



Bulgarian CEO Survey as part of PwC's 23rd Annual Global CEO Survey

To upskill or not to upskill is no longer the question

www.pwc.bg/survey





Foreword



“For a fifth consecutive year, as part of PwC’s Annual Global CEO Survey, we have had the pleasure to talk to leading business leaders on the Bulgarian market and discuss with them important economic, social, political and business issues that impact their corporate strategies, but also their day-to-day business.

I would like to thank all respondents who shared their thoughts, expertise and concerns with us this year. Your contribution and insights are invaluable.

This year, both locally and globally, our survey results resonate with the high levels of uncertainty faced by business and society – uncertainty related to politics and trade wars, the changing demands for the workforce in the context of the Fourth Industrial Revolution (4IR), and the impact that COVID-19 is going to have on the global economy. This year we see that our participants (both in Bulgaria and globally) have lower than before levels of optimism related to the global economic growth and their own companies’ growth prospects. Throughout our conversations with CEOs we have explored the reasons and manifestations of this pronounced pessimism and what actions business leaders have been taking to drive business growth.

It is only natural that in the face of uncertainty we as human beings take a defensive stance, reducing investments in people, pulling back from new technologies, shying away from big challenges. However, it is our responsibility as business leaders to act. Instead of narrowing our focus and looking inward, we should explore a wider and a more creative range of options for growth. Instead of worrying about the demands of the new workforce and the demands of the new technological world, we need to take action and upskill our employees to build a more agile workforce.

We hope that our findings and comments will provide the reader with some food for thought on how to navigate successfully through uncertainty.

Bojidar Neytchev

Senior Partner, PwC CEE

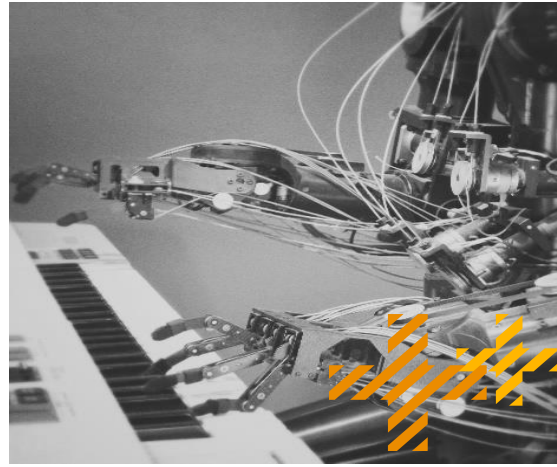


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“Doubt, of whatever kind,
can be ended by action
alone.”

Thomas Carlyle

34%

of Bulgarian survey participants believe
that the rate of the global economic
growth will decline in the next 12 months



What lies ahead?

Globally, CEOs' pessimistic prospects for economic growth mark record levels. Only 22% of CEOs worldwide believe that global economic growth will improve in the next 12 months while as many as 53% believe the rate of economic growth will slow down (see Exhibit 1). Globally, these are the highest levels of pessimism seen since we have started asking CEOs this question.

Last year was the first one when we saw Bulgarian CEOs being less optimistic than their global peers, with a sharp drop in the percentage who believed that global economic growth will improve. This year the share of optimists has further declined down to 34%, but it is back to higher in comparison to the Central and Eastern Europe (CEE) and global CEOs, where the percentages are 24% and 22% respectively.

Looking at our historical data, Bulgarian CEO's level of optimism is the lowest this year since we have started conducting the survey in 2016. Back then as few as 8% of them believed that the rate of economic growth would decline, while as many as 34% think so this year.

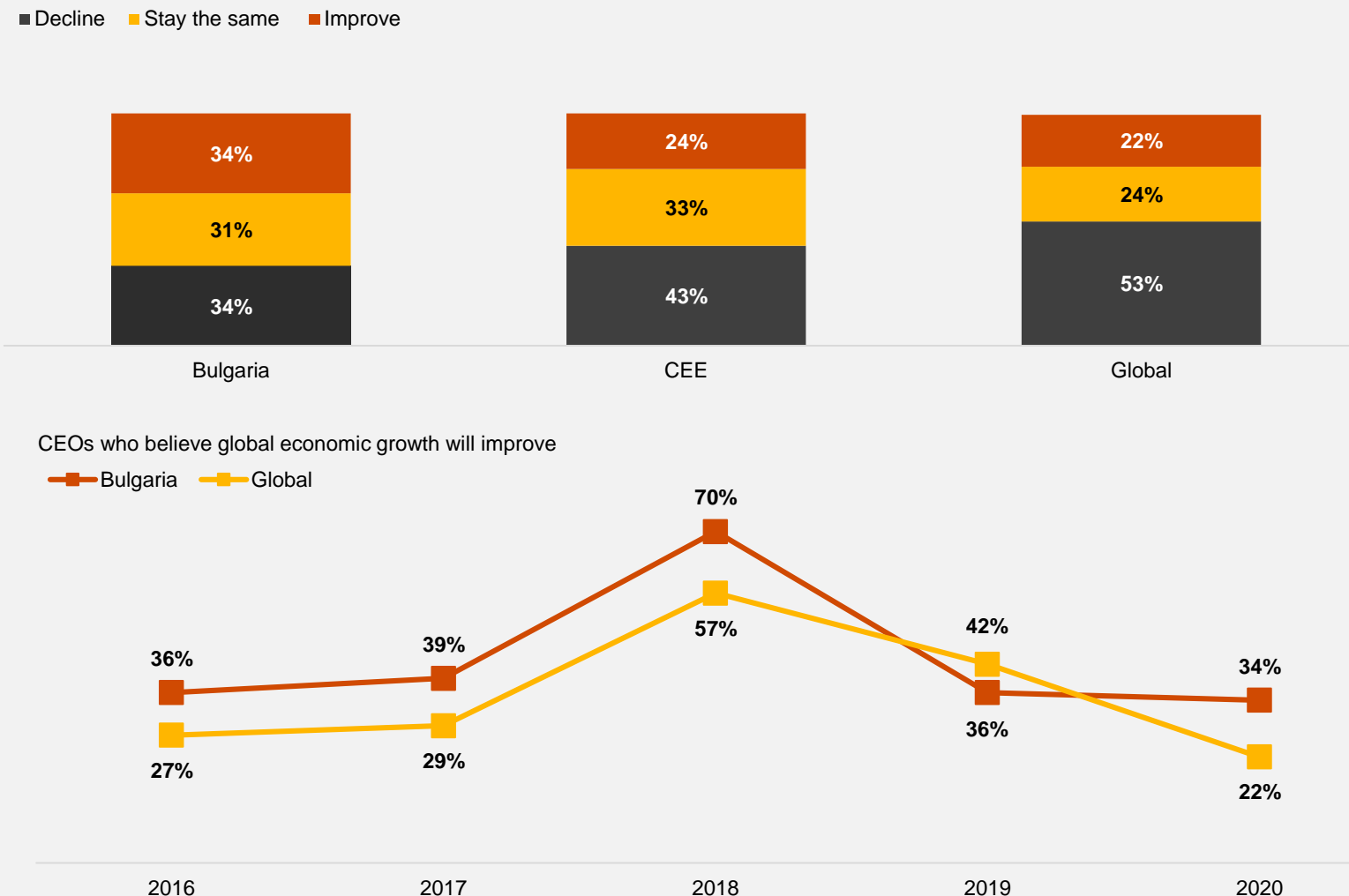
It is important to look at these results from the perspective of where we stand today. When completing the CEO survey, business leaders did not have in mind the global economic disruption currently being caused by the COVID-19 virus. Should the survey have been conducted only a few months later, the level of negative expectations would have probably been exacerbated. Although no official forecasts on the effects of COVID-19 pandemic on global GDP growth have been issued yet, the Organisation for Economic Cooperation and Development (OECD) recently predicted that global GDP growth will be lower by half a percentage point for 2020 (from 2.9% to 2.4%). In more dire scenarios, where the spread of the virus continues longer and wider, the negative impact on global economic growth is likely to be more serious.

Exhibit 1

Even though this year Bulgarian CEO's are back to being more optimistic than their peers, historically we are seeing record number of CEOs doubting what the future will bring.

Question

Do you believe global economic growth will improve, stay the same, or decline over the next 12 months?



Note: Not all figures add up to 100% as result of rounding percentages and excluding 'neither/nor' and 'don't know' responses; "improve" includes answers 'improve moderately' and 'improve greatly'; "decline" includes answers 'decline moderately' and 'decline greatly'

When talking about the prospects of their companies, business leaders across the board appear more cautious than before. In Bulgaria, 72% of participating CEOs are confident or very confident in their business' prospects for the next 12 months (see Exhibit 2). However, compared to the 96% from last year this marks a significant drop.

CEO's rising level of uncertainty is also visible when looking at the percentages of participants who report they are very confident in their growth prospects for the next year. Globally, once again we are seeing lower than ever numbers, with just 27% of CEOs confirming strong level of confidence. Only in 2009 we reported a smaller number of CEOs (i.e. 21%) being extremely confident in their business potential. Bulgarian CEOs have fluctuated in their level of confidence over the past five years, but there is a clear drop in the percentage of very confident CEOs during the last 3 years.

Thinking about longer-term potential, CEO's globally have a more pronounced belief that their businesses will be on track – 85% of business leaders say they are confident or very confident in their businesses' growth looking 3 years ahead. In CEE and in Bulgaria CEO's appear more cautious about the mid-term future, where Bulgarian business leaders seem the least confident in comparison with their peers. The drop in confidence locally is even more pronounced when we look at the decreasing number of Bulgarian CEOs who are very confident in mid-term growth prospects – we see a record low 38% as compared to 46% last year and 55% in 2018.

