocus on the medium- and longer-term risks to their businesses that will remain as COVID reaches an endemic state and we transition into the evolving "new normal" that will follow.

Overview of top risks for 2022

1. The current interest rate environment may have a significant effect on the organisation's operations; and
2. Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation.

Even as financial and employment markets have staged a stunning comeback from the lows of 2020, most central banks around the world have kept extraordinarily accommodating monetary stimulus programmes in place, putting pressure on financial institutions' margins and profit levels. However, there are signs this era may be coming to an end as concerns about inflation (which reached a 30-year high in Q4 2021)[11] start to outweigh lingering COVID-related economic challenges. The key question now is whether policymakers have waited too long to start tightening, and whether it's still possible to pull back support quickly enough to both deflate asset bubbles (by some measures, stocks are as expensive now as at the 1929 peak)[12] and tame inflation, but slowly enough to avoid triggering another recession.

3. The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees; and
4. Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets.

Concerns about digital disruption have ranked at or near the top of our survey for the past several years, even in 2021 when the responses were otherwise dominated by COVID. At the onset of the pandemic, we predicted that legacy modernisation efforts might slow or be paused as organisations responded to immediate operational and health and safety challenges, but that medium- to long-term, COVID would actually accelerate the transition to a digital world.[13] This has played out even more quickly and definitively than we expected. What's new this year, and is likely to accelerate this trend even further, is the whiplash transition from the double-digit unemployment environment of 2020 to the Great Resignation of 2021. Competition for technologists and data scientists never really

[11] www.wsj.com/articles/us-inflation-consumer-price-index-october-2021-11636491959.

[12] www.bloomberg.com/opinion/articles/2021-11-12/capm-redesign-still-shows-stocks-close-to-1929-valuation?srnd=premium&sref=lUrmNyXw.

[13] www.protiviti.com/US-en/insights/newsletter-bulletin-v7i7-finding-equilibrium-uncertain-times-part1.

let up even during the darkest days of COVID layoffs last spring, and has only intensified since then. More surprising is the broader recovery in the labour market, and how difficult it has been for financial institutions to fill run-of-the-mill operational roles in addition to technology ones. If this trend persists and as the cost of labour suddenly surges after stagnating for decades in real terms, the ROI calculations in favour of automation solutions that reduce cycle times and the need for headcount will only get more compelling — in turn, creating even more demand for technology skills.

5. Regulatory changes and scrutiny may heighten, noticeably affecting the way our processes are designed and our products or services are produced or delivered.

Concerns about this risk were most pronounced among U.S. respondents. After benefiting from a somewhat more permissive, business-friendly regulatory environment under the Trump administration, President Biden's major regulatory agency leadership nominees have universally taken a harder line on consumer/investor protection and financial stability matters than their predecessors. The industry is already seeing the effect of this change in priorities in the form of a significant increase in pending regulatory investigations.

Notable changes in year-over-year results

- Uncertainty surrounding our organisation's core supply chain including the viability of key suppliers, scarcity of supplies, volatile shipping and delivery options, or stable prices in the supply chain ecosystem may make it difficult to deliver our products or services at acceptable margins.

This risk saw one of the largest year-over-year increases. We found this particularly interesting considering that the unique nature of financial services institutions' "inputs to production" means the industry is not as heavily reliant on the types of materials that are currently subject to the significant disruptions facing manufacturers, retailers and other industries. We presume this risk is nevertheless on FSI leaders' radars as a result of the chip shortage increasing technology costs, as well as the knock-on effect of supply challenges hurting the bottom lines — and financing needs — of financial institutions' clients.

- Performance shortfalls may trigger activist shareholders who seek significant changes to our organisation's strategic plan and vision
- Growing focus on climate change policies, regulations and expanding disclosure requirements as well as expectations of key stakeholders about climate change, supply chain transparency, reward systems, and other governance and sustainability issues may require us to significantly alter our strategy and business model in ways that may be difficult for us to implement on a timely basis
- Our organisation may not be able to adapt its business model to embrace the evolving "new normal" imposed on our business by the ongoing pandemic and emerging social change
- Shifts in perspectives and expectations about social issues and priorities surrounding diversity, equity and inclusion are occurring faster than the pace at which our organisation is motivated and able to manage effectively (e.g., recruiting, retention, career advancement, reward systems, behavioural incentives, shared values and culture), which may significantly impact our ability to attract/retain talent and compete in the marketplace

The four risks above were all among the biggest year-over-year gainers, reflecting an increasing focus on ESG scrutiny and objectives. In particular, we expect that climate disclosure and stress testing/scenario analysis requirements will take a big leap forward and require more resources starting in 2022.

- Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business

This risk showed the largest year-over-year decrease, while ...

- Our ability to meet expectations around protecting the health and safety of employees, customers, suppliers and the communities in which we operate may be insufficient to receive market permission to operate or encourage people to work for us or do business with us

... was one of the risks with the largest year-over-year increases. We thought this was an interesting pair of results that, read together, neatly summarised the shift in perspectives regarding COVID within the industry, with last year's respondents primarily worried about another round of lockdowns contrasting with this year's focus on being able to return employees to the office safely — and being able to attract and retain employees generally.

Overview of top risks for 2031

A look at the results for the 10-year risk outlook among financial services industry organisations indicates that board members and senior executives view a notably riskier outlook for the next decade compared with the decade-out view from last year's survey. To illustrate, in our 2021 study, no risk issue for the Financial Services industry group was rated at the "Significant Impact" level for 2030. In this year survey, however, there are eight risk issues rated at the "Significant Impact" level for 2031. In addition, there are substantial increases in risk scores for numerous risk issues — among them, the possibility that economic conditions (including inflationary pressures) may restrict growth opportunities or impact margins, the interest rate environment, substitute products and services, and ease of entrance of new competitors into the industry and marketplace. Among other factors, these last two risk issues could be more top-of-mind due to emerging fintech and cryptocurrency organisations.

We believe the increased scores for 2031 risks largely reflect the trends we mentioned earlier about how financial institutions are feeling increasingly confident in their ability to manage the impacts of the acute pandemic phase of COVID, however much longer it will last. This has given executives the ability to start to focus on longer-term risks that carry much less certainty in how they will unfold or confidence in how their organisations should manage them. The impact that transitioning through COVID will have on macroeconomic conditions, inflation trends, and where and how financial institutions serve their customers (and in turn, who will provide those services and where and how those employees, contractors and robots work) is impossible to quantify yet, but almost certainly will be larger than that of any other event in our working lifetimes. We also expect that the longer the pandemic phase lasts and the greater the ongoing health and safety impacts are even when we start to "live with COVID," the greater the differences between the pre-COVID and post-COVID economies will be. In that context, heightened concerns about forward-looking risks seem justified.

Conclusions

The 2022 Top Risks survey results reflect a resilient financial services industry that is nevertheless acutely sensitive and responsive to the growing long-term threats of disruption to its business model. Although COVID is not going away, the industry has made great strides in learning to operate effectively and profitably in spite of it. The economic collapse in demand and credit crisis that appeared quite possible 18 months ago is an increasingly distant memory. New ways of working created by the pandemic — classic examples of the old saying that necessity is the mother of invention — have unlocked client service delivery and workforce innovations that are likely here to stay for the long term.

At the same time, financial institutions face unrelenting pressure to invest in technology and fend off a growing threat from digital disruptors. How the industry responds to ESG demands — both with respect to its own operations directly as well as those of the clients that it lends to, invests in and insures — will become increasingly important. Finally, employees have gained power they haven't had in decades and will be increasingly open to changing firms as a result. Compensation will remain a critical consideration and labour costs will increase as a result, but other factors including work-life balance, hybrid

TABLE OF CONTENTS

flexibility, and comfort level with the culture and values of the organisation will also become increasingly important retention drivers.

All in all, our 2022 survey results are significantly more optimistic than last year's, but also demonstrate increasing awareness of the emerging risks that lie around the corner from COVID.

> "Financial institution executives are at once more confident in their ability to navigate the immediate challenges COVID-19 continues to present, while also less certain about and increasingly focused on the challenges that they'll face in the transformed economy that will follow the pandemic phase. Concerns about labour shortages and access to talent, the need to keep up with digital transformation trends, and fending off emerging competitors in a difficult interest rate environment are at the forefront of this year's results."
>
> **MICHAEL BRAUNEIS**
> Managing Director, Financial Services Industry Leader, Protiviti

Consumer Products and Services – 2022

FIGURE 21A

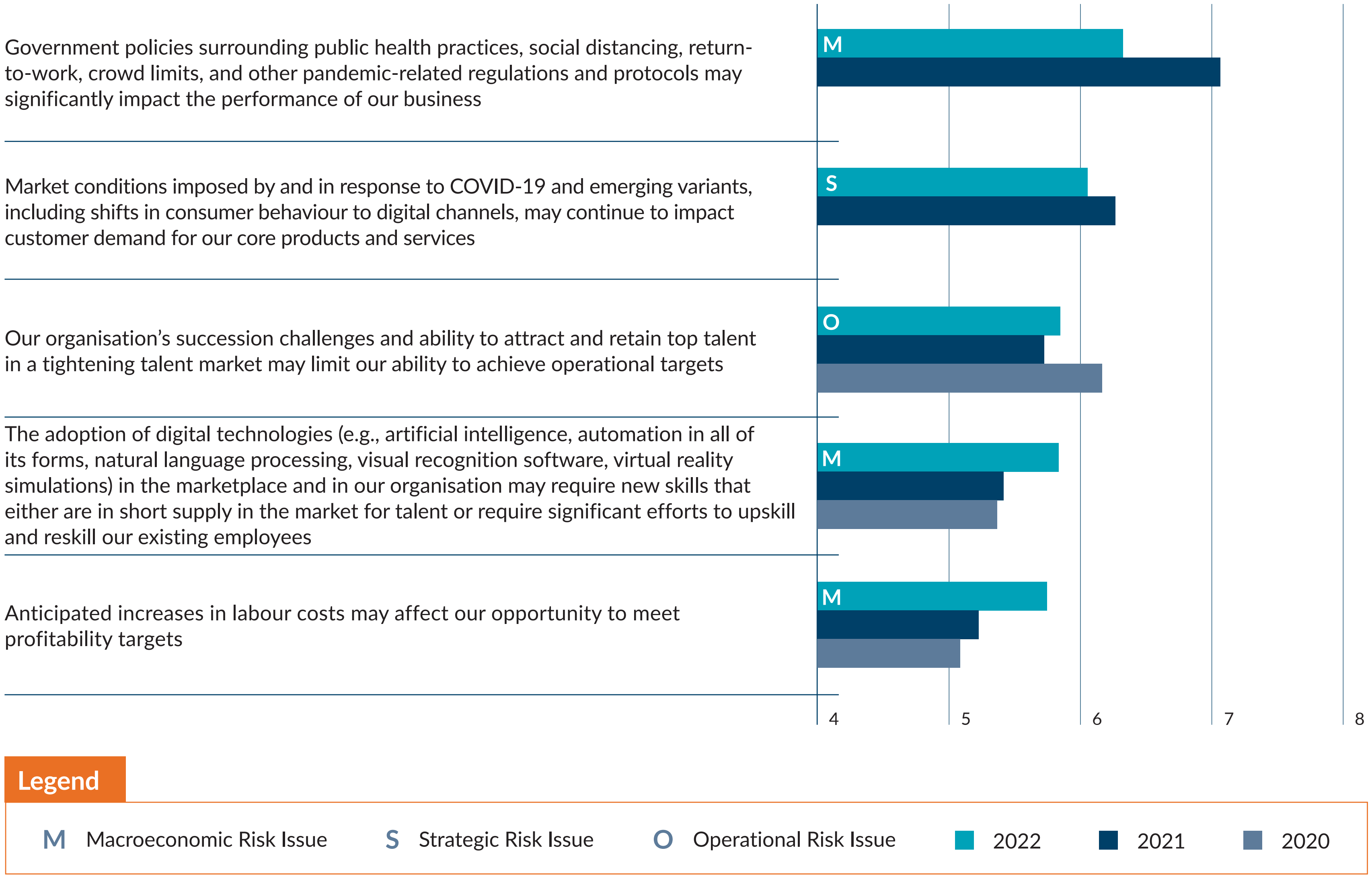


TABLE OF CONTENTS

Consumer Products and Services – 2031

FIGURE 21B

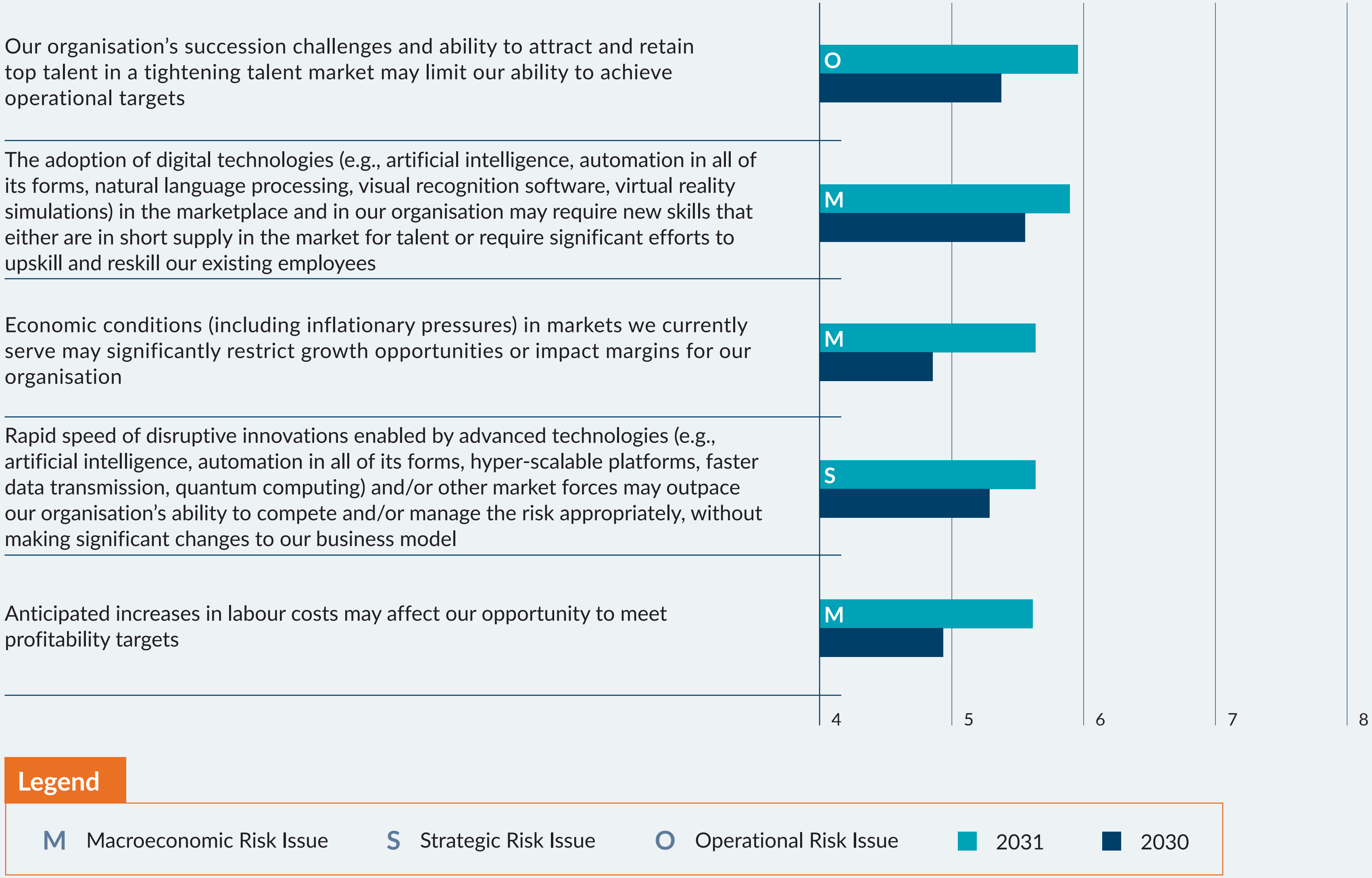


TABLE OF CONTENTS

Whether it's disruptive technologies, supply chain bottlenecks, rising costs, labour shortages, data breaches, or restrictive government policies, the Consumer Products and Services (CPS) industry group faces numerous market-changing risks in 2022 and beyond. These risk issues and more are identified in Protiviti's latest annual Top Risks Survey, which polled C-suite executives around the globe from different industries on their perceptions of risks to their business in the coming year and a decade from now.

The key risk issues that are weighing on the CPS industry group, including the hospitality and airline sectors, are discussed below.

Heightened regulatory environment

In 2020, government restrictions on travel, congregating for social events and opening businesses had a devastating impact on organisations of all types and sizes. Heading into the new year, many CPS organisations (including retailers and consumer packaged goods companies) are weary of governments continuing to impose tighter restrictions on the movement of goods and people, especially if there is another breakout or should the virus become an endemic problem, which by all accounts it appears it probably will. This is the foremost risk issue identified by respondents in retail and the broader CPS industry group.

The consumer packaged goods industry also views pandemic public health policies as a major threat to their business, with survey respondents ranking it third on their top-risk list. In September, the Consumer Brands Association, which represents consumer packaged goods companies, expressed concern over conflicts between federal government guidance on vaccine requirements and certain state and local rules.[14] It sought clarification on requirements for documenting proof of vaccination, addressing claims of natural immunity, falsified test results, and resolving collective bargaining agreements.

For an industry that isn't accustomed to being heavily regulated, the post-pandemic period has introduced an uncomfortable new era of heightened regulation for CPS organisations. As an example, the Biden administration has stepped up efforts on price gouging and anticompetitive practices as part of its plan to address supply chain issues that are driving prices up for consumers. The administration's data privacy crackdown, enforcement of antitrust laws and investigations of so-called anticompetitive mergers are all part of an intensifying regulatory landscape that is impacting all CPS organisations.[15]

This heightened regulatory environment requires companies to pay closer attention to government policies and strengthen their compliance programmes to flag potential problems before they materialise into bigger issues.

Supply chain, inflation and workforce-related challenges

The global supply chain has been in crisis for several months, but with the holiday season in full swing, retailers and consumer products companies across the world are scrambling to stock up on items that, for various reasons, are stuck on factory floors and on container ships. In the 2022 survey, consumer packaged goods respondents ranked the supply chain crisis their number one risk issue, above even market conditions related to the pandemic and pandemic-related government policies.

Regarding the workforce, Amazon recently noted that the labour shortage on top of inflation added $2 billion of operating costs in the third quarter, particularly in August and September. CFO Brian Olsavsky projects this cost will likely be close to $4 billion in the fourth quarter. In another example of the rising cost of labour, Costco increased its minimum wage to $17 an hour in August, the second time it had done so in the last eight months.[16] If the labour issue worsens, CPS organisations fear that it would restrict growth opportunities or impact their margins in 2022 and beyond.

[14] https://consumerbrandsassociation.org/wp-content/uploads/2021/09/Letter-to-President-Biden-on-Vaccination-Requirements-Questions-9.13.21-1.pdf.

[15] www.protiviti.com/US-en/insights/white-papers-finding-equilibrium-era-heightened-regulation.

[16] www.businessinsider.com/costco-raising-wages-to-17-an-hour-2021-10.

Like all other consumer businesses today, inflation is weighing very heavily on the minds of CPS industry leaders. This issue ranks in the top 10 for all the various sectors in the CPS industry groups. While the Federal Reserve insists that current inflationary pressures are "transitory," some economists disagree.[17] Regardless, CPS companies should spend more time and effort building their pricing strategy and understanding their outsourcing and concentration risks to develop effective mitigation strategies against supply chain challenges. Also, this is a good time to seriously consider using strategic sourcing, an information-based process for developing a superior procurement ecosystem.[18]

Pandemic's impact on market and economic conditions

The impact of market conditions due to COVID-19 and emerging variants on customer demand is another lingering concern identified by CPS respondents in the survey. Fear that the pandemic could continue to upend consumerism in 2022 and beyond doesn't come as a surprise. Since the beginning of 2020, while some retail and consumer packaged goods sectors experienced record revenue growth (like pharmacies, grocery stores, household products, and food and beverage providers), many brick-and-mortar retailers (e.g., apparel and department stores), especially those without a strong online and digital presence, have struggled to keep their businesses afloat.

In addition to the pandemic, the ability of companies' business models to adapt to emerging social change is cited as a top risk issue. This concern underscores the very clear message that business leaders have come to recognise in recent years and throughout the pandemic: Companies that fail to address environmental, social and governance (ESG) issues or embed ESG principles into their DNA could incur significant economic costs and brand erosion as well as jeopardise their ability to earn long-term, sustainable profits going forward.

Digital disruption

To succeed in an increasingly omnichannel world, CPS companies (including those selling direct to consumers) are adopting technologies to improve internal processes, engage with customers more fully, and enhance overall customer experience. As an example, brick-and-mortar footwear retailer Payless opened its first concept store in March 2021, providing an immersive, omnichannel experience with features like interactive touch screens and augmented reality-driven foot measurement charts.[19]

While companies are eager to adopt these technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) they recognise that to do so may require new skills that either are in short supply in the market for talent or may require significant efforts to upskill and reskill existing employees. The survey shows this to be the fourth top risk issue for the retail industry, and among the top 10 risk issues identified by consumer packaged goods respondents overall.

Closely related to this issue is another concern around legacy IT infrastructure and lack of digital expertise in the workforce (including in the C-suite and boardroom), which many CPS respondents fear may result in failure to meet performance expectations related to quality, cost, time to market and innovation as well as competitors, especially rivals that are either "born digital" or investing more heavily in technology. The inability to adjust to changing customer preferences and needs can impair competitiveness.

For CPS organisations caught in this age of digital disruption, it is important that their leaders understand their brand purpose and invest in the technologies that enable, align to and help project that purpose. CPS organisations that do

[17] www.federalreserve.gov/newsevents/pressreleases/monetary20211103a.htm.

[18] https://blog.protiviti.com/2020/09/10/beyond-supply-chain-stopgaps-how-strategic-sourcing-can-drive-resilience-in-todays-market/.

[19] https://finance.yahoo.com/news/payless-opens-first-brick-mortar-135200862.html?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuYmluZy5jb20v&guce_referrer_sig=AQAAAD2dCtMh8rjNiz2DPr7u3v98OvBPDsiRD5iyQSE2nuX0aUfxsFsmIFxCdw280Cxq6-bfK_UBEAi4fWst0uukJAlaWVgz1m_3mgjiyFul8UHiogcQuAWHJbVkkp8sa9dom8fgmWxesG85u5FH84mrmR-8UkXQ2dregDvN_0LIjSWE.

not anchor to brand purpose[20] run the risk of spending millions of dollars on technologies that do not align to what customers care about, and may hurt their ability to sustain customer loyalty and retention.[21]

Hospitality, leisure and travel risks

Survey respondents in the hospitality, leisure and travel industry identified the impact of the pandemic and emerging variants on customer demand for their products as their number one top risk issue in 2022, followed by government policies and anticipated increases in labour costs.

No doubt a potential new outbreak this winter or next spring would have a chilling effect on travel plans, particularly business travel, which is slowly picking up. Also, additional government mandates on crowd limits, vaccinations and other public health practices could worsen the already dire financial situation of restaurants, cruise lines, nightclubs and other leisure establishments.

Even before the pandemic, labour costs in the hospitality sector were rising, with millions of jobs unfilled. Conditions have since worsened, with hotels struggling to staff cleaners and front desk workers, and restaurants cutting operating hours (many are open only five days a week) because they can't find enough waiters or cooks.

One piece of good news for many large operators in the hospitality, leisure and travel industry is that their business model is less susceptible to the current inflationary pressures. The pricing model for hotels, for example, allows room rates to be adjusted nightly, depending on demand and other criteria.

The emerging social change is both a source of risk and a growth opportunity. Increasingly, the sector's largest organisations are prioritising supplier diversity, employee diversity, equity and inclusion, as well as sustainability issues (e.g., reducing carbon footprint and launching green initiatives). Hospitality industry leaders recognise the need to adapt to the changing expectations of their customer base, but they also know, as the survey confirms, that they could find themselves at a disadvantage if they fail to respond.

Airlines

Pandemic-driven travel restrictions have had a devastating impact on airlines, so it is no surprise that restrictive government policies sit above all the 2022 risk issues for airline respondents in this survey. Should there be another outbreak of COVID-19 or its variants, the severity of impact on flying customers, particularly business travellers, and on the workforce, especially pilots, flight attendants and mechanics, cannot be overstated.

In recent months, airlines in the United States have been working on coming into compliance with the Biden administration's vaccination and regular testing mandate for companies with more than 100 employees. Additionally, since many are government contractors, they must meet the administration's vaccination requirements, without the testing option, requiring close attention to compliance. Reports of flight disruptions due to workers calling in sick or refusing to vaccinate have been on the rise.

In the survey, airline respondents identified their ability to access sufficient capital or liquidity as the fourth top risk issue in 2022. The airline industry had hoped to see an uptick in revenue during the summer until the Delta variant sent COVID-19 cases soaring again. Since many airlines operate on low margins, flying half-loaded planes during the summer created a significant cost burden. Based on that experience, the industry is taking a more conservative capital approach heading into 2022. For example, some airlines are financing new aircraft purchases, rather than outright acquisition, to conserve cash and free up liquidity.

Also, airline respondents listed difficulty in identifying and implementing growth opportunities through acquisitions, joint ventures and other partnership activities as a top risk in

[20] https://blog.protiviti.com/2021/08/12/amplify-customer-experience-to-propel-next-level-growth/.

[21] Learn more about how your organisation can transform itself using automation and technology in Protiviti's *Guide to Technology Modernization and Transformation*: www.protiviti.com/US-en/insights/report-guide-technology-modernization-transformation.

TABLE OF CONTENTS

2022. This is expected given the industry's capital constraints and need to take a conservative approach during this unstable environment.

The survey confirms that sustainability is a front-and-centre issue for airlines. They are being driven to act by their corporate customers, who are asking them to declare their sustainability practices so customers can gauge whether they align with their own sustainability goals. As such, many of the larger airlines have committed to reduce carbon emissions intensity and cabin waste, regularly use sustainable fuel sources, and maintain carbon-neutral growth, among other sustainability goals.

Looking a decade ahead

Like in previous years, survey respondents in this industry group were asked to identify risk issues they expect over the next decade. Consumer packaged goods respondents, for example, foresee the current supply chain disruptions persisting beyond 2022, and cited that as their number one risk issue over the next decade. They also included the inability to use sufficiently advanced data and predictive analytics and "big data" to achieve insightful and actionable market intelligence as a potential threat to the management of their core operations and execution of strategic plans.

