

Key findings for Romania and  
Central and Eastern Europe from  
PwC's Global CEO Survey 2019

# Looking ahead with caution



# About PwC's Global CEO Survey



In the last 22 years, PwC's survey of CEOs has provided unique insights into the thinking and strategic direction of business leaders around the world. We release the findings of our research each year in Davos, Switzerland, on the eve of the annual World Economic Forum meeting in January.

For the 22<sup>nd</sup> edition of the PwC Global CEO Survey, we conducted 1,378 interviews with CEOs in 91 countries (including Romania) over the last quarter of 2018. The findings for Central and Eastern Europe are based on 120 interviews with business leaders in the region. For this 9<sup>th</sup> edition of the Romania report, we conducted 60 interviews.

The global report and further details can be found on our website at [ceosurvey.pwc](https://ceosurvey.pwc)

Note: not all figures add up to 100%, as a result of rounding percentages, exclusion of "neither / nor" and "don't know" responses, or questions allowing multiple choices.

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# The views of CEOs in Romania and Central and Eastern Europe

## Uncertainty about growth

Believe global economic growth will improve



Are very confident about their organisations’ prospects for revenue growth over the next 12 months



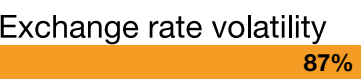
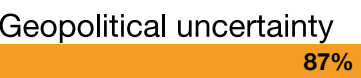
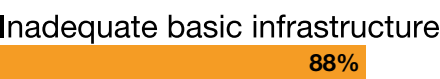
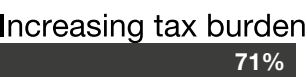
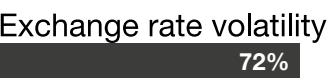
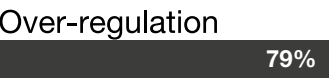
Are planning to focus on operational efficiency to drive revenue growth



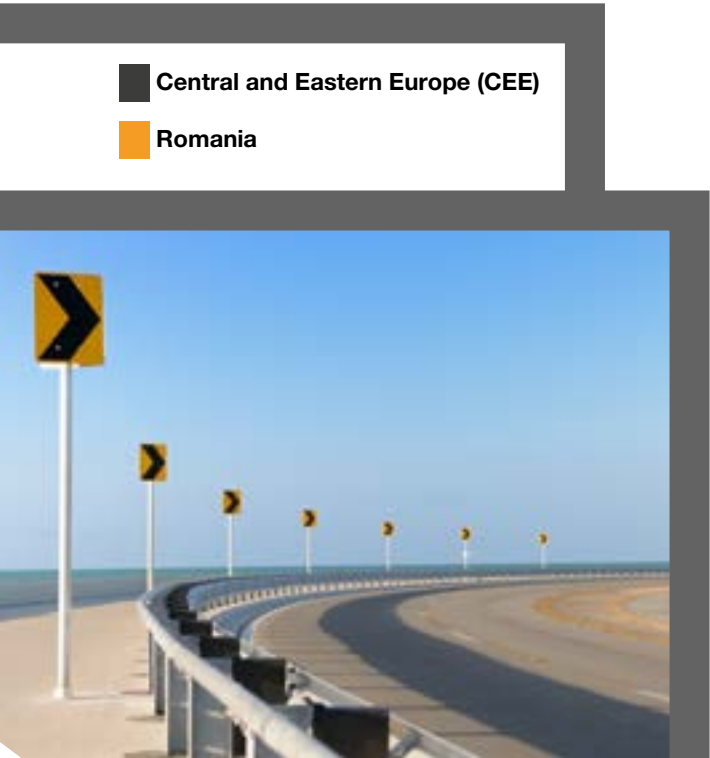
Central and Eastern Europe (CEE)  
Romania



Top threats to organisations’ growth prospects

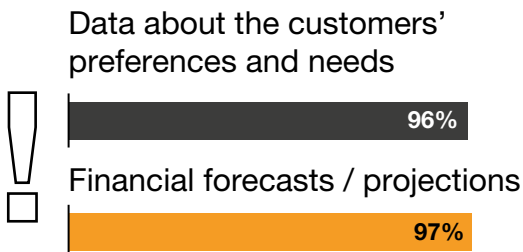


Note: Respondents who answered “Somewhat concerned” or “Extremely concerned”



## Skills and information gap

Believe the following are critical / important in decision-making for the long-term success of the business:



Say their organisations proactively manage security and privacy risks when adopting new technologies



Expect their organisations' headcount to increase



Admit it has become more difficult to hire people in their industry



Believe retraining / upskilling employees is the most important element to addressing the skills gap in their organisations



## Artificial Intelligence (AI)

Agree that Artificial Intelligence will significantly change the way they do business over the next five years



Say they have introduced Artificial Intelligence initiatives in their own organisations



Believe AI-based decisions need to be explainable to be trusted



Say that governments should individually develop a national strategy and policies for Artificial Intelligence





Nick Kós  
Chief Executive Officer  
PwC Central and Eastern Europe



Artificial Intelligence, together with the information gap - the gap between the data CEOs need for decision-making purposes and what they get – and the lack of talented employees specialising in data analytics are two of the main topics covered by the 22nd PwC Global CEO Survey. The survey was conducted on a sample of almost 1,400 CEOs from 91 countries and launched at the World Economic Forum meeting in Davos, Switzerland. The two topics on the agenda of business executives around the world bring up a number of challenges and opportunities, which we invite you to explore in this report.

**Reality check.** Our preceding survey had shown a record surge in the optimism levels of CEOs in Central and Eastern Europe in terms of global economy growth prospects. This year, on the contrary, a record slump in their pessimism level is apparent, with the prevailing feeling being caution against the backdrop of growing uncertainty. This year also shows a drop in the confidence of the CEOs in the region in their organisations' prospects for revenue growth in the short- (12 months) and medium-term (three years). Although there are still more CEOs who expect global growth to improve, 2019's slowdown signs should not be underestimated.

The growing pessimism of CEOs in our region is not surprising. Some economists project a growth-rate slowdown and have adjusted downwards their 2019 forecasts. Tension in international trade, unpredictable geopolitical landscape and stricter monetary and fiscal policies cause a cautious

view of the economic growth prospects. Nationalist sentiments are a growing trend not only in Central and Eastern Europe, but across the world, while populist politics have a larger influence over economic policies.

**Look inside-out for growth.**

This year, the threats CEOs in the region see as pressing mainly have to do with the ease of doing business in the markets where they operate – over-regulation, public policy uncertainty, availability of key skills, exchange rate volatility or increasing tax burden.

In this context, business executives focus more inside their own organisations for growth opportunities. When asked to name the most attractive foreign markets in terms of investments, CEOs narrow down their options and express ever-greater uncertainty, as revenue growth and business expansion opportunities are more associated with their domestic market.

**Mind the information and skills gaps.** While showing particular interest in what is within their control inside their own organisations, CEOs in our region are striving to narrow the digital skills gap. This is because, despite massive investments in the IT infrastructure, there is still a sizeable gap between the useful data CEOs need for decision-making and what they actually get.

Businesses are trying to translate the plethora of available data into information that is relevant for a better and faster decision-making process, which relies not only on experiences and gut feeling, but also on receiving adequate,

comprehensive data in real time. In their approach, organisations are faced with the lack of talent specialising in integrating and extracting value out of big data. Having employees with such analytical skills is an absolute must for businesses in order to implement Artificial Intelligence (AI) initiatives – a topic on the future impact of which there is wide consensus among the CEOs in Central and Eastern Europe. In other words, bridging the two gaps – information gap and analytical skills gap – is essential to enable exploration of the AI wealth of opportunities.



Ionuț Simion  
Country Managing Partner  
PwC Romania



This is a time of major anniversaries for Romania. We celebrated the Great Union Centenary last year and in 2019 our country celebrates 30 years since its return to democracy and capitalism.

Romania has undoubtedly taken big steps toward democracy and has made major progress in areas that are vital to any society: education, innovation, healthcare, agriculture, tourism and construction. Strategic industries have grown on a solid footing: energy, telecommunications, retail, finance and banking, pharmaceuticals and automotive, which have created hundreds of thousands of jobs. The living standard has also improved substantially during these last three decades.

During all those years, Romania has endeavoured to bridge the gaps and catch up with the developed states in Western Europe and other parts of the world that have not been adversely affected by several decades of totalitarian rule. Our country has successfully integrated into the European and North Atlantic economic and geopolitical structures. We have shown the world that we are a gifted nation – through numerous examples of athletes, artists, computer experts, doctors, engineers, teachers, serial entrepreneurs and, why not, through craftspeople who, by doing their job (bricklayers, carpenters, plumbers, etc.), are a credit to the Romanian people, wherever they may be.

It has not been an easy 30 years, but Romanians have shown outstanding adaptability, as well

as other specific traits – sense of humour, hospitality, intelligence and industriousness – that have helped us get to where we are now. We have weathered a tough global downturn. Romanian businesspeople have had to use the “learn as you go” principle to compete against the worldwide giants that opened operations in Romania and to become competitive themselves on the foreign markets. We are now witnessing the first generation change in Romanian family businesses. The authorities in their turn are trying to keep up with the economic and social growth pace and making significant efforts to modernise.

There would be so much more to say, but now we cannot elaborate on all the relevant things that have happened during these last three decades. Things could surely have been done in better ways, but it is important to understand that it is about major accomplishments produced together but through individual effort. We should acknowledge them properly and under no circumstances think that these years have been wasted.

We should definitely not stop here. No matter how slow the speed at which we move forward might be at a given moment, the essential thing is to keep pursuing our course. Beyond the temporary ups and downs typical of a young democracy, Romania is and will long be a country of great potential. And investors, domestic and foreign, know this very well.

Often, throughout the nine years during which we have produced this survey's country report, I have pointed out that we should join

efforts to achieve what we all want – a better society. The business environment, the authorities, education establishments, professional associations and NGOs, political parties, the media and the public – we all need to understand that we can only grow together, because no country has managed to thrive without a synergy among all its stakeholders.

PwC's purpose, not only in Romania, but worldwide, is to build trust in society and solve important problems. We are deeply confident that, just like us, there are so many businesses and organisations in Romania actively involved in this endeavour. By acting with integrity, collaborating and showing that we care we will be able to reimagine the possible. This is why we are so honoured to see that CEOs in Romania have accepted our invitation to join the discussion platform of our PwC Global CEO Survey and shared their opinions. We extend our thanks to them for their commitment.

The future will happen, whether we are ready or not. But while strongly committed to our efforts to adapt to the new digital technologies, we should make sure that we respect our traditions, treasure our natural resources, listen to our elders and encourage our children to carry on our endeavour to help Romania grow and aim to do things better than us. I am positive that by doing so, we will be ever prouder of our Romania.



# 1

Uncertainty about  
growth – caution  
prevails





**“The signal sent by CEOs warrants serious consideration. The diminished optimism about the revenue growth prospects of their own organisations is a crucial indicator for global economy trends. The problems faced by the world economy are the reasons behind the CEOs’ more pessimistic projections for 2019. It will be a challenge for our region to keep up the fast pace of growth we have been accustomed to in recent years, against the overall background of slowdown signs in the global economy. Investors are growing more and more cautious, and select their target markets ever more often based on criteria such as trust and stability.”**

**Nick Kós**  
**Chief Executive Officer**  
**PwC Central and Eastern Europe**

Overall, the CEOs' views on global economic growth are more polarised this year. The general trend compared to last year's survey is business executives' growing pessimism about global economic growth prospects.

Worldwide, 29% of the CEOs anticipate a slowdown of the global economic growth rate over the next 12 months. This is substantially higher than last year's 5% and shows a record surge in pessimistic forecasts. This result is in stark contrast to the record-high optimism in last year's survey, when the percentage of respondents projecting the improvement of global economic growth had almost doubled to 57% up from 29% in 2017.

Fortunately, not all business executives share this bleak outlook. More CEOs worldwide still believe economic growth prospects will improve (42%) than expect a decline (29%), though the percentage of optimists is significantly lower than a year ago.

CEOs in Central and Eastern Europe generally share the view of their counterparts worldwide, with quite similar percentages in our survey. Business executives have adjusted downward their forecasts for 2019 because of rising political and economic uncertainty in the region. There is a sharp rise in the percentage of CEOs expecting a decline in global economic growth (31%, from 6% a year ago). The percentage of those expressing confidence in global economic growth prospects has dropped to 38%, from 45% in 2018.

The level of optimism this year among respondents in Romania about global economy prospects is lower than that of their counterparts in Central and Eastern Europe. Thus, 38% of the business executives in Romania believe the global economy's growth rate will slow down. That is almost three times the percentage in last year's survey (13%). The opposite view, with a mere 33% of the CEOs in Romania, is that a better year is expected for the global economy and improved growth is anticipated, compared to 49% a year ago.