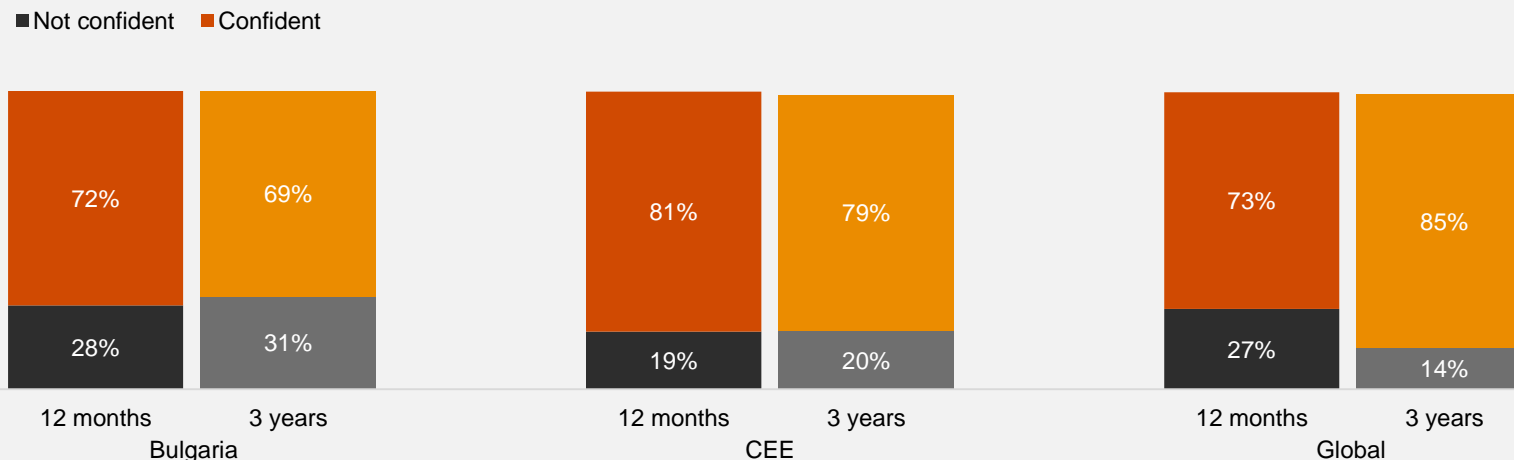
Bulgarian participants continue to be quite worried about the availability of key skills with 91% reporting being somewhat or extremely concerned about this potential threat (vs. 74% of CEOs globally). It seems that our participants are still uncertain about how they will overcome the evolving labor market crisis, especially in the longer-term. Additionally, the still unclear impact of the materialized Brexit on the business in the Eurozone may be an additional factor exacerbating our regional CEOs' diminishing confidence levels, especially when looking into the more distant future.

Exhibit 2

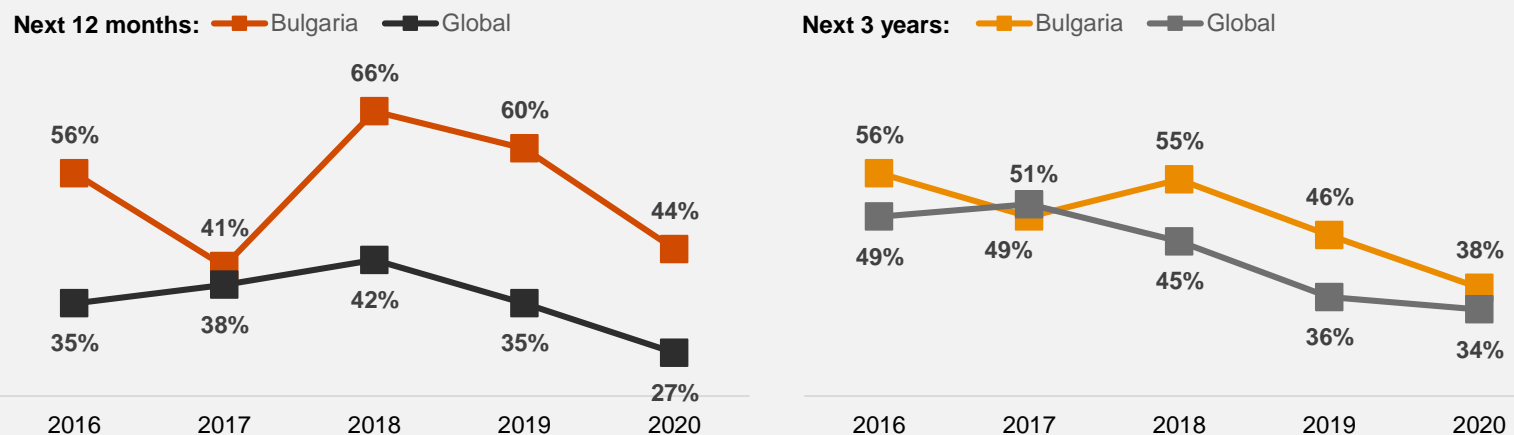
CEOs in Bulgaria and CEE are slightly more confident in short-term business success, while global CEOs believe more strongly in mid-term prospects.

Question

How confident are you about your organisation's prospects for revenue growth over the next 12 months/ 3 years?



CEOs who are very confident in their organisation's prospects for revenue growth



Note: Not all figures add up to 100% as result of rounding percentages and excluding 'neither/nor' and 'don't know' responses; "confident" includes answers 'somewhat confident' and 'very confident'; "not confident" includes answers 'not confident at all' and 'not very confident'

How to deal with uncertainty?

When asked about drivers of revenue growth over the next 12 months, the largest number of CEO's both locally and globally plan to focus on operational efficiency – 78% of Bulgarian and 77% of global CEOs (see Exhibit 3). Smaller percentages of local participants plan riskier actions like entering new markets (22%) or new M&A deals (16%). CEE business leaders are relatively aligned with Bulgarian CEOs in terms of top 5 planned initiatives, while globally, larger number of CEOs plan to launch new products (60%), enter new markets (35%) and engage in some types of M&A (35%).

This year's results are quite similar to what we saw last year, when thoughts of caution started to creep in. Again, the top 3 growth drivers are all internal for the organisation and show that revenue growth is expected to come from within.

Exhibit 3

CEO's across the globe plan to rely on operational efficiencies for growth.

Question

Which of the following activities, if any, are you planning in the next 12 months in order to drive revenue growth?

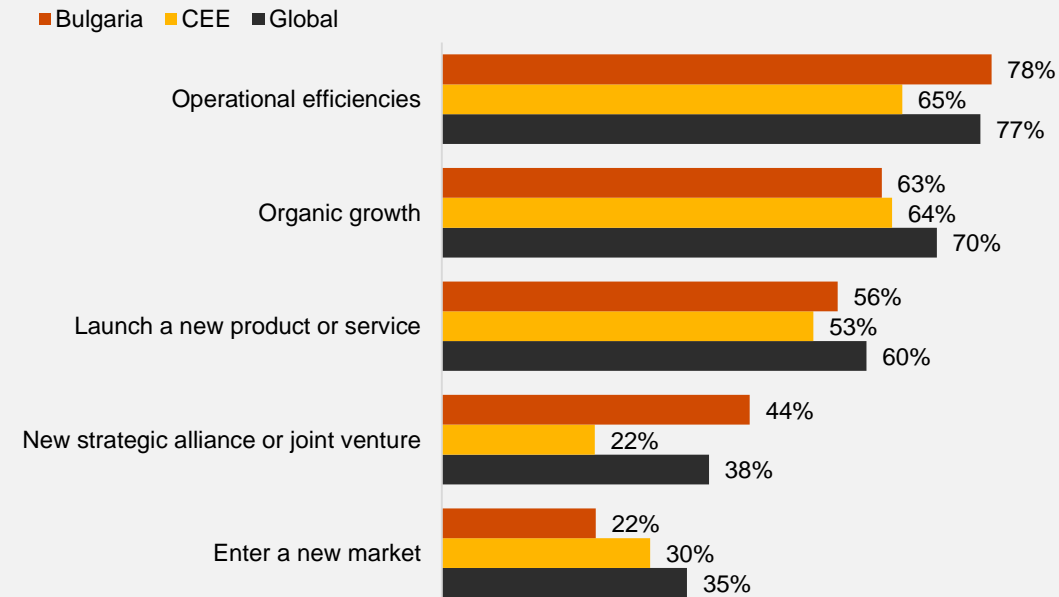
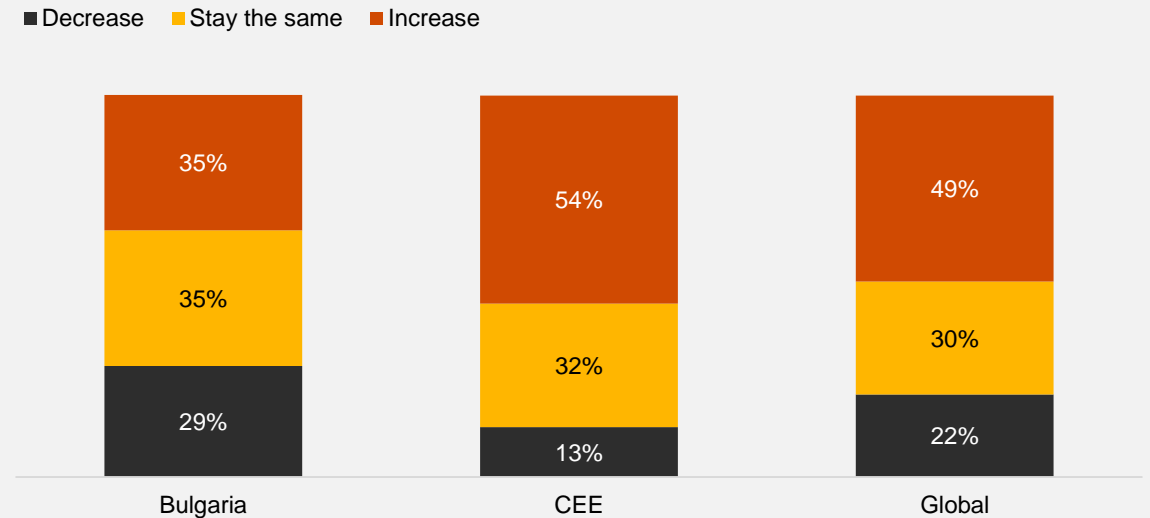


Exhibit 4

More Bulgarian CEOs plan headcount decreases than CEOs globally or in CEE.

Question

Do you expect headcount at your organisation to increase, decrease or stay the same over the next 12 months?



Note: Not all figures add up to 100% as result of rounding percentages and excluding 'neither/nor' and 'don't know' responses

One key aspect related to operational efficiency is of course the number of employees in the organisation. In line with reduced confidence in both the global economy and in prospects for own companies' business growth, 29% of Bulgarian survey participants plan to decrease headcount (see Exhibit 4). This percentage is relatively higher in comparison with global and CEE peers.

The workforce optimization trend is visible both locally and globally. Last year 42% of Bulgarian CEOs planned headcount growth, while this year only 35% plan to do so, Globally, last year 53% planned headcount growth vs. 49% this year. Additionally, only 18% of Bulgarian CEOs planned reducing their workforce last year, while presently close to one third have headcount reduction plans.