Looking into their crystal ball, retailers identified the impact of digital disruption on upskilling and reskilling employees, and rising labour costs as the two top risk issues for 2031. Not surprisingly, these issues are among the top five risk issues cited by the CPS industry group overall. CPS industry respondents also cited two strategic risks in their 2031 response: difficulty sustaining customer loyalty and retention due to evolving customer preferences and/or demographic shifts in their existing customer base and losing market share to new entrants into the industry and marketplace.

"Today's business challenges, which include the biggest surge in U.S. inflation in 30 years, supply chain bottlenecks, stiff competition and digital disruption, require organisations to think differently, act quickly and communicate confidently. The current risk environment presents an opportunity for CPS companies to incorporate technology and sustainability into their business models, as well as invest in resources that will enhance their understanding of the many complex changes in consumer preferences and behaviours stimulated by the pandemic."

CAROL RAIMO
Managing Director, Consumer Products and Services Industry Leader, Protiviti

Manufacturing and Distribution – 2022

FIGURE 22A

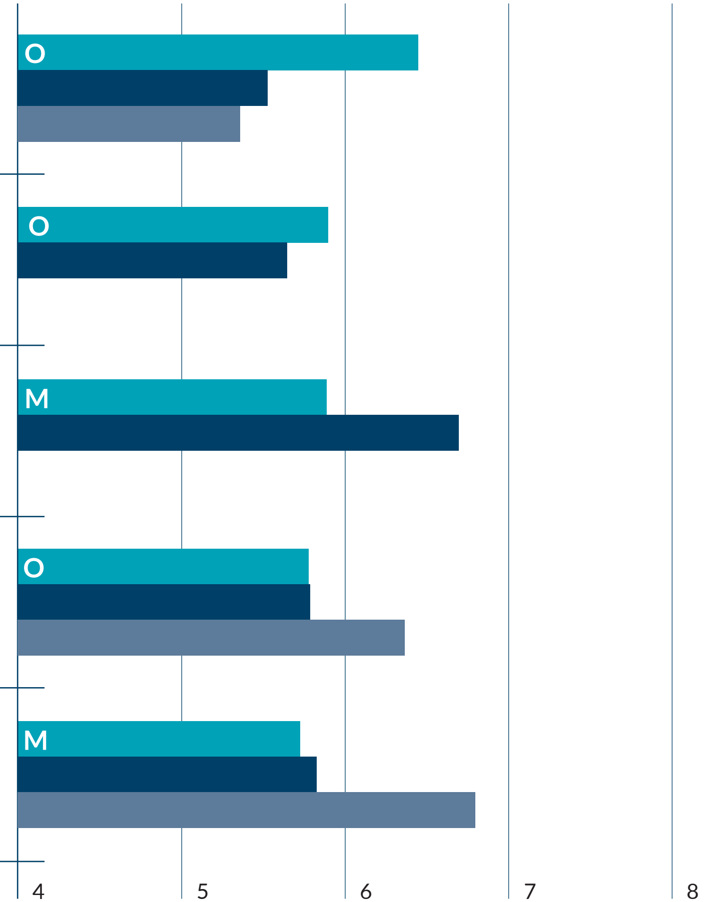
Uncertainty surrounding our organisation's core supply chain including the viability of key suppliers, scarcity of supplies, volatile shipping and delivery options, or stable prices in the supply chain ecosystem may make it difficult to deliver our products or services at acceptable margins

Ongoing demands on or expectations of a significant portion of our workforce to "work remotely" or increased expectations for a transformed, collaborative hybrid work environment may negatively impact the effectiveness and efficiency of how we operate our business

Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business

Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets

Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation



Legend

M Macroeconomic Risk Issue S Strategic Risk Issue O Operational Risk Issue ■ 2022 ■ 2021 ■ 2020

Manufacturing and Distribution – 2031

FIGURE 22B

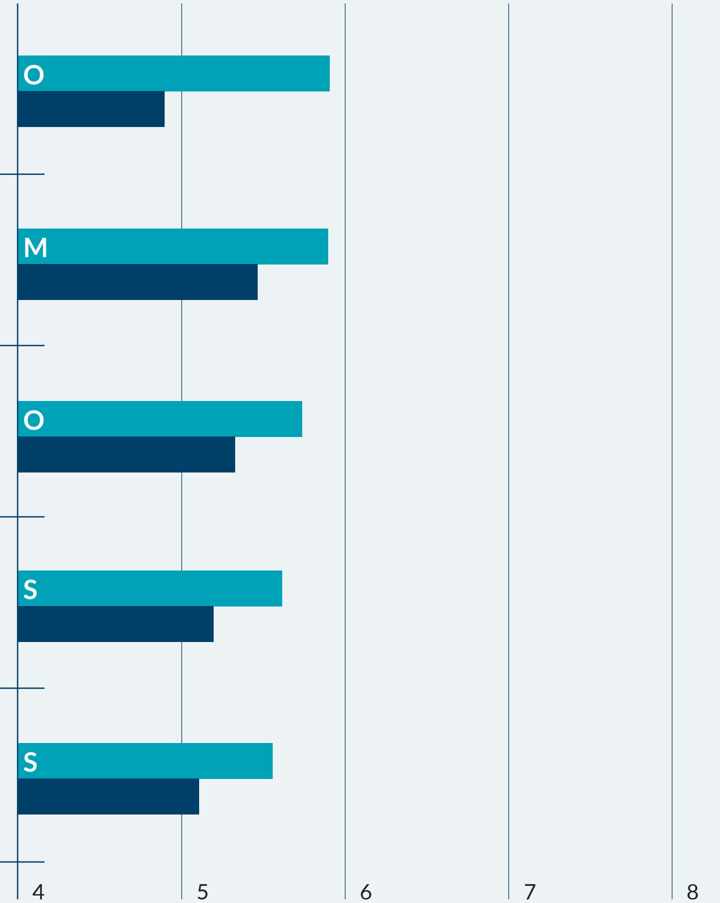
Uncertainty surrounding our organisation’s core supply chain including the viability of key suppliers, scarcity of supplies, volatile shipping and delivery options, or stable prices in the supply chain ecosystem may make it difficult to deliver our products or services at acceptable margins

The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees

Our organisation’s succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets

Substitute products and services may arise from competitors that may enhance the customer experience and affect the viability of our current business model and planned strategic initiatives

Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation’s ability to compete and/or manage the risk appropriately, without making significant changes to our business model



Legend

M Macroeconomic Risk Issue S Strategic Risk Issue O Operational Risk Issue 2031 2030

For organisations in the Manufacturing and Distribution industry group, the story for the coming year is about supply chain concerns, resource and talent challenges, culture and hybrid work environments, and digital transformation. Longer-term, looking out over the next decade, the supply chain and people-related issues remain notable risks, and there also are greater concerns compared to the near term with regard to competition and disruptive innovations in the marketplace.

Overview of top risk issues in 2022

As expected, supply chain concerns, including the viability of key suppliers and the scarcity of supplies, uncertainty around shipping and delivery, and increasing prices represent the top risk issue for organisations in the Manufacturing and Distribution industry group. While not a surprise, the rise in this risk concern is dramatic — not only is its risk score a full point higher than the prior year, but this top-ranked risk issue for 2022 did not even appear in the top 10 list for the past two years.

The reasons are evident: Every organisation experienced supply chain challenges at the onset of the pandemic that have lingered longer than first predicted. In fact, the pandemic has magnified systemic longer-term challenges in the supply chain, including but not limited to just-in-time inventory models with razor thin margins for error. As materials and finished goods move from vendors to factories to customers, there are more opportunities for bottlenecks that can have a domino effect in creating major problems.

Starting in 2020, the falling dominoes have included, but haven't been limited to, labour challenges (e.g., shortages of truck drivers and warehouse workers, as well as furloughed staff who elected not to return), both intermittent and prolonged plant shutdowns around the world due to COVID-19-driven variants and surges, delayed logistics (e.g., ship, rail, trucking), and materials shortages coupled with rising commodity prices. Throughout 2021, these issues remained and created ripple effects that hampered recovery among manufacturers. Clearly these challenges are expected to remain through much of 2022, though many experts predict that the situation is at its worst today and, by later in 2022, there should be marked improvements on several fronts in the supply chain.

Executive teams also are struggling with how to establish effective and efficient remote/on-site working models, thus raising this risk from ninth in 2021 to second on this year's list. Also of note: A new risk included in this year's survey, related to changes in the overall work environment, including shifts to hybrid work environments impacting an organisation's culture and way of doing business, landed in the top 10 for the industry group. As manufacturing and distribution organisations approach the two-year mark in the pandemic, they are in the midst of trialling various work-from-home/return-to-work scenarios as they attempt to balance stakeholder expectations with those of their employees. As in many industries, the path to reach this evolving "new normal" has not been easy to define as management weighs productivity, operational considerations and possible vaccination mandates against employee concerns and even a potential exodus of talent. Short- and long-term effects of these dynamics on culture and operations are still to be determined.

These issues also are tied to the third-ranked risk issue related to government policies surrounding public health practices and various pandemic-related regulations. Compared with this point last year, global manufacturing companies have had some time to navigate the initial uncertainties created by the pandemic and digest local regulations and protocols in the various geographic regions in which they operate. That said, this remains a highly rated risk issue considering the evolving nature of regional requirements, including but not limited to return-to-workplace guidelines and potential vaccination mandates, all while pandemic spikes and variants continue to emerge.

A prevailing story for most industries over the past year has been the tight labour market and challenges in recruiting and retaining skilled talent. Manufacturing and distribution organisations have not been immune to these issues, as indicated not only in the results for 2022 but also in survey findings from prior years. In most regions over the past several years, unemployment rates in the manufacturing industry have hovered below overall unemployment levels. Manufacturers

TABLE OF CONTENTS

also face long-term challenges with hiring people in the locations where they are needed, as remote work is not always an option and manufacturing facilities typically are not located in more populous urban areas. And more of these organisations have prioritised finding workers with new skillsets that can focus on technology innovations transforming the industry. In addition, manufacturing and distribution organisations are experiencing higher talent attrition, similar to most other industries. These are among the many factors further compounding challenges to hire and retain a skilled workforce.

Interestingly, while economic conditions remain a top five risk issue for 2022, it fell from its typical first or second place position to fifth on this year's list. The risk score has also dropped more than one point compared to the 2020 mark. Still, most of the top five risks for the Manufacturing and Distribution industry group are contributing to perceptions around economic uncertainty. There also are significant near-term concerns about global inflation and resulting higher prices for commodities, goods and services. While inflation is placing pressure on manufacturing and distribution organisations (as it is in most industries), there is a general belief that current inflationary trends are temporary, which may be why there is slightly less concern about economic conditions compared with views in prior years.

Overview of top risk issues in 2031

Assessing the results of the 10-year risk outlook, an immediate takeaway is that risk scores have risen notably compared with our prior year results for the next decade. It's likely that the longer-than-anticipated tail of the pandemic is shaping the view that the outlook for the next 10 years could be riskier than expected at the onset of the crisis in early 2020.

Interestingly, in the 10-year view of risk issues, supply chain uncertainties and their potential impacts remain atop the list (similar to the 2022 risk outlook). Even though the current supply chain challenges and disruptions are anticipated to be relatively short-term in nature, some industry experts view them as having an extended tail, highlighting the overall fragility of the manufacturing industry's complex global supply chain and its impact on day-to-day operations. With expectations that current supply chain constraints will not moderate until later in 2022, manufacturing and distribution organisations likely are focusing on how to build longer-term resiliency into their supply chains. This may involve introducing changes to certain aspects of their supply chain or operations, such as more diversified sourcing, increased safety stock and new physical locations, to mitigate the long-term risks of recurring supply chain disruptions, especially in a fast-changing global business environment.

Another prevalent 10-year theme relates to people. Similar to the view of top risks for 2022, succession challenges and the ability to attract and retain talent is perceived to be a key challenge for the next decade. Falling just below the top five for 2031 is the risk issue related to changes in the overall work environment, including shifts to hybrid models, and how they may lead to challenges to sustaining the organisation's culture. In addition, risk issues related to the adoption of digital technologies and the rapid speed of disruptive innovations tie back to a greater need for new skills, as well. These issues underscore how talent acquisition and retention, together with culture, are expected to be ongoing challenges over the next decade.

There also are long-term concerns related to competition. The scores for risk issues related to strategic shifts in the market – adoption of digital technologies, substitute products and services, rapid speed of disruptive innovations – show notable increases compared with our prior year results. Staying competitive in a changing business climate and embracing new technologies and so-called Industry 4.0 approaches will be key priorities for boards and executives in the Manufacturing and Distribution industry group.

In closing, there are notable trends in the scores for the risk related to climate change policies and regulations, along with rising expectations among key stakeholders related to these issues.

TABLE OF CONTENTS

While not in the top 10 industry group risk issues for 2022 or 2031, the risk scores show an upward trend in both the 12-month and 10-year outlooks. The impact of climate change on strategies and business models and other ESG issues represent growing concerns for boards and executives in manufacturing and distribution organisations. We anticipate the significance of these issues will continue to increase in the form of higher risk scores in the coming years.

"Within the Manufacturing and Distribution industry group, the pandemic has had some unique effects that are making recovery and a return to 'normal' operations especially challenging. Supply chain pressures over the past year have been well-documented, yet there are related challenges that are contributing to bottlenecks in numerous interconnected areas throughout manufacturing and distribution organisations. Worker shortages, intermittent plant shutdowns amid COVID-driven peaks and valleys, logistics delays, microchip shortages, and even the more limited availability of commodities like wood have had serious ripple effects that boards and executive management continue to address. Couple this with navigating vaccination requirements in different jurisdictions, establishing hybrid work models in an industry where in-person work is frequently required, and planning and implementing Industry 4.0 transformation, it's no surprise to see uncertainty within the industry group for 2022 and the next decade."

SHARON LINDSTROM
Managing Director, Manufacturing and Distribution Industry Leader, Protiviti

TABLE OF CONTENTS

Technology, Media and Telecommunications – 2022

FIGURE 23A

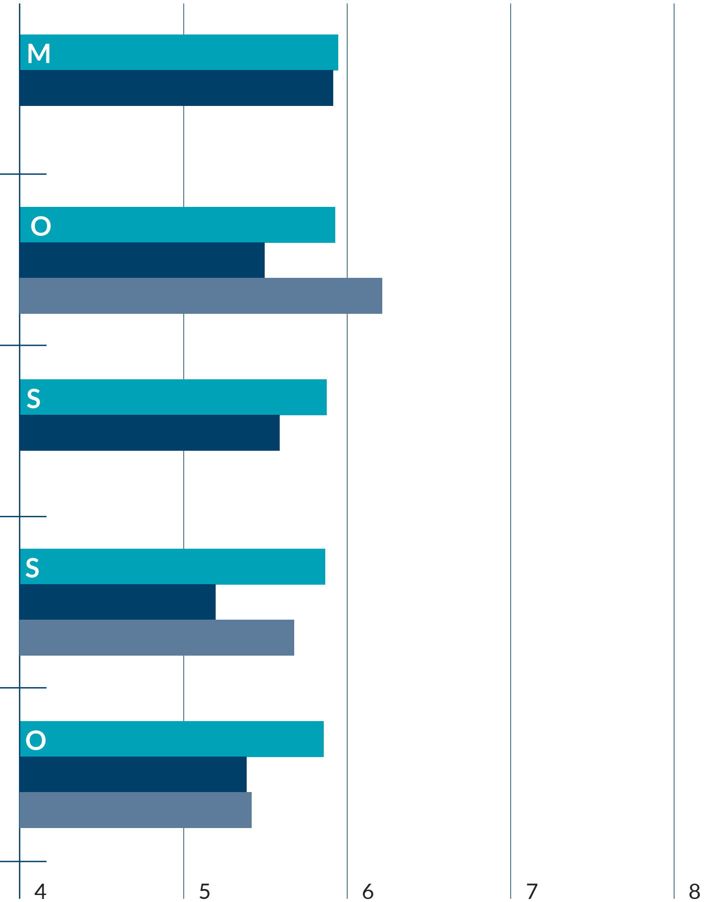
Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business

Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets

Market conditions imposed by and in response to COVID-19 and emerging variants, including shifts in consumer behaviour to digital channels, may continue to impact customer demand for our core products and services

Our organisation may not be sufficiently resilient and/or agile to manage an unexpected crisis significantly impacting our reputation

Third-party risks arising from our reliance on outsourcing and strategic sourcing arrangements, IT vendor contracts, and other partnerships/joint ventures to achieve operational goals may prevent us from meeting organisational targets or impact our brand image



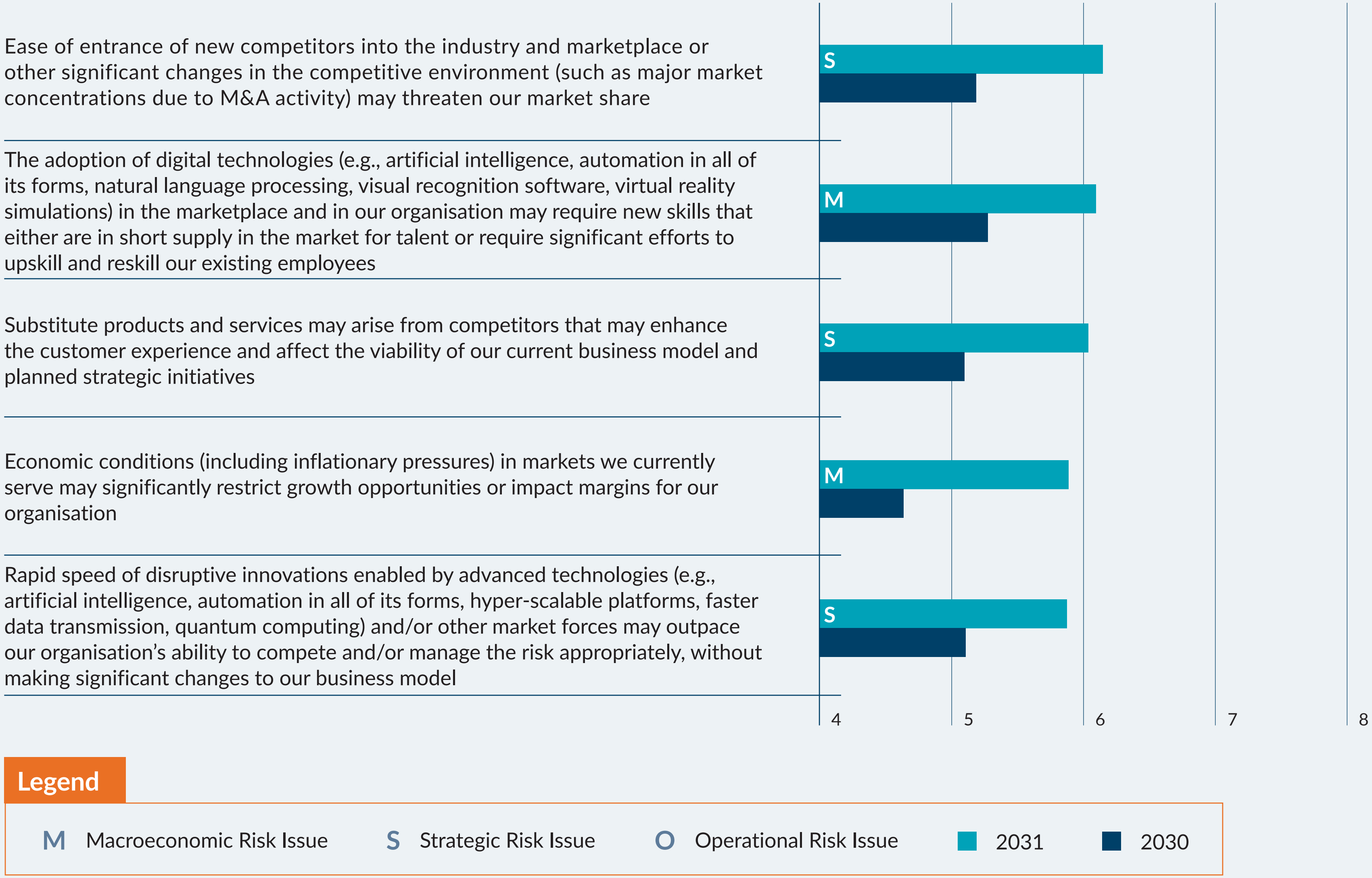
Legend

M Macroeconomic Risk Issue S Strategic Risk Issue O Operational Risk Issue 2022 2021 2020

TABLE OF CONTENTS

Technology, Media and Telecommunications – 2031

FIGURE 23B



Restrictive government policies, the talent shortage, third-party outsourcing arrangements, disruptive digital technologies, and, of course, the persisting pandemic are the dominant risk issues being discussed in boardrooms and executive suites across the Technology, Media and Telecommunications (TMT) industry group. These risk issues and more are cited in Protiviti's latest annual Top Risks Survey, which polled C-suite executives from different industries globally on potential threats to their business in the coming year and a decade from now.

Despite the TMT industry group's remarkable demonstration of resilience and innovation over the past 23 months, the survey shows industry leaders remain concerned about a broad range of risks that are creating significant levels of uncertainties.

Fallout from the pandemic

There is no single issue that has permeated perceptions of risks more than the pandemic.

For instance, even though the more restrictive pandemic-related regulations (e.g., shelter-in-place orders) have been eased in many parts of the world, the potential impact of new government policies on business performance remains at the top of TMT executives' most pressing risk issues. This concern, which was also the number one risk last year, reflects the widespread impact of doing business under aggressive rules introduced to curb the spread of COVID-19 and related new variants.

In 2020, government restrictions on travel, congregating for social events and opening businesses had devastating impacts on organisations of all types and sizes. Going into 2022, there is clearly a lingering fear that governments may still impose tighter restrictions on the movement of goods and people should there be another breakout or should the virus become an endemic problem, which is appearing to be more likely with the passage of time.

Overall, the post-pandemic period has introduced a new era of heightened regulation for the TMT industry. For instance, one major concern is the Biden administration's stepped-up efforts on price gouging and anticompetitive practices as part of its efforts to address supply chain issues that are plaguing companies of all industries and driving prices up for consumers. Also, the administration's data privacy crackdown, vigorous enforcement of antitrust laws and investigations of so-called anticompetitive mergers are all part of an intensifying regulatory landscape.[22]

TMT business leaders perceive the impact on customer demand of market conditions imposed by and in response to the coronavirus as one of the biggest threats to their companies — it comes in at number three in this year's top-risk rankings. While these pandemic-related concerns are valid, it is worth noting that the TMT industry's tech-savvy workforce has proven more capable of dealing with related disruptions than other industry sectors.

The talent gap

Succession challenges and the industry's ability to attract and retain top talent is a much bigger concern in the 2022 survey. This risk was not on the top five list last year, but it moved up to become the second top risk issue for TMT executives and board members. This result shows that while C-suite turnover for large TMT firms has largely remained stable, grooming the next generation of leaders has taken on a new sense of urgency in today's labour-stretched market.

Robert Half's October 2021 Hiring Trends study underscores this urgency.[23] According to the research, 80% of technology leaders said turnover has increased on their team since Jan. 1, 2021, mainly due to employees' concerns for their job security. The same research shows 82% of senior managers in the tech industry plan to hire contract workers to support year-end initiatives.

Closely related to the succession issue is the digital talent gap, which has long been a source of concern of sectors falling into this industry group. In the 2021 survey, TMT respondents identified talent needed to adopt new digital technologies as their second top risk issue. While the perception of this threat has fallen to number six in the latest survey, it is clearly a threat that isn't going away, given the demands of customers

[22] www.protiviti.com/US-en/insights/white-papers-finding-equilibrium-era-heightened-regulation.

[23] www.protiviti.com/US-en/insights/pov-resilience-practices-help-firms-mitigate-third-party-risks.

for technology-enabled services and the rapid manner in which digital tools are being adopted in every function to meet operational goals.

Resilience versus risks

Prudent business leaders understand that resilient organisations need to have contingency plans in place to address threats, whether mild or severe, that could impact their business. In today's dynamic risk environment, boards (and increasingly regulators) are demanding that executives demonstrate how their organisations are building resilience against known and unknown threats.

In the 2022 survey, TMT leaders identified the potential reputational impact of not being sufficiently resilient and/or agile enough to manage an unexpected crisis as their fourth top risk issue. This result is not a surprise. Whether a cyberattack or data privacy breach, technology outage, environmental or labour troubles, there's no shortage of events that can create reputational issues for TMT organisations.

Sometimes these reputational issues emanate from third-party relationships. For example, recently, an internet outage at a major content delivery network provider temporarily knocked out several major web sites around the world. Fortunately, customers were able to mitigate the impact of the outage by shifting workloads to alternate providers, proving the resilience concept of substitutability.[24] Still, TMT business leaders perceive third-party risks arising from their reliance on outsourcing and strategic sourcing arrangements, such as IT vendor contracts, as a significant risk, ranking it the fifth top risk issue in 2022.

Other top ten risks

Concerns over the current supply chain crunch, which is related to the pandemic, and inflation, which is partly driven by supply and demand imbalances, are in the top ten risk issues identified by TMT leaders, many of whom are grappling with major component shortages. While some economists are sounding an alarm that high prices are likely to continue well into 2022 and beyond, the Federal Reserve, in a recent statement, insisted that the inflation will be temporary because the factors causing it are "expected to be transitory."[25] The situation is a fluid one that bears watching closely.

In addition to the uncertainty over economic conditions, TMT business leaders cited disruptive innovation (such as artificial intelligence or quantum computing) and cultural issues that may hinder timely identification of risk among their top ten risk issues of 2022.

Looking a decade ahead

Like in previous years, TMT respondents were asked to look into their crystal ball and identify risk issues they expect over the next decade. Competition driven by new entrants into the industry, difficulty bridging the digital talent gap, and the rapid speed of disruptive innovations were among the top five threats identified over the next decade. They also cited economic conditions, including inflationary pressure, and fear of substitute products and services affecting the viability of their business models.

> "TMT companies are trying to find the optimal balance between the push for innovation and growth and the pull of regulation, even as they navigate today's complex risk landscape. To meet operational targets and protect their brand and reputation, companies must develop a strong understanding of the changing expectations of today's customers, governments and other key stakeholders. This daunting task requires greater investment in time and expertise to analyse, monitor and devise strategies to address threats, whether mild or severe, that could impact their business."
>
> **GORDON TUCKER**
> Managing Director, Technology, Media and Telecommunications Industry Leader, Protiviti

[24] www.protiviti.com/US-en/insights/pov-resilience-practices-help-firms-mitigate-third-party-risks.

[25] www.federalreserve.gov/newsevents/pressreleases/monetary20211103a.htm.