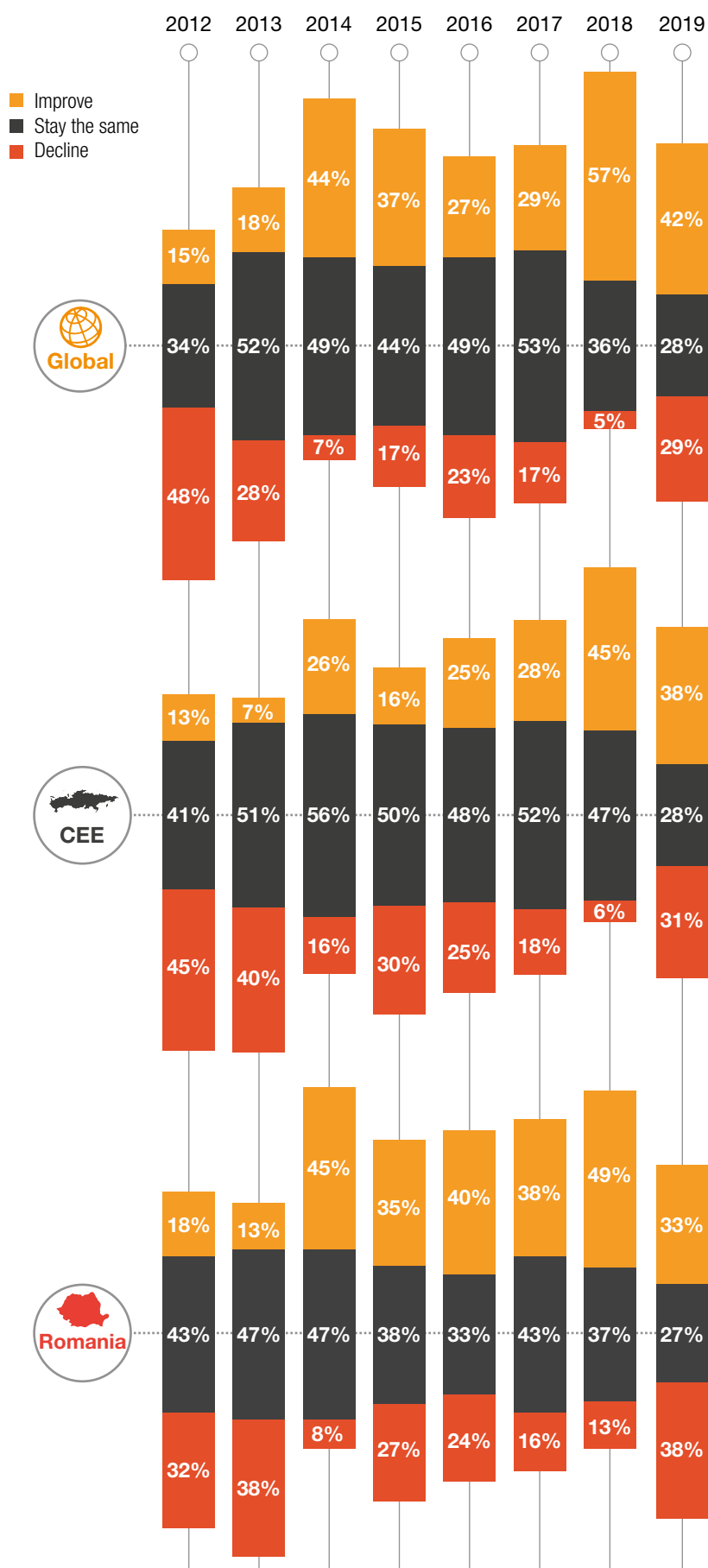
# 38%

of CEOs in Romania believe global economic growth will decline

After five years when the percentage of CEOs in Romania projecting improved global economy growth rate was substantially higher than that of executives expecting a slowed growth rate, this year's survey shows a reversal. Only back in 2012 and 2013 was the percentage of "pessimists" higher, when the Romanian economy was struggling to come out of a prolonged difficult crisis.

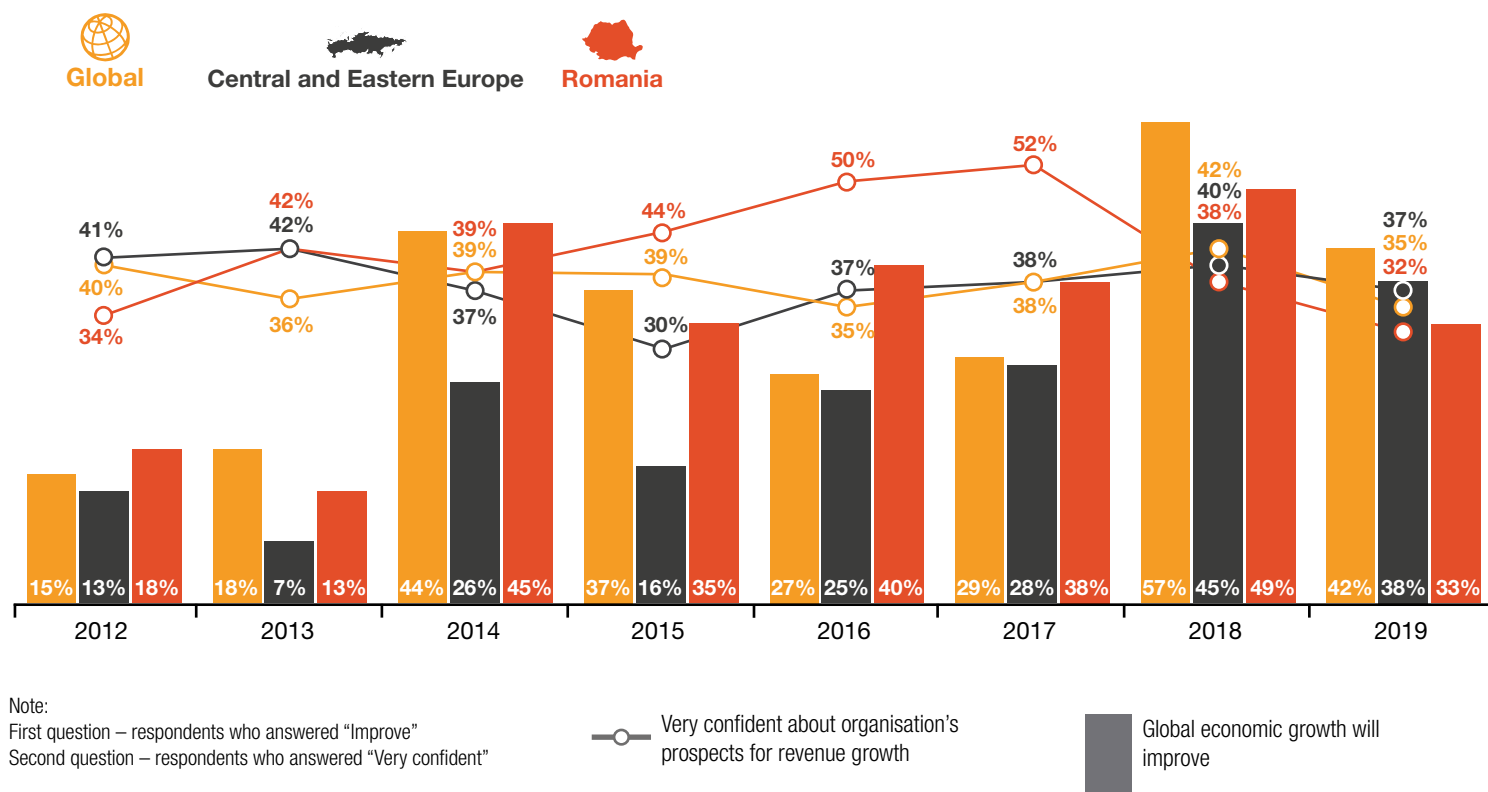
## Executives' confidence in prospects of global economic growth on a steep decline

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



## Shrinking confidence in global economy growth prospects is coupled with diminishing optimism about the organisations' improving short-term revenue growth

Do you believe global economic growth will improve, stay the same, or decline over the next 12 months?  
How confident are you about your organisation's prospects for revenue growth over the next 12 months?



Our 2018 survey analysed the “optimism gap” – the gap between the percentage of CEOs expressing optimism about global economic growth prospects and those very confident in their organisations’ revenue growth prospects.

Last year, the 11 percentage-point optimism gap placed the CEOs in Romania midway between the “anxious optimists” (global CEOs; 15 percentage points) and the “clear-eyed realists” (organisation leaders in Central and Eastern Europe; 5 percentage points).

In this year’s survey, the optimism gap has halved (to 7 percentage points) for CEOs worldwide and reduced to 1 percentage point for their counterparts in Romania and Central and Eastern Europe. This is the second year in a row when business executives have shown less confidence in the growth prospects of their own organisations than in those of the global economy.

CEOs’ concerns about a potential slowdown of the global economy growth rate translates into diminishing trust in the performance of their own organisations, both in the short- and medium-term, and this trend is manifest across the world.

35% of business executives worldwide are very confident about their own organisations’ revenue growth prospects over the next 12 months, down from 42% in 2018.

CEOs in Romania and Central and Eastern Europe generally share the opinion of their counterparts worldwide about a better year ahead for their businesses. The percentage of respondents in Romania who are very confident about the revenue growth prospects of their own organisations is down to 32% from 38% last year and 52% in 2017.



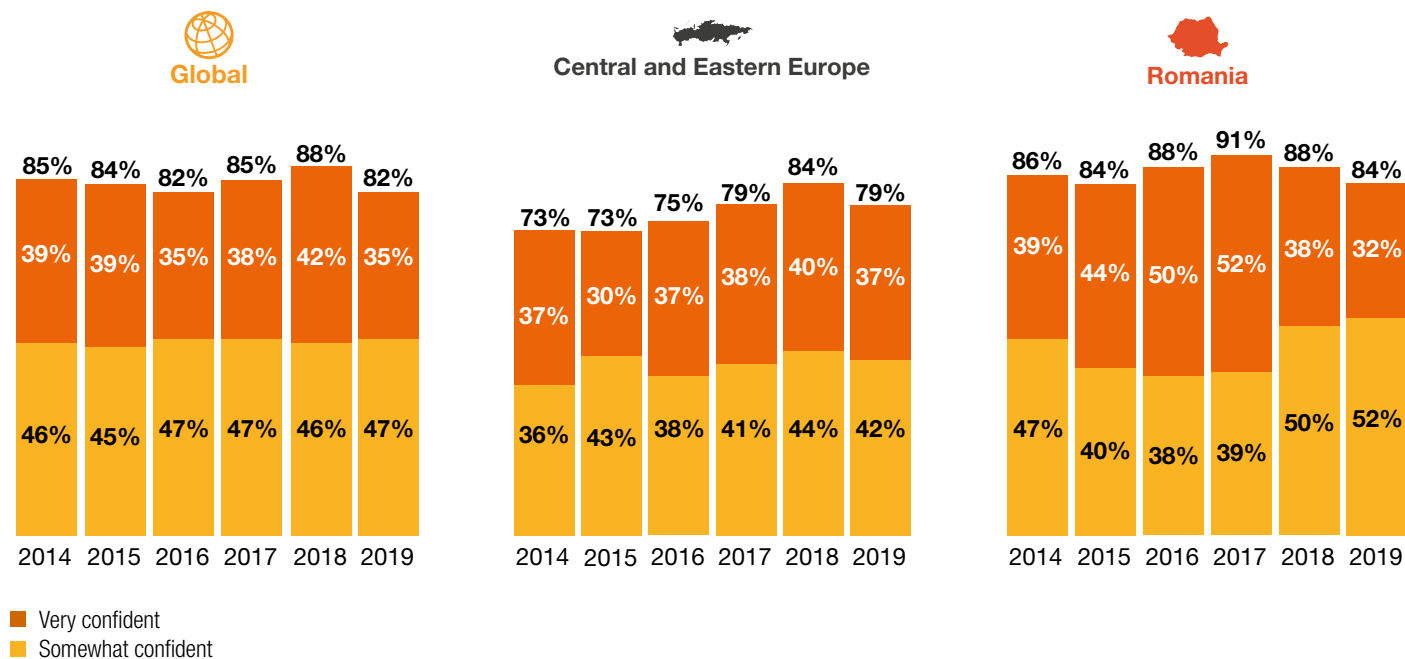


**“Although CEOs are less optimistic than they were a year ago, they still trust their organisations’ capacity for revenue growth. There is promise for business growth, but, in order for this to happen, a stable and predictable economic environment is needed. These two features of a healthy economy are essential to business executives in their planning for growth. To achieve this, constant dialogue between the business community and decision-makers on economic and fiscal policy is crucial to ensuring firm foundations for businesses to grow in Romania and to carry on their investment programmes.”**

