PwC Ireland’s 23rd CEO Survey

Sustaining success in unpredictable times
From looking at the results, it’s clear that last year’s cautious optimism for the future has been replaced by a more pessimistic tone. With only 16% of Irish CEOs having a favourable opinion of the direction of the national economy in 2020, down from 57% last year, we’re at the lowest levels of business positivity since 2009.

The concerns relate to the increased effect that uncertain economic growth, trade conflict and increased regulation will have on Irish businesses. There is confidence behind the caution and there is resilience and realism in equal measure at a time of global uncertainty. In my role, I’m able to see first hand the successes and challenges our clients and their peers experience. CEOs have lost little of their belief in the potential of their own businesses to succeed. Two-thirds remain confident about their organisation’s ability to increase revenue in the year ahead. Like last year, inward investment and operational efficiencies are the key ways they believe they can maintain growth.

Even in spite of Brexit, 95% of those surveyed said they intended to increase or maintain their investments in Ireland. That gives me cause to look beyond the caution apparent in this year’s survey results and see the opportunities for businesses here at home.

In many ways, Ireland is bucking global economic trends. Our economy is performing well and remains one of the strongest and fastest-growing in the Eurozone. Unemployment is at an almost record low and foreign direct investment remains strong. However, as a small open economy dependent on the performance of our global trading partners, business growth in Ireland will remain uncertain for 2020. We must continue to prepare for how the EU/UK trade negotiations will play out and how other risks will evolve over the course of this year, good or bad.

As we look out to 2020 and beyond, we are here to help you manage the risks and realise the opportunities. Talk to us today.
Economic outlook

Make your business resilient and ready

Uncertainty can be an excuse to take defensive actions that may make tactical sense but are strategically counterproductive in both the short and long term. Making the most of the assets you already possess is the right strategy at a time when there is an uncertain economic outlook. The way you maximise your operating model, capabilities and employees needs to make sense in terms of the efficiencies and operational changes you aspire to.

Page 3

Upskilling

Equip your staff for your future

Organisations need the right mix of skilled and adaptable people, aligned to the right culture and with the right mindset and behaviours to power the business forward. Those that do will solidify long-term relationships with employees and build a more agile workforce. This could be the investment that delivers the biggest returns.

Page 16

Cybersecurity

Protect your digital assets and use them to your advantage

The data you hold presents a massive business development opportunity. As well as making sure it remains secure; you also need to ensure that you analyse and utilise it in ways that are transparent and ethical, and produce the strategic insights that will inform future growth plans.

Page 24

Climate Change

Plan to become eco-logical

Your business needs a response to the climate crisis. It’s potential impact on organisations and the economy requires a responsible and authentic response. It is now imperative for CEOs to develop and integrate a detailed sustainability vision into their long-term strategic plan.

Page 28
In the course of 12 months, Ireland’s business leaders have gone from cautiously optimistic to positively pessimistic. Irish CEOs who believe the outlook for the Irish economy is favourable has fallen to just 16%, a dramatic drop from last year when the same figure was 57%. The majority of CEOs expect the global and Irish economy to decline in the next 12 months. But two-thirds of Irish CEOs are still confident about their own organisations’ potential for revenue growth, with expectation that organic growth and operational efficiencies will be the drivers of ongoing success.
An uncertain outlook for Ireland

This year’s CEO Survey shows that there has been an almost complete reverse in sentiment about the ongoing growth potential of the Irish economy. From last year’s positive outlook, we now see a marked turn towards pessimism, with a drop from 57% saying they are favourable about the future of the national economy last year to only 16% this year. While concerning that the collective sense of the economy’s direction is downward, this mirrors the trend being seen among CEOs internationally. The percentage of global CEOs who believe there will be an improvement in global economic growth has halved from 42% to just 22% over the course of only 12 months.

22% of global CEOs believe the global economy will improve in the next 12 months
Exhibit 1: Fewer CEOs expect economic growth to improve

Question: Do you believe economic growth will improve over the next 12 months?