When faced with uncertainty coming from a variety of directions, business leaders instinctively react by becoming more risk averse, focusing inwards and staying on familiar turf, avoiding potential and unknown external threats.

But is this approach going to help them navigate through uncertainty successfully?

How to succeed in uncertain times?

Extracts from an article by Will Jackson-Moore, Heather Swanston, and Mohamed Kande, PwC's Strategy + Business, January 2020

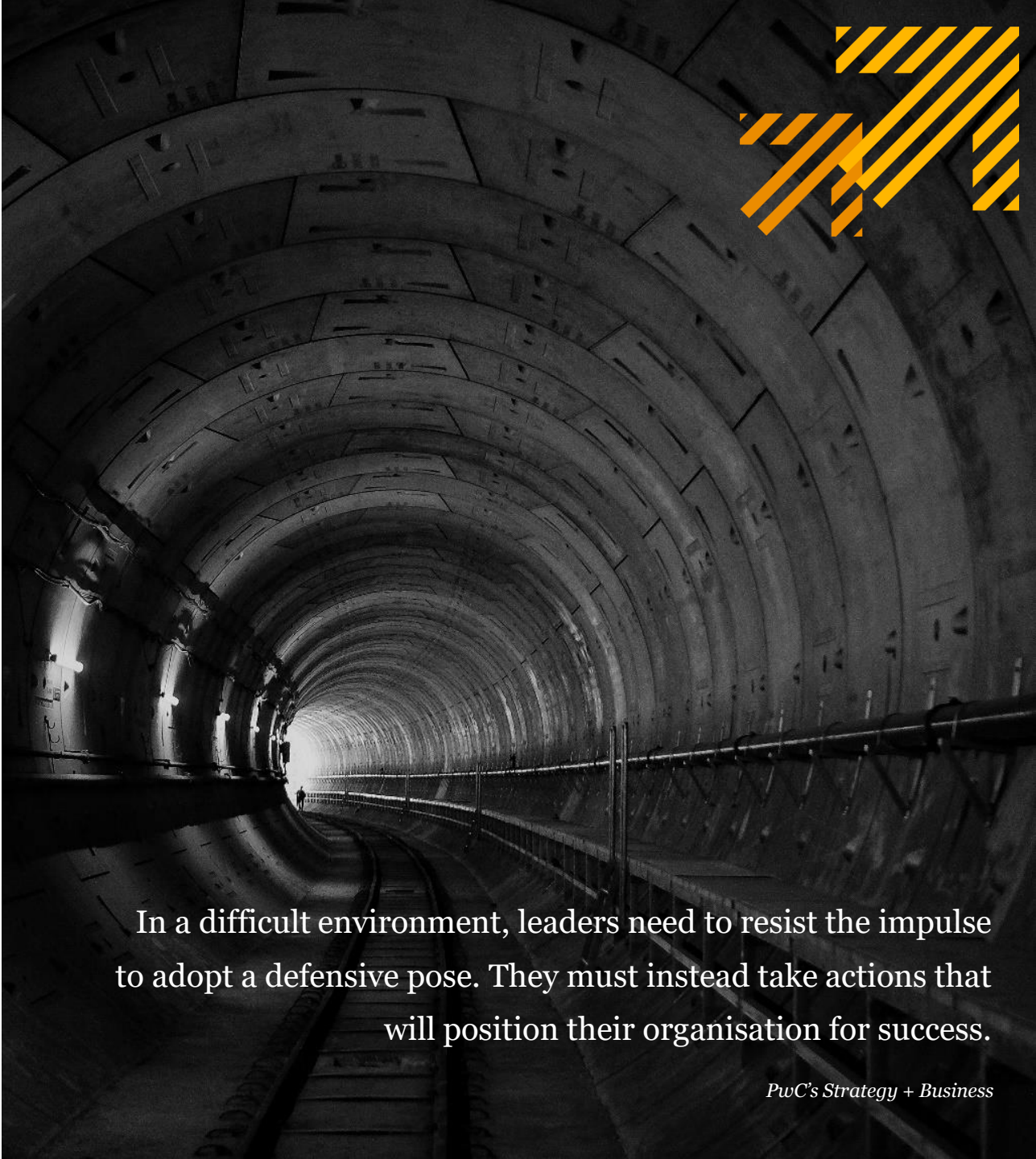
At the moment, around the world, CEOs are operating under a series of severe uncertainty alerts. There is great uncertainty surrounding the geopolitical context (e.g. the continuing saga of Brexit; trade tensions between the U.S. and China; tensions in the Middle East and Eastern Europe). There is structural uncertainty — namely, the disruption to many business models brought about by technological change, the rapidly changing nature of work, climate change, and tectonic shifts in consumer needs and tastes.

Leaders — being humans — are wired such that they have difficulty coping with uncertainty. When these different sources of uncertainty occur at once, exacerbating one another, the level of general emotional uncertainty rises. People tend to forecast by extrapolating recent experience endlessly into the future. Once it becomes uncertain whether expected growth will materialize, people can easily become unmoored.

How should leaders then manage in the face of uncertainty?

Rather than simply reacting instinctively and responding to the informational noise detected by their instruments, leaders can move swiftly and proactively to alter their course and chart a new one — and capitalize on dislocations in the market. The interlinked and mutually reinforcing attributes required to succeed in uncertainty are clear. Whether the topic is strategy or workforce, operations or deals, tax and regulation or finance, the same message applies. Organisations must have **a bias toward action**. As a baseline, companies must strive to be Fit for Growth, by aligning costs with priorities and strategy, investing in differentiated capabilities, and using traditional and digital levers to execute. Rather than setting on a single fixed course, they must continually engage in scenario planning, constructing and evaluating an array of options that offer a broader view of the landscape and possibilities for success. They must build the capacity to be agile — possessing the balance and capability that enable them to shift focus, priorities, and resources to meet changing circumstances. And they must evolve to become more resilient — able to withstand strong external forces, quickly recover from setbacks, and stay in a position to benefit from new opportunities.

It is still important to keep in mind that no one action, by itself, can dispel a heavy cloud of uncertainty. But if organisations can assume a more aggressive stance, they have a better chance of **shaping their future**.



In a difficult environment, leaders need to resist the impulse to adopt a defensive pose. They must instead take actions that will position their organisation for success.



Investing in the workforces

In times of uncertainty, it is common for companies to reduce headcount, put hiring freezes in place, and leave positions open. Although this may make sense, and it is always vital that the workforce be sized for the purpose of the organisation, simply freezing activity means companies can miss out on filling critical needs and areas. As companies contemplate a wider range of options and scenarios, they must ensure that their workforce has the new skills required by the new digital world. Investing in efforts to make the existing workforce more agile and resilient to changes in the environment can boost an organisation's capacity to thrive in uncertain times.

Companies should recognize the potential of longtime employees. In many instances, the work and tasks they do can be taken over by machines. But their experience and capacity to learn are valuable assets. When budgets don't allow for adding new headcount, it is even more vital to develop people so they can adjust to and fill the organisation's evolving needs. It is more efficient and often more cost-effective to move people across the organisation than it is to cut in one place and recruit elsewhere. As part of its Upskilling 2025 program, for example, Amazon is investing US\$700 million over six years to help current employees gain the skills that will enable them to move into technical roles in areas such as machine learning, software engineering and IT support.

Organisations need to be proactive in other ways to construct options for their human capital strategy. They can take advantage of movements in labor markets to attract people with needed skills. And whether they rely on new or existing hires, companies can build resilience by making their workforce more flexible. Given advances in technology, changing expectations, and the growth of the infrastructure supporting independent work, some chunk of the workforce prefers to work on a contingent basis.

Leaders must also recognize that periods of heightened uncertainty can take a toll on workplace culture. When team members are concerned about the future of the organisation, some may choose to leave for other opportunities, and others may become fearful and less engaged. Leaders, as they seek to build their workers' skills for the future, must double their efforts on consistent and positive communications that emphasize the steps the organisation is taking to be more agile and resilient.

Supporting the workforce with agile operations

It's not enough just to identify different scenarios and invest in building a workforce that can weather uncertainty. Companies can act on the options they generate only if their operations can support the execution. In times of uncertainty, it is imperative for organisations to focus on operational agility. Doing so prepares people to make the quick pivots that can be the key to surviving and thriving.

In some ways it is harder to rethink an operational strategy than it is to rethink a commercial strategy. In the pre-digital era, the operational reconfiguration following a strategic reshaping — e.g., shifting production and supply chains feeding the U.S. market from China to Mexico — sometimes took years. The challenge, and opportunity, for operations now is to use technologies such as digitization, AI, or robotic process automation to reshape operations rapidly so that they can mirror the constantly shifting commercial landscape. At root this approach means understanding which operations and capabilities give an organisation a competitive advantage, and making sure the company owns them and invests in them. It is important not to lose control while cutting costs. Manufacturers and service providers should identify good costs — the technologies that provide solutions, differentiate the business, and are difficult to copy — and invest in those. Outsourcing is a key component of building an agile operation. But in times of uncertainty, companies that outsource should take special care to both capture value and prevent value from leaking. Companies should not outsource functions they have yet to optimize themselves.



Who do we depend on?

Although last year we saw the great importance of closer markets for Bulgarian CEOs, this year global economies like USA and China make a come back in the top 5 territories being the most important for Bulgarian companies' prospects for growth (see Exhibit 5).

Over the past five years Germany has been and continues to be the most significant country impacting growth for Bulgarian CEOs (28% vs. 13% globally). Serbia and USA are second with 19% of CEO's indicating them as important markets. Romania's position drops slightly to 4th place, with 16% of Bulgarian CEOs considering it important and for the first time China makes the top 5 for local participating CEOs (with 13%).

In CEE Germany and the USA are ranked on top with 21% and 13% of CEOs picking them. China also makes the top 5 for CEE business leaders with 9% selecting it as important for the growth of their companies.

Globally, there are no big shifts in terms of leading powers. It is clear, however, that the gap in terms of importance between USA and China has been closing in the last three years and this year a very close percentage of CEOs indicate both countries as key territories important for business growth. Germany continues to be the number 3 economy. India, the UK and Australia are the next three territories with largest impact globally, with the importance of the UK diminishing with 9% of CEOs selected it this year vs. 15% in 2018, when the outcome of Brexit was not as clear.