**Ionuț Simion**  
**Country Managing Partner**  
**PwC Romania**

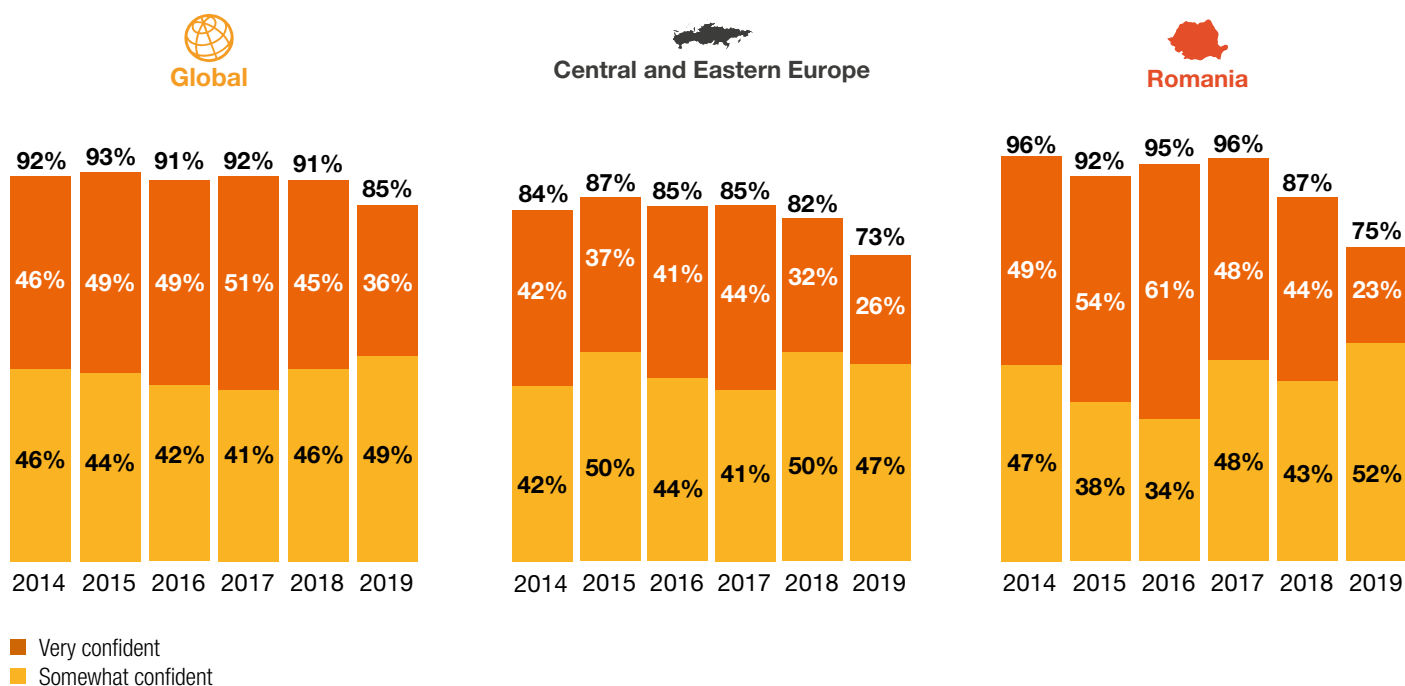
## CEOs are less confident than last year about the short-term growth prospects of their own organisations

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



## Falling confidence in the organisations' medium-term revenue growth prospects

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



When asked to extend their projections to three years, CEOs expressed sharply declining confidence in their organisations' revenue growth prospects, with a little over one third of business executives worldwide (36%) being very confident about revenue growth prospects. That is close to the record low in 2009 (34%) and down from 45% in 2018 and 51% in 2017.

Business executives in Romania and Central and Eastern Europe continue to be less optimistic than their counterparts worldwide, with the proportion of CEOs in Central and Eastern Europe expressing confidence dropping to a record low of 26%. That is the lowest level of optimism seen across all seven world regions since 2007, matched only in Western Europe back in 2009, in the throes of the economic downturn. The trend stays the same as in the last four editions of our survey, with CEOs in the region still the most pessimistic compared to their counterparts in other regions covered by our survey.

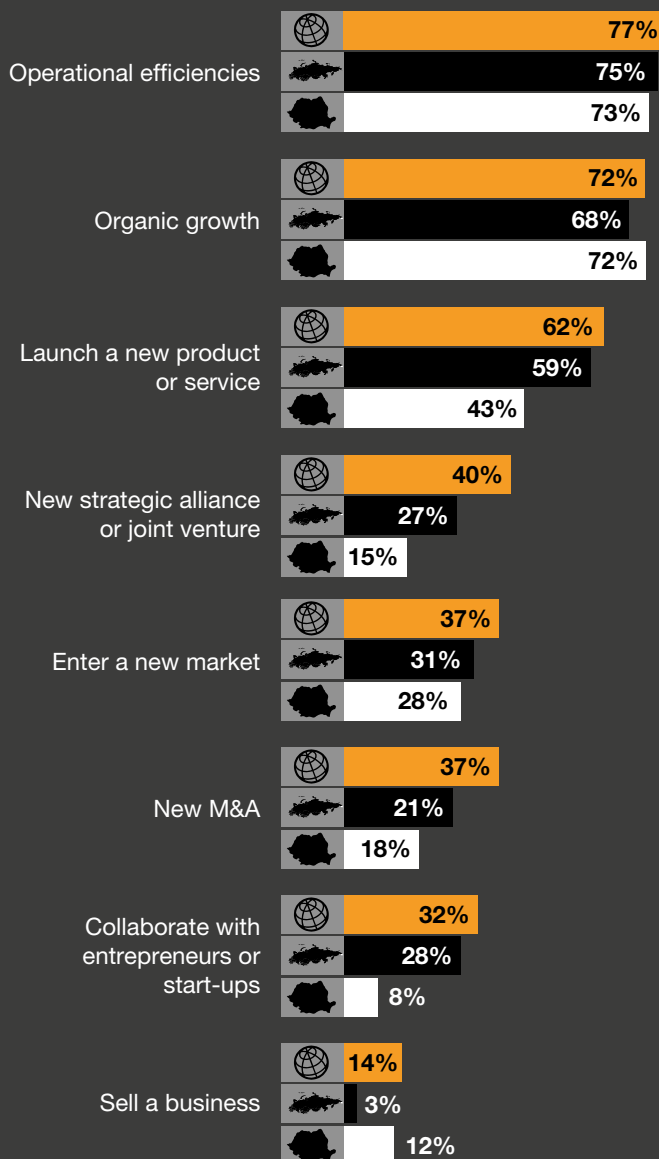
In Romania, less than one quarter (23%) of the respondents are very confident in the revenue growth prospects of their own organisations, which is down to approximately half of last year's level.

It is noteworthy that this is the second consecutive year when business executives in Romania and in the region are less confident in the revenue growth prospects of their own organisations in the medium term than in the short term. This happened globally in the years preceding the crisis (2007-2008).

Confronted with the new realities (populism, protectionism, labour market and trade barriers), organisations are looking inward and mainly relying on internal resources to drive revenue growth over the next 12 months. Around three quarters of CEOs are focusing on operational efficiency, and a similar percentage on organic growth. Around three out of every five business executives worldwide and in Central and Eastern Europe are planning the launch of new products and services. The percentage of their counterparts in Romania planning to launch such initiatives to drive revenue growth is substantially lower (43%).

Operational efficiency and organic growth are still the main ways to drive revenue growth and enhance profitability, followed by the launch of new products or services

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



CEOs' dwindling optimism has an impact on expansion plans outside their home territory. Given the volatile global economy and political hindrances to globalisation, business executives seem less certain about their plans for expansion outside their domestic markets. Expansion is becoming uncertain, with 15% of the respondents worldwide saying they "don't know" when asked about the top three most attractive countries – outside their home territory – for the growth prospects of their organisation over the next 12 months. The percentage of undecided business executives is even higher in Central and Eastern Europe (20%) and in Romania (35%). This could account for the overall drop in the percentage of CEOs expressing an interest in expansion to any of the top foreign markets. Governments could see this as an opportunity to show businesses that their own countries are open and attractive for business.

Worldwide, the US is still a top market for growth, but China, still ranked second, has narrowed last year's gap. CEOs continue to see the US as the number one market for the growth prospects of their organisations, despite the sharp decline in the percentage of respondents mentioning it (27%, compared to 46% last year). For China also the percentage of CEOs who see it as an attractive market goes down to 24% from 33% in 2018.

Two European countries come next in the top of attractive investment markets for businesses - Germany (13%, down from 20% last year) and the United Kingdom

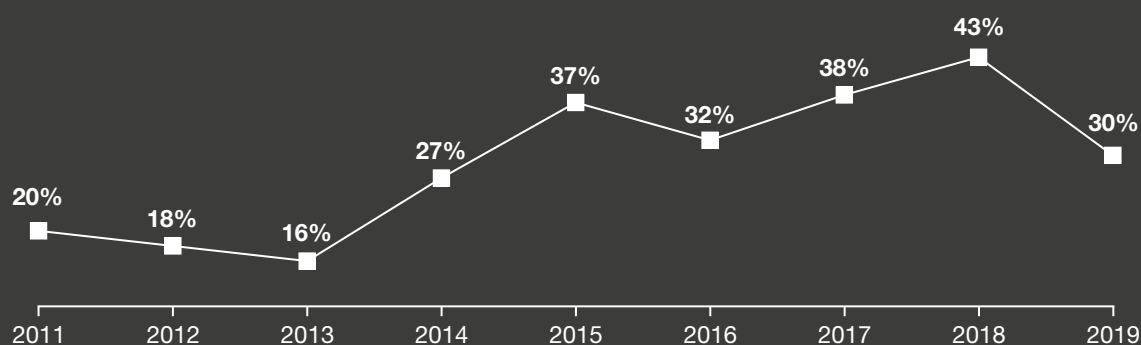
(8%, down from 15%). India, which has recently outranked China in the ranking of fastest-growing large economies, is the high performer in this year's survey and makes it to the top five of the markets expected to generate growth for businesses, according to CEOs' responses around the world (8%, slightly down from 9%).

The US also sees a significant decline in the ratings of CEOs in Central and Eastern Europe (to 18% from 37% in 2018). That means Germany has again become the perceived best market for growth, although the percentage of CEOs naming it as attractive for revenue growth has decreased to 28% from 35% last year. The percentage of CEOs naming China has also dropped, although to a lesser extent, as China still ranks third in the list of growth potential markets (18%, on a par with the US). As with the preceding survey, these countries are the top three attractive markets seen by CEOs worldwide and in Central and Eastern Europe, but in a different order.

According to the opinions of business executives in Romania, Germany has been the top destination for business growth (with 30% of the respondents naming it, down from 43% last year) for years. France follows in a very distant second place this year (12%), then the US (10% compared to 41% last year), with the UK and Bulgaria also mentioned by 10% of respondents.

## Germany remains the top market for growth prospects of companies in Romania

The percentage of CEOs in Romania that nominate Germany as one of the most important three countries for their organisation's overall growth prospects over the next 12 months



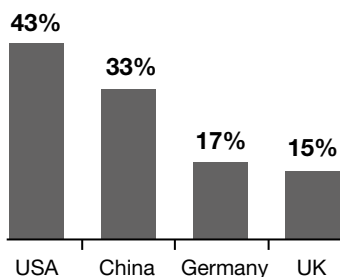


## Germany becomes the most attractive foreign market again for the growth prospects of businesses in Central and Eastern Europe

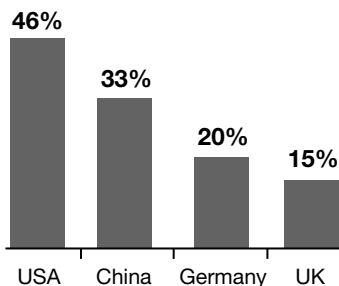
Which three territories, excluding the territory in which you are based, do you consider most important for your organisation's overall growth prospects over the next 12 months?



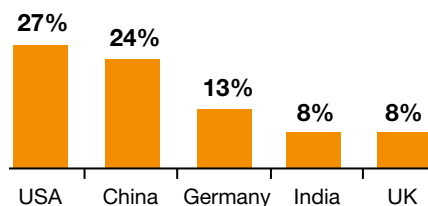
2017



2018

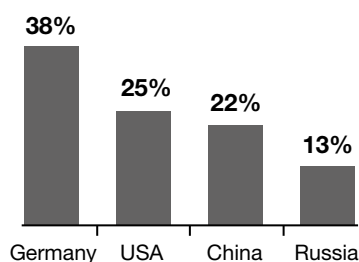


2019

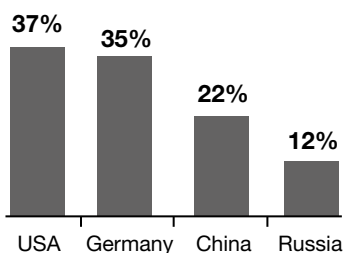


Central and Eastern Europe

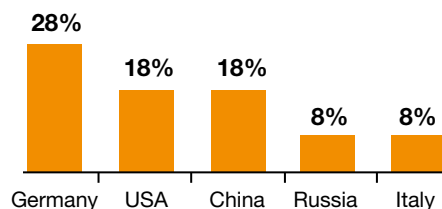
2017



2018

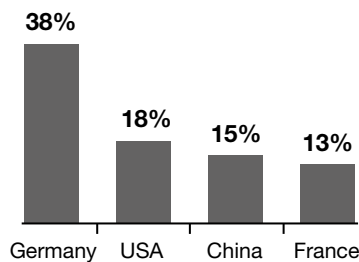


2019

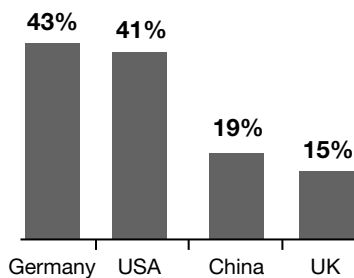


Romania

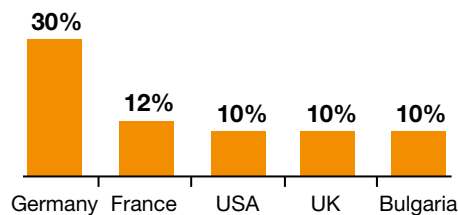
2017



2018



2019



Escalating trade tension, heightened protectionism and the uncertain impact of public policy inherently cause the CEOs' confidence and willingness to invest or take risks to drop.