Healthcare – 2022

FIGURE 24A

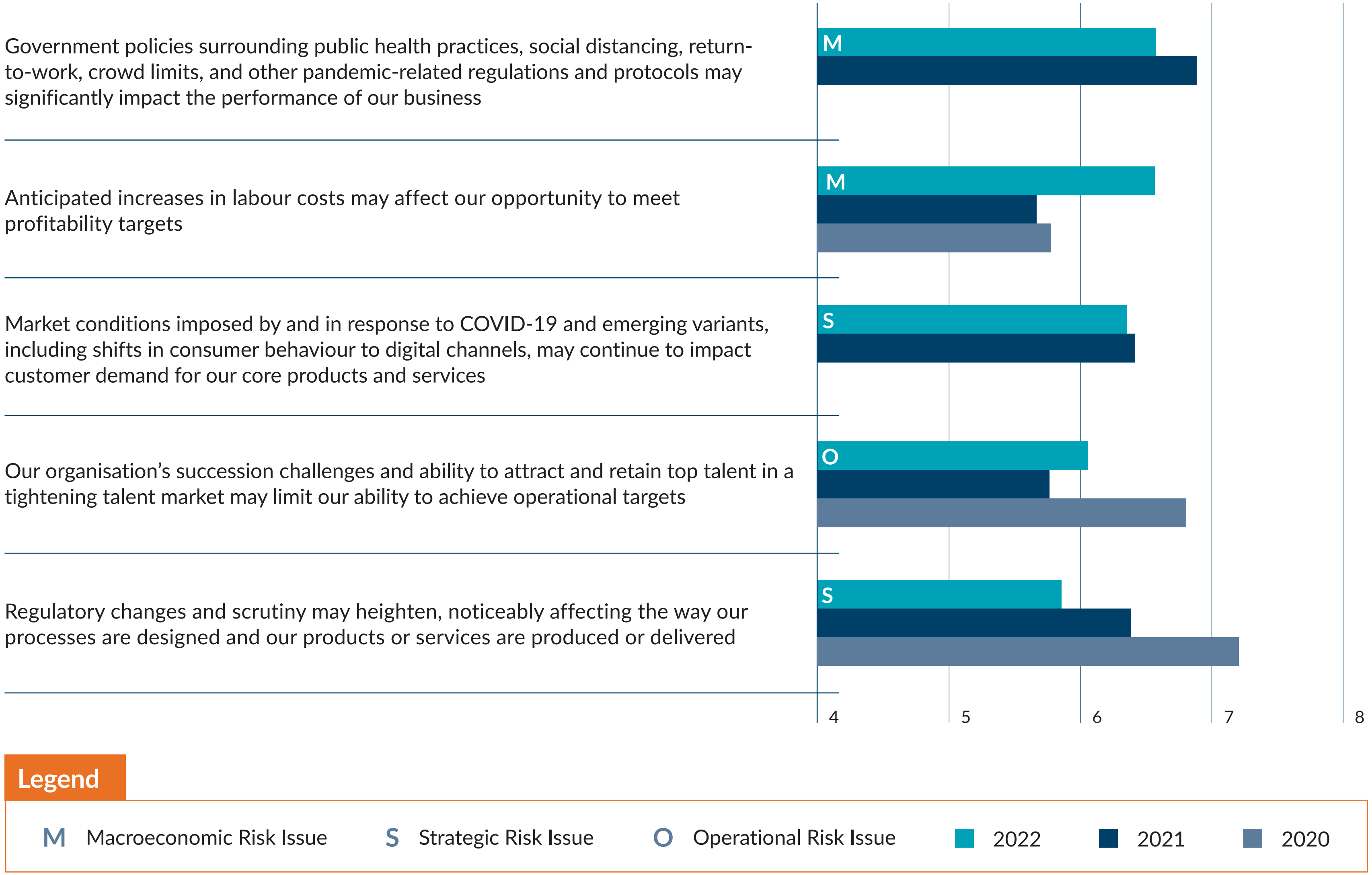


TABLE OF CONTENTS

Healthcare – 2031

FIGURE 24B

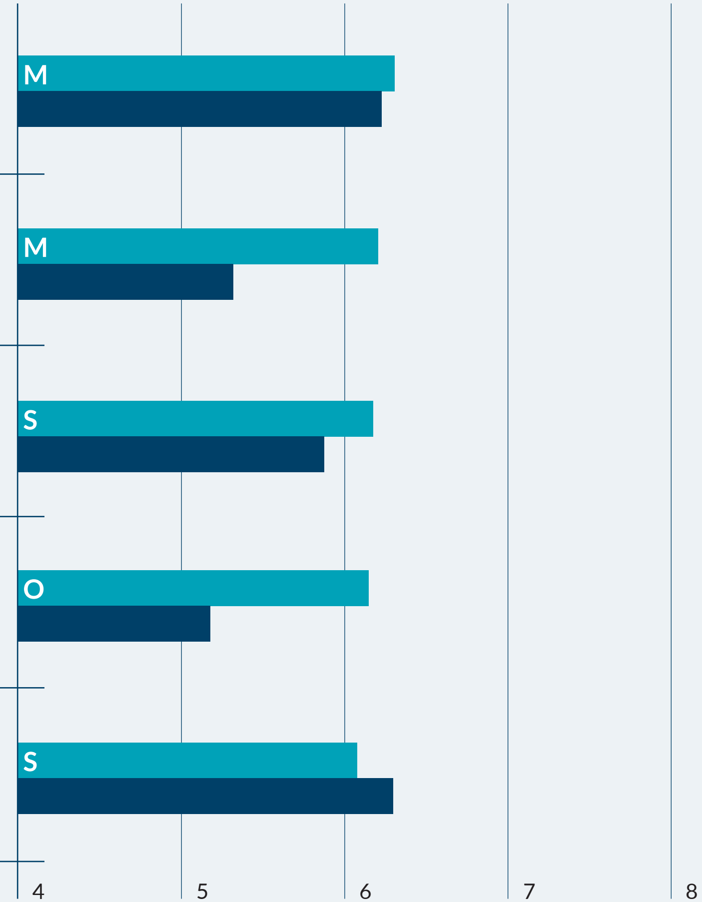
The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees

Anticipated increases in labour costs may affect our opportunity to meet profitability targets

Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation's ability to compete and/or manage the risk appropriately, without making significant changes to our business model

Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets

Regulatory changes and scrutiny may heighten, noticeably affecting the way our processes are designed and our products or services are produced or delivered



Legend

M Macroeconomic Risk Issue   S Strategic Risk Issue   O Operational Risk Issue   2031   2030

TABLE OF CONTENTS

Rapid change, staffing shortages and intense regulations are top-of-mind concerns for most healthcare organisations going into 2022 as they continue to grapple with the impacts of the COVID-19 pandemic and prepare for challenges that will follow the crisis. These organisations are facing difficult decisions about how to manage key risks — and in the current environment, where any adverse incident can negatively impact a business's operations, reputation and earnings, there is little room for error.

Two risk areas for healthcare organisations that made significant jumps into the top five list for 2022 are "anticipated increases in labour costs" and "succession challenges and the ability to attract and retain top talent." These risks ranked ninth and eleventh, respectively, in 2021, but place second and fourth in our current survey. Notably, they also rank among the top five key risks for healthcare organisations in 2031 — but didn't register in the top five key risks in the 2030 list from last year's survey.

The pandemic continues to affect operations

"Government policies and other pandemic-related regulations" tops the list of key risks for healthcare organisations in this year's survey; this risk also held the top spot in 2021. Ever-changing policies, regulations, mandates, protocols, requirements and recommendations (i.e., guidance) will require healthcare organisations to rethink workplace practices continually to help prevent and reduce COVID-19 transmission among employees, while also maintaining healthy business operations. Organisations must also monitor federal, state and local public health emergency (PHE) communications and mandates and ensure employees have access to up-to-date information.

In the United States, the Centers for Disease Control and Prevention (CDC) and the Occupational Safety and Health Administration (OSHA) have issued federal guidance to address prevention, infection control and safety for businesses and schools. In addition, various regulations and a presidential mandate have been issued to address vaccination statuses for organisation's employees. The Centers for Medicare & Medicaid Services (CMS) vaccination rule applies to providers subject to Medicare and Medicaid Conditions of Participation (CoP), Conditions for Coverage (CfC), or Requirements for Participation (RFP). The OSHA COVID-19 vaccination and safety mandate applies to companies with 100 or more employees, requiring employees to be fully vaccinated by January 4, 2022, or have an approved exemption. Presidential Executive Order 14042 requires employees of federal contractors (and their subcontractors) to be fully vaccinated or have an approved exemption by January 18, 2022. There is no alternative for weekly testing for unvaccinated employees under this order. However, the enforceability of federal guidance for workforce vaccinations is facing legal challenges, is currently held up in court through injunctions, and may be held up by court battles for a long time to come. Other federal guidance continues to support telework if it is available and feasible. Limiting the number of people returning to the workplace to maintain social distancing practices is another common recommendation.

State and local governmental PHE policies, guidance and mandates may address workforce training, vaccination requirements, self-isolation subsequent to exposure, and office environment workspace configuration. However, PHE guidance varies widely by state, county and city. Cultivating a culture of awareness and safety around PHE guidance includes employees understanding their rights to a safe and healthful work environment, who to contact with questions or concerns about workplace safety and health, and prohibitions against retaliation for raising their concerns.

Resuming normal or phased activities presents an opportunity for healthcare organisations to update their emergency preparedness, response and control plans. All employers should implement and update their plans to address specific state, county and city regulations for each workplace location; identify all areas and job tasks with potential heightened exposure to COVID-19; and specify control measures that eliminate or reduce such exposures.

TABLE OF CONTENTS

Rising labour costs threaten profitability targets

Labour costs already account for a significant portion of most healthcare organisations operating expenses — about 40-60% depending on an organisation's size and complexity. And given the fixed reimbursement payment models most organisations have with government and private payers, plus the fact that payment changes are almost exclusively negotiated based on considerations other than projected future costs, there is limited opportunity for healthcare organisations to recover increasing labour costs, at least in the short term.

Rising labour costs and relatively inelastic reimbursement are likely to create downward pressure on operating margins — and disappointment for healthcare organisations trying to achieve their profitability targets. The macroeconomic factors driving increases in anticipated labour costs include inflation, shortages of clinical and non-clinical workers, and the unprecedented competition for healthcare workers with in-demand skills. As a point of reference, the Social Security Cost of Living Adjustment Consumer Price Index for Urban Wage Earners and Clerical Workers for 2022 will be 5.9%, compared with 1.3% and 1.6% for 2021 and 2020, respectively.[26]

In addition to traditional labour costs (i.e., wages and benefits), employers in the healthcare industry should anticipate that their workers will seek expanded benefits, including healthcare, insurance, and tuition reimbursement for less than full-time work, and more generous shift, overtime or coverage pay.

Market conditions continue to have an impact

"Market conditions imposed by and in response to COVID-19 and emerging variants" once again places among the top five risks for healthcare organisations but drops from the second spot in 2021 to third in our current survey. The response to COVID-19 and emerging variants have ensured that virtual services are here to stay — and are also value-based and designed to improve patient outcomes. Disruptive innovation has fuelled the changes from in-person to virtual visits and from inpatient acute care to acute care in the home. Increasing access to virtual disease management and behavioural health services is a positive outcome from the pandemic, and a positive change in care delivery for consumers.

The rapid growth in healthcare technology to support new delivery models includes remote patient monitoring and telehealth services, which have emerged as viable clinical services now reimbursable for healthcare organisations. As these new services become more mainstream, it's important to evaluate potential organisational risks associated with the incorrect deployment and operation of remote patient monitoring and hospital care at home, as well as tactics to audit and monitor these functions effectively as they're deployed and operate sustainably within the care continuum.

The pandemic has affected healthcare market conditions in other ways and highlighted the impact that social determinants of health (which are intended to identify high-risk patients) and racial and ethnic disparities in healthcare delivery have on public health overall. Population health programmes that cover public health for a geographical area should include the collection and analysis of social data to design programmes and services, such as virtual services, which can reinforce healthy behaviours and improve outcomes for people in that area.

Workforce challenges are a growing concern

Workforce challenges aren't a new issue for healthcare organisations, but the industry is in crisis mode due to pandemic-related staffing strains, including employee burnout and vaccination mandates. That has employers more concerned than ever about their ability to attract and retain top talent. Healthcare organisations are dealing with material increases in job vacancies and turnover rates — and the corresponding stress on their bottom line. Consider that the annual rate of turnover in key

[26] "Cost-of-Living Adjustments," Social Security Administration website, accessed November 2021: www.ssa.gov/oact/cola/colaseries.html.

departments such as emergency, intensive care and nursing has increased from 18% to 30% since the start of the PHE, according to PINC AI data.[27]

Staffing shortages have also led to a subsequent increase in wages, creating significant financial impacts for many healthcare organisations. Research shows hospital and healthcare systems across the United States are paying $24 billion more per year for qualified clinical labour than they did pre-pandemic.[28] Cost increases for qualified labour are likely to persist in the coming years. Healthcare organisations will need to address the impact rising labour costs will have on their future and their operational targets, including quality of care and overall cost containment.

Regulatory challenges remain a significant uncertainty

Rounding out the top five risks for healthcare organisations in 2022 is "regulatory changes and scrutiny" — dropping from third place in 2021 to fifth place in our current survey. To illustrate in the United States, with the pandemic seemingly under more control and the Biden administration continuing to push forward with new regulations, the question of enforcement is, essentially, "What is top of mind?"

The U.S. government took aggressive actions and exercised regulatory flexibilities (i.e., waivers) to help healthcare providers manage the impacts of the COVID-19 pandemic. With these waivers came relaxation in certain audit, investigative and enforcement activities. Healthcare organisations are worried about being unprepared when the waivers end and regulatory scrutiny ramps back up. We're already seeing an increase in programme integrity enforcement around telehealth, COVID-19 funding and billing, and opioid-prescribing fraud.

In the latter half of 2021, we saw the U.S. government continuing to provide additional details about vaccination mandates that apply to employers. Further, with many across the healthcare industry under the impression that the government needs to make up for lost time, we anticipate greater enforcement on hot-button areas such as privacy right of access, emergency management, employee safety, price transparency and provider arrangements. Also, accreditation bodies have resumed unannounced surveys and are focusing on medical devices, infection control, emergency management and business continuity. Ultimately, regulatory readiness and maintaining effective compliance programmes will be paramount for the time when the government comes knocking.

Other key risks for 2022 — and beyond

Other risk areas in the top 10 for healthcare organisations in 2022 include a focus on data privacy, cybersecurity and digital technology adoption. These areas are top of mind for healthcare industry leaders but may be overshadowed by the current acute focus on staffing shortages and changing government regulations that impact day-to-day operations.

The continued occurrence of ransomware events shows that cyber risks haven't lessened for the healthcare industry. The need to ensure privacy and security of data within healthcare organisations remains a crucial focus area — as well as an ever-moving target, as new attacks emerge and the landscape of what needs to be protected continues to expand in this high-profile industry.

Healthcare organisations need digital technologies to enable an increasingly seamless consumer experience, with the aim of truly changing the care delivery model to focus on value. However, issues still exist in how these organisations can integrate emerging and siloed technologies with the right strategies and reimbursement models effectively to make the longer-term plays viable.

[27] "PINC AI Data Shows Hospitals Paying $24B More for Labour Amid COVID-19 Pandemic," Premier blog, October 6, 2021: www.premierinc.com/newsroom/blog/pinc-ai-data-shows-hospitals-paying-24b-more-for-labor-amid-covid-19-pandemic.

[28] Ibid.

TABLE OF CONTENTS

These risks aren't expected to abate, so organisations will want to keep them top of mind when planning their strategies and investments. As we look at the decade ahead, the adoption of digital technologies like artificial intelligence and machine learning, and the need for a workforce with the skills to use these tools effectively, will continue to climb. In fact, survey respondents forecast that this risk will be the top issue for healthcare organisations over the next decade through 2031.

"As the healthcare industry continues to adapt to the tremendous waves of change brought about by COVID-19 — and prepares for the virus to become endemic — industry leaders are also readying their organisations to navigate a rapidly evolving regulatory environment, which includes new federal price transparency rules in the U.S. that carry stiff penalties for noncompliance. Meeting these and other challenges in both the near term and over the coming decade will be daunting for many healthcare organisations, as talent shortages and rising labour costs are likely to work against their efforts to deliver quality patient care, drive innovation, transform digitally to modernise and meet the changing needs of customers, operate more sustainably, and increase profitability."

RICHARD WILLIAMS
Managing Director, Healthcare Industry Leader, Protiviti

Energy and Utilities – 2022

FIGURE 25A

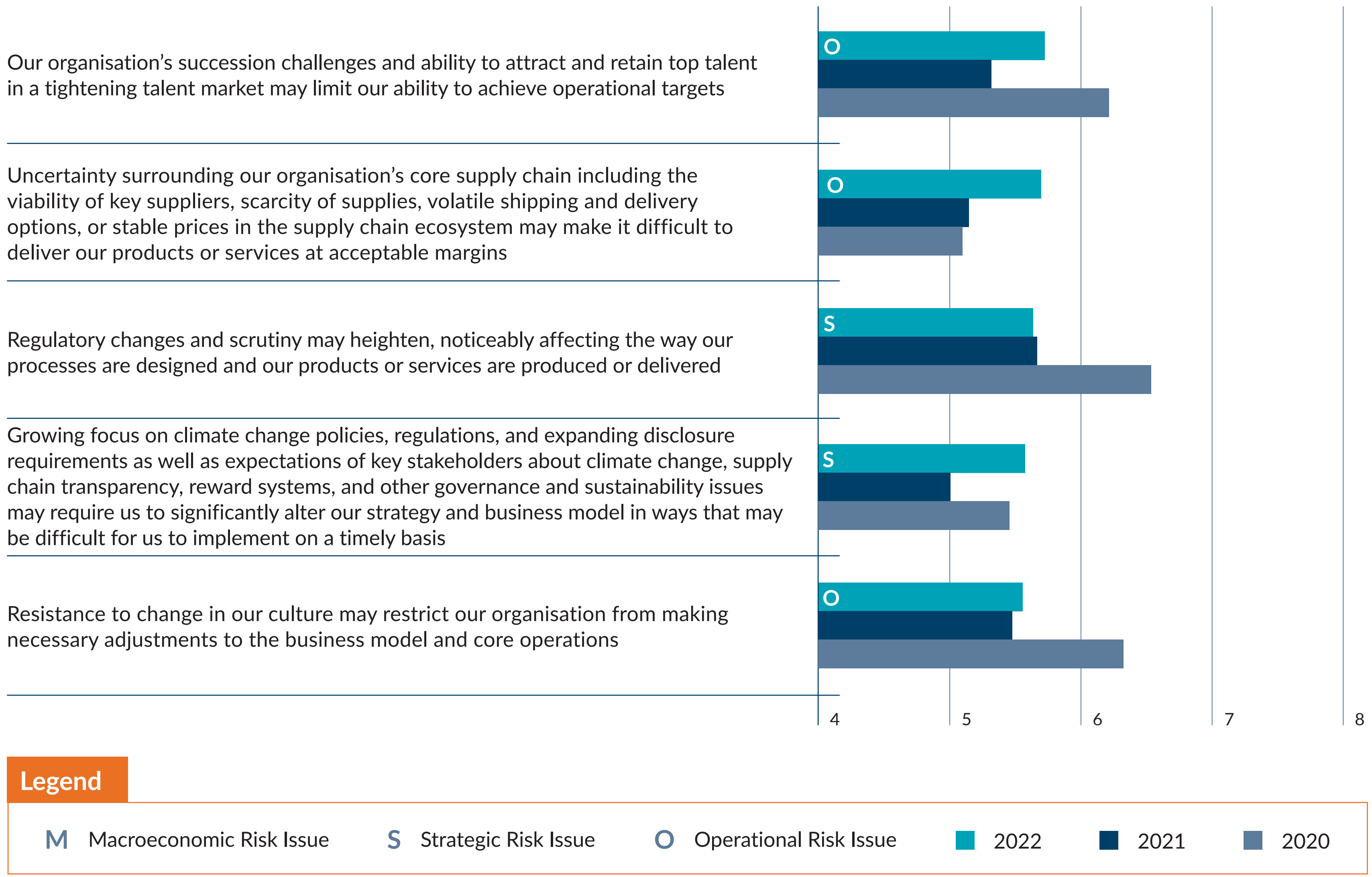


TABLE OF CONTENTS

Energy and Utilities – 2031

FIGURE 25B

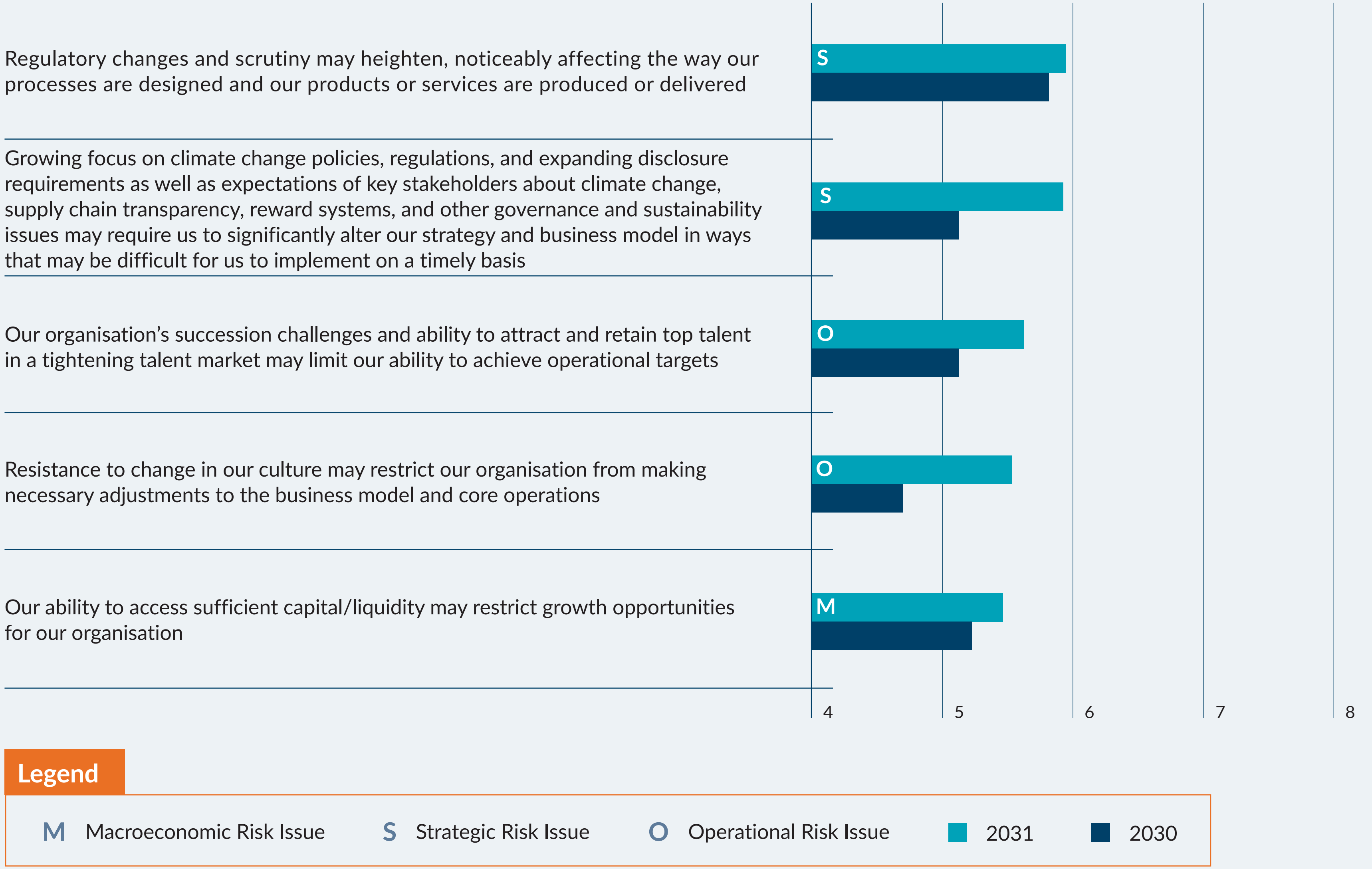


TABLE OF CONTENTS

There's a noticeable mindset shift among energy and utilities executives about what top risks will be in focus for the industry as COVID-19 concerns continue to ease. In our 2021 survey, the top five risks were all strategic and macroeconomic risks. But now, the industry seems to be looking inward and focusing on operational issues, as it did in 2019, when almost every top five risk cited by respondents was operational in nature.

Sustaining leadership succession and the institutional memory

As we move into 2022, it's clear from our latest survey that energy and utilities executives are concerned they may not have the team around them to help navigate the ever-changing energy landscape. The top risk for 2022 is concern around "succession challenges and ability to attract and retain top talent." While it's been a top five risk for this industry in the past, it has never ranked at the top of the list until now.

There's a great war for skilled talent underway, and it's top of mind for executives across industries. However, businesses in the energy and utilities industry are particularly concerned about the aging of their skilled workforce and how quickly they can replace this talent and train new talent. Many worry that they lack the appropriate talent for leadership succession planning. Adding to these challenges is the fact that many younger professionals don't see the industry as a place to build a career; they worry about negative environmental impacts and the uncertainty around the overall energy transition. The industry's need for specialised, technical skill sets in areas such as environmental, social and governance (ESG), digital, and renewables is also a factor for its talent challenges. As older workers retire, the vital institutional memory erodes.

Unclogging the supply chain

Also climbing into the top five risks for 2022 to the second spot is the "uncertainty surrounding the organisation's core supply chain." Its appearance in the top five in this year's survey isn't surprising given the supply chain challenges and disruptions that have hampered many industries during the pandemic. But the energy industry is especially vulnerable to supply chain risk given that its value chain is highly service-, feedstock-, parts- and equipment-oriented, and organisations typically run lean on inventories to balance out their operational costs.

The continued globalisation and increased reliance on third parties within the industry combined with the constant chase of cost reductions has resulted in lean and cost-effective — yet highly exposed and fragile — supply chains. Studies have shown that companies with leading supply chain capabilities have proven over the past 25 years that they outperform on shareholder returns. As a result, many energy and utilities businesses are now realising the importance of fortifying their supply chain resilience and enhancing their supply chain capabilities to maintain operations and avoid operational disruptions. They also recognise that these efforts are essential to their ability to achieve future growth and strong financial performance.

Impact of the regulatory environment and climate change

The next two risks in the top five for 2022 focus on energy and utilities companies staying ahead of the ever-changing regulatory environment. "Regulatory changes and scrutiny," which ranks third, relates to executives' concern about the overall regulatory changes that can have a detrimental impact to operations. The oil and gas industry is acutely sensitive to this risk. While the industry is adept at navigating the changing regulations around operational areas like emissions, there is still a concern among executives that the volume and velocity of regulations will increase, making it challenging for organisations to hit their strategic goals.