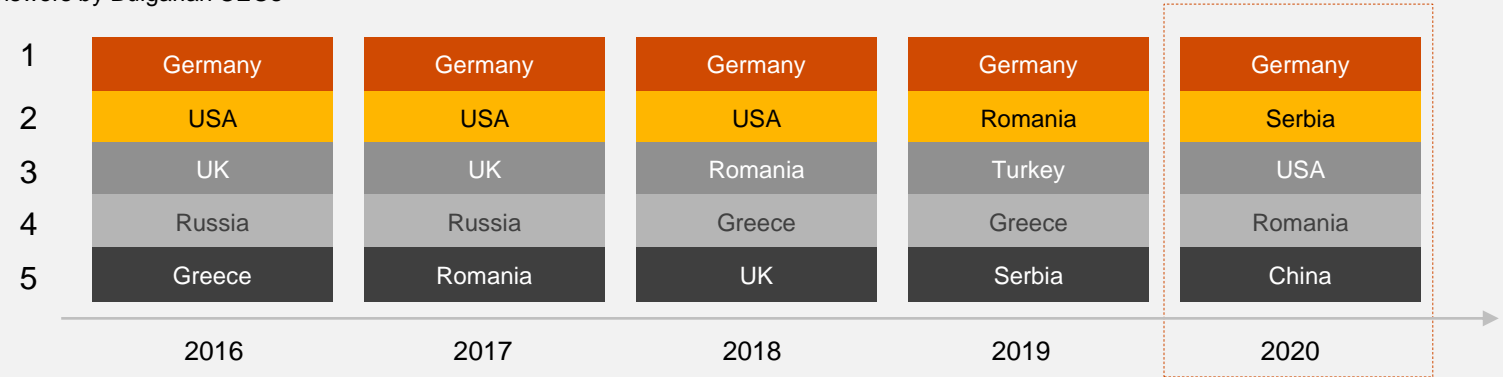
Exhibit 5

Bulgarian CEOs continue to see Germany as the most important territory for their business success. China makes our top 5 list for the first time this year.

Question

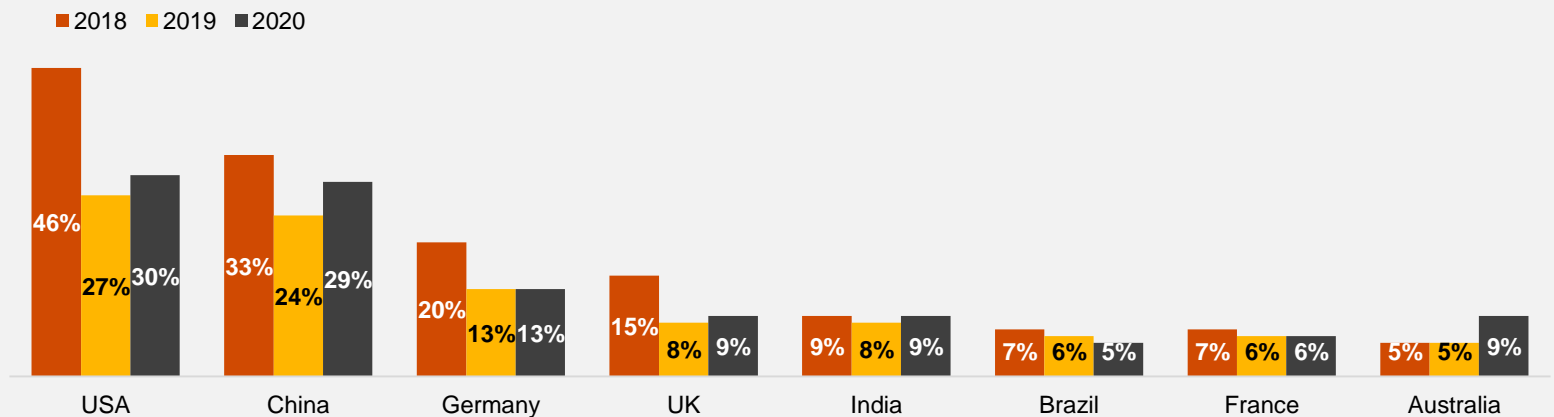
Which 3 territories, excluding the territory in which you are based, do you consider most important for your organisation's overall growth prospects over the next 12 months?

Answers by Bulgarian CEOs



Globally, the US continues to be the top country which CEOs perceive to have the biggest impact on their business. The role of China has been strengthening for almost 1/3 of CEOs.

Answers by global CEOs



Note: Not all figures add up to 100% as result of rounding percentages and excluding 'neither/nor' and 'don't know' responses.

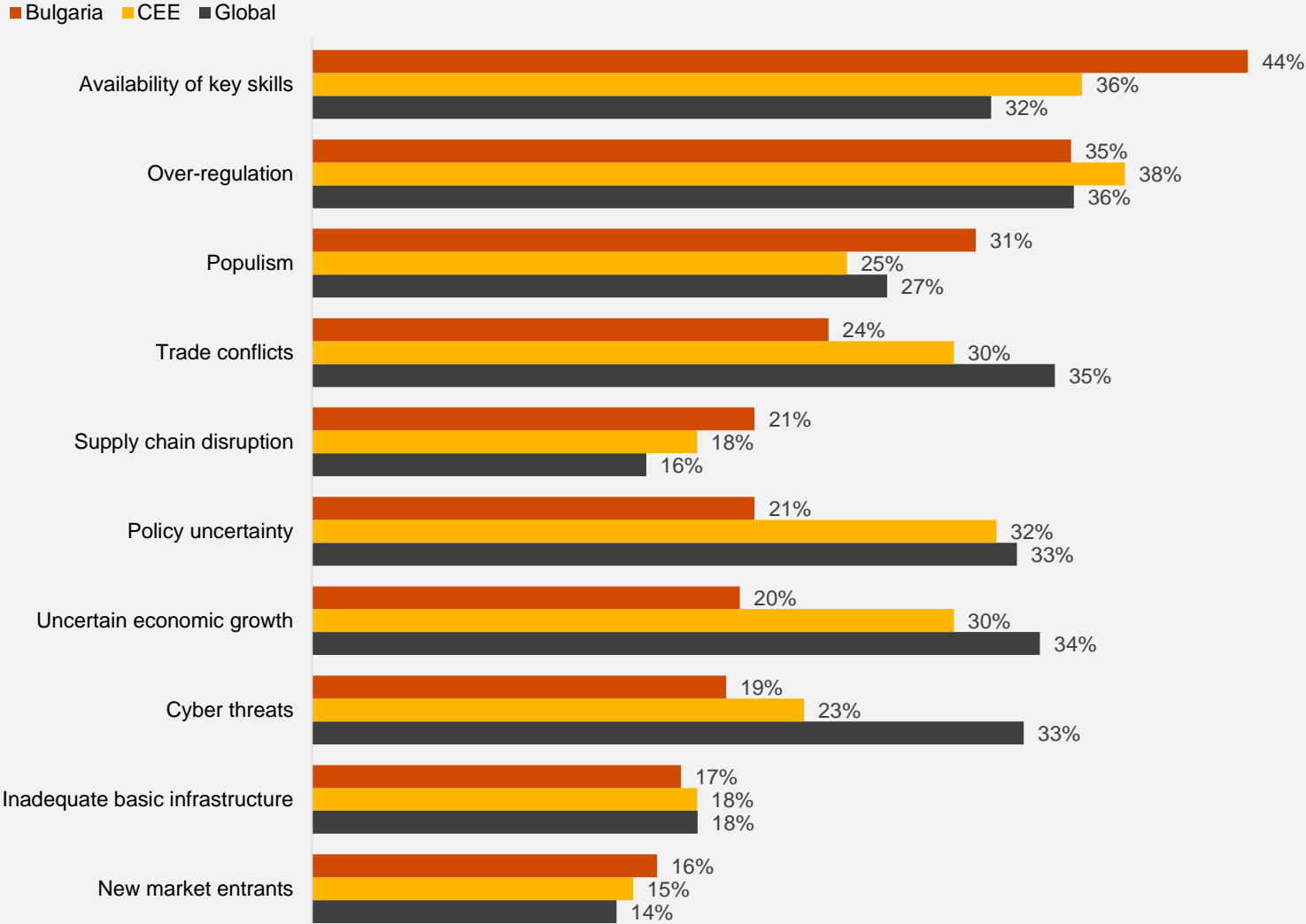
Exhibit 6

Availability of key skills continues to be the top threat for Bulgarian survey participants.

Question

How concerned are you about each of the following potential economic, policy, social, environmental and business threats to your organisation’s growth prospects?

CEOs who are extremely concerned about each of the following potential threats



What are business leaders anxious about?

This year’s results mark pronounced differences between what Bulgarian CEOs perceive as threats vs. what global and CEE business leaders are anxious about.

Availability of key skills continues to be a top threat for business growth for Bulgarian participants (with 44% being extremely concerned about it). This threat has moved to second place for CEE business leaders (with 36% being extremely concerned about it) and does not make it to the top 5 for global CEOs (32% being extremely concerned). It is possible that CEOs globally are already taking effective measures to upskill and develop their employees as well as to reach more diverse talent pools, rather than relying on what is available on their markets.

Over-regulation is a top concern for CEOs globally and in CEE, as well as the 2nd biggest concern for Bulgarian CEOs, who are most worried about regulations related to data privacy and cybersecurity as well as the labour market.

As we saw last year, policy uncertainty is a key threat globally, with 32% of CEE CEOs and 33% of global CEO being extremely concerned about it. For Bulgarian CEOs, however, we see a significant drop since last year – from 36% to 21%.