Uncertainty around public policy, trade conflicts and protectionism have replaced, in the top ten threats to the organisations' growth, terrorism, climate change and the increasing tax burden, in the eyes of the CEOs worldwide who are extremely concerned with these aspects. However, over-regulation, availability of key skills, cyber threats and geopolitical uncertainty remain, just like in recent years, at the top end of the concern list. As with our previous surveys, over-regulation ranks first in the top threats.

Just like a year ago, 51% of the CEOs in Central and Eastern Europe say they are extremely concerned about the availability of key skills. Their counterparts in Romania share their opinion, almost to the same extent. Populist governmental policies promoted by political regimes in several Central and Eastern Europe countries are gaining momentum and becoming an immediate concern for CEOs. Governments

are very active in pulling the available economic levers, causing business executives to be more cautious and focus more on what is under their control. Uncertainty around public policy is among the top three threats CEOs are extremely concerned about, not only in Central and Eastern Europe, but also in the majority of the regions across the world.

CEOs in Romania are more concerned this year than their counterparts worldwide and in the region about the large number of potential threats to growth prospects. Inadequate infrastructure is the number one concern, as in 2018, with almost two-thirds (62%) of executives in Romania saying they are extremely concerned. The same percentage appears this year when it comes to uncertainty about public policy. The next two challenges, in the opinion of around half of the respondents in Romania, have to do with the workforce – the availability of people with key skills (50%) and the change in the workforce demographics (47%). Business executives in Romania are focusing their attention on ways for their companies to adjust to rising populism, which ranks last in the top five potential threats.

The results of this year's survey may be worrying, but there is also reason for hope. Business executives seem to be very realistic about the challenges facing them and this might encourage them to take joint action more often. People, assets and technologies will continue to move across borders, which will trigger the pressing need for cooperation between businesses and authorities, nationwide, regionwide and worldwide.

## Top threats to organisation's growth prospects



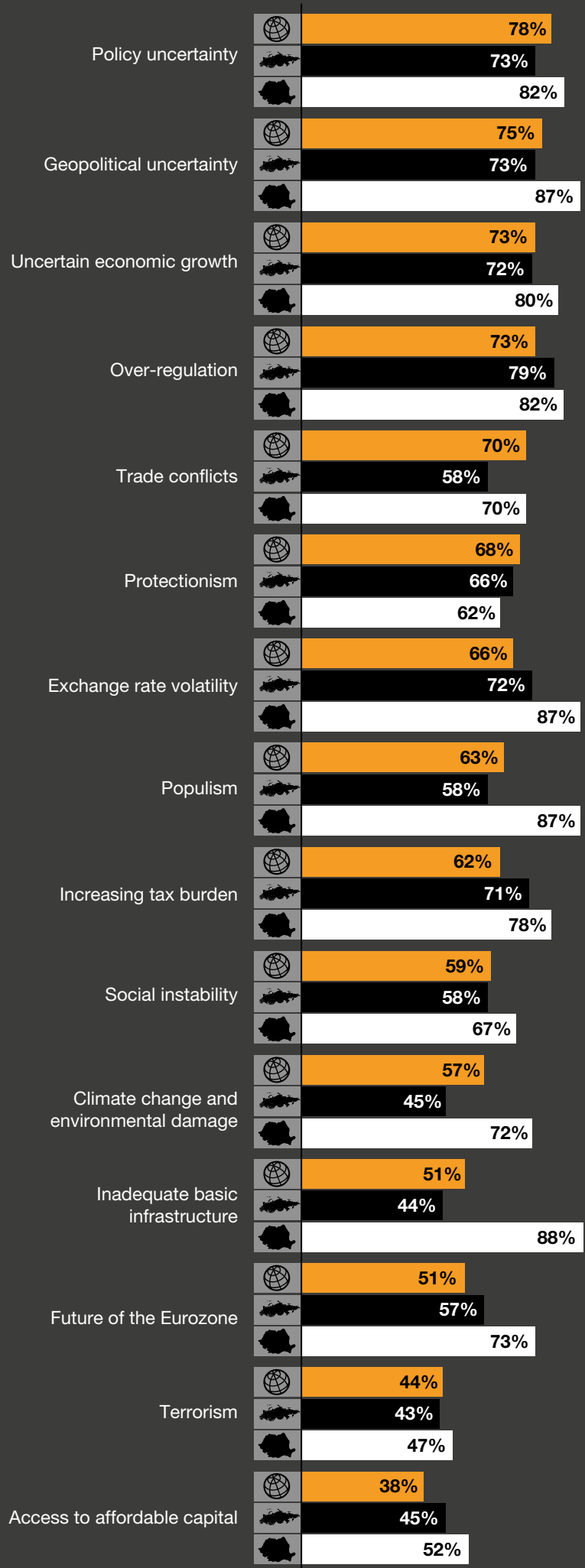
In the opinion of CEOs worldwide and in Central and Eastern Europe, public policy uncertainty and over-regulation top the economic, political, social and environmental potential threats to growth prospects

How concerned you are, if at all, about each of these potential economic, policy, social and environmental threats to organisation's growth prospects?

With the current declining optimism about growth, one thing is certain: challenges are still as important as they used to be. There are persisting concerns of Romania's CEOs, who are sending a clear message to the authorities that they are still concerned by infrastructure, over-regulation and the increasing tax burden.

Thus, of the broader societal risks, beyond the by now well-established threats on the minds of business executives in the region and in the entire world (geopolitical uncertainty and public policy uncertainty, over-regulation), CEOs in Romania have some specific concerns for 2019. They feel, to a significantly larger extent than their counterparts worldwide and in Central and Eastern Europe, threatened by inadequate infrastructure, volatile exchange rates and populism.

An insufficiently developed infrastructure causes, among other issues, costs and lead-times on orders to increase and Romania's attractiveness to decrease in the eyes of prospective investors interested in developing new production facilities. The concern about the volatility of the exchange rate is well grounded, given the sharp rise in the euro against the Romanian currency since early this year. As to populism, to understand the concerns of CEOs in Romania, it should be remembered both 2019 and 2020 are election years.

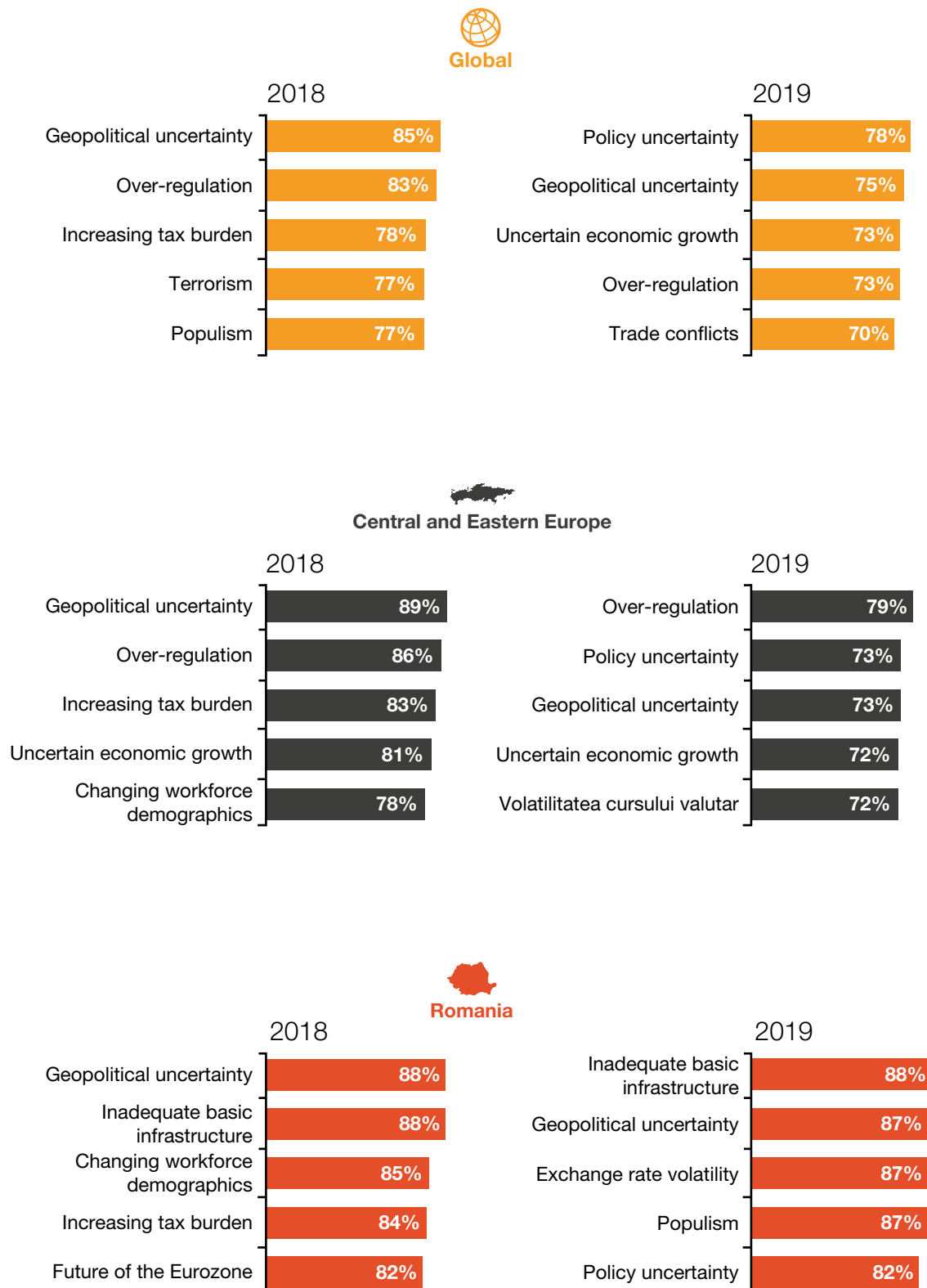


Note: Respondents who answered "Somewhat concerned" or "Extremely concerned"



## Inadequate infrastructure still is one of the top concerns of CEOs in Romania

Top economic, policy, social and environmental threats to organisation's growth prospects



Note: Respondents who answered "Somewhat concerned" or "Extremely concerned"

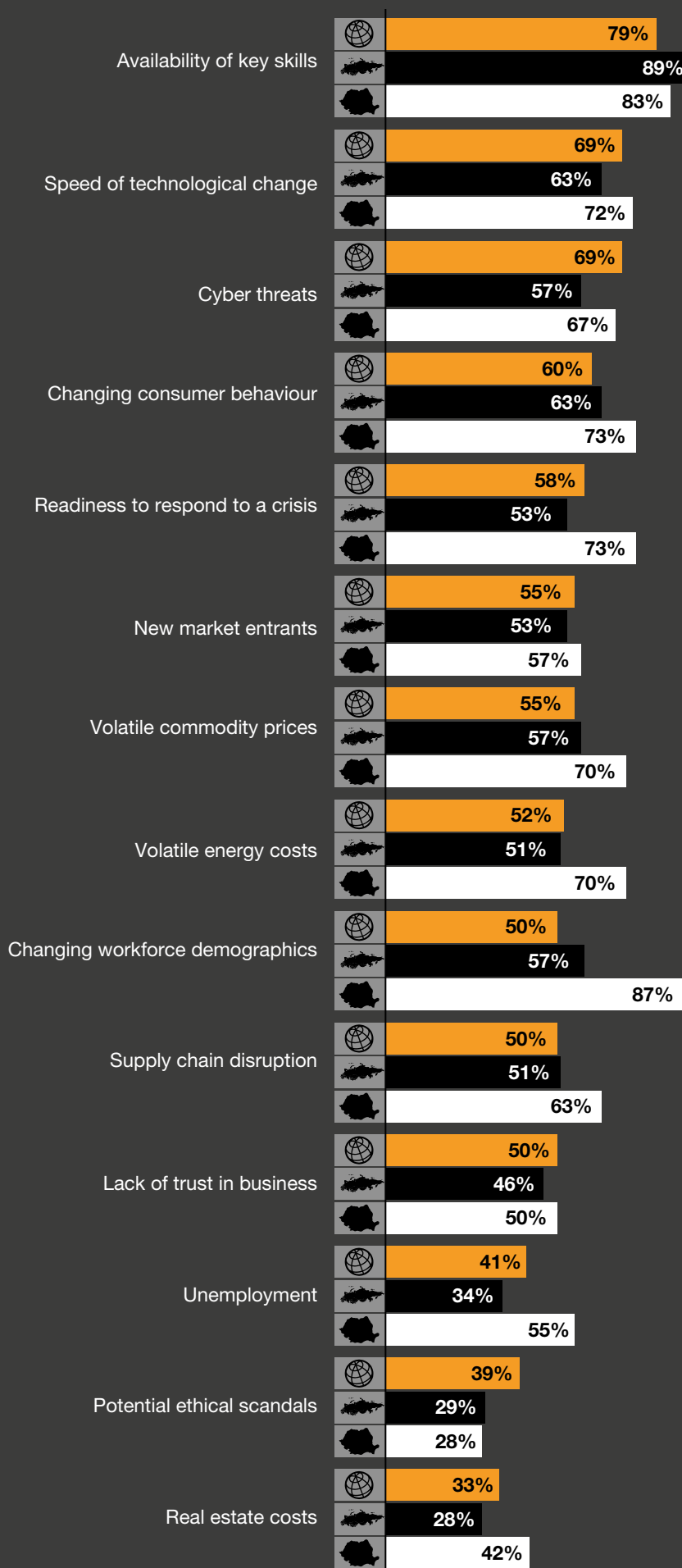
Of the business-specific potential threats to growth, the availability of key skills continues to preoccupy most CEOs worldwide and in Central and Eastern Europe

How concerned you are, if at all, about each of these potential business threats to organisation's growth prospects?