With the growing need for better ESG reporting, energy and utilities businesses have already started ramping up monitoring and compliance efforts. This proactive approach will help the industry to react quickly to new regulations, and organisations are well-advised to continue strengthening their internal compliance and data gathering for the reporting requirements.

If any energy and utilities businesses need more motivation to increase their focus in this area, consider that respondents to this year's survey see heightened "regulatory changes and scrutiny" as the top risk for their industry in 2031.

Ranking third among the top five risks for 2022 is a "growing focus on climate change policies, regulations and expanding disclosure requirements" impacting the strategy and business model. Respondents also project this risk will be the second-most concerning issue for the industry in 2031 — right behind regulatory changes.

The impact of climate change policies and reporting has been a focus across the Energy and Utilities industry group for several years. However, its risk rating moved significantly higher from 2021; in fact, this risk didn't even rank among the top five for this industry group in our 2019 survey which focused on looking forward to 2020. However, in last year's survey report, we noted that the results envisioned increased emphasis on this risk for the industry, given the focus on climate change by the Biden administration in the United States and governments in other countries around the world and the increased attention on ESG by investors. The leadership role energy and utilities organisations can play in helping all countries reach their climate-related goals, such as reducing greenhouse gas emissions and other activities that will continue to evolve the regulatory frameworks under which such organisations must operate, is likely a driving factor for a "growing focus on climate change policies, regulations and expanding disclosure requirements" ranking second on the 2031 list of top risks for this industry.

Managing resistance to change

"Resistance to change" rounds out the top five risks for the Energy and Utilities industry group in 2022, and it's been a mainstay in the top risks rankings for many years. This is an industry group that prides itself on tried-and-true practices and the systems and other infrastructure it has built over decades to help support its complex and critical operations. But the industry also worries that making changes — especially changes that lead to undoing or wholly rethinking the hard work it has accomplished to date — will be very costly and disruptive.

That said, leading organisations are adopting new ways of thinking. Some have already made the necessary investments toward modernising their operating environments and taking advantage of new digital technologies. This, in turn, is starting to shift the mindset in the overall industry toward embracing a more innovative and adaptable culture. This is a good thing, as it will help organisations tackle their top risk: attracting new talent.

Having the right talent, skills and technologies are three critical components to enhancing the customer experience and driving customer satisfaction. So, it's also not a coincidence that leaders in the Energy and Utilities industry group have been focusing on driving improvement in these areas. Aligning these critical components will be long-term challenges for the industry, as the list of anticipated top risks for 2031 suggests. That underscores the importance of energy and utilities companies continuing to focus on improving their organisational culture and easing resistance to change going forward.

Growing recognition of the interdependency among risks

Finally, we noted an overall compression of the gap between risk ratings for the top risks in our survey. In prior years, the difference between the number one risk and the 15th risk, for example, would have been 1 point to 1.5 points. But this gap has narrowed to half a point or less. This indicates that many energy and utilities companies are shedding the idea of risk independence — that any one risk exists as a stand-alone. Instead, they're seeing their risks as more interdependent: If one occurs, the likelihood of others occurring is higher.

Given the events of the past year, including the COVID-19 pandemic, supply chain upheaval, natural disasters and more, it makes sense that there are more risks, and more challenges on the agenda for boards and the C-suite to track and address. They're grappling with more interdependent issues now than perhaps they were only three years ago, when there was a clearer hierarchy to their top risks.

> "Leaders in the energy and utilities space are realising that the build-out of digital technologies, skills and resources, combined with a strong view for the future, are critical to their long-term success. Those that are lagging are going to have a hard time catching up."
>
> **TYLER CHASE**
> Managing Director, Energy and Utilities Industry Leader, Protiviti

Overview of top risk issues in 2031

Looking ahead to 2031, we see various risks shifting in order of importance for energy and utilities businesses. Four of the top five risks over the next decade to 2031 are also in the top five list for 2022. As noted earlier, regulatory concerns take the top spot, followed closely by the impact of climate change. Succession and talent challenges rank third among forecasted risks for the industry in 2031.

While still a high ranking, the downward shift of "succession challenges and ability to attract and retain top talent" suggests that industry executives believe the risks in the regulatory and climate arenas will endure, and have more impact, than those related to "people matters." This assertion can be supported by the fact that climate-related risk ranked higher year-over-year from 2021 and 2022, and, in 2031, sits even higher up the list.

Rounding out the top five risks for 2031 is "resistance to change," at number four, and "access to sufficient capital," which holds the fifth spot. This last risk, which is macroeconomic, ranked third on the 2030 list in last year's survey; however, its continued placement among the top five risks in the decade to come underscores the energy and utility industry's concern that it may face long-term challenges in its ability to attract enough capital and investment to sustain its operations.

Analysis Across Geographic Regions

As in prior years, we obtained responses from a sufficient number of organisations across the globe to split the sample into eight distinct regions. We analyse responses across these eight regions to determine whether respondents across different geographic locations rank-order risks differently.

Similar to our analysis summarised earlier in this report, we analyse responses about overall impressions of the magnitude and severity of risks across the three categories. Again, the scores in Figure 26 reflect responses to the question about the overall impression of the magnitude and severity of risks using a 10-point scale where 1 = "Extremely Low" and 10 = "Extremely High."

GEOGRAPHIC REGION	NUMBER OF RESPONDENTS
North America	632
Asia	207
Australia/New Zealand	88
India	43
Europe	292
Latin America	113
Middle East	54
Africa	24
Total number of respondents	**1,453**

Overall, what is your impression of the magnitude and severity of risks your organisation will be facing with respect to achieving its objectives and reaching or exceeding profitability (or funding) targets over the next 12 months?

FIGURE 26

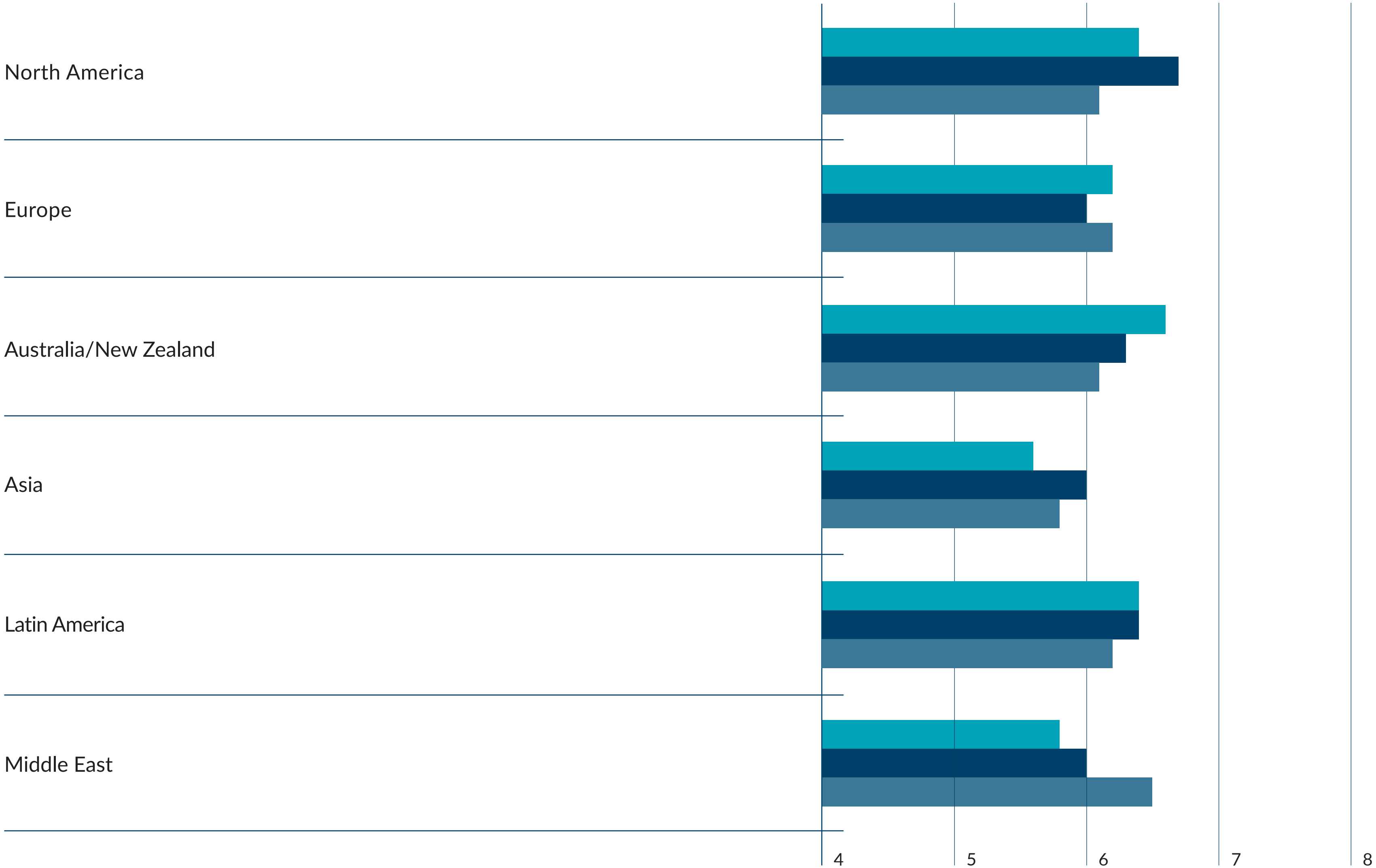
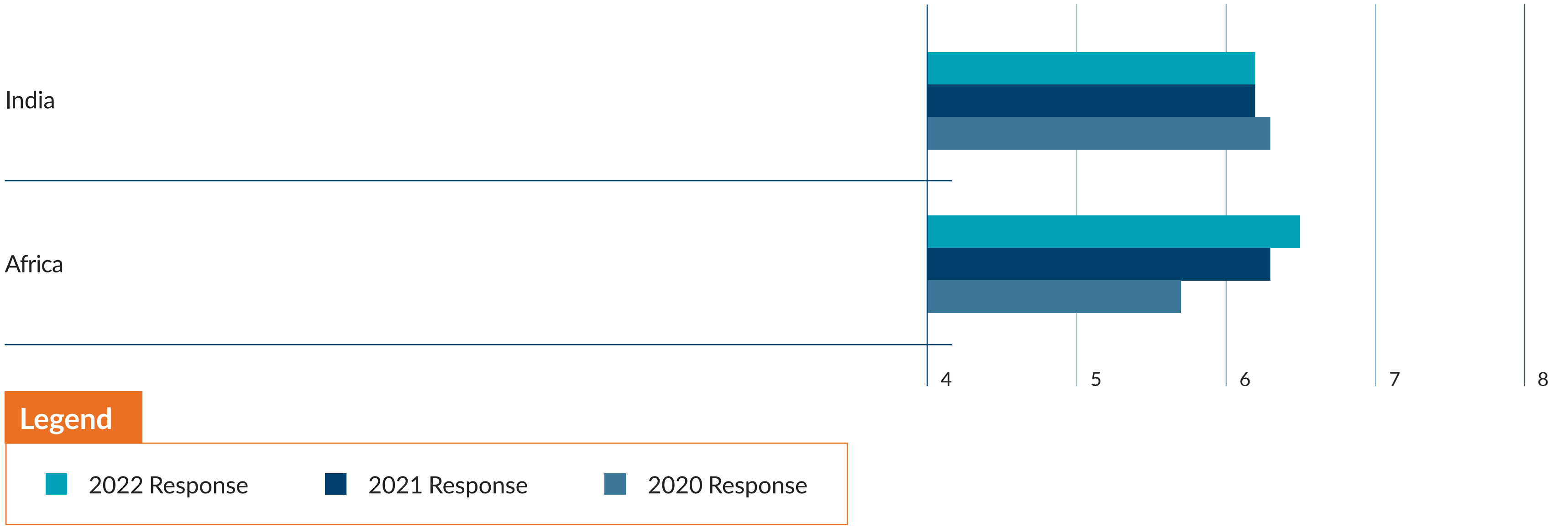


FIGURE 26 (CONTINUED)



Globally, organisations from six of the eight geographic regions agree that the overall magnitude and severity of risks are of a "Significant Impact" level in 2022. Europe, Australia/New Zealand and Africa organisations rate the severity and magnitude of 2022 risks as more severe than 2021, while North American organisations rate the magnitude and severity lower in 2022 than 2021 but still at a "Significant Impact" level. Asia and Middle East organisations exhibit the largest decrease from 2021 to 2022 and are the only organisations as a group below the "Significant Impact" level in 2022.

2022 risk issues

While respondents in North America indicate lower levels of overall risk concerns for 2022 relative to 2021, the overall rating is still higher than all but Australia/New Zealand and Africa organisations. Surprisingly, in comparison to the overall rating, North American respondents actually rate none of the 36 specific risks as "Significant Impact" risks. This gets back to one of our report's key takeaways expressed earlier that the spread between the top risk and, say, the 15th-rated risk over the next 12 months has narrowed considerably compared to prior years. Thus, the focus on the top risks has become more expansive, suggesting the risk landscape has become more complex.

Figures 27-34 highlight the top five risks from each of the eight geographic regions we examine and include the risk scores for 2022 and, separately, for 2031, as well as, where available, scores for those risks reported in our 2021 and 2020 reports. There are noticeable differences in views about risks around the globe, which is especially important for multinational organisations to consider. Eighteen of the 36 risks appear among the eight geographic regions as top five risks and eight of the 12 operational risks are recognised in the top five risks when looking across the different geographies. Based on a review of the top five risk concerns, respondents in Australia/New Zealand and Africa rate all five of their top five risks at the "Significant Impact" level. Organisations in the Australia/New Zealand region rate each of their top five risks higher than 6.5, indicating elevated levels of concern relative to other regions. Only Africa reports having two risks rated higher than 6.5.

The risk related to government policies surrounding public health practices or market conditions imposed by and in response to COVID-19, which in 2021 was every region's top risk, is not cited as a top five risk by Europe or the Middle East regions for 2022. The Australia/New Zealand, India and Asia regions are most cognizant of the COVID-19 risk, ranking government policies surrounding public health practices as either their first- or second-rated risk in their top five list.

Across the eight regions, the variation in top five results is striking. Only two risks are common to at least four of the eight regions. The macroeconomic risks related to government policies surrounding public health practices and the shifts in perspectives and expectations about social issues and priorities surrounding DEI are ranked in the top five by at least four of the eight regions. Only two regions, Asia and the Middle East, cite more than one strategic risk as being a concern in 2022.

2031 risk issues

Looking further out into 2031, strategic risks become more heightened for all regions, with the exception of India. The strategic concern over the rapid speed of disruptive innovation is cited by five of the regions while the macroeconomic risk associated with the adoption of digital technologies requiring new skills or significant efforts to upskill/reskill existing employees is cited by four of the regions.

> "Our global results indicate that the longer-term focus in Europe, North America and Asia is on people, technology and the competitive environment and, to some extent, regulatory developments. The other five regions we addressed in our survey pick up on one or more of these themes while also emphasising priorities unique to the region. A common driver is disruptive change. While they may be facing a different mix of issues, a distinguishing factor for the most successful companies will be their ability to adapt to changing realities."
>
> **JONATHAN WYATT**
> Managing Director, European Regional Leader, Protiviti

TABLE OF CONTENTS

North America HQ organisations – 2022

FIGURE 27A

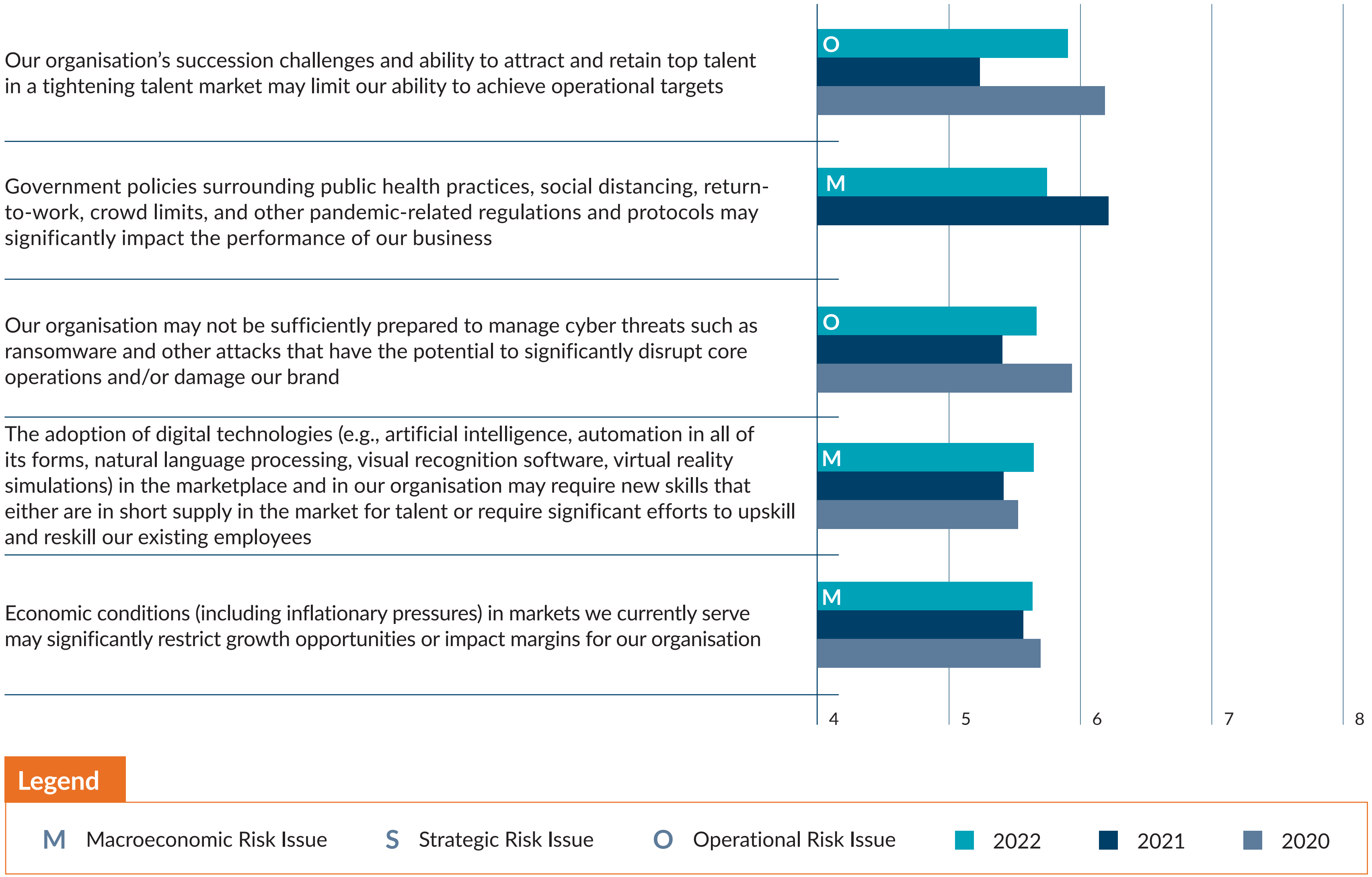


TABLE OF CONTENTS

North America HQ organisations – 2031

FIGURE 27B

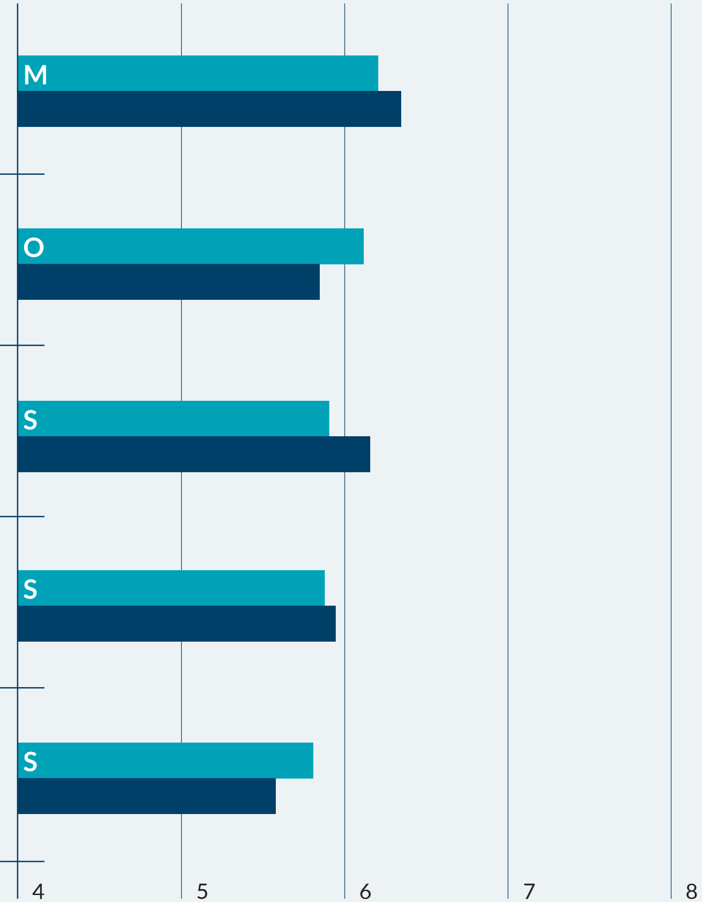
The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees

Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets

Regulatory changes and scrutiny may heighten, noticeably affecting the way our processes are designed and our products or services are produced or delivered

Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation's ability to compete and/or manage the risk appropriately, without making significant changes to our business model

Substitute products and services may arise from competitors that may enhance the customer experience and affect the viability of our current business model and planned strategic initiatives



Legend

M Macroeconomic Risk Issue S Strategic Risk Issue O Operational Risk Issue ■ 2031 ■ 2030

Europe HQ organisations – 2022

FIGURE 28A

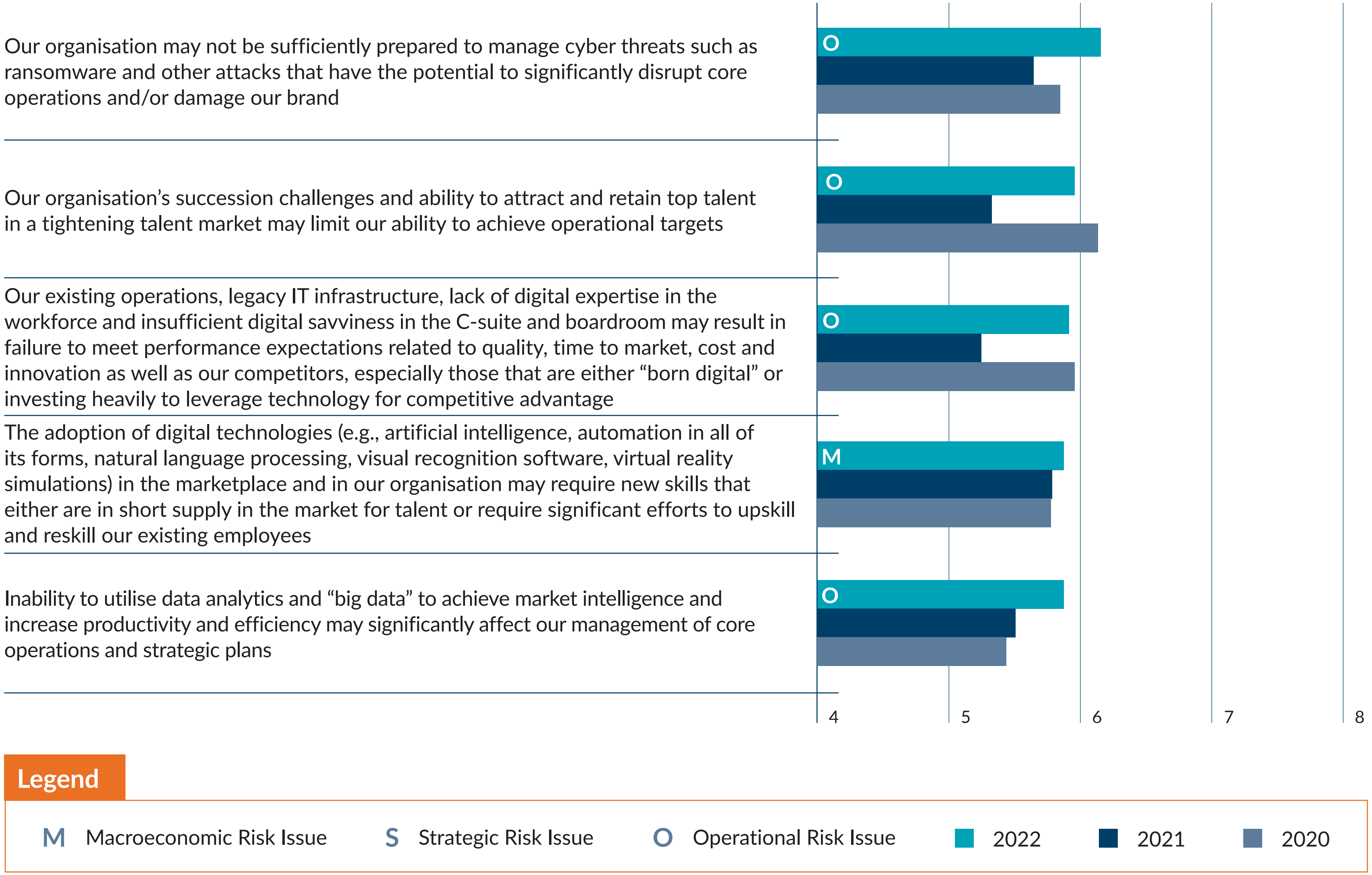


TABLE OF CONTENTS

Europe HQ organisations – 2031

FIGURE 28B

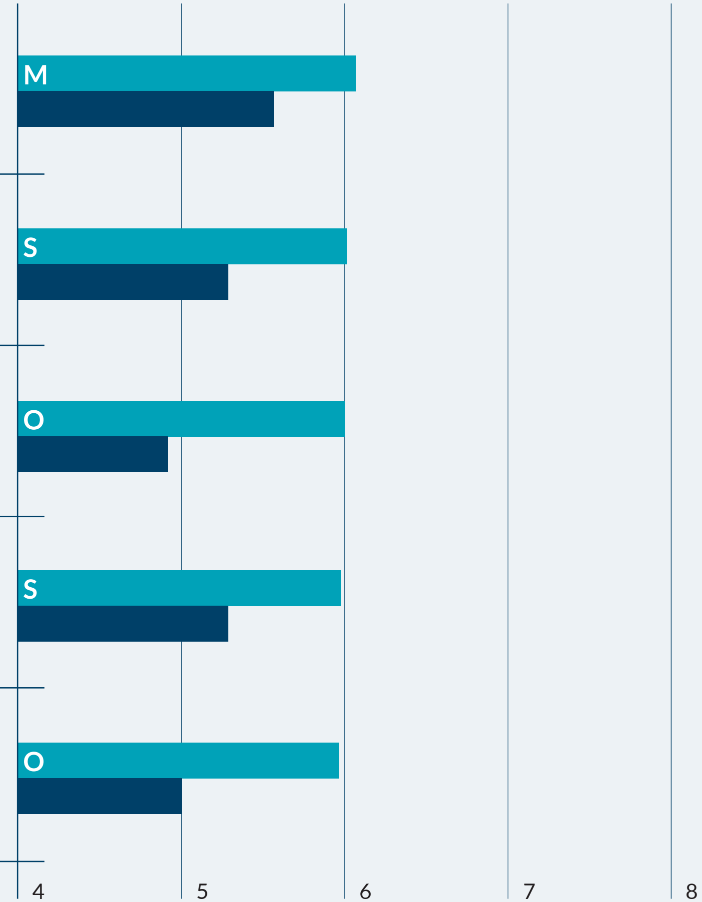
The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees

Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation's ability to compete and/or manage the risk appropriately, without making significant changes to our business model

Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets

Regulatory changes and scrutiny may heighten, noticeably affecting the way our processes are designed and our products or services are produced or delivered

Our organisation may not be sufficiently prepared to manage cyber threats such as ransomware and other attacks that have the potential to significantly disrupt core operations and/or damage our brand



Legend

M Macroeconomic Risk Issue S Strategic Risk Issue O Operational Risk Issue 2031 2030

TABLE OF CONTENTS

Australia/New Zealand HQ organisations – 2022

FIGURE 29A

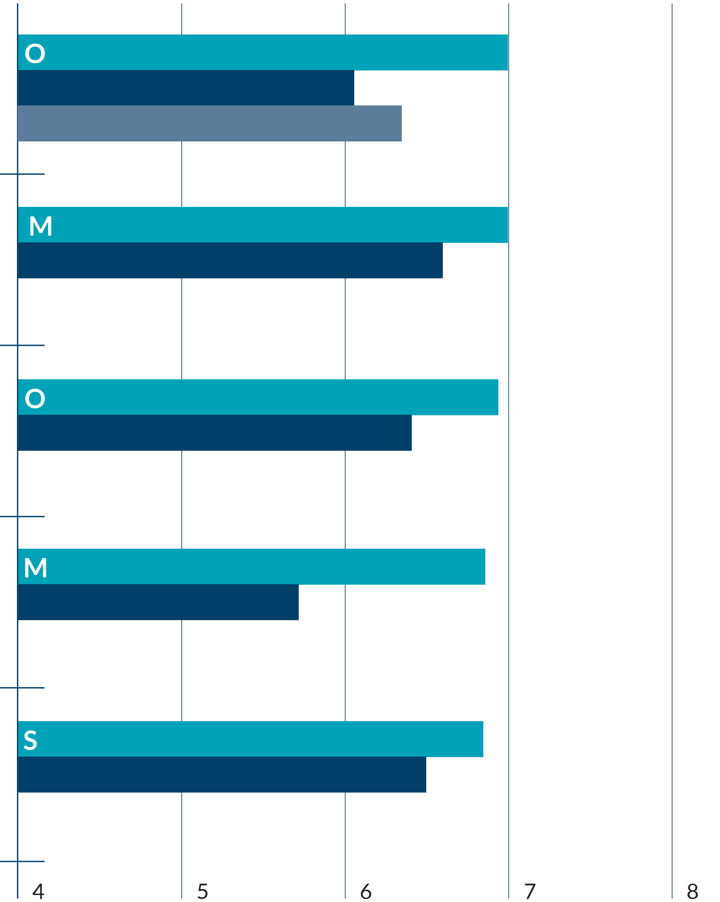
Our organisation's culture may not sufficiently encourage the timely identification and escalation of risk issues and market opportunities that have the potential to significantly affect our core operations and achievement of strategic objectives

Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business

Ongoing demands on or expectations of a significant portion of our workforce to "work remotely" or increased expectations for a transformed, collaborative hybrid work environment may negatively impact the effectiveness and efficiency of how we operate our business

Shifts in perspectives and expectations about social issues and priorities surrounding diversity, equity and inclusion are occurring faster than the pace at which our organisation is motivated and able to manage effectively (e.g., recruiting, retention, career advancement, reward systems, behavioural incentives, shared values and culture), which may significantly impact our ability to attract/retain talent and compete in the marketplace

Our organisation may not be able to adapt its business model to embrace the evolving "new normal" imposed on our business by the ongoing pandemic and emerging social change



Legend

M Macroeconomic Risk Issue   S Strategic Risk Issue   O Operational Risk Issue   2022   2021   2020

TABLE OF CONTENTS

Australia/New Zealand HQ organisations – 2031

FIGURE 29B

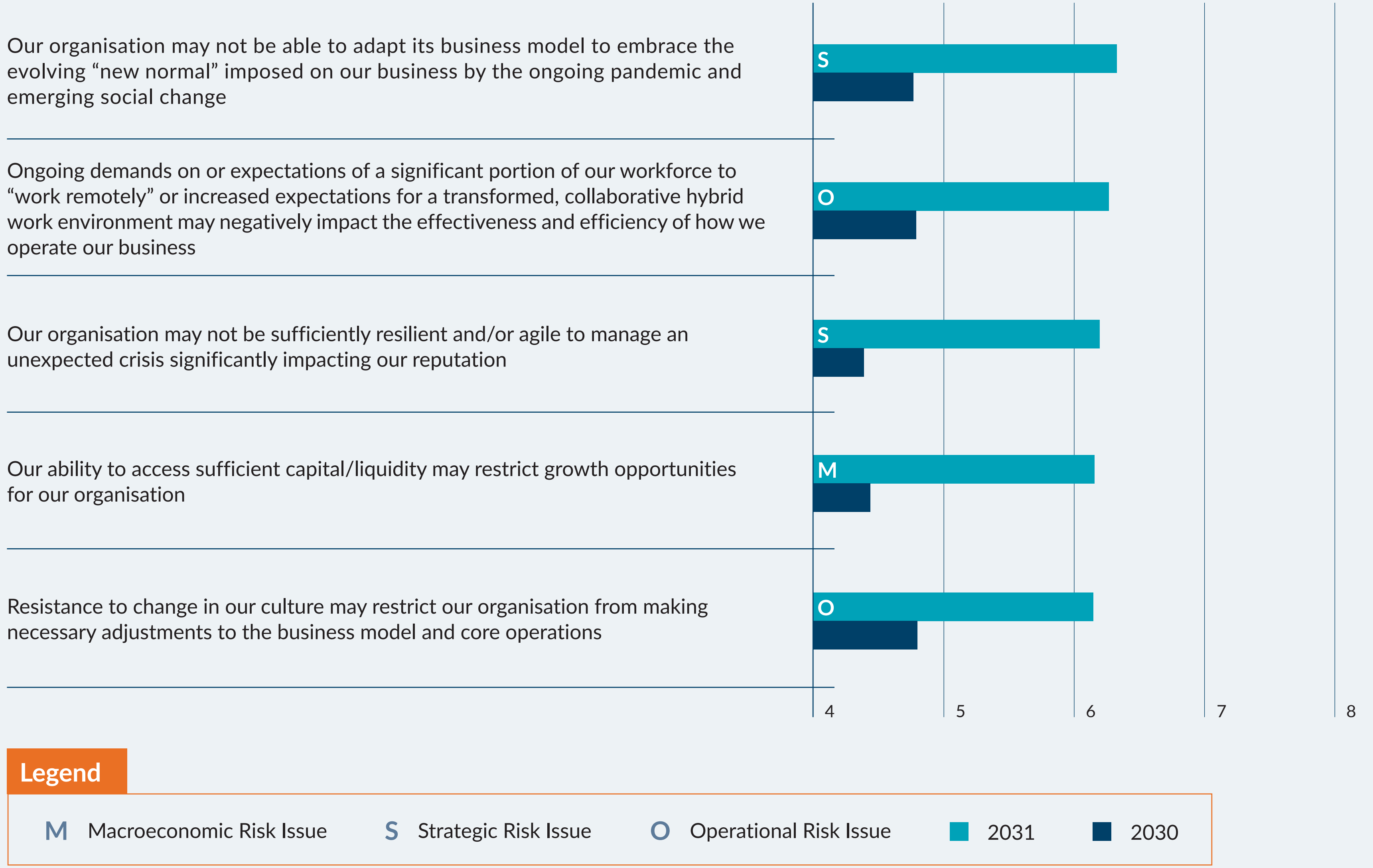


TABLE OF CONTENTS

Asia HQ organisations – 2022

FIGURE 30A

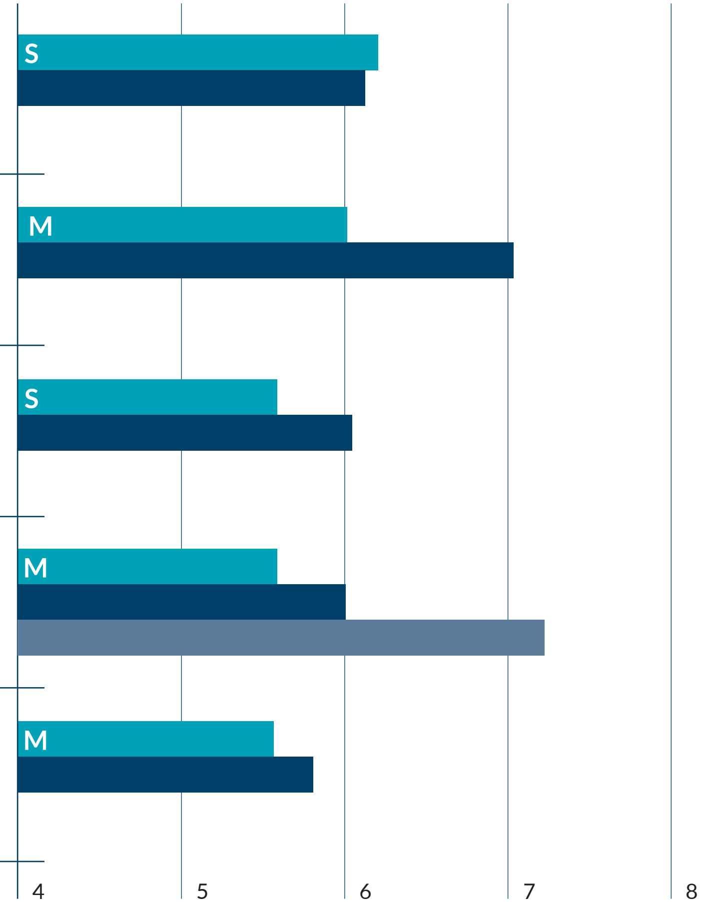
Market conditions imposed by and in response to COVID-19 and emerging variants, including shifts in consumer behaviour to digital channels, may continue to impact customer demand for our core products and services

Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business

Our organisation may not be able to adapt its business model to embrace the evolving "new normal" imposed on our business by the ongoing pandemic and emerging social change

Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation

Shifts in perspectives and expectations about social issues and priorities surrounding diversity, equity and inclusion are occurring faster than the pace at which our organisation is motivated and able to manage effectively (e.g., recruiting, retention, career advancement, reward systems, behavioural incentives, shared values and culture), which may significantly impact our ability to attract/retain talent and compete in the marketplace



Legend

M Macroeconomic Risk Issue   S Strategic Risk Issue   O Operational Risk Issue   2022   2021   2020

TABLE OF CONTENTS

Asia HQ organisations – 2031

FIGURE 30B

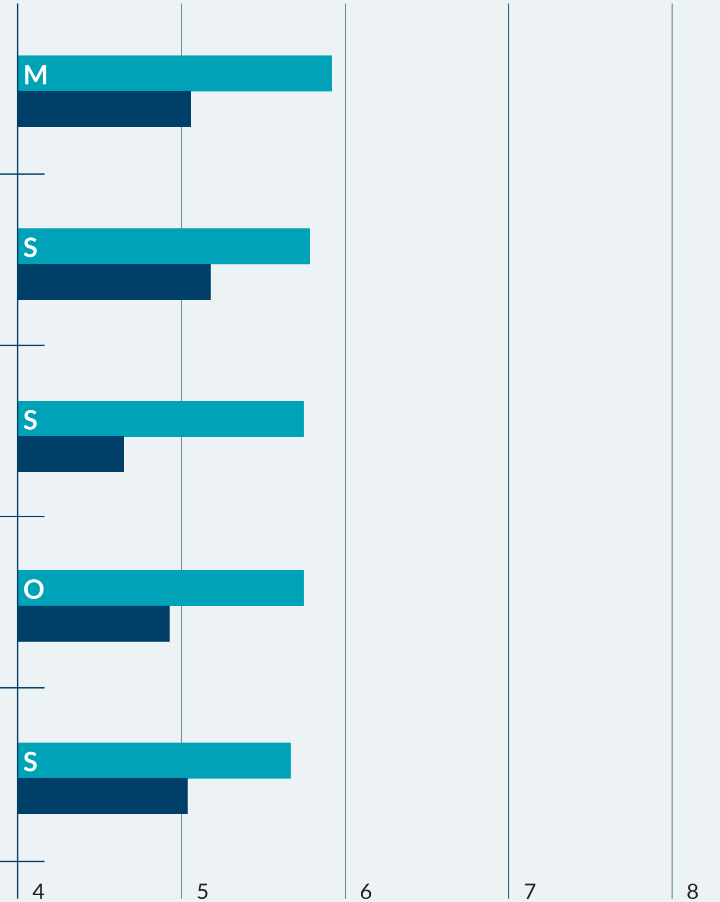
The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees

Ease of entrance of new competitors into the industry and marketplace or other significant changes in the competitive environment (such as major market concentrations due to M&A activity) may threaten our market share

Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation's ability to compete and/or manage the risk appropriately, without making significant changes to our business model

Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets

Substitute products and services may arise from competitors that may enhance the customer experience and affect the viability of our current business model and planned strategic initiatives



Legend

M Macroeconomic Risk Issue   S Strategic Risk Issue   O Operational Risk Issue   2031   2030

TABLE OF CONTENTS

Latin America HQ organisations – 2022

FIGURE 31A

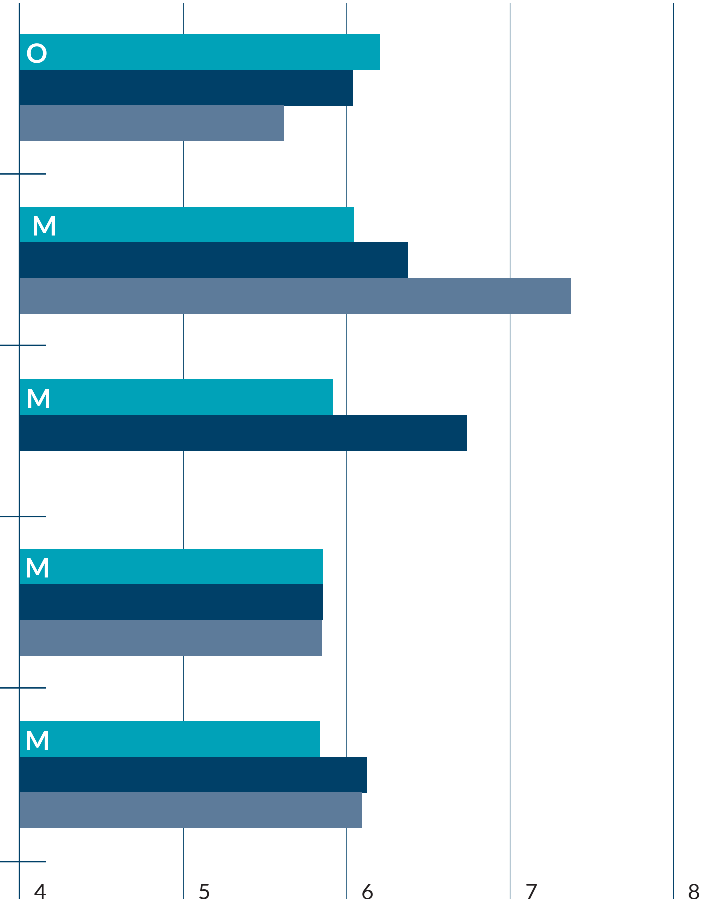
Inability to utilise data analytics and "big data" to achieve market intelligence and increase productivity and efficiency may significantly affect our management of core operations and strategic plans

Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation

Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business

Anticipated increases in labour costs may affect our opportunity to meet profitability targets

The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees



Legend

M Macroeconomic Risk Issue S Strategic Risk Issue O Operational Risk Issue 2022 2021 2020

TABLE OF CONTENTS

Latin America HQ organisations – 2031

FIGURE 31B

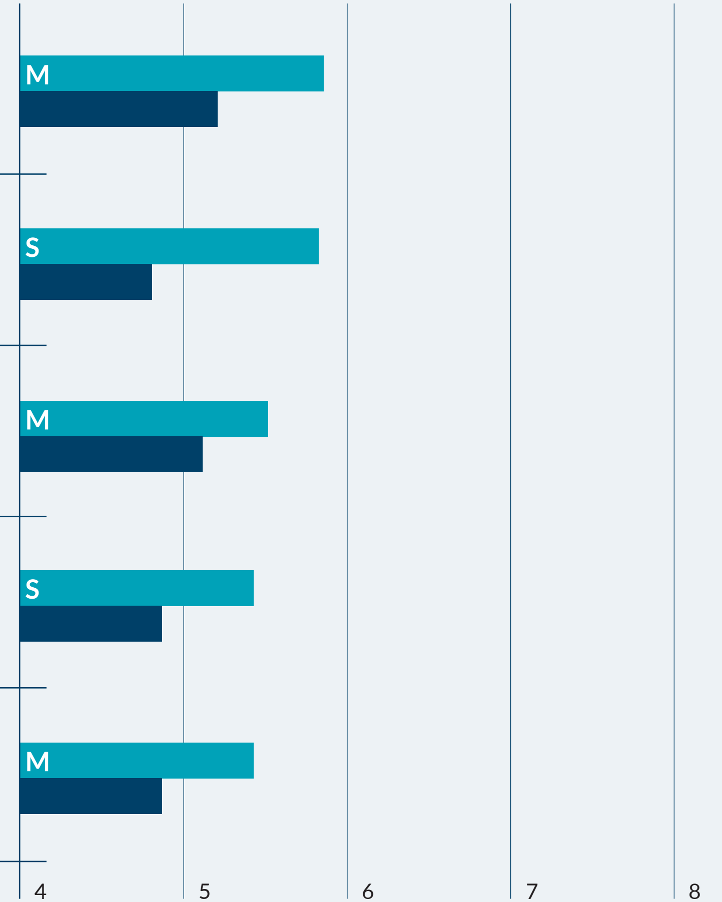
Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation

Ease of entrance of new competitors into the industry and marketplace or other significant changes in the competitive environment (such as major market concentrations due to M&A activity) may threaten our market share

Anticipated volatility in global financial markets and currency exchange rates may create significantly challenging issues for our organisation to address

Substitute products and services may arise from competitors that may enhance the customer experience and affect the viability of our current business model and planned strategic initiatives

Political uncertainty surrounding the influence and continued tenure of key global leaders may impact national and international markets to the point of significantly limiting our growth opportunities



Legend

M Macroeconomic Risk Issue S Strategic Risk Issue O Operational Risk Issue 2031 2030

TABLE OF CONTENTS

Middle East HQ organisations – 2022

FIGURE 32A

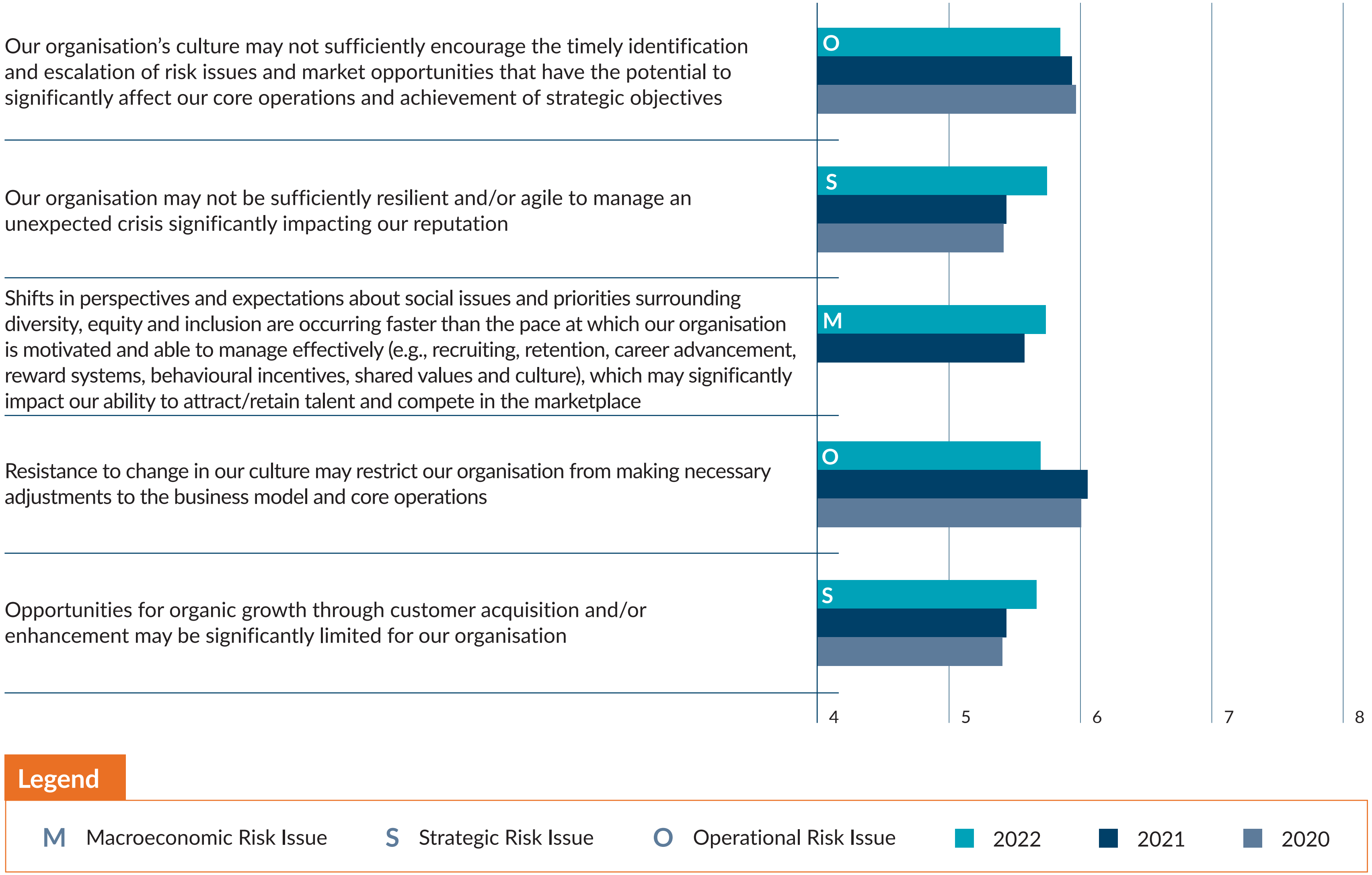


TABLE OF CONTENTS

Middle East HQ organisations – 2031

FIGURE 32B

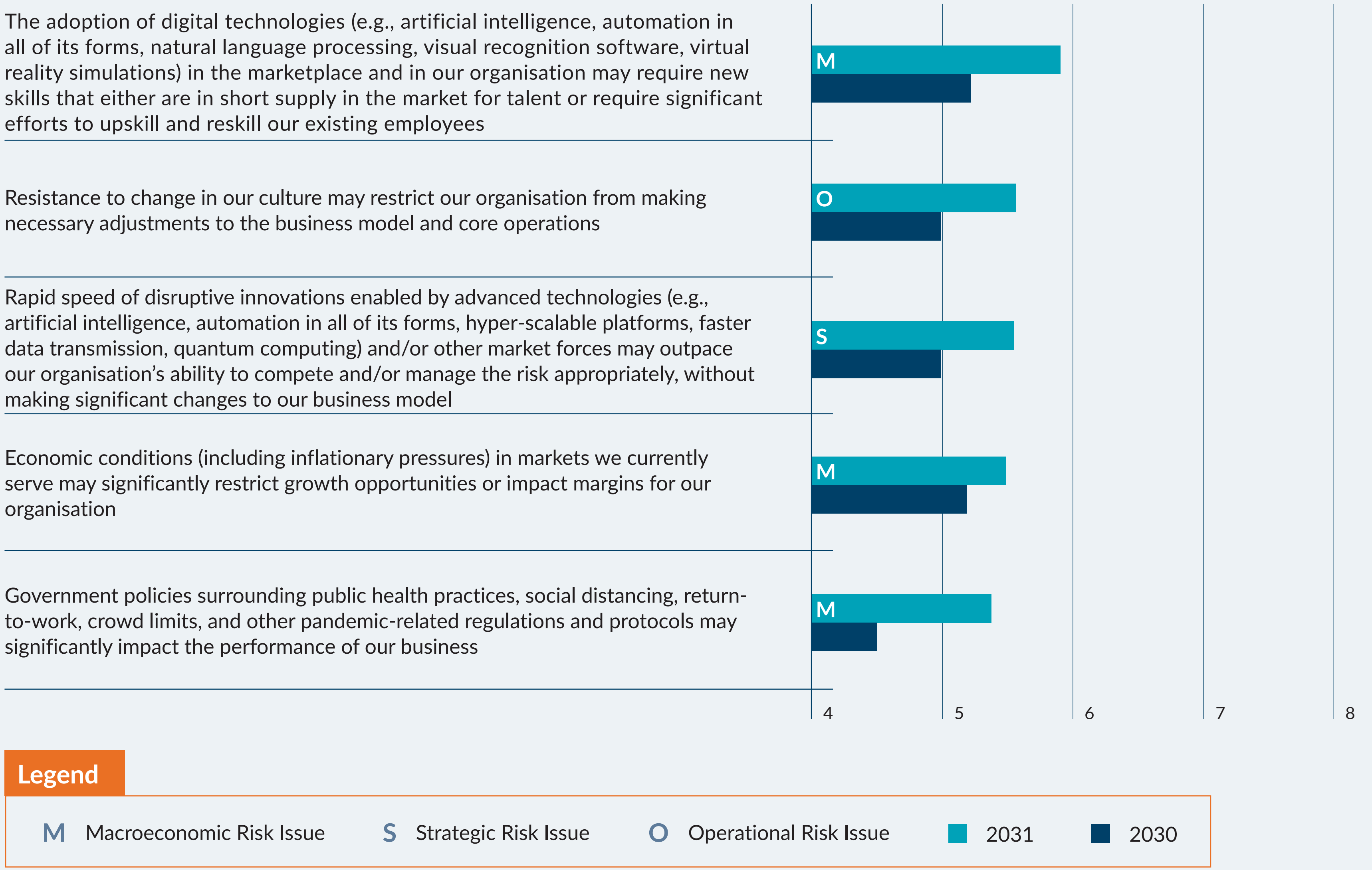


TABLE OF CONTENTS

India HQ organisations – 2022

FIGURE 33A

Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business

Market conditions imposed by and in response to COVID-19 and emerging variants, including shifts in consumer behaviour to digital channels, may continue to impact customer demand for our core products and services