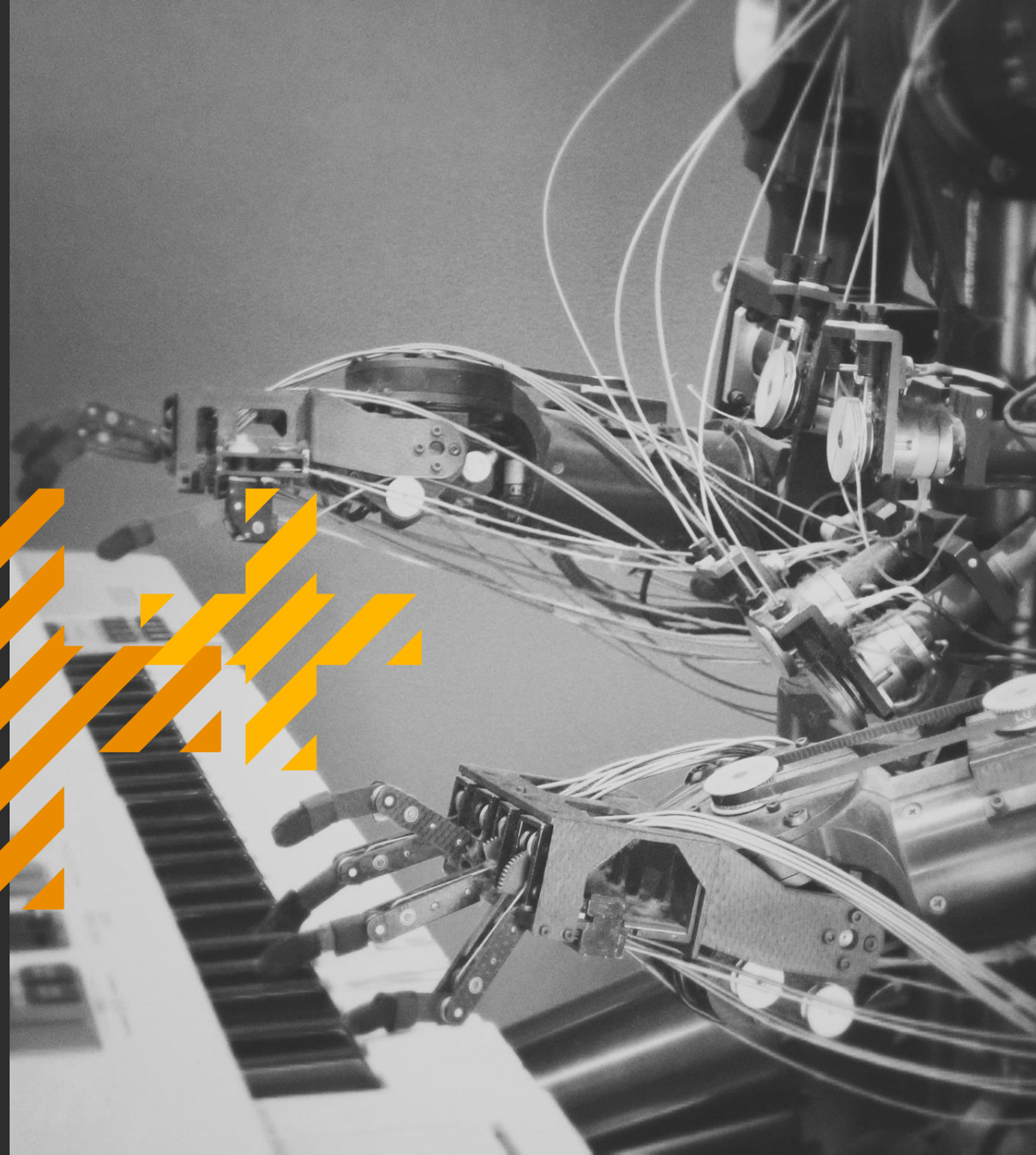
Globally, trade conflicts, uncertain economic growth and cyber threats are extremely concerning for more than 1/3 of CEOs. In contrast, only around 20% of Bulgarian CEOs are very concerned about these potential threats. Speed of technological change and tax uncertainty are concerning for CEE CEOs, while these threats worry only 7% of Bulgarian participants.

“We are analog beings living in a digital world, facing a quantum future.”

Neil Turok

34%

of Bulgarian CEOs report they struggle in motivating their employees to learn and apply their knowledge



How big is the skill scarcity threat?

Last year as many as 85% of Bulgarian CEOs reported that hiring employees was becoming increasingly difficult. This year's results continue to show that the skills crisis has been evolving as availability of key skills is the top threat for business growth for Bulgarian participants with 91% reporting being somewhat or extremely concerned about it.

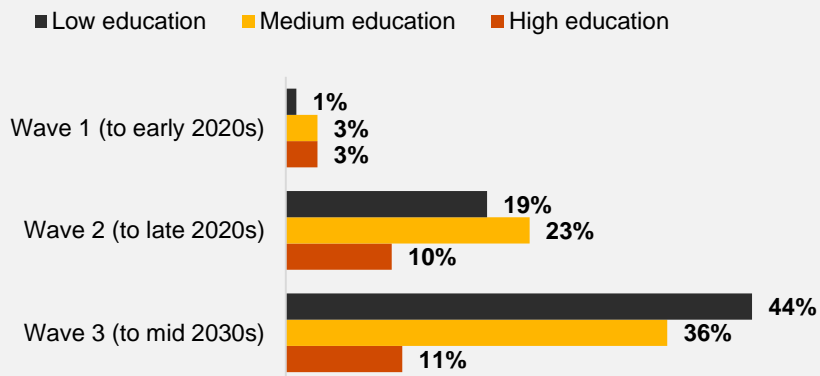
Globally, hundreds of millions of young people are coming of age and finding themselves unemployed and unemployable, while many older, long-established employees are discovering their jobs are becoming obsolete. PwC's analysis on the impact of automation on the job market has shown that by the late 2020's 19% of jobs requiring low level of education and 23% of jobs requiring medium level of education will be automated. By the mid 2030's these numbers will almost double (see Exhibit 8).

Economic and demographic indicators for the Bulgarian labor market support our participants' concerns. Data from the National Statistics Institute (NSI) show that unemployment rate in Bulgarian in 2019 was 4.3% which is the lowest level we have seen in the past 15 years. Additionally, the working population in the country has been decreasing at a rate of 1.5% since 2010 with the number of young people (age groups 15-24 and 25-34) decreasing with the highest rates – 3.9% and 2.2%, respectively.

Forecasts published by the Ministry of Labor and Social Policy indicate that the decline in the working force will continue over the next decade with projected decrease of 3.7% by 2024 and a total decrease of 11.3% by 2034. Projections also indicate that in the long-term there will be a shortage of skilled labor with upper secondary education and a surplus of workers with lower education. In the context of job automation, these projections highlight the significant imbalance we will be faced with – a large number of low-skilled individuals in a world where 44% of the jobs requiring lower education would be automated.

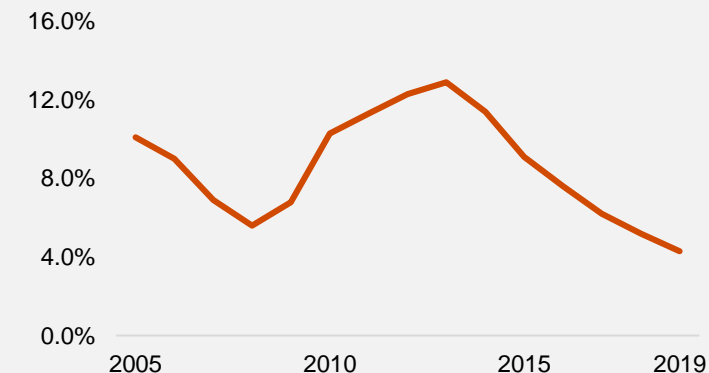
Exhibit 8

Job automation will increase significantly in the next decades.



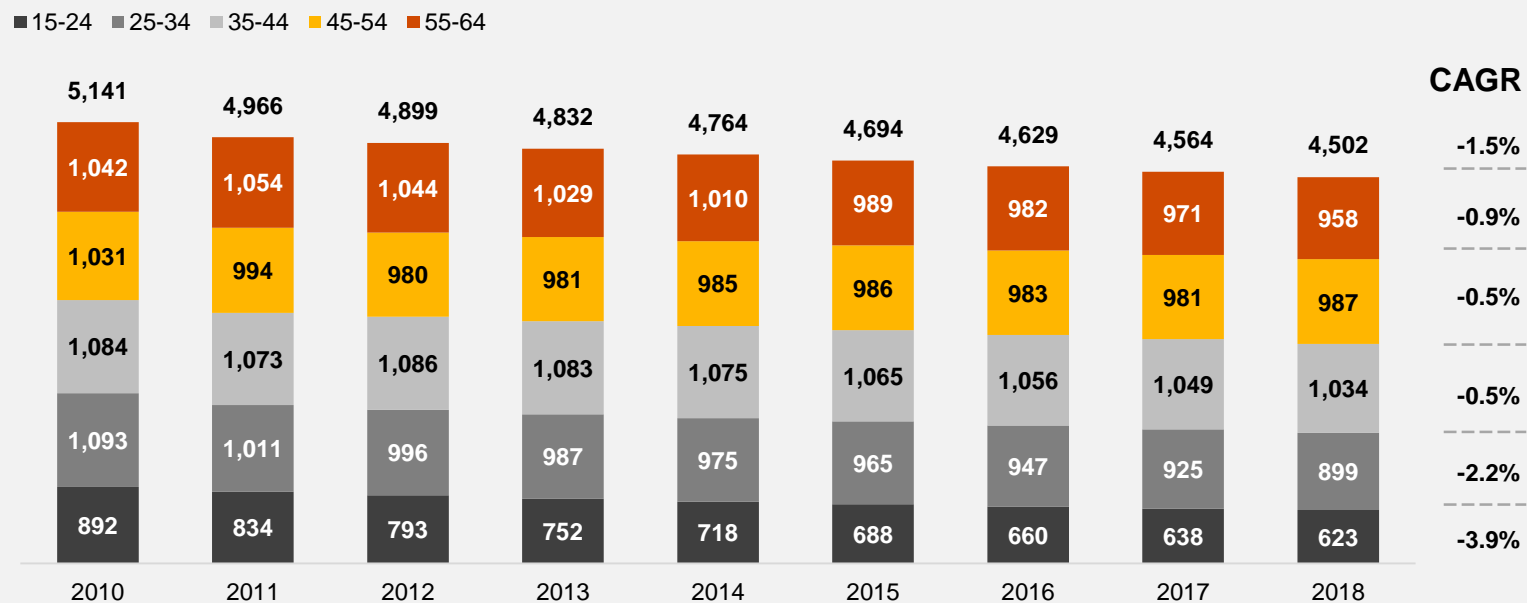
Source: PwC, *Will robots really steal our jobs? An international analysis of the potential long-term impact of automation*

Unemployment rate in Bulgaria is at a record low of 4.3%.



Source: NSI

Bulgarian working population has been decreasing with a rate of 1.5% for the past 8 years.



*In thousands

Source: NSI

Is the workforce ready for the new world?

At this point it is clear that in this new reality, talent has become the leading competitive advantage for organisations and that the only way to overcome its scarcity is to focus on efforts to grow talent from within. Last year, 72% of our participants stated that significant retraining/ upskilling was the most important initiative needed to close the skills gap in their organisation – significantly more than CEE and global CEOs (40% and 46%, respectively).