In terms of business-specific potential threats to companies' growth, talent availability, technology and consumers are still the main challenges on the agenda of business executives.

As with the preceding survey editions, the availability of employees with key skills is still the main disrupting factor worrying most CEOs worldwide (79%). As in 2018, cyber threats and the speed of technological change come next (both named by 69% of respondents). It is noteworthy that the top five threats to growth are the same as in last year's survey and, with some minor differences in rankings, as in 2017 (when cyber threats ranked fourth, below the speed of technological change and changing consumer behaviour).

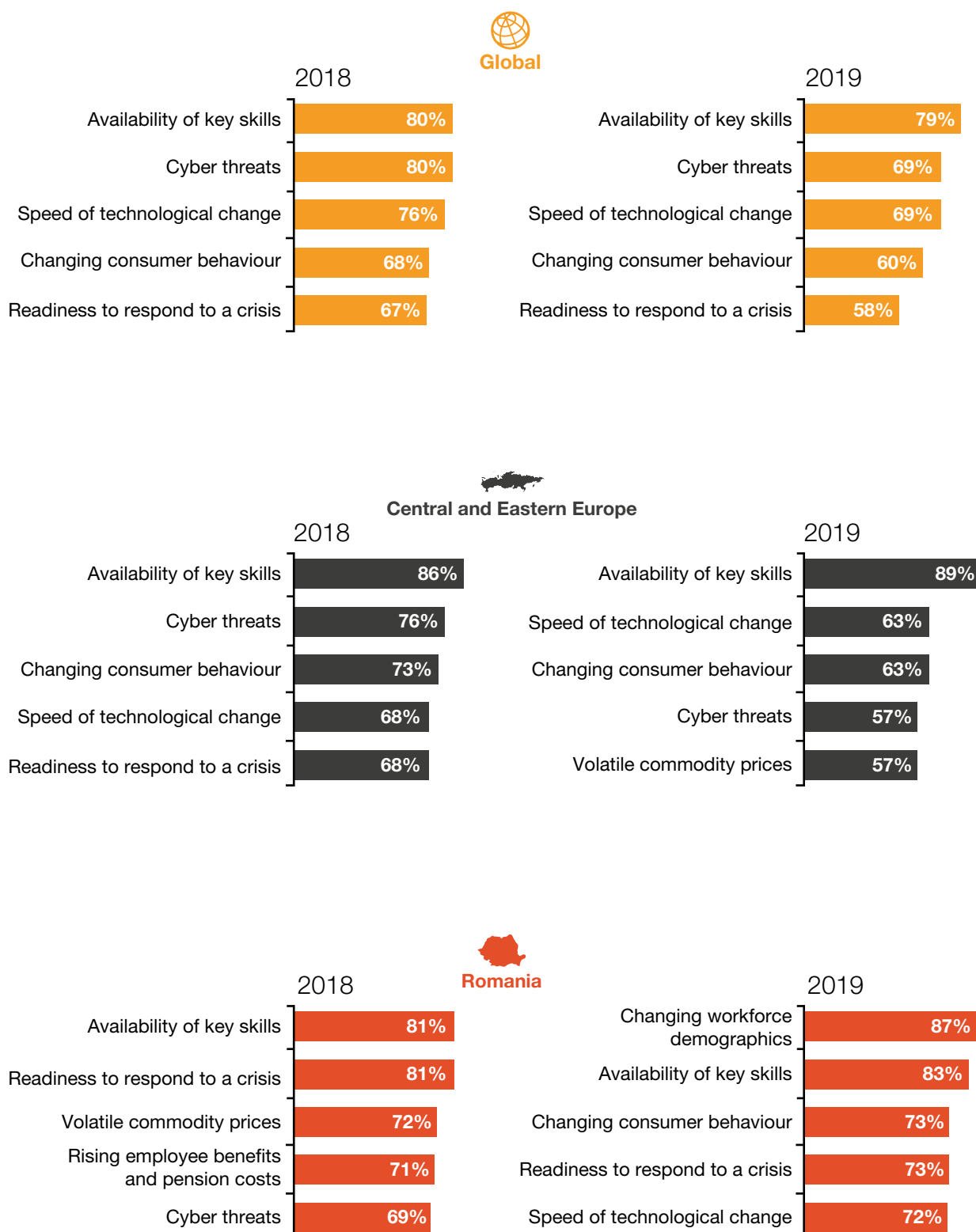
In Central and Eastern Europe, over the last five years, the availability of employees with key skills organisations need has stayed at number one in potential threats. The percentage of respondents saying they are concerned with this threat has reached a record high this year (89%). The speed of technological change follows at a distance (with 63% of business executives; ranked fourth a year ago) and changing consumer behaviour, which retains its third place.



Note: Respondents who answered "Somewhat concerned" or "Extremely concerned"

# Changes in workforce demographics top the list of concerns expressed by business executives in Romania

Top business threats to organisation's growth prospects



Note: Respondents who answered "Somewhat concerned" or "Extremely concerned"

"We notice that business executives in Romania are more worried than their counterparts by the increasing tax burden, which is seen as a potential risk factor. Of the CEOs in Romania who said they were extremely concerned about the increasing tax burden, most are worried by two specific issues: tax rates and the complexity of tax legislation. Unlike their counterparts worldwide and in Central and Eastern Europe, who most fear higher tax rates, business executives in Romania are more concerned about the complexity of tax legislation than the level of taxes.

Over two thirds of the business executives worldwide are concerned about trade disputes, which may be one of the contributing factors to a slowdown in the global economy growth rate, and may hit mature and emerging markets alike. Their opinion is shared, to a similar extent, by their counterparts in Romania. Of the CEOs who are extremely concerned about trade tension most of the respondents in Romania are worried about the US–EU disputes. They are followed by CEOs expressing concerns about the China-US conflict (the most prominent concern of the respondents worldwide, in North America, Asia-Pacific and Western Europe) and about Brexit. When asked how trade conflicts affect their operating model and growth strategy, most of the CEOs extremely concerned about trade conflicts say they are adjusting their supply chain and sourcing strategy."

**Daniel Anghel**  
Tax and Legal Services Leader  
PwC Romania

In Romania, the top concern this year has to do with changes in workforce demographics, named by 87% of the respondents in our country, compared to 50% worldwide and 57% in the region. This is closely linked to the second-highest threat, the availability of key skills (83%, slightly up from 2018).

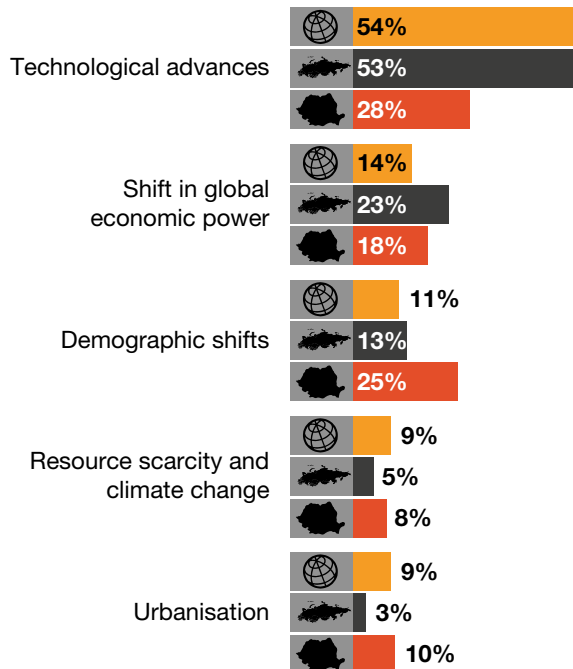
Three threats named by almost three quarters of CEOs in Romania come next: changing consumer behaviour (up from 66%), crisis response readiness and speed of technological change (up from 68%).

It is noteworthy that volatile prices for energy and raw materials are also a concern to more than two thirds (70%) of respondents in Romania, unlike their counterparts worldwide and in the region who are less worried that the instability of these costs might adversely affect their growth.



## Technological advances have had a substantial impact on the business environment over the last five years

Looking backwards to the past five years, please select the global trend that you believe have transformed your business the most

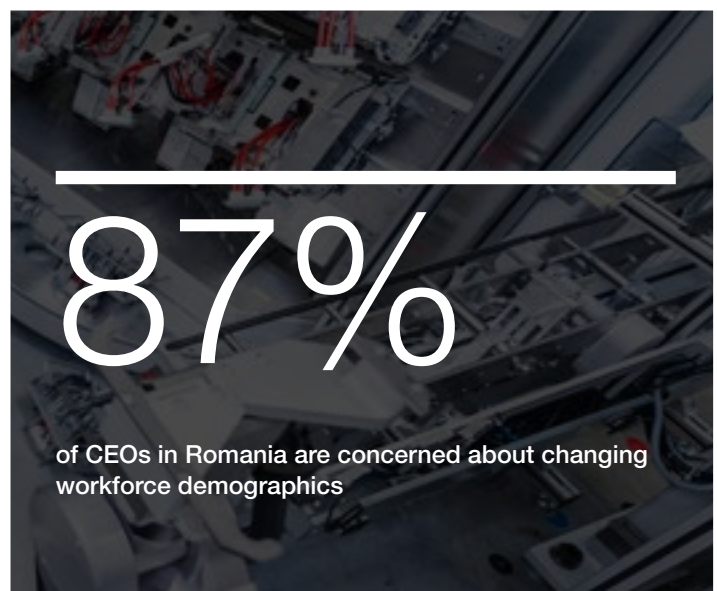


With the speed of technological change still a major concern for business executives, this year's survey brings back into the spotlight the mega-trends that have left their mark on the global business environment for years now.

In 2014's survey, when asked about the top three mega-trends expected to transform their businesses the most over the following five years, almost all (92%) of the respondents in Romania said that technological advances would have a major impact. Demographics changes were named by 51% of CEOs in Romania at that time. The same two – technological advances (81%) and demographics changes (60%) – were the top trends anticipated by business executives worldwide as well.

In the current survey, when asked to look back, CEOs believe that technological advances have been the most impactful on businesses over the last five years. Over half of the respondents worldwide and in the region name this trend, unlike their counterparts in Romania, where the percentage is significantly lower.

The importance of demographics changes cannot be underestimated, with one quarter of the business executives in Romania admitting to have strongly felt the impact of this mega-trend as the major factor reshaping the business environment over the past five years.