Shifts in perspectives and expectations about social issues and priorities surrounding diversity, equity and inclusion are occurring faster than the pace at which our organisation is motivated and able to manage effectively (e.g., recruiting, retention, career advancement, reward systems, behavioural incentives, shared values and culture), which may significantly impact our ability to attract/retain talent and compete in the marketplace

Ongoing demands on or expectations of a significant portion of our workforce to "work remotely" or increased expectations for a transformed, collaborative hybrid work environment may negatively impact the effectiveness and efficiency of how we operate our business

Uncertainty surrounding our organisation's core supply chain including the viability of key suppliers, scarcity of supplies, volatile shipping and delivery options, or stable prices in the supply chain ecosystem may make it difficult to deliver our products or services at acceptable margins

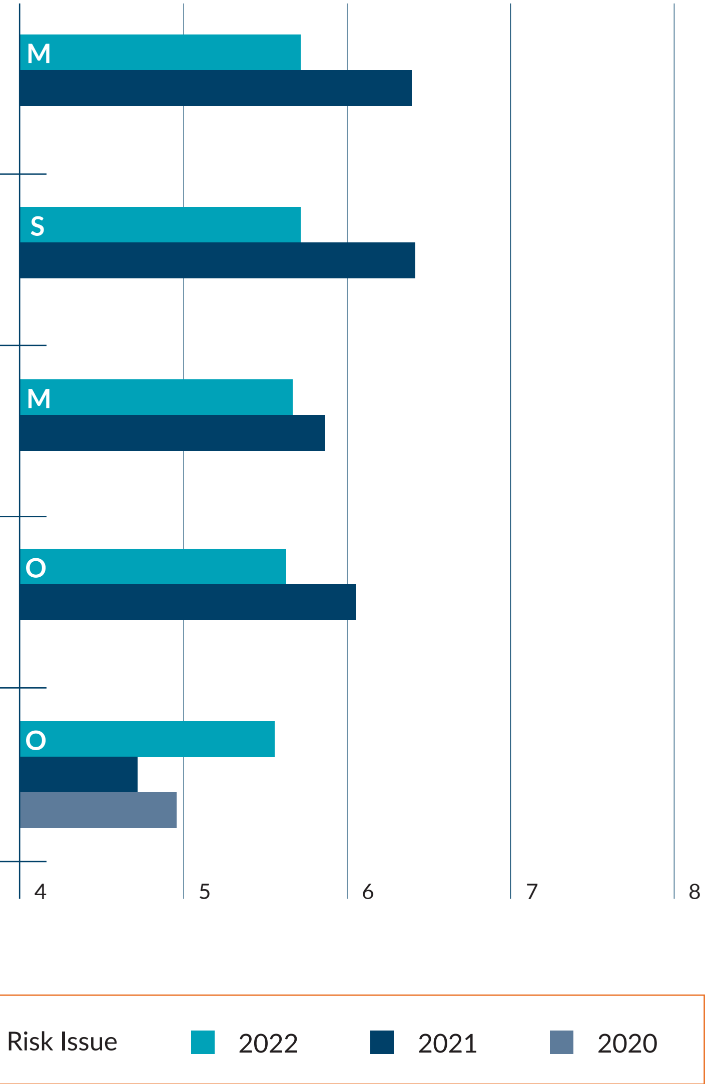
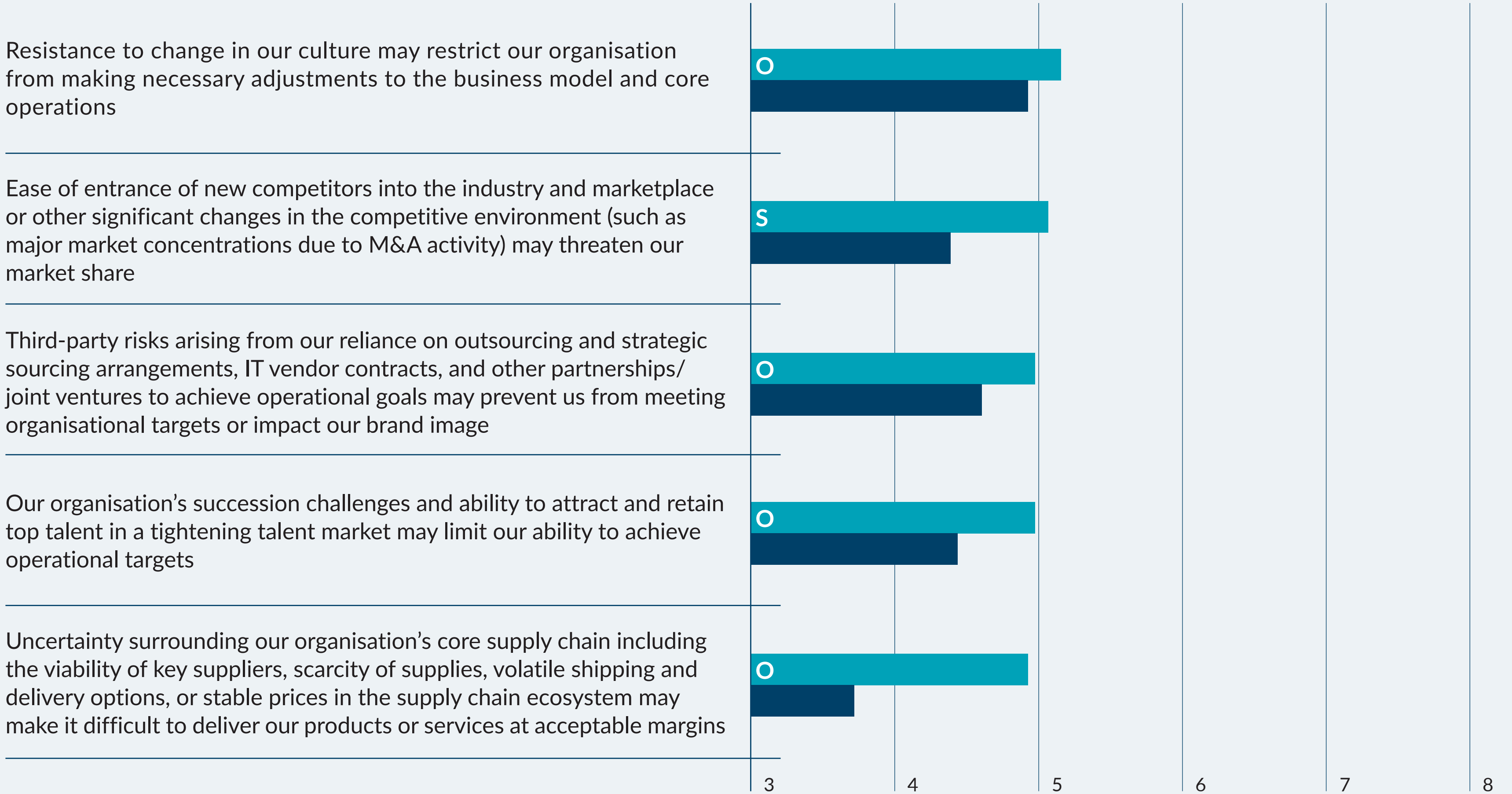


TABLE OF CONTENTS

India HQ organisations – 2031

FIGURE 33B



Legend

M Macroeconomic Risk Issue S Strategic Risk Issue O Operational Risk Issue 2031 2030

Africa HQ organisations – 2022

FIGURE 34A

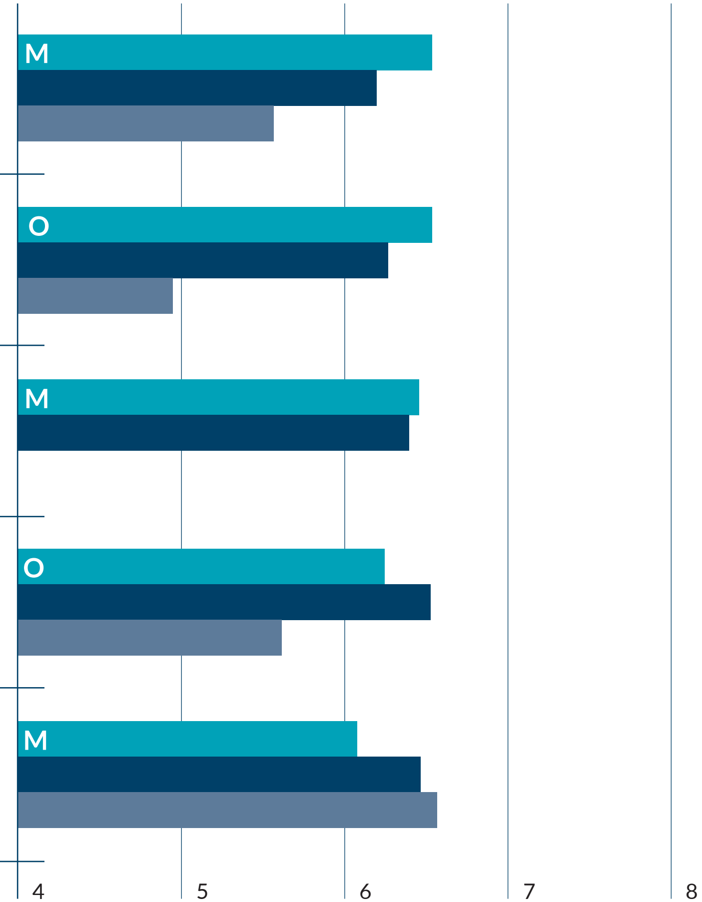
Our ability to access sufficient capital/liquidity may restrict growth opportunities for our organisation

Our organisation's culture may not sufficiently encourage the timely identification and escalation of risk issues and market opportunities that have the potential to significantly affect our core operations and achievement of strategic objectives

Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business

Inability to utilise data analytics and "big data" to achieve market intelligence and increase productivity and efficiency may significantly affect our management of core operations and strategic plans

Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation



Legend

M Macroeconomic Risk Issue S Strategic Risk Issue O Operational Risk Issue 2022 2021 2020

TABLE OF CONTENTS

Africa HQ organisations – 2031

FIGURE 34B

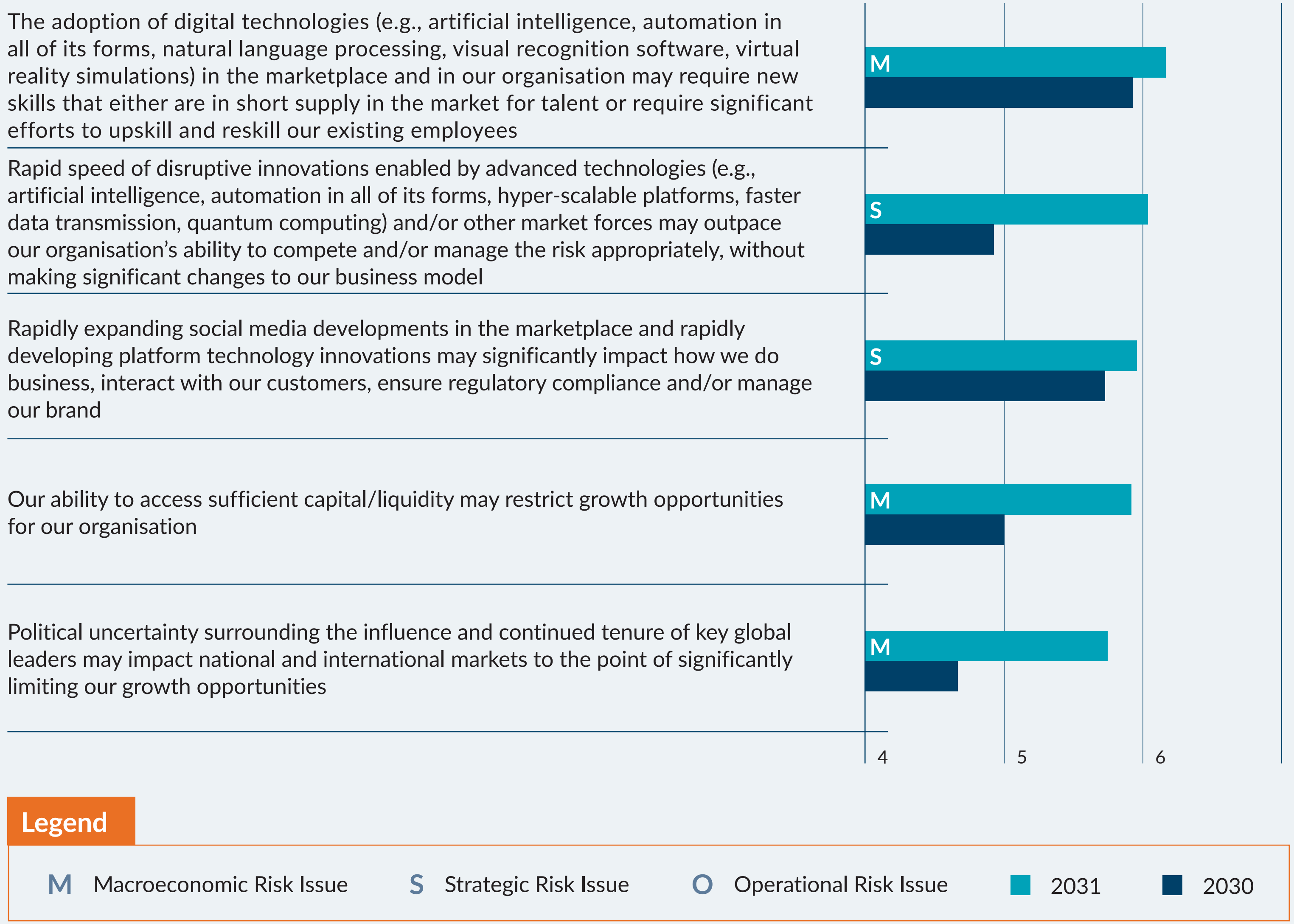
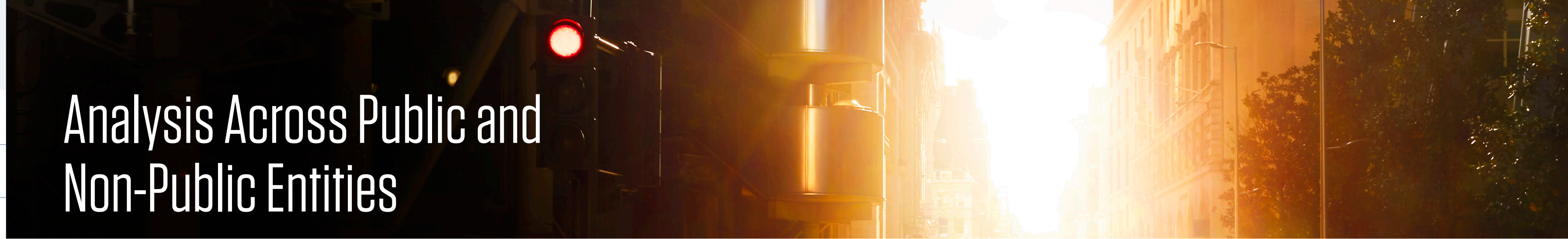


TABLE OF CONTENTS



Analysis Across Public and Non-Public Entities

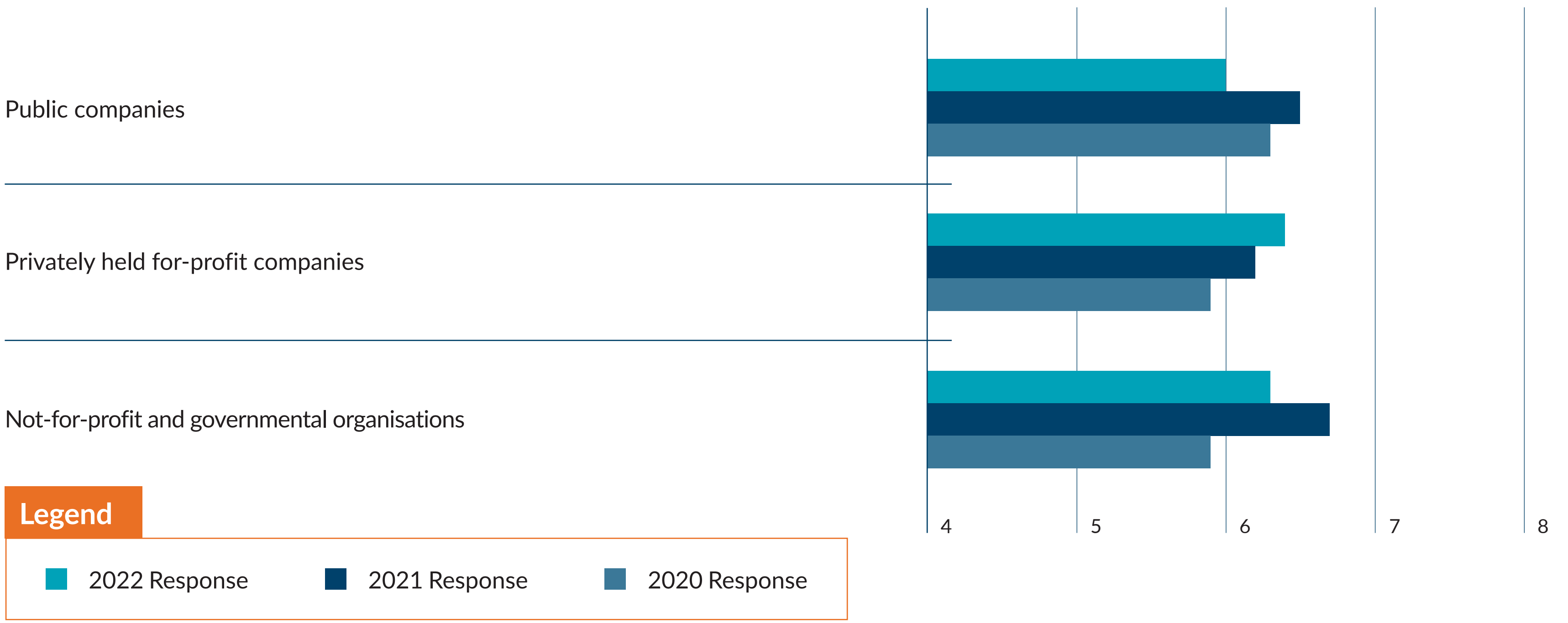
Participants in the survey represent three types of organisations: publicly traded companies (673 respondents), privately held for-profit entities (608 respondents), and not-for-profit and governmental organisations (172 combined respondents).

We analyse responses across these three types of entities to determine whether different types of organisations rank-order risks differently. Similar to our analysis summarised earlier, we analyse responses about overall impressions of the magnitude and severity of risks across the three organisational type categories.

Again, the scores reflected in Figure 35 reflect responses to the question about the overall impression of the magnitude and severity of risks using a 10-point scale where 1 = "Extremely Low" and 10 = "Extremely High."

Overall, what is your impression of the magnitude and severity of risks your organisation will be facing with respect to achieving its objectives and reaching or exceeding profitability (or funding) targets over the next 12 months?

FIGURE 35



All three entity types agree that the overall magnitude and severity of risks are of a "Significant Impact" level in 2022, but only the privately held for-profit companies believe that 2022 will be riskier than 2021.

Figures 36-38 highlight the top five risks identified by each type of organisation.

2022 risk issues

The top five risks across the three groups are reasonably consistent. All three groups rank the risks associated with government policies surrounding public health practices and succession and talent acquisition among their top five risks. In addition, market conditions associated with COVID-19, economic conditions in markets currently served, and preparation to manage cyber threats and the adoption of digital technologies are cited by at least two of these groups of organisations. Not-for-profit and governmental organisations are alone in citing resistance to change as a top five risk concern.

Within the privately held for-profit companies category, we also captured responses from participants who classified their respective organisations as either "preparing to become publicly held" or "no current plans to become publicly held." Specific results for these two subcategories of privately held organisations are not shown, but we observed a number of major differences between these two groups. Across the board, risk scores among organisations planning to go public are substantially higher compared with organisations not planning to become publicly held. For 2022, organisations planning a public offering are concerned about pandemic-related government policies and regulation impacting business performance, shifts in expectations about social issues and DEI, and adapting their business model to adapt to the new normal. They rate 31 of the 36 issues at the "Significant Impact" level. The top-rated risk issue for organisations planning to remain privately held is resistance to change operations and the business model. Of note, however, these organisations rate none of the 36 risks issues in the survey at the "Significant Impact" level.

> "All three organisation types we examined — public companies, privately held for-profit companies, and not-for-profit and governmental organisations — included in their top five risks for 2022 concerns relating to restrictive government public health policies, leadership succession, and the acquisition and retention of talent. As for the outlook over the next decade, succession and talent issues were also top of mind for all three organisation types in addition to concerns about the future of work."
>
> **DON PAGACH**
> Professor of Accounting, Director of Research, Enterprise Risk Management Initiative, Poole College of Management, NC State University

2031 risk issues

Concern over the adoption of digital technologies is viewed as the top risk for 2031 by all organisations, with both privately held for-profit and not-for-profit and governmental organisations ranking that risk at the "Significant Impact" level. In addition, there are universal concerns about succession and talent challenges, with that issue in the top five risks for 2031 for each of the organisation types. The strategic risks associated with substitute products and ease of entrance of new competitors are ranked in the top five by the public companies and privately held for-profit organisation groups.

Not-for-profit and governmental organisations appear to be more concerned about the rapid speed of disruptive innovations and ensuring data privacy and compliance than their counterparts in public and private for-profit entities.

With respect to privately held companies with IPO aspirations, similar to the 2022 outlook, these organisations view the 10-year outlook to be much riskier compared with organisations not planning to become publicly held. For privately held organisations planning an IPO, the highest-rated risk issues for 2031 include the ability to access sufficient capital and liquidity, economic conditions constraining growth opportunities, and uncertainty in managing supply chains.

> "Private companies aspiring to go public face the time-consuming challenge of sustaining the business while also getting ready for prime time. Numerous complex legal and technical requirements and the need to transform organisational functions and processes in many ways weigh on management. These requirements and the higher expectations imposed upon public companies are likely influencing the ratings of respondents representing these companies."
>
> **CHRISTOPHER WRIGHT**
> Global Leader, Business Performance Improvement, Protiviti

TABLE OF CONTENTS

Public companies – 2022

FIGURE 36A

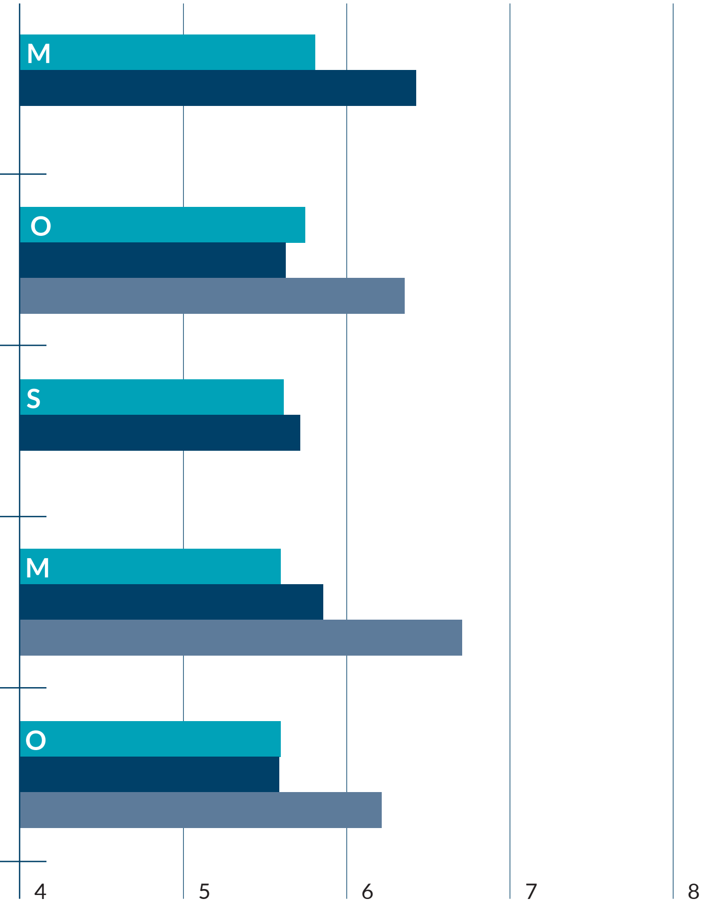
Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business

Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets

Market conditions imposed by and in response to COVID-19 and emerging variants, including shifts in consumer behaviour to digital channels, may continue to impact customer demand for our core products and services

Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation

Our organisation may not be sufficiently prepared to manage cyber threats such as ransomware and other attacks that have the potential to significantly disrupt core operations and/or damage our brand



Legend

M Macroeconomic Risk Issue S Strategic Risk Issue O Operational Risk Issue 2022 2021 2020

TABLE OF CONTENTS

Public companies – 2031

FIGURE 36B

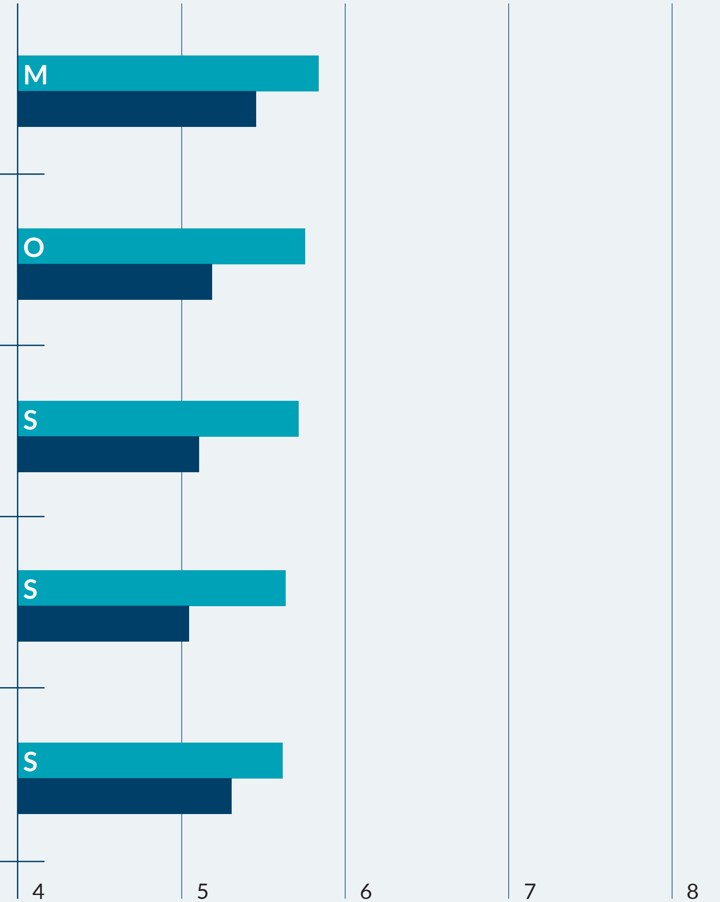
The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees

Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets

Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation's ability to compete and/or manage the risk appropriately, without making significant changes to our business model

Ease of entrance of new competitors into the industry and marketplace or other significant changes in the competitive environment (such as major market concentrations due to M&A activity) may threaten our market share

Substitute products and services may arise from competitors that may enhance the customer experience and affect the viability of our current business model and planned strategic initiatives



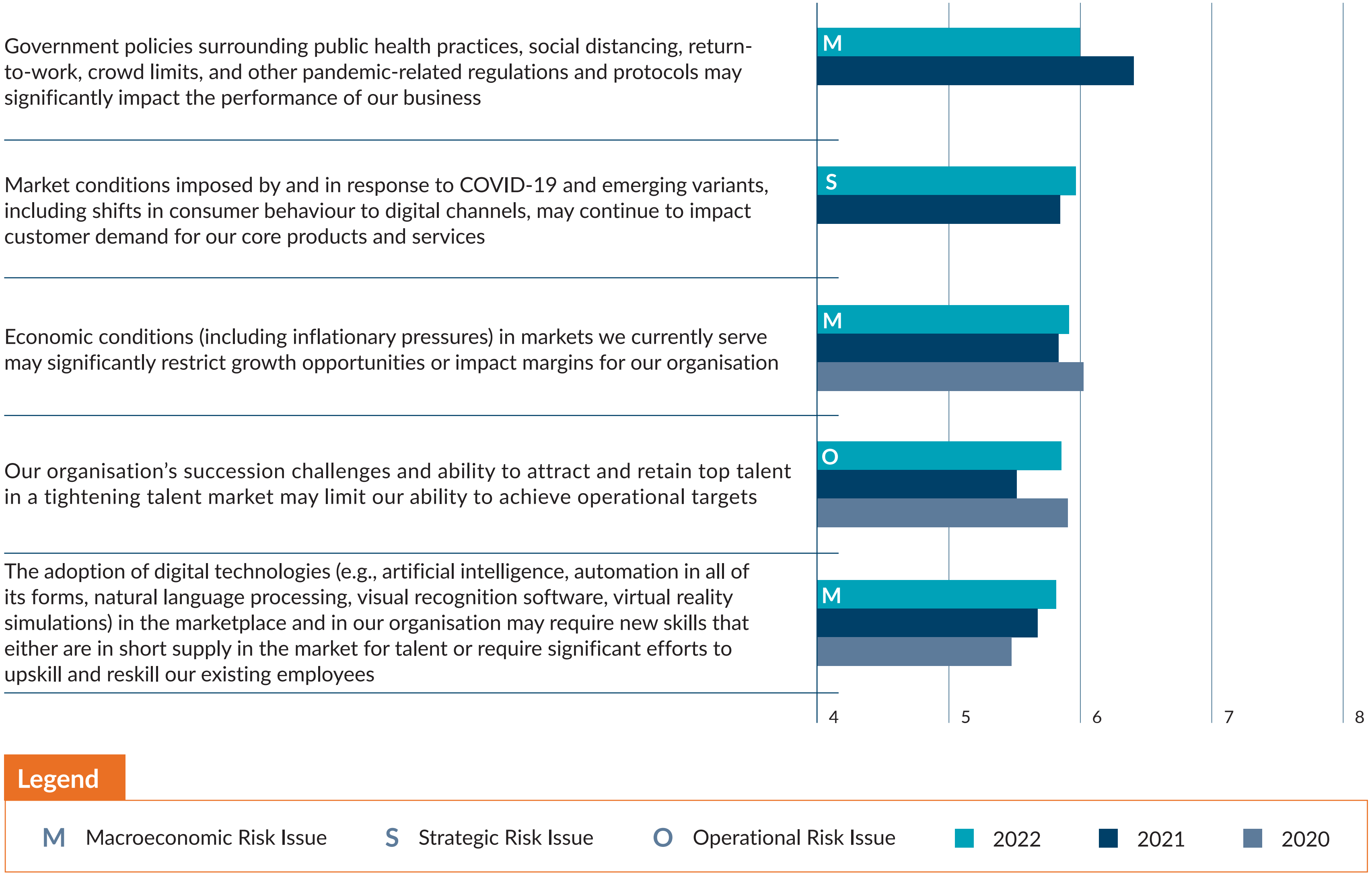
Legend

M Macroeconomic Risk Issue   S Strategic Risk Issue   O Operational Risk Issue   2031   2030

TABLE OF CONTENTS

Privately held for-profit companies – 2022

FIGURE 37A



Privately held for-profit companies – 2031

FIGURE 37B

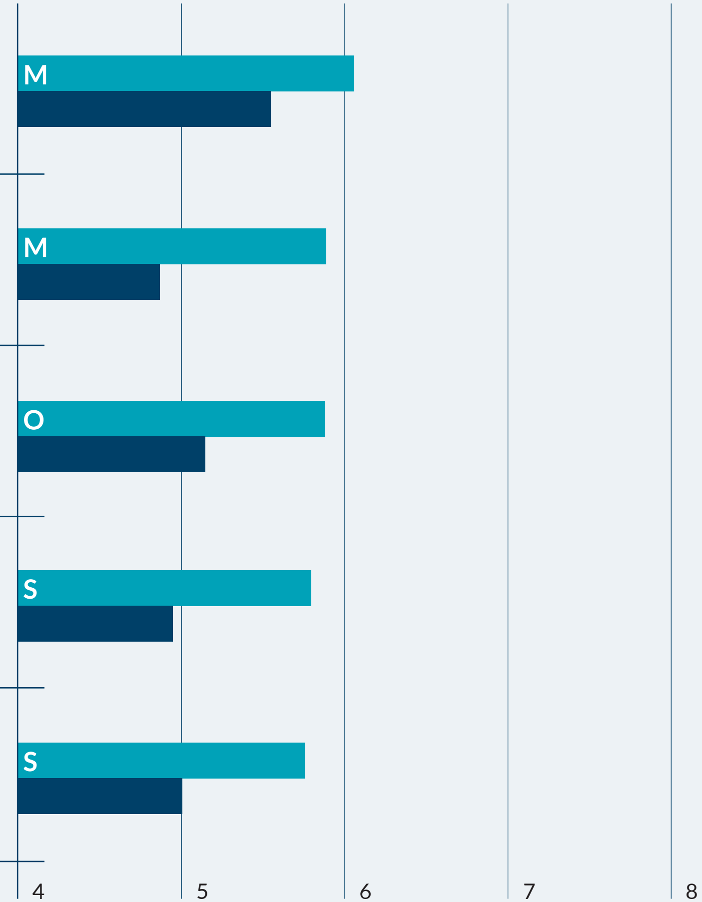
The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees

Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities or impact margins for our organisation

Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets

Substitute products and services may arise from competitors that may enhance the customer experience and affect the viability of our current business model and planned strategic initiatives

Ease of entrance of new competitors into the industry and marketplace or other significant changes in the competitive environment (such as major market concentrations due to M&A activity) may threaten our market share



Legend

M Macroeconomic Risk Issue S Strategic Risk Issue O Operational Risk Issue 2031 2030

Not-for-profit and governmental organisations – 2022

FIGURE 38A

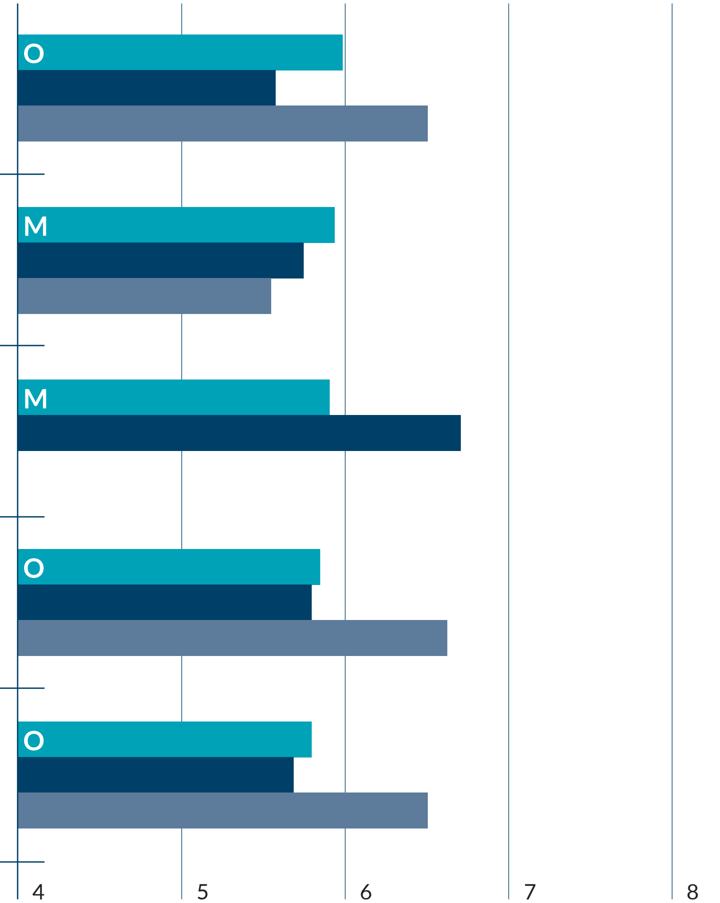
Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets

The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees

Government policies surrounding public health practices, social distancing, return-to-work, crowd limits, and other pandemic-related regulations and protocols may significantly impact the performance of our business

Resistance to change in our culture may restrict our organisation from making necessary adjustments to the business model and core operations

Our organisation may not be sufficiently prepared to manage cyber threats such as ransomware and other attacks that have the potential to significantly disrupt core operations and/or damage our brand



Legend

M Macroeconomic Risk Issue   S Strategic Risk Issue   O Operational Risk Issue   2022   2021   2020

Not-for-profit and governmental organisations – 2031

FIGURE 38B

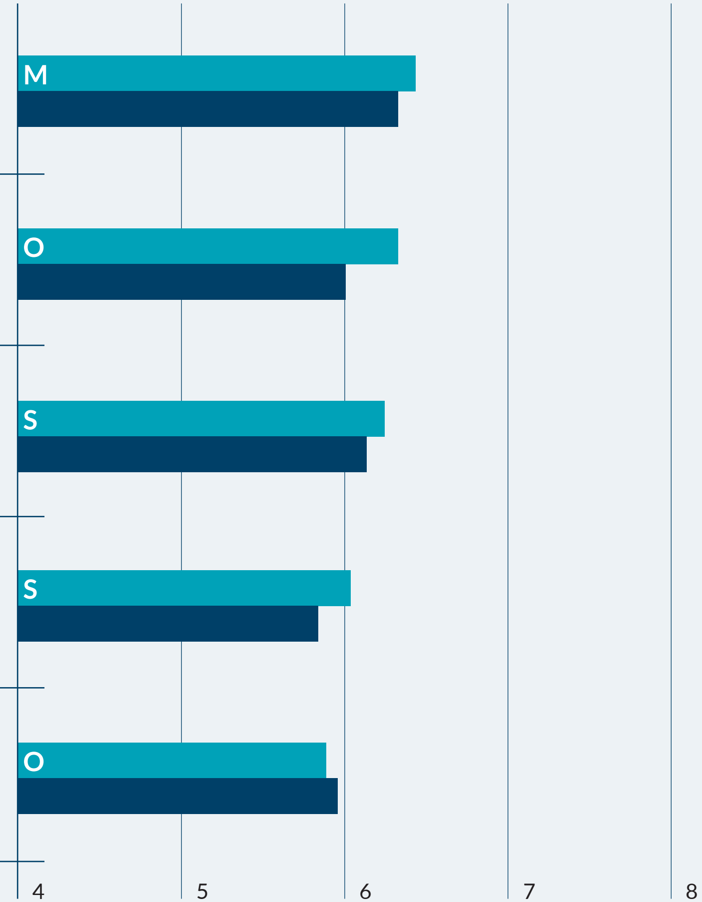
The adoption of digital technologies (e.g., artificial intelligence, automation in all of its forms, natural language processing, visual recognition software, virtual reality simulations) in the marketplace and in our organisation may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees

Our organisation's succession challenges and ability to attract and retain top talent in a tightening talent market may limit our ability to achieve operational targets

Rapid speed of disruptive innovations enabled by advanced technologies (e.g., artificial intelligence, automation in all of its forms, hyper-scalable platforms, faster data transmission, quantum computing) and/or other market forces may outpace our organisation's ability to compete and/or manage the risk appropriately, without making significant changes to our business model

Regulatory changes and scrutiny may heighten, noticeably affecting the way our processes are designed and our products or services are produced or delivered

Ensuring data privacy and compliance with growing identity protection expectations and regulations may require alterations demanding significant resources to restructure how we collect, store, share and use data to run our business



Legend

M Macroeconomic Risk Issue S Strategic Risk Issue O Operational Risk Issue ■ 2031 ■ 2030

Plans to Deploy Resources to Enhance Risk Management Capabilities

Recall that we asked respondents about their overall impression of the perceived magnitude and severity of risks to be faced in 2022 (note that we did not ask participants to consider this for 2031). The average overall response indicates a perceived decrease in the nature of the overall risk environment, with an average score of 6.2 in 2022 relative to 6.4 in 2021 (but an increase from the 2020 score of 6.1).

We also asked executives to provide insights about whether their organisation plans to devote additional resources to improve risk management over the next 12 months. We used a 10-point scale, whereby 1 signifies "Extremely Unlikely to Make Changes" and 10 signifies "Extremely Likely to Make Changes."

In contrast with the finding that respondents noted a decrease in their impressions about the magnitude and severity of overall risks for 2022 relative to the prior year, they indicate a higher likelihood of deploying more resources to risk management in 2022 relative to 2021 (and 2020).

We are not surprised by this result and believe there continues to be a need to invest in more robust risk management capabilities, especially in light of the past two years of pandemic-related risk concerns. The pandemic experience has highlighted the need for preparedness and agility as well as demonstrated that companies can innovate within a fraction of pre-pandemic timelines.

Organisation size analysis

We also analyse responses to these questions across different sizes of organisations. This year we observe that it is the larger organisations that indicate an increase in the likelihood of greater investment in risk management resources. All but the smallest firms (with revenues less than $100 million) indicate a higher likelihood of increased investment in 2022 relative to 2021 and 2020. The smallest organisations also indicate a higher likelihood of additional investment in risk management processes relative to 2020 (but not when compared to 2021).

How likely or unlikely is it that your organisation will devote additional time and/or resources to risk identification and management over the next 12 months?

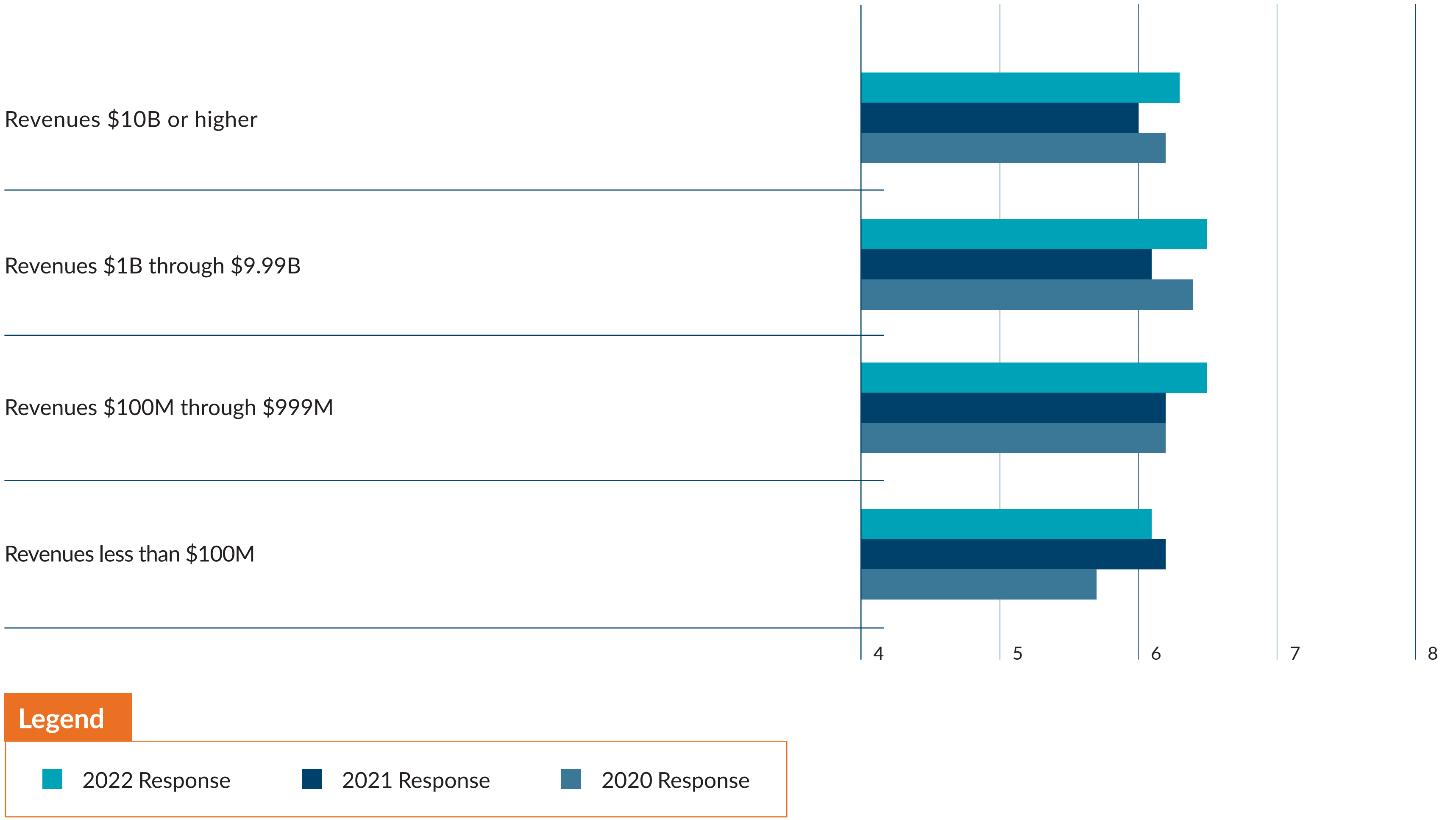
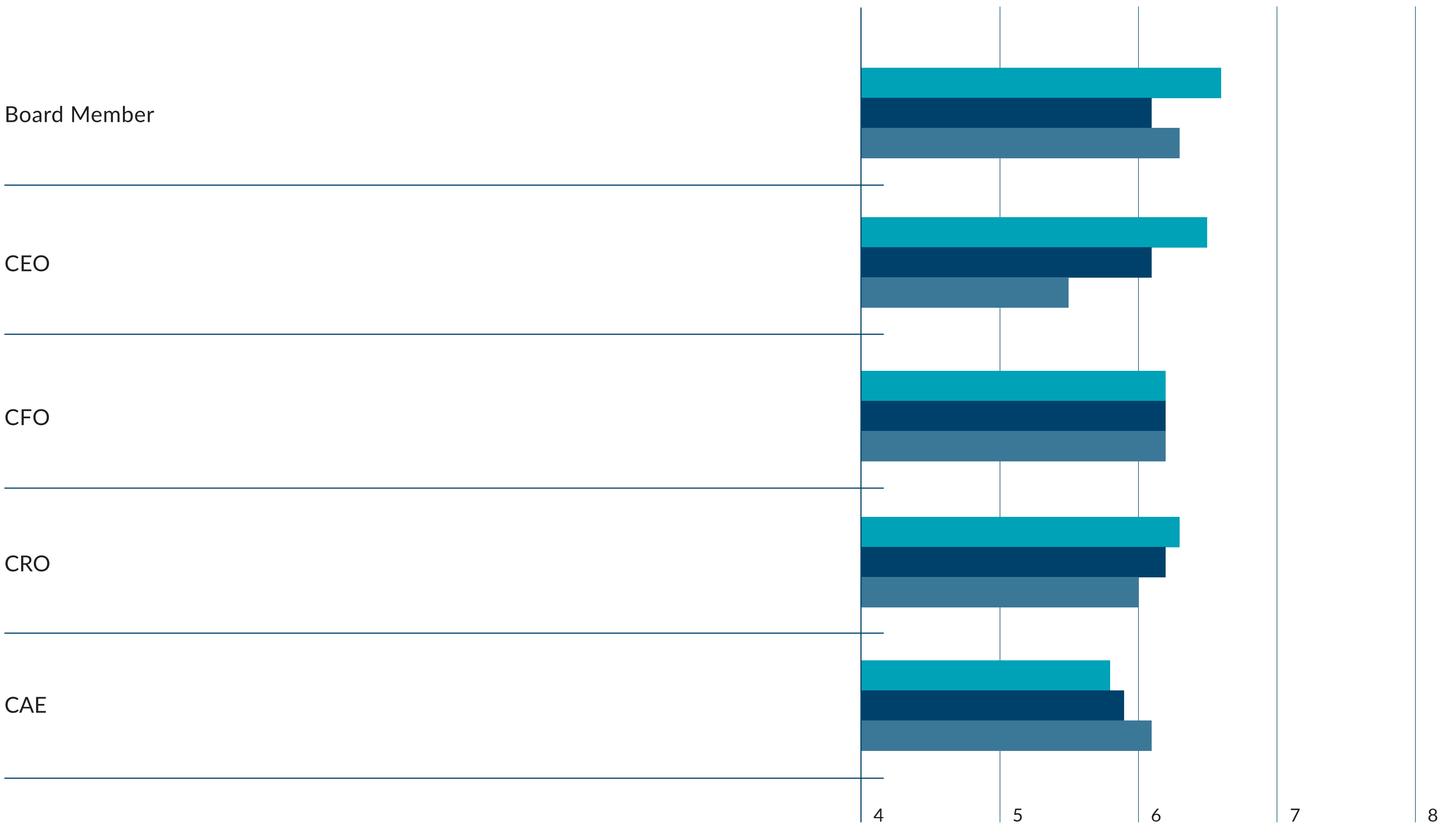


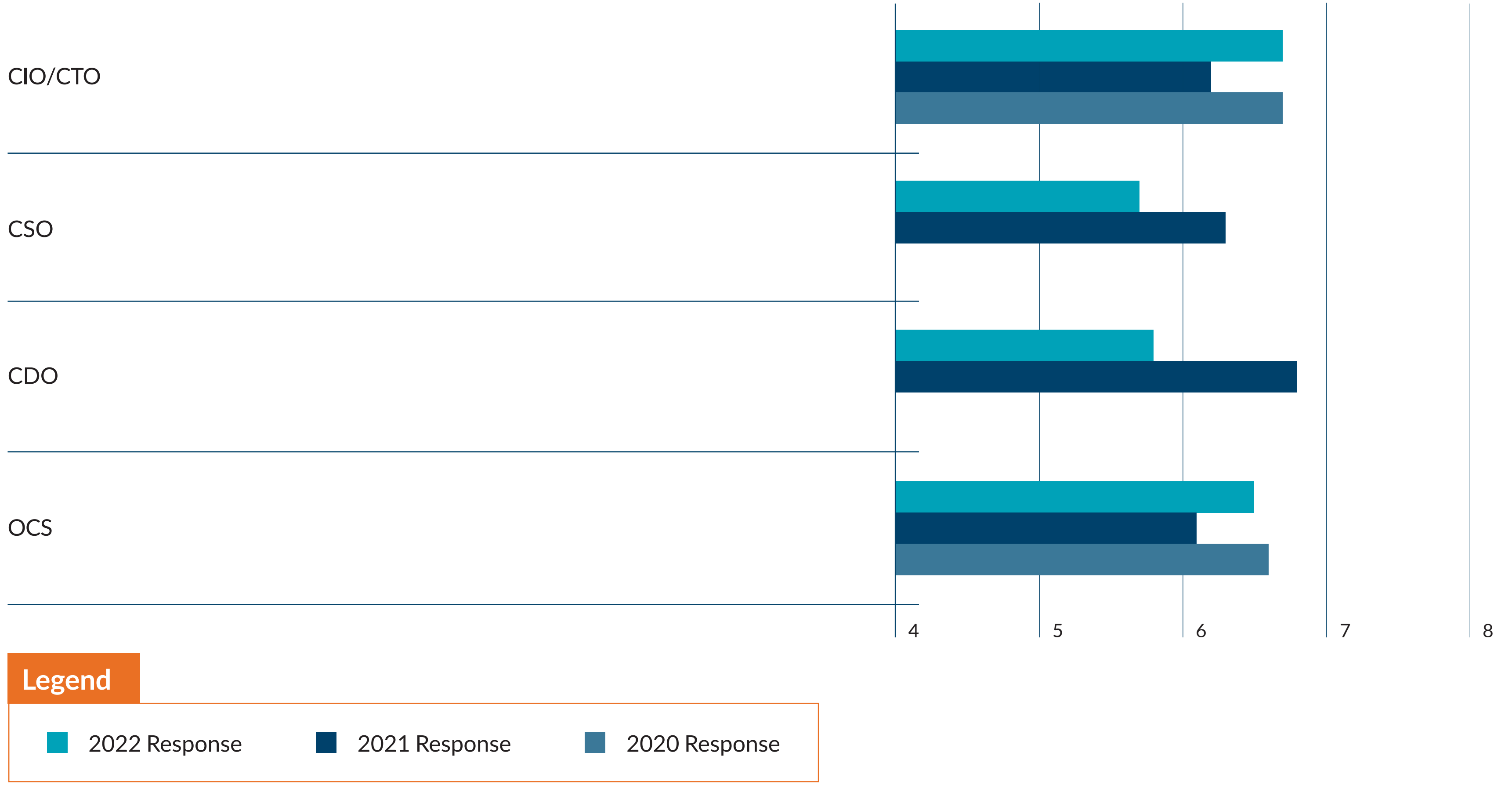
TABLE OF CONTENTS

Respondent position analysis

Interestingly, CEOs are in agreement with board members, CIOs/CTOs and Other C-Suite executives with respect to the likelihood of committing enhanced resources to risk management capabilities in 2022. All four groups signal increased investment in the coming year. The remaining five executive groups either see no additional investment relative to 2021 (CFOs and CROs) or reduced investment (CAEs, CSOs and CDOs). CIOs/CTOs (6.2 in 2021) and board members (6.1 in 2021) exhibit the greatest increase from their 2021 response.