This year we asked CEOs about the progress they have made in upskilling initiatives. Overall, more than 50% of the participants report moderate or significant progress on all types of initiatives with the exceptions of collaboration with academia and government (see Exhibit 9). Specifically, participating CEOs have made the most progress in implementing diversity and inclusion strategies, thus expanding their potential talent pool, as well as in communicating openly with their employees about the skills that will be required in the future. Such conversations demonstrate the company's commitment to its employees and thus increases their engagement.

Interestingly, only 16% of participants report that they have made significant progress in their effort related to collaboration with academic and government institutions. CEOs choose to focus more on efforts and results to be achieved at the level of their own organisations as opposed to initiatives that have the potential for wider societal impact.

Exhibit 9

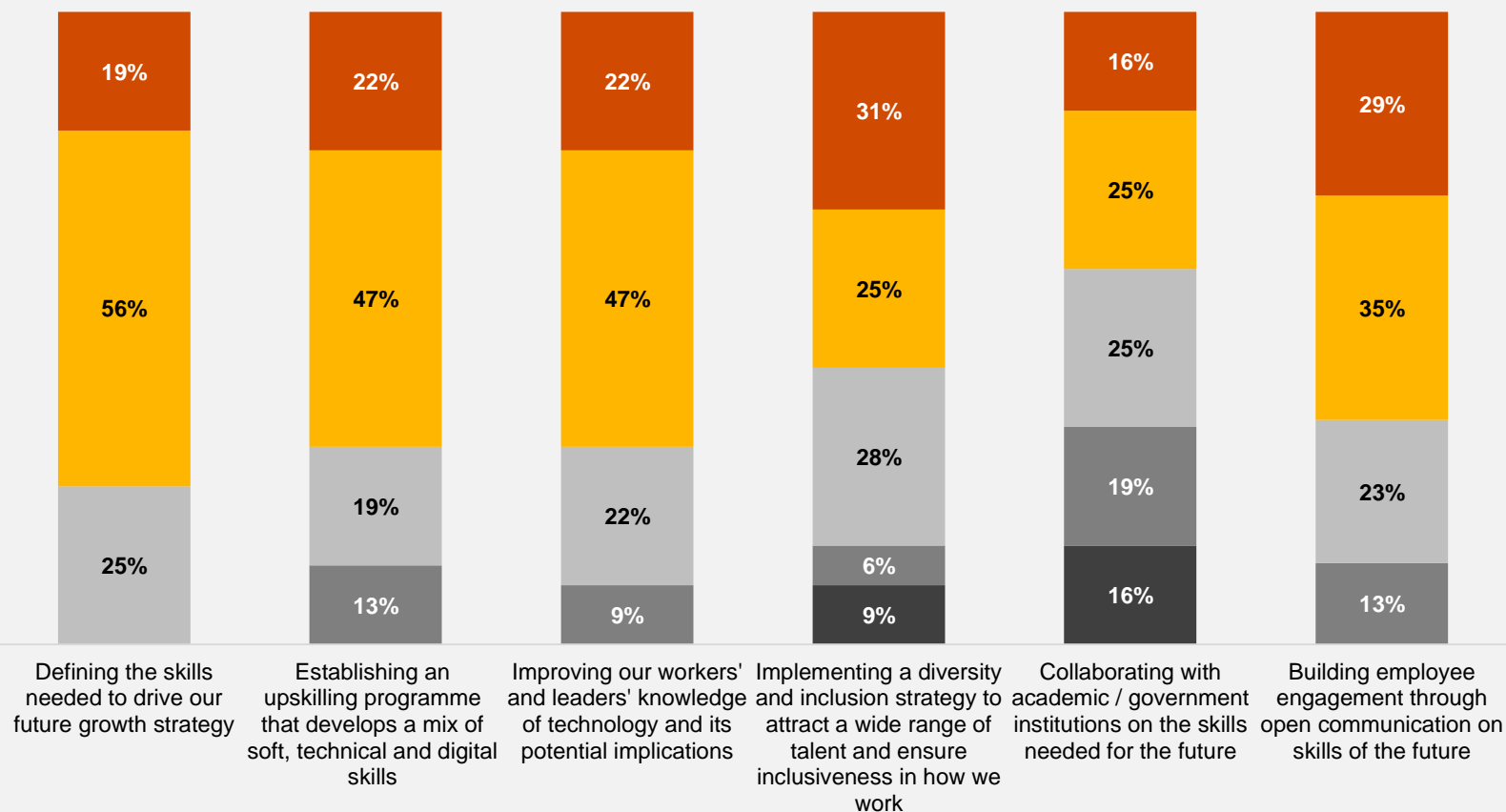
In an effort to deal with the threat of skills availability, CEOs in Bulgaria report biggest progress in implementing diversity and inclusion programs and in engaging their employees in an honest conversation about skills of the future.

Question

How much progress has your organisation made in the following areas related to upskilling?

Answers by Bulgarian CEOs

■ Not considering ■ No progress ■ Starting to make progress ■ Moderate progress ■ Significant progress



Note: Not all figures add up to 100% as result of rounding percentages and excluding 'neither/nor' and 'don't know' responses

When talking about upskilling, organisations mean giving people the opportunity to gain the knowledge, tools, and abilities they need to use and understand advanced and ever-changing technologies in the workplace and their daily lives. Even though most employees will not have to learn to code, most of them will need to understand and manage artificial intelligence, data analytics, autonomous vehicles and other technologies that can't even be predicted — those emerging now and those that will be created in the future.

But upskilling is not simply a matter of teaching people how to use a new device. That device may be obsolete by the following year. It involves learning how to think, act, and thrive in a digital world in a way that is sustainable over time. Upskilling is also not the same as reskilling, a term associated with short-term efforts undertaken for specific groups.

An upskilling effort, by contrast, is a comprehensive initiative to convert applicable knowledge into productive results — not just to have people meet classroom requirements, but to have them move into new jobs and excel at them. It involves identifying the skills that will be most valuable in the future, the businesses that will need them, the people who need work and could plausibly gain those skills, and the training and technology-enabled learning that could help them — and then putting all these elements together.

We asked CEOs which are the greatest challenges related to upskilling efforts they are facing. For Bulgarian CEOs, the biggest challenges are motivating or incentivizing employees to learn and apply their knowledge (34% of survey participants rating this as their top challenge vs. 16% in CEE and 13% globally, see Exhibit 10). Their second biggest challenge is employees' ability to learn the new skills needed for the future, with 28% marking it as a top challenge (vs. 8% in CEE and 14% globally). And of course, local CEOs are worried about retaining the upskilled employees, in which the organisation has invested.

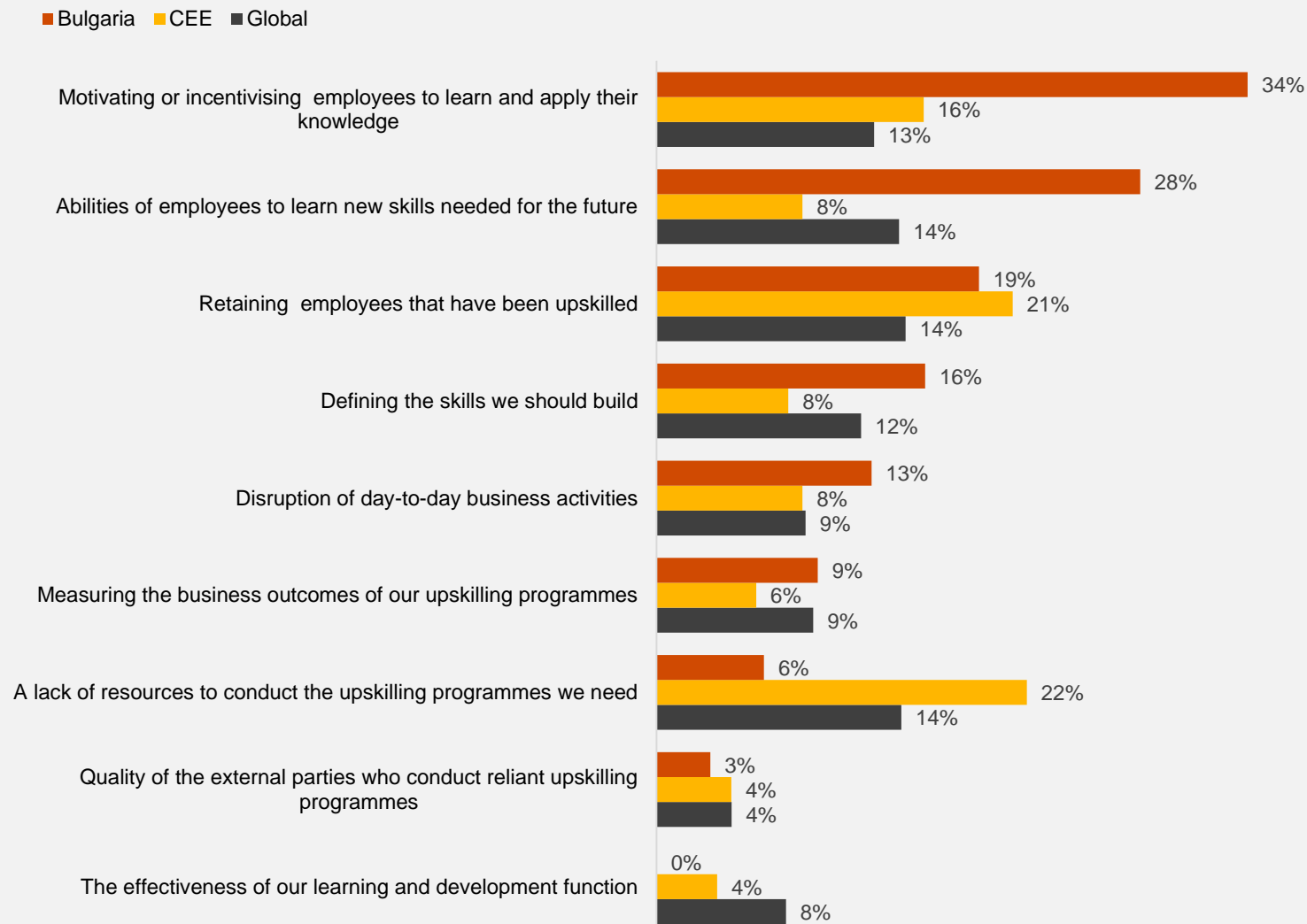
For CEOs across CEE the challenges are related more to the lack of resources to conduct the needed upskilling programmes and to retaining employees who have been upskilled.