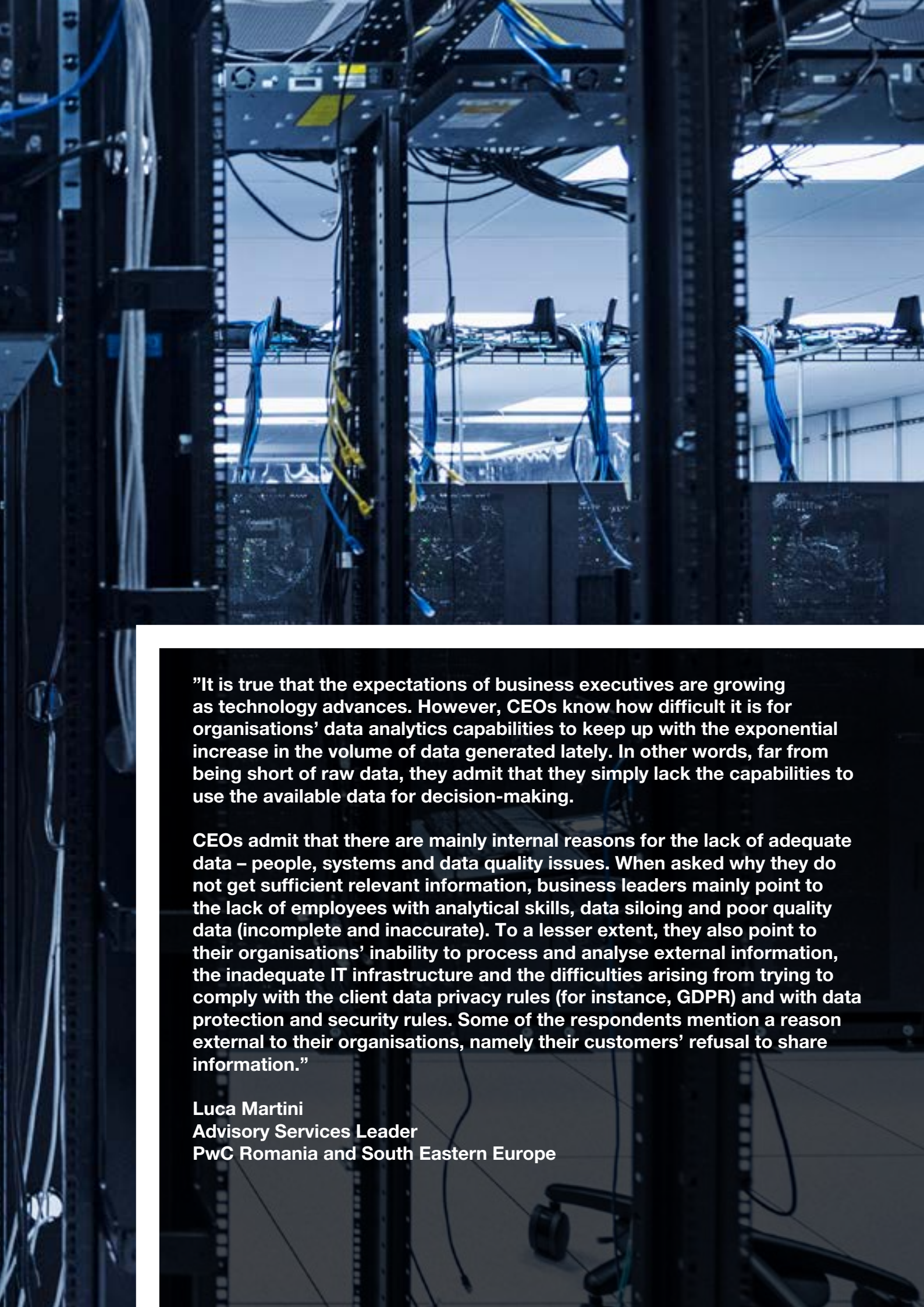


# 2

Skills and  
information  
gap – the race  
for talent







**"It is true that the expectations of business executives are growing as technology advances. However, CEOs know how difficult it is for organisations' data analytics capabilities to keep up with the exponential increase in the volume of data generated lately. In other words, far from being short of raw data, they admit that they simply lack the capabilities to use the available data for decision-making.**

**CEOs admit that there are mainly internal reasons for the lack of adequate data – people, systems and data quality issues. When asked why they do not get sufficient relevant information, business leaders mainly point to the lack of employees with analytical skills, data siloing and poor quality data (incomplete and inaccurate). To a lesser extent, they also point to their organisations' inability to process and analyse external information, the inadequate IT infrastructure and the difficulties arising from trying to comply with the client data privacy rules (for instance, GDPR) and with data protection and security rules. Some of the respondents mention a reason external to their organisations, namely their customers' refusal to share information."**

**Luca Martini  
Advisory Services Leader  
PwC Romania and South Eastern Europe**

As they turn to within their organisations to find growth opportunities, CEOs say they find shortcomings in their own capabilities, and many struggle to extract value from the data they have and to get employees with analytical skills.

In the age of technology, information rules. CEOs admit to struggling to get and manage the information they need for decision-making, and the reason is often the capability of their own organisations to generate adequate data. The information gap is still substantial, despite the massive investments made in the IT infrastructure over the years. Business leaders point to the fact that they still do not get enough of the relevant information they need to make major decisions about the stability and long-term success of their businesses.

In the opinion of CEOs worldwide, the most important types of information relate to their customers' needs and preferences (94%), followed by financial projections, data on their organisations' brand and reputation – each of which is named by around nine out of every ten respondents. Information on the risks to which their business is exposed, on the employees' views and needs, on how the latest technology trends benefit or disrupt the industry and data regarding competitors also proved particularly important to over 80% of the business executives.

Business leaders in Central and Eastern Europe share the opinion of their counterparts worldwide that data on customers' needs and preferences (96%) and financial projections (89%) are critical for decision-making. Data on the risks to which their business is exposed, on their organisation's brand and reputation and on competitors come next – each named by more than eight out of every ten respondents. It is noteworthy that business executives in the region are more interested in data on the tax implications of their decisions (77%) than their employees' views and needs (73%).

The outlook apparent from the responses of CEOs in Romania is not very different from the above – the same top five appear as for their counterparts worldwide, but in a different order. Thus, in the opinion of business executives in Romania, financial projections top the list of most important data (97%), followed closely by their organisation's brand and reputation (95%) and by customers' needs and preferences

(93%). Information on employees' views and needs (90%) ranks fourth in the top of critical data for decision-making. Like their counterparts in the region, more than eight out of every ten CEOs in Romania are interested in data on the tax risks arising from their decisions.

However, things are much more complicated when it comes to the relevance and adequacy of the data CEOs actually get. For the large majority of the types of information analysed, there is a significant gap between the importance of data and the comprehensiveness of the information decision-makers access, and this is manifest worldwide, in Romania and in Central and Eastern Europe. The widest gap shown by responses of CEOs worldwide covers the type of information seen as crucial, namely data on customers' preferences and needs. Of the respondents who see such data as critical or important, a mere 15% say the data they get is comprehensive. Of the top key data types, financial projections have the highest degree of adequacy (which is the only percentage above 33%).

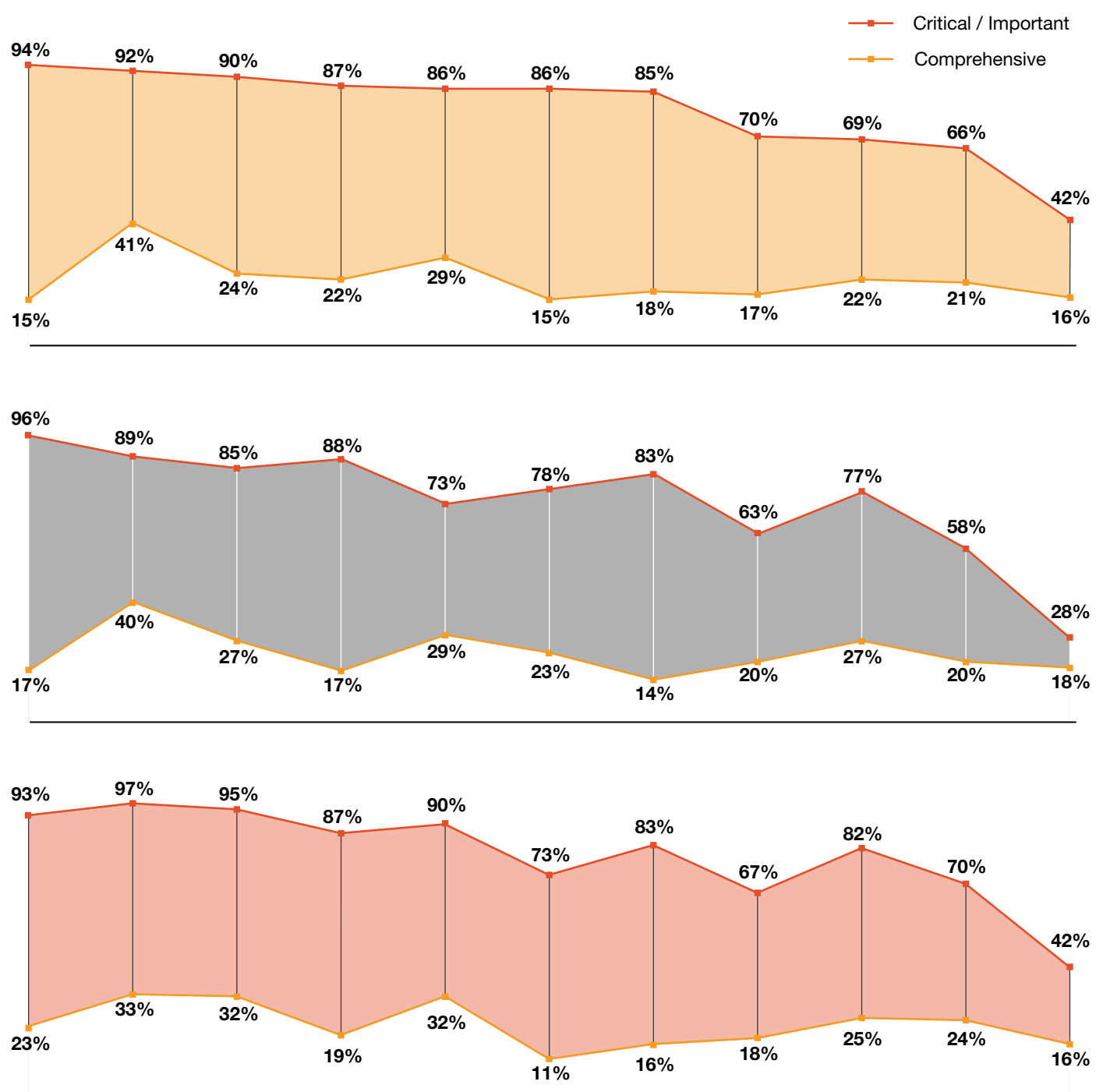
It seems that CEOs in the region have the most difficulties in getting comprehensive information on customers' preferences and needs, on the risks to which their business is exposed and on competitors, but things are better when it comes to comprehensive financial projections, as with their counterparts worldwide.

Business executives in Romania also say that getting comprehensive data on financial projections is rather easy, as is getting information on employees' views and needs and on their organisation's brand and reputation, but things are far from ideal. Data on risks to which their business is exposed and on how the latest technology trends benefit or disrupt the industry is rather insufficient and inadequate.

# There is a significant gap between the importance CEOs place on the information they need in the decision-making process and the adequacy of the data they get

Thinking about the data that you personally use to make decisions about the long-term success and durability of your business, how important are the following?

How adequate is the data that you receive?



Data about your customers' and clients' preferences and needs
Financial forecasts and projections
Data about your brand and reputation
Data about risks to which the business is exposed
Data about your employees' views and needs
Data about how the latest technology trends benefit or disrupt the industry
Benchmarking data on the performance of your industry peers
Data about the effectiveness of your R&D processes
Data about tax implications and risks arising from your decisions
Data about your supply chain
Data about the impact of climate change on the business

Note:

First question – respondents who answered “Critical” or “Important”

Base: all respondents

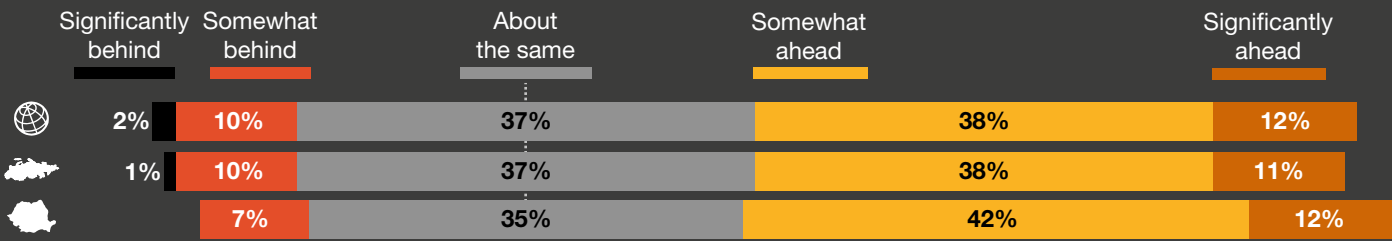
Second question – respondents who answered “Comprehensive”

Base: respondents who answered the first question “Critical” or “Important”



# CEOs are optimistic about the ability of their own organisations to make decisions based on data and analytics

How would you assess your organisation's ability to make decisions based on data and analytics compared to competitors in your industry?



Although they are not satisfied with the accuracy of the information to which they have access and point to the lack of workforce specialising in data analytics, business executives are generally confident in the ability of their own organisations to make correct decisions based on data and analytics, compared to competitors in their industry. Around half of the responds believe that the ability of their organisations to base their decisions on reliable analyses, forecasts and scenarios is superior to their direct competitors.



## CEOs are aware of and manage data security and privacy risks involved in adoption of new technologies

To what extent do you agree or disagree with the statements below?

My organisation proactively manages security and privacy risks when adopting new technology



My organisation is cyber resilient (can withstand attacks and recover quickly)



My organisation may be affected by geopolitical cyber activity



My organisation is adapting the way it monetises data to better address data privacy and ethics



Note: Respondents who answered „Agree” or „Strongly agree”

Sometimes it is possible to lose sight of the fact that technology comes with dangers pertaining to security in cyber space. Yet there is wide consensus among CEOs on their organisations' full awareness and proactive management of data security and privacy risks arising from the new technologies. Business executives admit that today's society is faced with major geopolitical cyber threats, but say their organisations are cyber resilient.