How likely or unlikely is it that your organisation will devote additional time and/or resources to risk identification and management over the next 12 months?



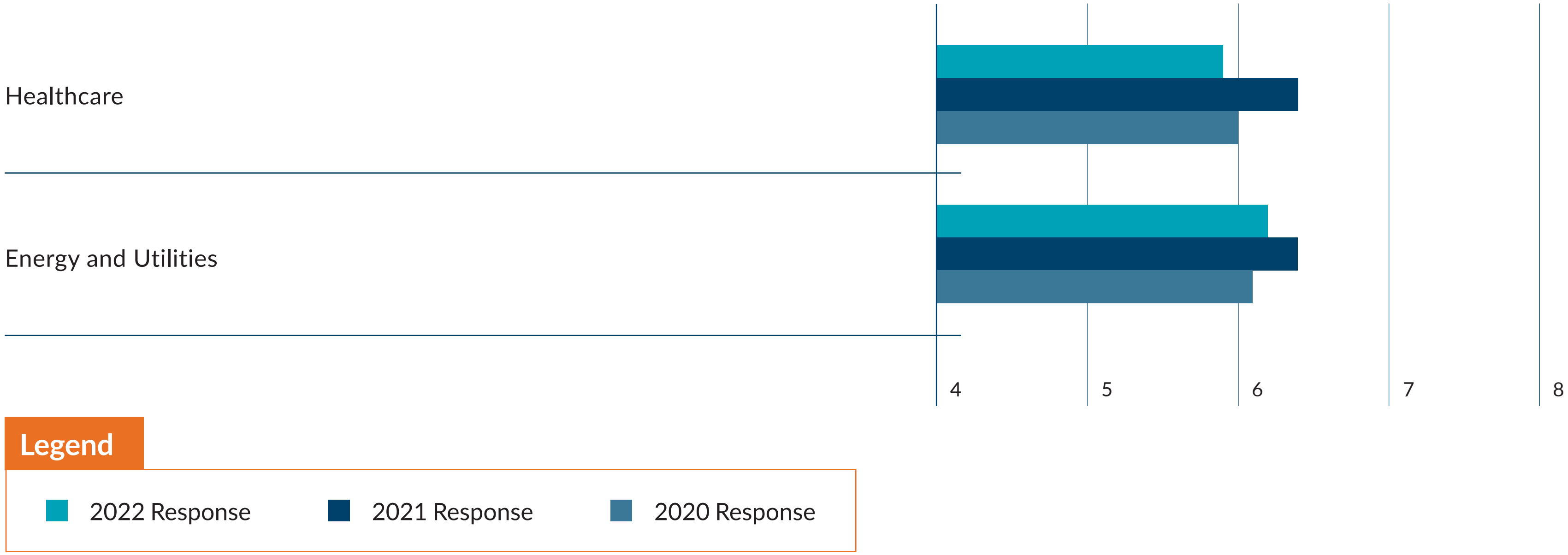

CIO/CTO
CSO
CDO
OCS
4
5
6
7
8
Legend
2022 Response
2021 Response
2020 Response

Industry analysis

The Healthcare and Energy and Utilities industry groups both expect reduced investment in 2022 relative to 2021. This may simply reflect the increased investments already made in 2021 as indicated in last year's numbers. The Financial Services industry group leads in both absolute terms for 2022 (6.9) and in the magnitude of the increase from 2021 expectations (an increase of 0.8). The Consumer Products and Services, Manufacturing and Distribution, and Technology, Media and Telecommunications industry groups also indicate a higher likelihood to invest more in risk management capabilities in 2022 relative to 2021.

How likely or unlikely is it that your organisation will devote additional time and/or resources to risk identification and management over the next 12 months?

TABLE OF CONTENTS



"Given the confluence of ESG considerations and enterprise risk management, there is an opportunity to expand the contextual perspective underpinning corporate risk assessments and broaden the scope and focus of risk management capabilities. Taking advantage of this opportunity can enhance the credibility of ESG disclosures and the resiliency of the organisation."

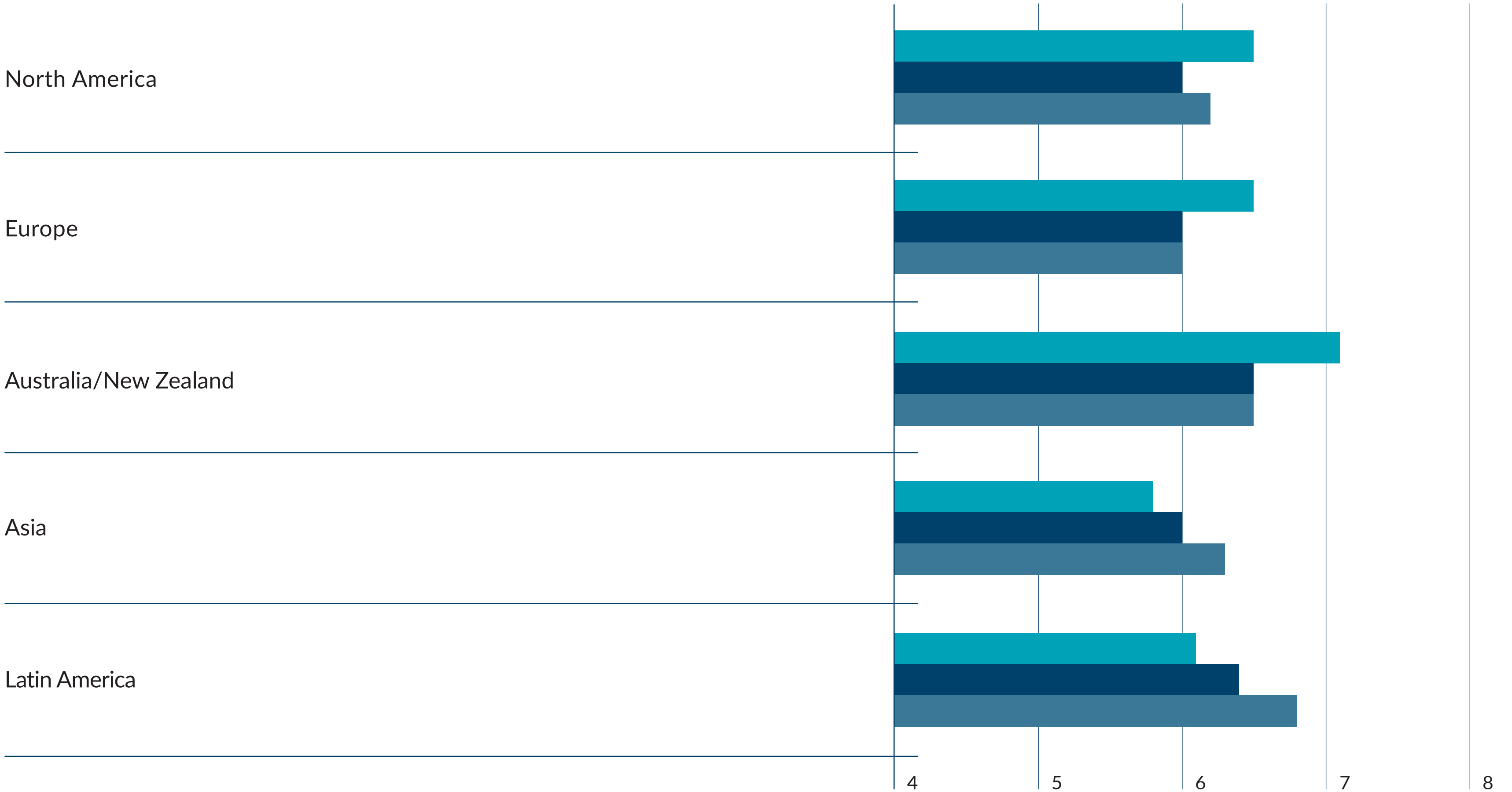
DOLORES ATALLO
Managing Director, Protiviti

TABLE OF CONTENTS

Geographic region analysis

Organisations with headquarters based in Australia/New Zealand, Africa, North America and Europe indicate the greatest likelihood that they will devote additional resources to risk management in 2022, with all but Africa signalling a significant increase relative to 2021. Organisations headquartered in Asia, Latin America, India and the Middle East all indicate a reduced likelihood of additional investment in risk management capabilities as compared to the 2021 results, with Middle Eastern organisations exhibiting the largest decrease (from 6.6 in 2021 to 5.9 in 2022).

How likely or unlikely is it that your organisation will devote additional time and/or resources to risk identification and management over the next 12 months?




Middle East
India
Africa
4
5
6
7
8
Legend
2022 Response
2021 Response
2020 Response

Organisation type analysis

Both public and privately held companies indicate higher levels of likelihood that they will invest more time and resources in building out their risk management infrastructure in 2022 relative to 2021 (and 2020 for private companies). On the other hand, not-for-profit and governmental organisations indicate no increase (or decrease) in the likelihood of additional investment in 2022 compared to 2021.

How likely or unlikely is it that your organisation will devote additional time and/or resources to risk identification and management over the next 12 months?

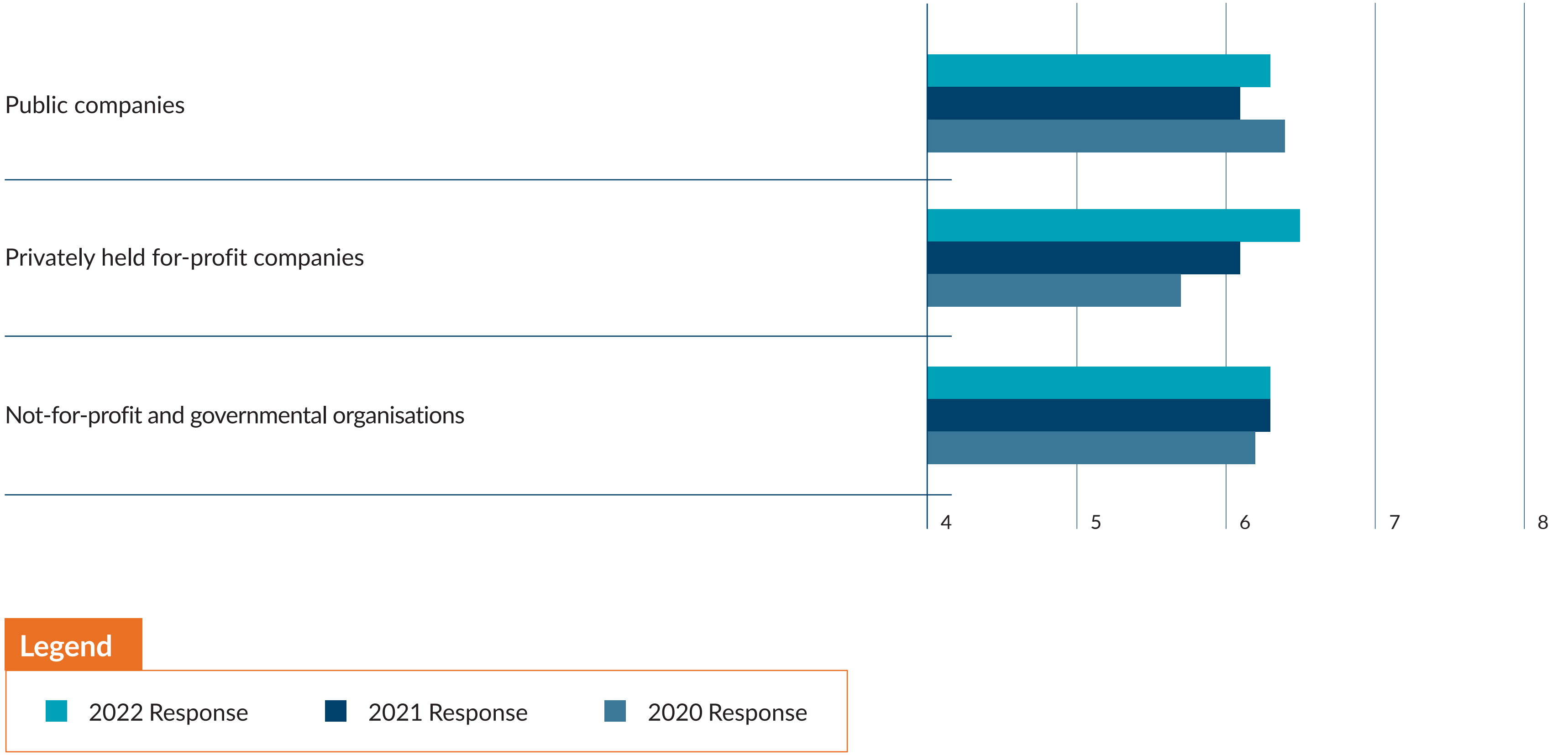


TABLE OF CONTENTS

A Call to Action: Questions to Consider

This report provides insights from 1,453 board members and executives about risks that are likely to affect their organisations in the short term (over the next 12 months) and over the next decade (2031). Our respondents reveal that the scope of global risks has become more expansive and the number of different risks rated as top risk concerns is only growing in nature and type. While some risks critical in the prior year remain top of mind for 2022, there are noticeable shifts in what comprise the top 10 list of risks for 2022 and how they differ from those anticipated in the next decade, reminding executives that risks are constantly emerging and evolving.

The ongoing events continue to present major challenges as we move into 2022. The level of uncertainty in today's marketplace is rapidly evolving and presenting new risks that many previously thought were unimaginable. The ever-changing risk landscape and the overall perceived magnitude and severity of risks should prompt boards and senior executives to closely scrutinise the approaches they use to keep an eye on risks emerging around the corner.

Unfortunately, some organisations continue to manage risks the way they have for many years, even though the profile of risks is evolving as business transforms in light of the pandemic and rapidly advancing digital economy, as well as, for many organisations, the transition to permanent hybrid work environments. Their risk profile is most certainly not yesterday's risks, and a focus on financial and compliance risks using static analog age tools without any conception of the organisation's risk appetite leaves decision-makers across the organisation to their own devices. Soon those organisations may realise, once it's too late, that their level of investment in risk management and willingness to engage in robust tools are inadequate.

Boards of directors and executive management teams cannot afford to manage risks casually on a reactive basis. Hopefully the experiences of navigating the complexities of the ongoing pandemic, social unrest and the extreme polarisation of viewpoints revealed by the events triggered by a formidable airborne pandemic that levied a once-in-a-century blow on the global economy have highlighted for executives and boards weak points in their organisations' approach to risk management and preparedness for the unexpected. Immature, ad hoc approaches to risk management will soon be outpaced by the rapid pace of disruptive innovation and technological developments in an ever-advancing digital world. The focus today is on agility and resilience as much as it is on prevention and detection.

Given the disruptive environment, now may be an opportune time for boards and C-suites to closely examine how their organisation approaches risk management and oversight in the digital age to pinpoint aspects demanding significant improvement. Managing today's risks using outdated techniques and tools may leave the organisation exposed to significant, undesirable and potentially disruptive risk events that could obviate its strategy and business model and threaten its brand and reputation — even its very survival.

Accordingly, in the interest of evaluating and improving risk management capabilities in light of the findings in this report, we offer executives and directors the following diagnostic questions to consider when evaluating their organisation's risk assessment and risk management processes:

TABLE OF CONTENTS

Carry forward risk management lessons learned from the pandemic

Because many organisations have benefited from the "all-hands-on-deck" approach to how their leadership teams have come together to quickly assess emerging situations and respond to them as never seen before, many are pausing to find ways to carry forward the positive lessons from the past 18 months:

- How has the level of open dialogue among executives about risks improved over the recent past and what can we do to preserve that level of transparency and focus going forward?
- The pandemic forced organisations to address risks it imposed on them and their longstanding approaches for delivering core products and services. That reality forced the integration of risk insights with the strategies of the business. What have we learned from our management of risks triggered by the pandemic about the importance of focusing attention on risks that are most critical to our core business operations and strategic initiatives? What changes have we made to our business model that should be preserved for the long term?
- Who are the key business leaders and groups (committees, councils, task forces) across the organisation that were involved in helping navigate the unfolding risks our organisation faced during the pandemic? To what extent do those groups need to be formalised so that they continue to provide risk management leadership and inform decision-making for the future?

Ensure our risk management approach is sufficiently robust

Because risks are constantly changing, the risk management process needs to be repeatable, clearly defined and adequately resourced to ensure business leaders receive the information they need to stay abreast of emerging issues:

- What insights have the ongoing pandemic and other related risk issues revealed about limitations in our organisation's approach to risk management?
  - To what extent was the risk of a pandemic on our risk radar prior to early 2020? How did that help us prepare for what we have faced?
  - How prepared was our organisation to deal with the challenges we have experienced?
  - How effective was our organisation's business continuity plan in addressing the enterprisewide impact of COVID-19? If there were holes in the plan, have we addressed them?
  - Did our employees have all the technology and tools they needed? Did urgent efforts to adopt new tools and technologies and transition to a virtual workplace achieve acceptable productivity and returns?
  - Did our transition to a work-from-anyplace virtual environment create information security issues? If so, have we addressed those issues?
  - Was our culture resilient enough to pivot in response to the pandemic's effects on our customers, employees, third-party relationships and supply chain?
  - What do we now understand that we wish we had known prior to the pandemic? Why didn't we better anticipate those issues?
- Is the process supported by an effective, robust methodology that is definable, repeatable and understood by key stakeholders?
  - How well does our approach to risk identification foster consideration of risks that may have a higher-level strategic impact and that may be triggered by external events or competitor actions that are beyond our organisation's control?
  - Does the process delineate the critical enterprise risks from the day-to-day risks of managing the business so as to focus the dialogue in the C-suite and boardroom on the risks that matter most?
  - Do we engage all the right stakeholders in the risk identification process? Would most stakeholders describe our approach to risk management as one that is stale and requiring a refresh? Would they consider it to be siloed across disparate

TABLE OF CONTENTS

functions in the organisation? Is our approach primarily focused on internal, operational types of risks using a bottom-up approach to risk identification? Is it more ad hoc than structured?

– How extensively do we evaluate the effectiveness of responses that are intended to help prevent risk events from occurring and that might reduce the impact of risk events should they occur?

- Is there a process for identifying emerging risks? Does the risk identification process allow the board and management enough time to adequately consider response plans to these risks?
- To what extent does our management dashboard system include robust key risk indicators that help the leadership team monitor shifts in relevant external trends? Does the dashboard cover the most critical enterprise risks? Does it provide an effective early warning capability that enables the organisation to act as an early mover in response to market opportunities and emerging risks?

Evaluate whether our risk focus is positioned to provide strategic value

Given the pace of change experienced in the industry and the relative riskiness and nature of the organisation's operations:

- To what extent are we centring our focus on risks in the context of our organisation's execution of the strategy, achieving its business objectives, sustaining its operations, and preserving its brand image and reputation?
- To what extent is our leadership's knowledge of top risks enhanced by the organisation's risk management process serving as a value-added input to the strategy-setting process?
- Does our risk management process consider a sufficient time horizon to pick up looming strategic and emerging risks ("grey rhinos"), e.g., the longer the horizon, the more likely new risk issues will present themselves?
- To what extent is our focus on external risks linked to geopolitical shifts, emerging disruptive innovations and changes in macroeconomic factors?
- In our ongoing assessment of risk, do we consider the effects of changes in internal operations, personnel, processes, technologies, suppliers and third-party vendors?
- Does our risk management process consider extreme as well as plausible scenarios? Do we have meaningful discussions of potential "black swan" and "grey rhino" events? Do we deploy scenario analysis techniques to understand better how different scenarios will play out and their implications to our strategy and business model? Are response plans updated for the insights gained from this process?
- Are we encouraging the identification of opportunities to take on more risk on a managed basis? For example, is risk management integrated with strategy-setting to help leaders make the best bets from a risk/reward standpoint that have the greatest potential for creating enterprise value?
- Do the board and senior management receive risk-informed insights, competitive intelligence and opportunities to secure early-mover positioning in the marketplace, fostering more effective dialogue in decision-making processes and improved anticipation of future exposures and vulnerabilities?

Clarify accountabilities for managing risks

Following completion of a formal or informal risk assessment:

- Are risk owners assigned for newly identified risks? To what extent are owners held accountable for managing their assigned risks?
- Are effective risk response action plans developed to address the risk at the source? Are risk owners accountable for the design and execution of those responses?
- To what extent does the organisation need to elevate its oversight and governance of its business continuity planning and operational resilience activities? To what extent are these efforts limited to certain aspects of the organisation (e.g., information

TABLE OF CONTENTS

technology, supply chain operations) and not enterprisewide?

- Is there an effort to source the root causes of certain risks that warrant a better understanding? Does the sourcing process look for patterns that connect potential interrelated risk events?
- Are we monitoring the business environment over time for evidence of changes that may invalidate one or more critical assumptions underlying the organisation's strategy? If so, when there is evidence that one or more critical assumptions underlying the strategy are becoming, or have become, invalid, does management act in a timely fashion on that knowledge to revisit the strategy and undertake necessary mid-course adjustments?
- Do decision-making processes consider the impact of a particular decision on the organisation's risk profile?
  - Have we sufficiently communicated the relative value and importance of considering risk in decision-making across the enterprise?
  - Is the board sufficiently involved in the decision-making process, particularly when it involves acquisition of new businesses, entry into new markets, the introduction of innovative technologies or alteration of key assumptions underlying the strategy?
  - Is there actionable, current risk information that is widely shared to enable more informed decision-making across the organisation?
- Are significant risks related to the execution of the strategy and business model monitored over time to consider whether changes have occurred requiring corrective action and whether the organisation continues to operate within established risk tolerances in meeting key business objectives?

Communicate an enterprise view of top risks and board risk oversight

With respect to communicating and overseeing the risk profile:

- Is the board informed of the results of management's risk assessment on a timely basis? Do directors agree with management's determination of the significant risks?
- Are significant risk issues warranting attention by executive management and the board escalated to their attention on a timely basis? Does management apprise the board in a timely manner of significant emerging risks or significant changes in the organisation's risk profile?
- With respect to the most critical risks facing the organisation, do directors understand at a high level the organisation's responses to these risks? Is there an enterprisewide process in place that directors can point to that answers these questions, and is that process informing the board's risk oversight effectively?
- Is there a periodic board-level dialogue regarding management's appetite for risk and whether the organisation's risk profile is consistent with that risk appetite? Is the board satisfied that the strategy-setting process appropriately considers a substantive assessment of the risks the enterprise is taking on as strategic alternatives are considered and the selected strategy is implemented?
- Given the organisation's risk profile, does the board periodically consider whether it has access to the diverse expertise and experience needed – either on the board itself or through access to external advisers – to provide the necessary oversight and advice to management? For example, are there digital savvy and experienced directors on the board?

Assess impact of leadership and culture on our risk management process

Because culture and leadership significantly impact the organisation's approach to risk oversight:

- Is the board's and the C-suite's support for more robust risk management processes evident to key stakeholders across the organisation?
  - To what extent is our risk management process helping to foster robust discussion

and dialogue about top risk issues among senior management and the board?

  – Is the board asking for more risk management information and focused on advancing the organisation's risk management capabilities?

- To what extent is there a willingness among the leadership team to be more transparent about existing risk issues when sharing information with one another? What positive aspects of the organisation's culture have contributed to this improvement? What aspects continue to limit openness and transparency about risks?
- Do we have an accurate read on how our organisation's culture is affecting how employees engage in risk management processes and conversations? If so, how do we know?
- Are warning signs communicated by the risk management, compliance and ethics, or internal audit functions addressed in a timely fashion by executive and operational management?
- Do we have a "speak up" culture that encourages transparency and sharing of contrarian information and bad news? Are our employees convinced they can "speak up" without fear of repercussions to their careers or compensation? For example, does the process:
  – Encourage an open, positive dialogue for identifying and evaluating opportunities and risks?
  – Focus on reducing the risk of undue bias and groupthink?
  – Give adequate attention to differences in viewpoints that may exist across different executives and global jurisdictions?
- Is adequate attention given to red flags indicating warning signs of a dysfunctional culture that suppresses escalation of important risk information or encourages unacceptable risk taking?

These and other questions can assist organisations in defining their specific risks and assessing the adequacy of the processes informing their risk management and board risk oversight. We hope the important insights about the perceived risks on the horizon for 2022 and a decade later (2031) provided in this report prove useful. We also hope that the insights serve as a catalyst for an updated assessment of risks and the risk management capabilities in place within all organisations, as well as improvement in their risk assessment processes and risk management capabilities.

> "For enterprise risk management to add value, it must offer actionable insights that enhance an organisation's preparedness, agility and decisiveness. Appropriately focused on critical enterprise risks and emerging risks, it can help leaders not only understand the disruptive risks that could have an existential impact on the organisation but also consider those risks in setting strategy and evaluating options in specific situations."
>
> **EMMA MARCANDALLI**
> Managing Director, Protiviti

TABLE OF CONTENTS

Research Team

NC State University's ERM Initiative

- Mark Beasley
  Professor and Director of the ERM Initiative
- Bruce Branson
  Professor and Associate Director of the ERM Initiative
- Don Pagach
  Professor and Director of Research of the ERM Initiative

Protiviti

Principal Research Team

- Jim DeLoach
- Kevin Donahue
- Antonia Laplanche

Advisers

- Pat Scott
- Brian Christensen
- Emma Marcandalli
- Jonathan Wyatt
- Dolores Atallo
- Matthew Moore

TABLE OF CONTENTS

About Protiviti

Protiviti (www.protiviti.com) is a global consulting firm that delivers deep expertise, objective insights, a tailored approach and unparalleled collaboration to help leaders confidently face the future. Protiviti and our independent and locally owned Member Firms provide clients with consulting and managed solutions in finance, technology, operations, data, analytics, governance, risk and internal audit through our network of more than 85 offices in over 25 countries.

Named to the 2021 Fortune 100 Best Companies to Work For® list, Protiviti has served more than 60 percent of *Fortune* 1000 and 35 percent of *Fortune* Global 500 companies. The firm also works with smaller, growing companies, including those looking to go public, as well as with government agencies. Protiviti is a wholly owned subsidiary of Robert Half (NYSE: RHI). Founded in 1948, Robert Half is a member of the S&P 500 index.

About NC State University's ERM Initiative

The Enterprise Risk Management (ERM) Initiative in the Poole College of Management at NC State University provides thought leadership about ERM practices and their integration with strategy and corporate governance. Faculty in the ERM Initiative frequently work with boards of directors and senior management teams helping them link ERM to strategy and governance, host executive workshops and educational training sessions, and issue research and thought papers on practical approaches to implementing more effective risk oversight techniques (www.erm.ncsu.edu).

NC STATE Poole College of Management
Enterprise Risk Management Initiative

www.erm.ncsu.edu

protiviti®

www.protiviti.com