Exhibit 10

Motivating employees to learn and apply their knowledge is a key challenge that Bulgarian CEOs experience in their companies' upskilling efforts.

Question

What is the greatest challenges your organisation currently faces in its upskilling efforts?



As businesses have started initiatives related to upskilling, we explored the extent to which these are effective in achieving specific business results. Bulgarian CEOs noted that upskilling initiatives have been effective for boosting corporate culture and employee engagement (for 88% of participants, see Exhibit 11). Upskilling has also been effective for boosting workforce productivity. In contrast, the least number of CEOs see the effect of upskilling initiatives for boosting business growth, with almost a quarter of the participants considering them not very effective. Showing a clear cause-and-effect link between any L&D programme and business growth has been a challenge for HR professionals for years. Yet again, showing a link between lack of workforce development and lack of business growth is much easier.

At company level, upskilling cannot be considered a one-time effort. In this time of rapid technological change, every member of the workforce, from the front lines to the C-suite, needs to continually expand or deepen their skills. Successful companies that want to keep their employees engaged may need to go beyond the usual classroom or on-the-job trainings and into creative domains such as “gamified” apps that allow skills building, while creating new software-based tools for others to use.

Upskilling approaches that manage to produce visible and tangible business results seem to be exceptionally complex. But that is because they are addressing an exceptionally complex problem. Many people in the current workforce were educated between 1970 and 2000, when technologies that are ubiquitous today did not exist. A college degree was enough to put just about anyone on a good career path. It was assumed that people would be able to easily acquire new skills through vocational or on-the-job training in the future. Those assumptions no longer hold true. As the digital transformation of the global economy continues, high-tech skills will become a passport to a secure job.

The scale of the problem, and the consequences for economic prosperity, also add to the urgency of the issue. If businesses wait until they feel the pinch — until they can't find workers who understand the required technology — it will be too late.

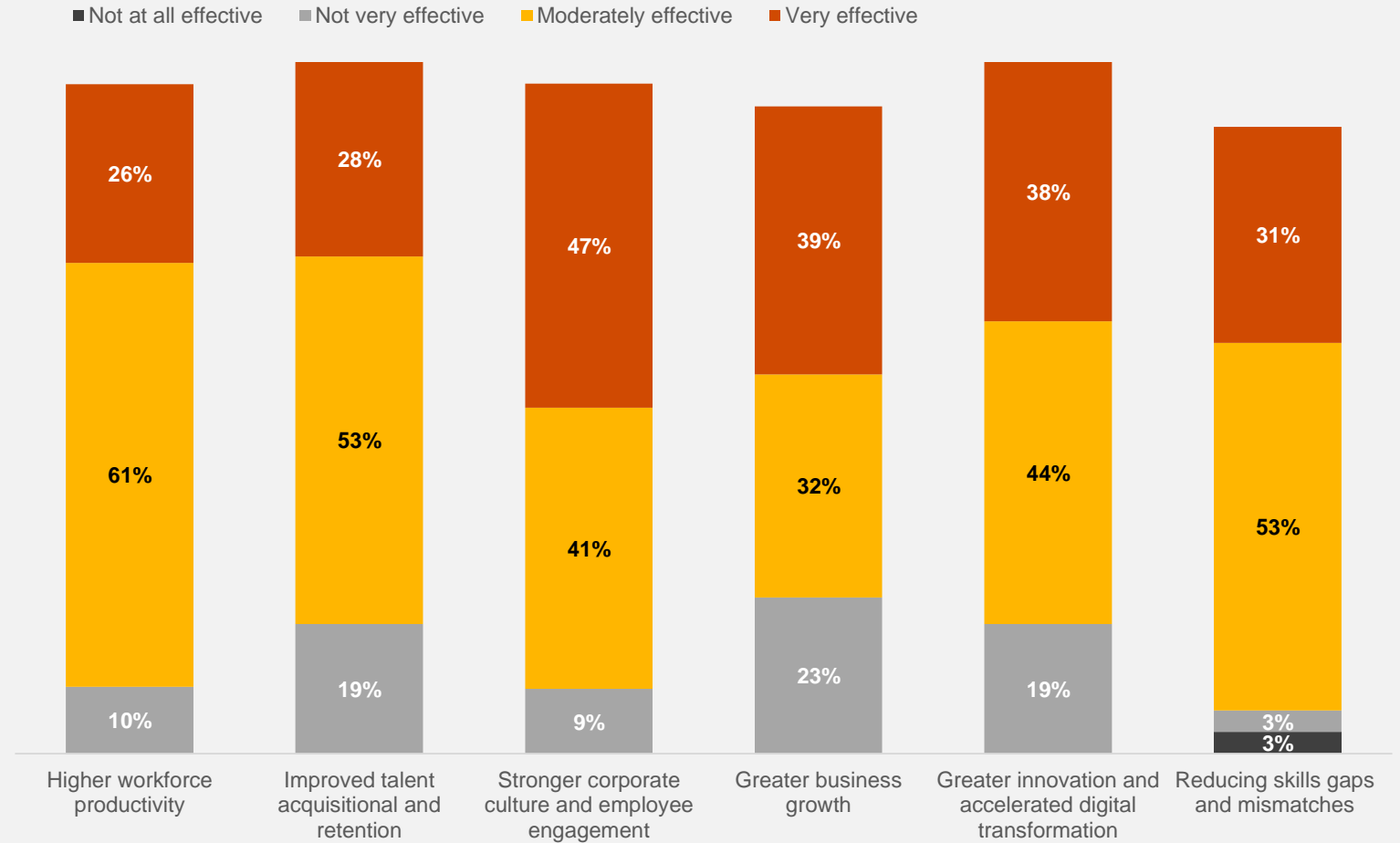
* A strategist's guide to upskilling, PwC's Strategy + Business

Exhibit 11

CEOs in Bulgaria share that their companies' upskilling efforts are most effective in facilitating a strong corporate culture and boosting employee engagement.

Question

How effective are your upskilling programmes for achieving the following outcomes?



Note: Not all figures add up to 100% as result of rounding percentages and excluding 'neither/nor' and 'don't know' responses

“True Cyber Security is preparing for what’s next, not what was last.”

Neil Rerup

53%

of Bulgarian CEOs believe that the internet (including social media) will increasingly become more fractured



Exhibit 12

Most CEOs believe that governments will increasingly use citizens' data for a variety of social aspects

Question

For each pair of alternative statements, please select the statement you believe is more likely to occur.

How is cyberspace shaping our world?

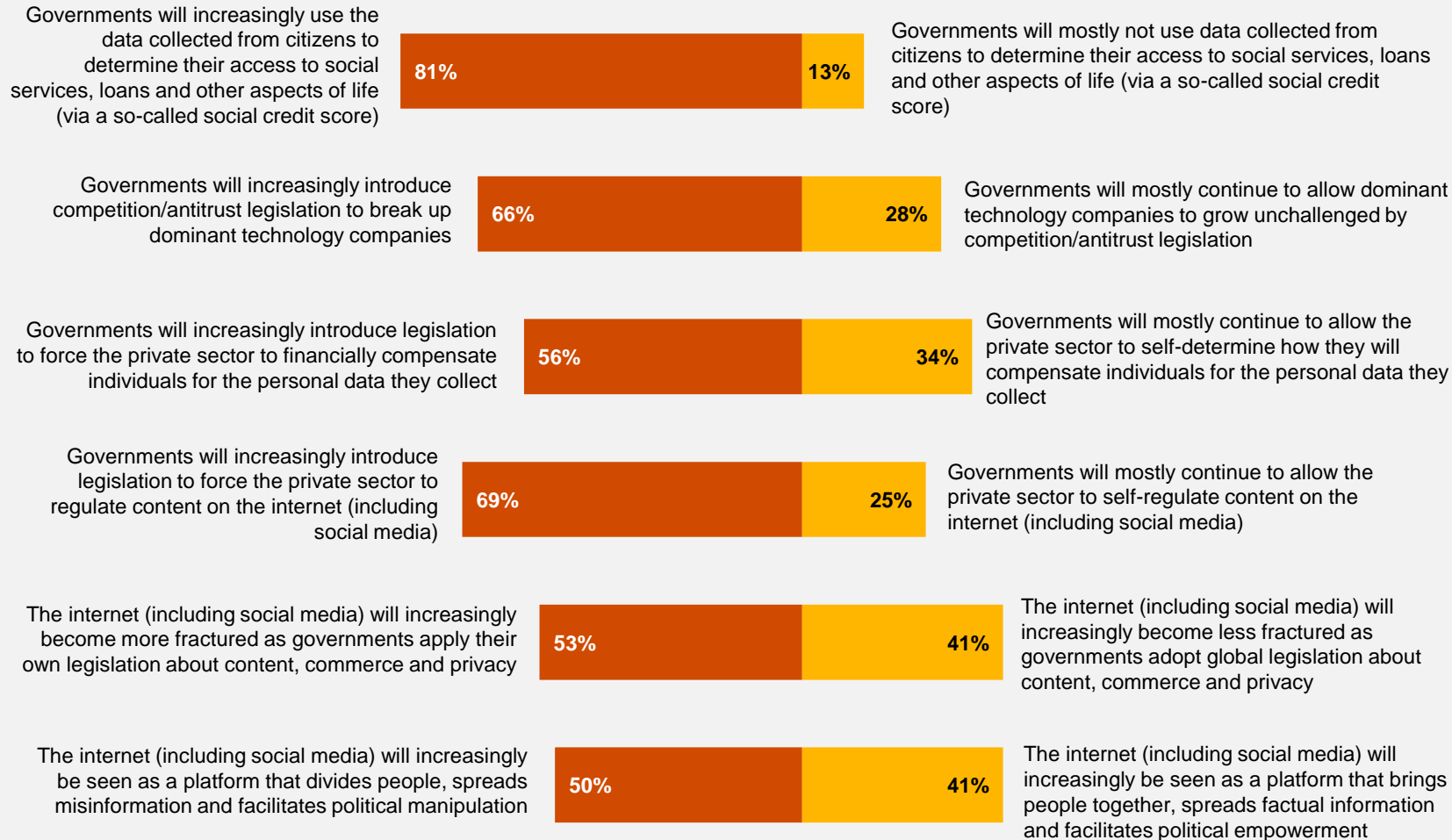
This year we wanted to explore how CEOs imagine the future, as shaped by the ever-changing technology, access to unlimited amounts of data and new governmental legislation and regulations related to data privacy and cyber security.