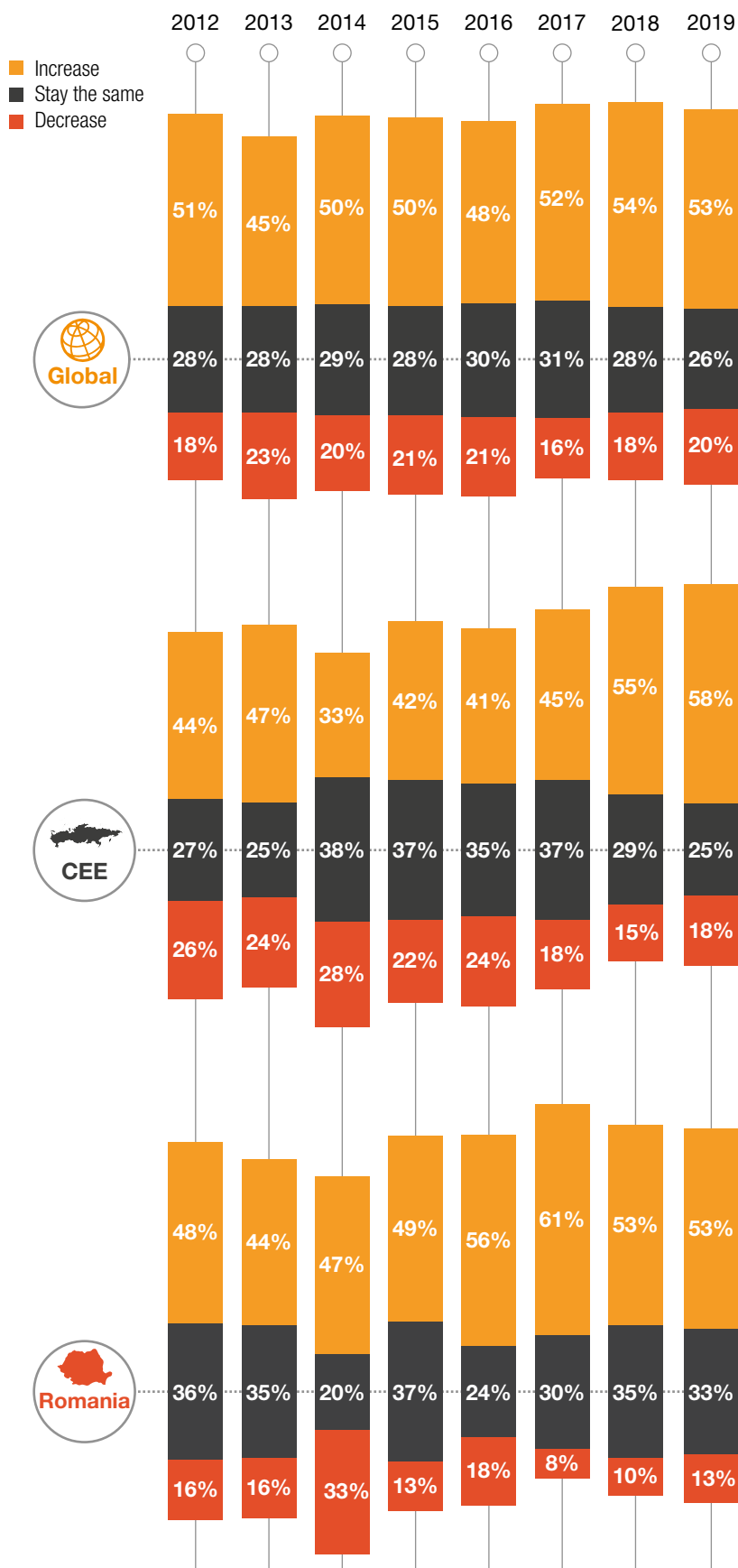
To a larger extent than their counterparts worldwide, CEOs in Romania believe their organisations are agile in adapting the way they monetise data to comply with ever more restrictive requirements on data privacy and ethics.

# 63%

of CEOs in Romania admit that their organisations may be affected by geopolitical cyber activity

## CEOs in Central and Eastern Europe are slightly more optimistic than last year about their organisations' headcount increase over the next 12 months

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



Around the globe, the concern about the availability of employees with key skills has almost doubled during the last 20 years, with the percentage of respondents worldwide worried about this potential threat to the growth of their own organisations soaring to 79% in 2019 from 31% in 1998. The availability of key skills is in the top ten threats CEOs are extremely concerned about across all the seven world regions covered by our survey.

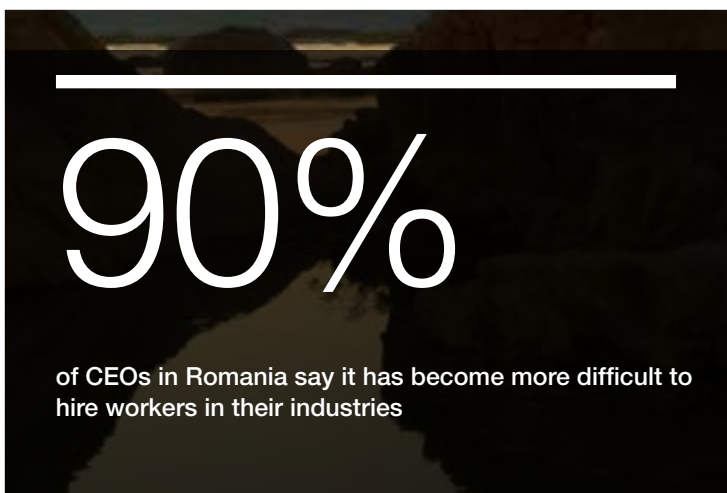
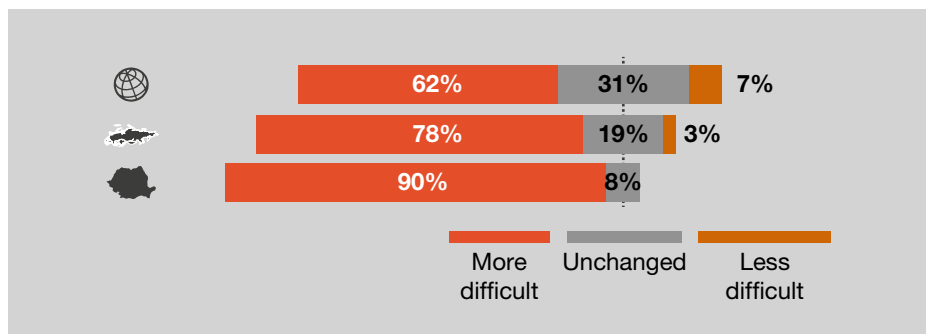
Although they admit that finding key skills on the market is a growing challenge, and despite projections about technology displacing many jobs in the future, CEOs remain generally optimistic about the headcount increase in their organisations over the next 12 months.

Hiring is no easy feat now that companies are engaged in a genuine talent “hunt” to cover their skills gap. As technological change continues to disrupt the ways the economy and wider society function, employees with digital and data analytics skills become rare and more sought after. The need for employees with “soft skills” remains critical though.

Over 60% of CEOs worldwide believe it has become more difficult to hire in their industry. The percentage is substantially higher in Central and Eastern Europe, where almost eight out of every ten respondents say it has become more difficult for them to recruit people. Their counterparts in Romania are even more pessimistic, with 90% of them admitting it has become ever more difficult to attract the employees they need for their own organisations.

## CEOs admit hiring has become more difficult

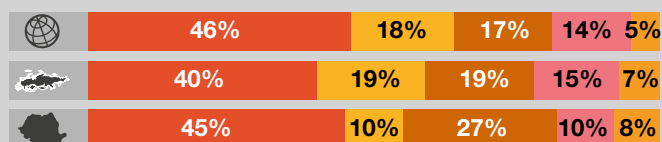
In general, has it become more difficult or less difficult to hire workers in your industry, or is it unchanged?





## Organisations pay particular attention to training and upskilling people

Which of these is the most important to close a potential skills gap in your organisation?



- Significant retraining / upskilling
- Hiring from outside my industry
- Establishing a strong pipeline direct from education
- Hiring from competitors
- Changing composition of workforce between permanent and contingent

CEOs admit there is no fast-track solution when it comes to bridging the skills gap in their own organisations. Solutions derive more from long-term (and often costlier) approaches, as shown by the responses of business executives across all the regions covered by our survey.

Retraining / upskilling and lifelong learning of employees is the preferred method for closing the skills gaps. Around two out of every five CEOs see retraining / upskilling as the winning approach, while almost one in five sees establishing a pipeline direct from education as an efficient option. CEOs in Romania tend to rely on a larger extent than their counterparts worldwide and in the region on establishing a pipeline direct from education (27%), which is seen as the option of choice to narrow the skills gap within their organisations.

People are the major success factor in digital transformation assignments. Through education, they should be trained for the future, to have the highest chance of success in a world that will change in ways we cannot anticipate. Businesses should work together with authorities and education

establishments to help the current and future workforce cope with the disrupting impact of the new technologies. As people work more years and retire at older ages, developing their adaptability and lifelong learning ability are crucial so they can enjoy the benefits and opportunities Artificial Intelligence may bring to society.

Many organisations provide training for their employees to acquire digital skills. But in order to advance from the successful implementation of technologies to a working environment which truly encourages creativity and innovation, companies should promote and reward completely new ways of solving problems and foster values such as flexibility, courage, dialogue, trust, cooperation, diversity and inclusion within their organisational culture.

Science, technology, engineering and mathematics skills are essential because they enable people to perform new roles and new tasks (some of them very different from current ones) against the background of the proliferating professions enabled by Artificial Intelligence and robotics. At the same time, skills such as creativity and empathy are also important as organisations endeavour to create a working environment that not only will encourage people to upskill, but also give them a sense of belonging and of a rewarding experience.

In order to get the most of the benefits of technology and globalisation, human resources should remain at the forefront. Acknowledging and making the most of the human factor in a world that grows ever more virtual and is engaged in a technology race which keeps changing our lives is an absolute must to ensuring long-term sustainable growth. Human resources strategies are under perpetual change, especially with automation and Artificial Intelligence always featuring high on the agenda of CEOs, who want ever more agile and versatile employees.





**"The primary cause for CEOs' saying it has become more difficult to hire in their industry is obvious: the shortage of skilled employees. However, aside from the skills gap, this year's survey also reveals other potential reasons, such as changes in the required abilities and in salary expectations. When asked about the impact of the availability of key skills on their organisations' prospects for sustainable growth, business executives mention the inability to innovate effectively, the people costs being higher than expected, the affected quality standards and customer experience, and missed growth targets. The talent gap also causes difficulties in pursuing market opportunities."**

**Kenneth Spiteri  
Assurance Services Leader  
PwC Romania**



# 3

Artificial  
Intelligence – how  
close the future is



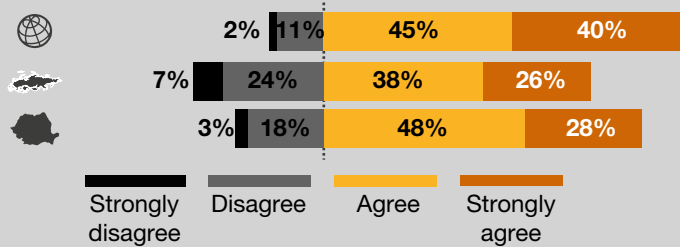


76%

of CEOs in Romania consider that Artificial Intelligence will significantly change the way they do business in the next 5 years

CEOs are fully aware of the importance of Artificial Intelligence for the business environment

To what extent do you agree or disagree that Artificial Intelligence (AI) will significantly change the way you do business in the next 5 years?



To unleash the internal growth potential of their organisations, CEOs pay particular attention to developing the emerging technologies, such as Artificial Intelligence (AI). There has been a lot of talk in recent years about the business potential of the successful use of these technologies. Of course, opinions are divided on how business executives see the impact of AI on society and on the role governments should play in developing Artificial Intelligence.

An impressive 85% of CEOs worldwide agree that Artificial Intelligence will significantly change the way they do business during the next five years. The views of respondents in Romania and in the region are slightly more moderate - Romania (76%) and Central and Eastern Europe (64%).

In order for Artificial Intelligence to be more than a combination of algorithms and technologies (digital assistants, robotics, machine learning etc.), it should serve customers. And in order for AI to be useful, working closely with customers is often needed to understand their problems first hand and design together with them the most adequate AI-based solutions.

72%

of CEOs in Romania have not introduced Artificial Intelligence initiatives in their organisations

Although they share the view on the impact Artificial Intelligence will have on businesses, most CEOs admit they have not introduced AI initiatives in their organisations. Worldwide, 23% of business executives admit to pursuing no AI initiative, and another 35% have plans to start introducing AI initiatives in their organisations in the next three years. There is also one third of the CEOs who say they have introduced AI initiatives in their business, but only for limited uses. Fewer than one in ten respondents say AI initiatives are present on a wide-scale basis in their organisation.

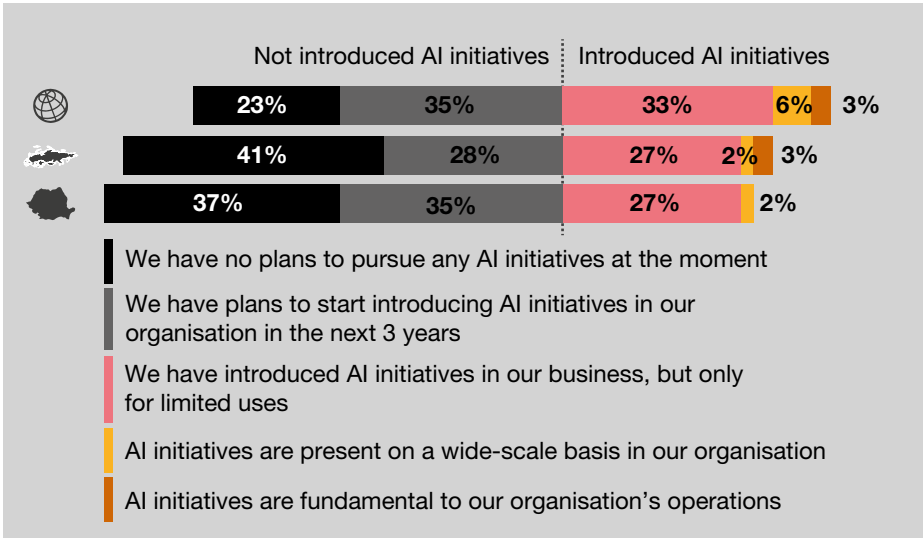
The percentage of business executives in the region and in Romania who say they have not introduced AI initiatives is even higher, 69% and 72%, respectively.

Undoubtedly, a large percentage of CEOs will be introducing Artificial Intelligence in their own organisations to avoid falling behind the competition that uses technologies helpful in making faster and better-informed decisions.

The shortage of employees with digital and analytical skills may slow down the implementation of Artificial Intelligence. Recruiting or developing data analysts and AI specialists is important for businesses, but so is creating in-house teams ready to implement Artificial Intelligence in their

## More than half of organisations have not implemented Artificial Intelligence initiatives yet

Please select the statement that best applies to your organisation:



areas of expertise and come up with solutions together with AI experts. The entire workforce should get the required support to adjust to change and use the AI-based systems implemented within organisations.





AI is a topic of growing interest, but transparency is essential to strengthen people's trust in the wide-scale use of Artificial Intelligence, especially in areas such as medicine or self-driving cars. In agreement with their counterparts worldwide and in the region, most CEOs in Romania admit that Artificial Intelligence is good for society, but AI-based decisions need to be explainable in order to be trusted. Business executives also expect governments' decisions to act as a catalyst for the development of Artificial Intelligence.

The information and digital skills gap should be taken very seriously, now that almost two thirds of the business executives worldwide and in the region believe that AI will have a larger impact on the world than the Internet revolution. In Romania, the percentage of respondents who share this opinion is even higher, 75%.

But things no longer seem so straightforward and clear when it comes to the expected impact of Artificial Intelligence on jobs. Worldwide, more respondents (49%) believe that AI will displace more jobs than it creates in the long run, whereas another 41% believe the opposite is true. In Central and Eastern Europe and in Romania, CEOs are more pessimistic about this topic, with 56% and 60% of them, respectively, saying Artificial Intelligence will displace more jobs than it creates in the long run.

CEOs' opinions are divided when it comes to AI eliminating human bias such as gender bias – with slightly more CEOs believing this would be a potential effect of AI.

Another topic on which business executives' opinions are divided is whether AI will become as smart as humans. In Romania, 52% of the respondents believe this to be true, whereas a quite similar proportion (53%) of CEOs in Central and Eastern Europe think the opposite to be true. Worldwide, the two categories of views are on a par, at 45%.

CEOs show both concern and optimism about the emerging technologies, which are often difficult to grasp, but at the same time have a potential too high to ignore. They should be used to meet the needs of individuals and communities. The effects of technological advances are faster and more powerful than ever and, if exploited correctly, can generate systemic changes that will benefit people at large. However, in order to achieve this, "generically" supporting the use of Artificial Intelligence to harness its positive and sustainable effects is not enough. Developing specific applications, which will consider the limitations and restrictions typical to various industries, institutions and communities, is also required (and more difficult).

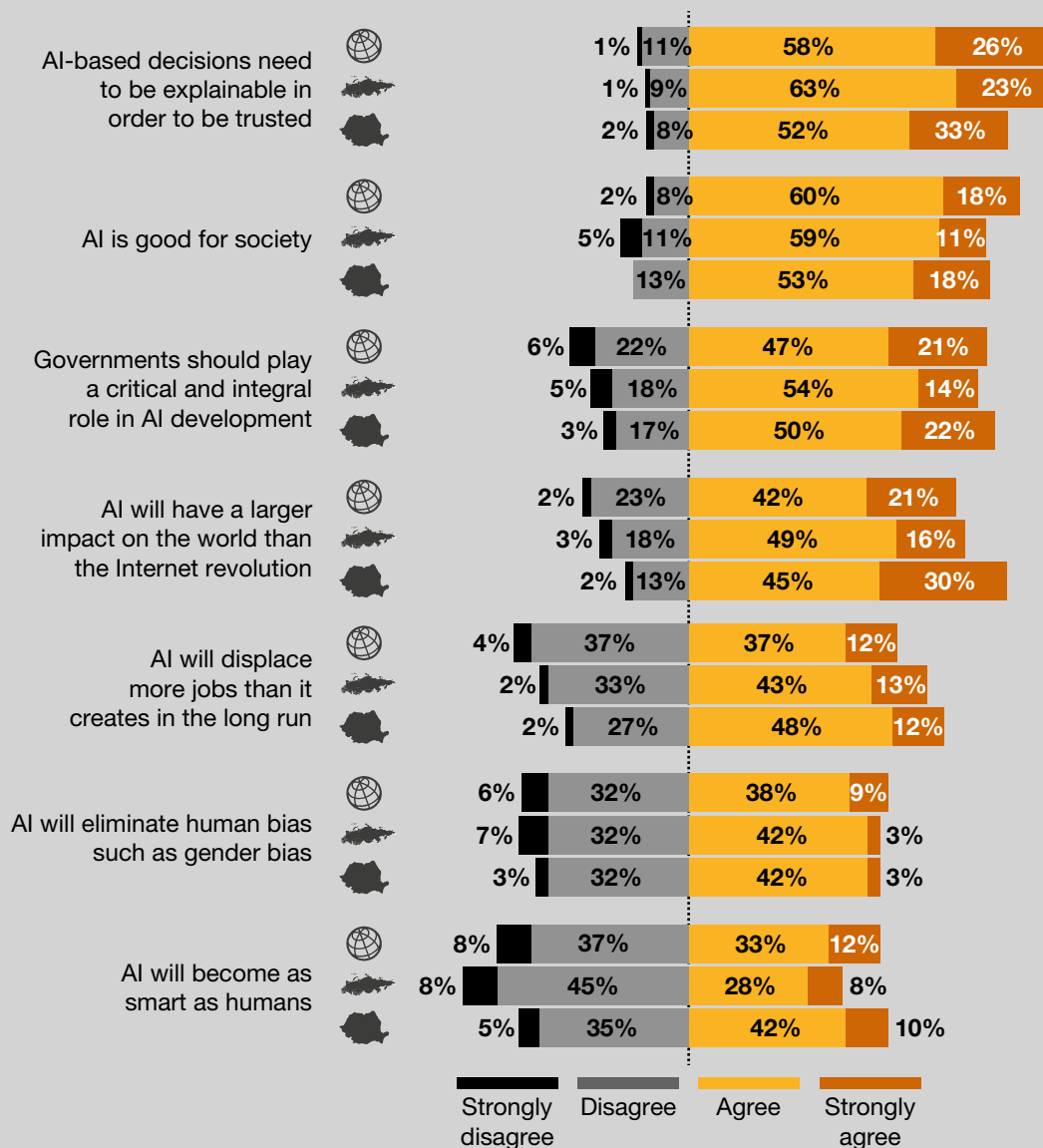


# 75%

of CEOs in Romania believe Artificial Intelligence will have a larger impact than the Internet

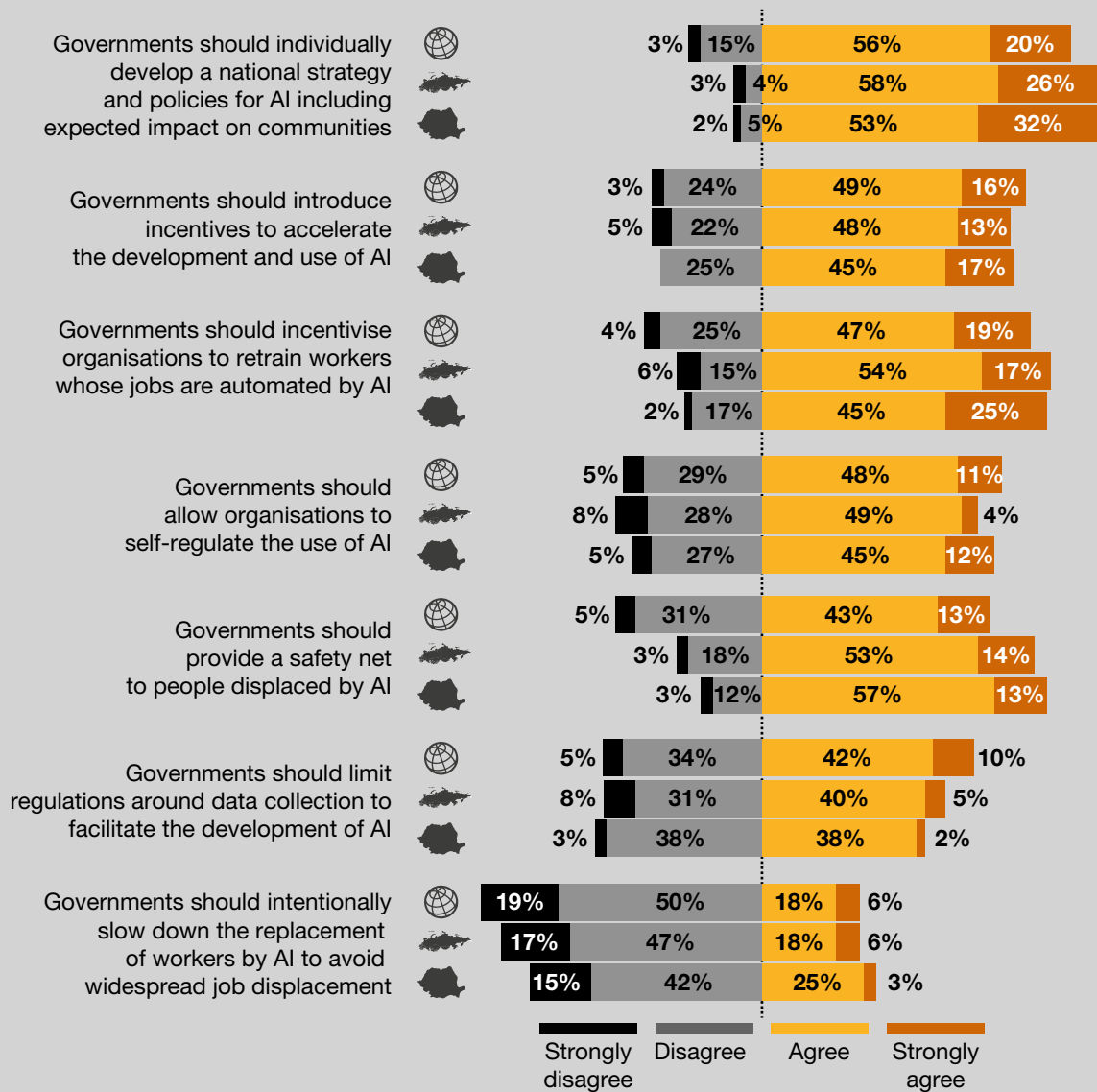
CEOs admit that Artificial Intelligence (AI) is good for society and will have a larger impact on the world than the Internet revolution. However, communication is necessary so people will trust it, while involvement of governments is essential for AI development.

How strongly do you agree or disagree with the following statements about Artificial Intelligence (AI)?



## Governments' priorities should be developing a national strategy for AI, introducing incentives to accelerate the use of AI and to retrain workers, and providing a safety net for people displaced by AI

How strongly do you agree or disagree with the following statements about governments involvement with Artificial Intelligence (AI)?



Given the multitude of societal implications of Artificial Intelligence, it is no wonder that over two thirds of the business executives believe AI should be on the agenda of the authorities as well.

CEOs need to focus on pragmatic aspects – revenue and business growth, operational efficiency, addressing the information and skills gap, etc. This is why the advanced

technologies that would create value and yield benefits should be introduced at a wider societal scale that would foster sustainable growth and prosperity. Each business will be facing AI challenges, but none will be able to address them on its own.



There is wide consensus among CEOs on the priorities governments should see for developing Artificial Intelligence:

- Developing a national strategy and policies for AI, including the expected impact on communities;
- Introducing incentives to accelerate the use of AI and to retrain workers whose jobs are automated by AI;
- Providing a safety net for people displaced by AI.

More than half of the respondents think governments should allow organisations to self-regulate the use of AI.

On the other hand, business executives believe governments should avoid the populist trap of intentionally slowing down the replacement of workers by AI to avoid widespread job displacement.

A topic on which CEOs are divided is whether governments should limit regulations around data collection to facilitate the development of AI. Of the business leaders worldwide, 52% believe this would be a good step to encourage the use of AI, with 45% in Central and Eastern Europe agreeing. In Romania, however, the two camps are almost on a par, with slightly more believing that it would not be a good idea. It is certain that organisations will need to learn how to use advanced technologies responsibly, paying ever more attention to matters such as cyber security and data privacy and ethics.

To have a discussion about the key findings for Romania from **PwC Global CEO Survey 2019**, please contact us:

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