We asked CEOs to select from a set of different alternatives, each illustrating two potential but opposite directions. Overall, most CEOs believe that governments will have increasing control over our lives and the use of the internet: 81% of Bulgarian survey participants believe that governments will increasingly use the data collected from citizens to determine their access to different social services; 66% believe that governments will increasingly introduce competition/antitrust legislation to break up dominant technology companies; 69% believe that governments will increasingly introduce legislation to force the private sector to regulate content on the internet (including social media, see Exhibit 12).

At the same time, CEOs seem a bit more divided in how they see the future of the internet and its impact on society. Still slightly more than half of the Bulgarian survey participants believe that the internet (including social media) will increasingly become more fractured as governments apply their own legislation about content, commerce and privacy of life. And 50% of participants believe that the internet (including social media) will increasingly be seen as a platform that divides people, spreads misinformation and facilitates political manipulation.

The polarization of views and the overall structure of responses seem mirrored in the answers that global and CEE CEOs provide to these questions. Clearly government-initiated actions and legislative changes across countries and continents will be closely monitored by business and we may be seeing a much clearer picture of the future state of cyberspace regulation appearing over the next years.

Answers by Bulgarian CEOs



Note: Not all figures add up to 100% as result of rounding percentages and excluding 'neither/nor' and 'don't know' responses

The level of concern of Bulgarian CEOs over cyber threats seems to remain unchanged since last year (19% of the survey participants being “extremely concerned”) – much lower than the global 33%. Yet their minds are occupied with another important aspect of technology – over-regulation is identified as the #2 threat and the biggest aspect of that relates to data privacy and cyber security.

Business leaders across the board are focusing their efforts on shaping their cybersecurity strategies. Both for CEOs globally and for CEOs locally, the increasing complexity of cyber threats has the biggest impact on defining a way forward. This is followed by cybersecurity and data privacy regulations, with close to 60% of CEOs worldwide noting that aspect (see Exhibit 13).

Surprisingly CEOs in Bulgaria seem to be the least concerned about shortage of cybersecurity talent as compared to their peers, which is in contrast with the strong worries raised by the overall shortage of key skills on the market.

Cybersecurity is the area where Bulgarian CEOs seem to perceive a strong role for government (50% of the survey participants identify this as the technology area in which government and businesses need to collaborate the most in order to build trust in society). It is closely followed by misinformation and digital privacy. This pattern generally follows the sentiments of global and CEE CEOs with one notable exception – artificial intelligence (pointed out as an important area for collaboration by 16% and 14% of the global and CEE survey participants as opposed to only 6% of the Bulgarian ones).



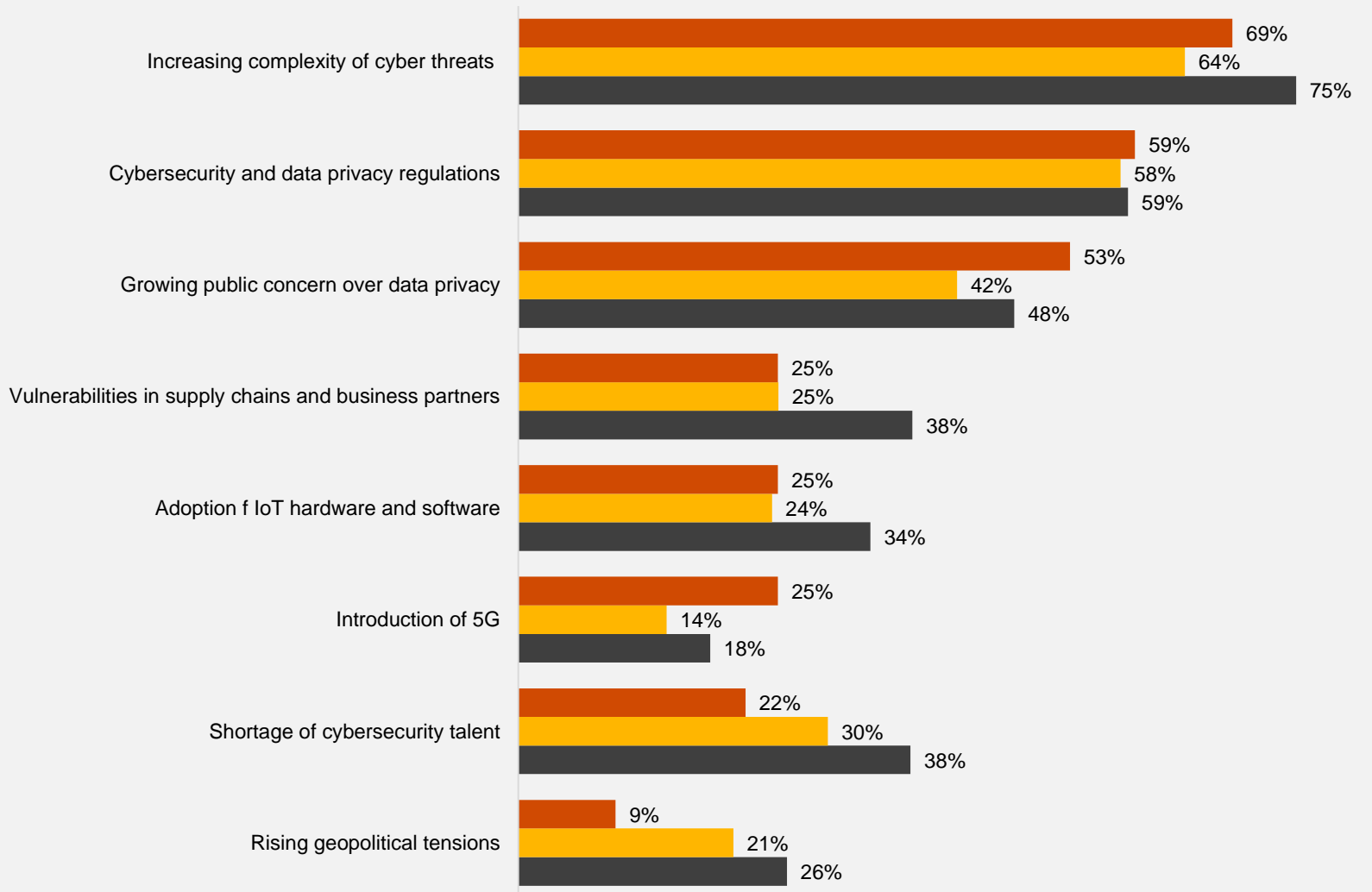
Exhibit 13

When shaping their cybersecurity strategy business leaders are mainly concerned about the increasing complexity of cyber attacks and the emerging cybersecurity and data privacy regulations

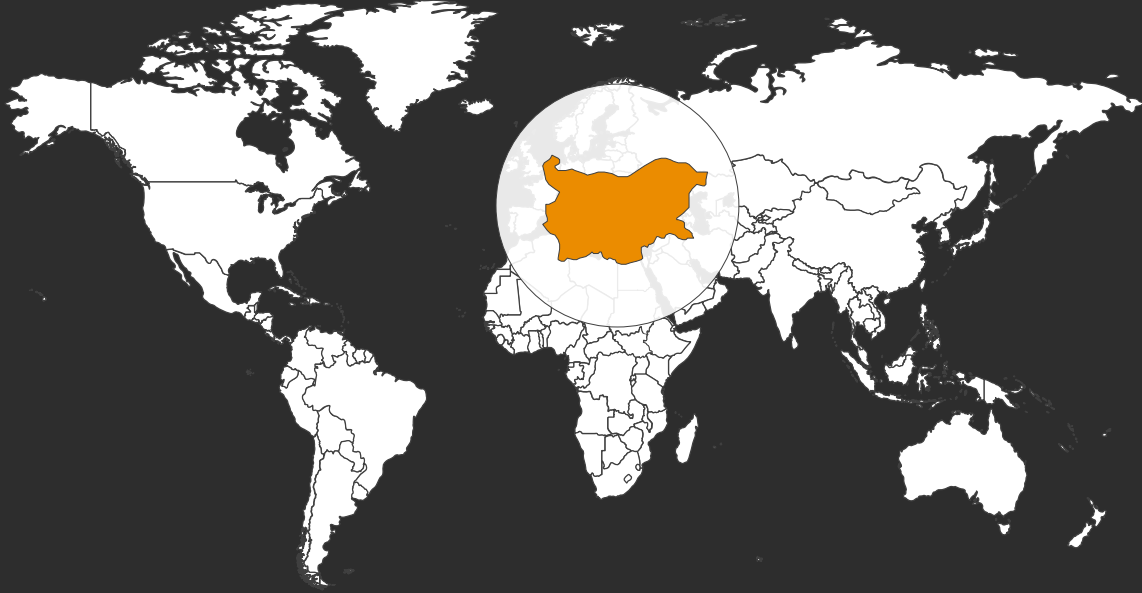
Question

What key factors are having the greatest impacting shaping your cybersecurity strategy?

■ Bulgaria ■ CEE ■ Global



Participants snapshot



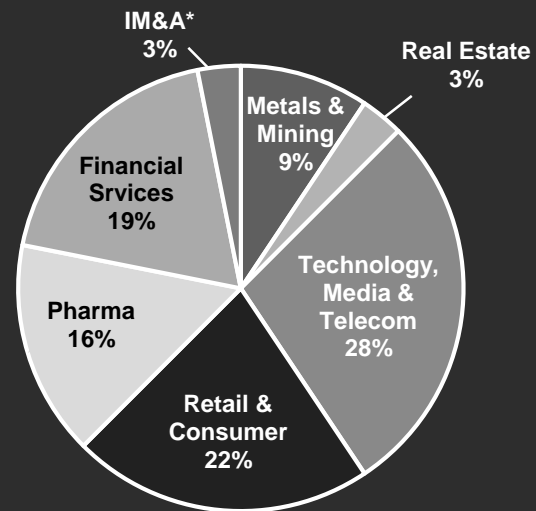
32 Bulgarian business leaders completed the CEO Survey



78% of the respondents are male



3510 CEOs interviewed in **83** countries **globally**



* Industrial Manufacturing & Automotive





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located in Belfast, Northern
Ireland

Find out what global business leaders had to say

by visiting www.pwc.com/ceosurvey, where you can dig deeper and uncover
current perspectives

Want to take part in the discussion next year?

If you are a CEO interested in participating in next year's survey, please contact
Velina Yosifova (velina.yosifova@pwc.com) and share your thoughts with us



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