<table>
<thead>
<tr>
<th>Year</th>
<th>Ireland: % ‘favourable’ about future growth prospects for Ireland’s economy</th>
<th>Global: % who stated the global economy will ‘improve’</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>76%</td>
<td>15%</td>
</tr>
<tr>
<td>2007</td>
<td>74%</td>
<td>29%</td>
</tr>
<tr>
<td>2008</td>
<td>3%</td>
<td>18%</td>
</tr>
<tr>
<td>2009</td>
<td>14%</td>
<td>22%</td>
</tr>
<tr>
<td>2010</td>
<td>29%</td>
<td>31%</td>
</tr>
<tr>
<td>2011</td>
<td>3%</td>
<td>15%</td>
</tr>
<tr>
<td>2012</td>
<td>16%</td>
<td>18%</td>
</tr>
<tr>
<td>2013</td>
<td>15%</td>
<td>37%</td>
</tr>
<tr>
<td>2014</td>
<td>22%</td>
<td>44%</td>
</tr>
<tr>
<td>2015</td>
<td>86%</td>
<td>58%</td>
</tr>
<tr>
<td>2016</td>
<td>92%</td>
<td>71%</td>
</tr>
<tr>
<td>2017</td>
<td>71%</td>
<td>57%</td>
</tr>
<tr>
<td>2018</td>
<td>57%</td>
<td>42%</td>
</tr>
<tr>
<td>2019</td>
<td>57%</td>
<td>42%</td>
</tr>
<tr>
<td>2020</td>
<td>22%</td>
<td>16%</td>
</tr>
</tbody>
</table>
The results indicate that there has been a distinct change in confidence in economic growth underlined by the fact that the majority of CEOs now expect that the growth of the economy will decline in the next 12 months. When you compare the data collected in 2020 and 2019, outlined in Exhibit 2, the picture is clear, here and globally. The table has turned. Those who think the economic outlook in Ireland is unfavourable has gone from 25% in 2019 to 61% in 2020, mirrored by a similar trend internationally from 29% to 53%.

**Exhibit 2:**
There is a rise in those saying growth will ‘decline’

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

<table>
<thead>
<tr>
<th></th>
<th>Unfavourable/decline</th>
<th>No change</th>
<th>Favourable/improve</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ireland</td>
<td>61%</td>
<td>23%</td>
<td>16%</td>
</tr>
<tr>
<td>Global</td>
<td>53%</td>
<td>25%</td>
<td>22%</td>
</tr>
</tbody>
</table>

The decline in confidence has been driven by four years of dramatic geopolitical, economic, climactic and technological change, with clarity about the future clouded by multiple factors. These have combined to erode confidence in the future, in spite of many indicators to the contrary. For example, the European Commission’s autumn Economic Forecast stated that Ireland would see the highest growth figures in the EU for 2019, with GDP increasing to 5.6% from an expected 4.0%. There is also positivity in the labour markets, which remains strong, and unemployment continues to fall.

However, the expectation is that GDP growth will moderate to 3.5% in 2020 and to 3.2% in 2021, on the back of increasing capacity constraints and an expected slowdown in Government expenditure. “GDP growth is set to moderate amid a weakening external environment, while underlying economic activity is expected to remain robust, driven by...”
household consumption and investment in construction. Inflation is expected to remain moderate. The Government balance is projected to further improve, but risks to the fiscal outlook remain. 5

5 Employment is at a record high and unemployment in the EU is at the lowest level since the start of the century. Although net job creation is likely to slow, the unemployment rate in the Euro area is expected to continue falling from 7.5% this year to 7.4% in 2020 and 7.3% in 2021. On Brexit, the commission says: “In the light of the process of the withdrawal of the UK from the EU, projections are based on a purely technical assumption of status quo in terms of trading patterns between the EU27 and the UK. “This is for forecasting purposes only and has no bearing on the process underway in the context of Article 50.” But it warns that persisting trade tensions between the US and China and high levels of policy uncertainty - especially with respect to trade - have dampened investment, manufacturing and international trade.

“With global GDP growth set to remain weak, growth in Europe will depend on the strength of more domestically-oriented sectors.”

19% of Irish CEOs are ‘very confident’ of revenue growth in the year ahead
To achieve that success and hit their growth targets, CEOs have to be confident they are hiring the right people. Headcount expectations align with the degree of CEO confidence in growth. Like last year, CEOs expect to increase their headcount. What is interesting this year is the contraction of the proportion who plan to increase headcount and a similar increase in those who expect headcount to remain the same.

As we outlined in last year’s CEO Survey, an inward-looking focus on organic growth, operational efficiencies, and launching new products and services were anticipated to be the primary sources of business growth.

Even the usual barometer of CEO sentiment, their degree of confidence in the growth potential of their organisations, is showing tendencies toward a downturn. While the majority of Irish CEOs are confident about their organisation’s prospects for revenue growth over the next 12 months, only 19 percent of CEOs are ‘very confident’ in their hopes for revenue growth. This is a level of pessimism not seen since 2013. It is compelling because changes in CEOs’ revenue confidence has proven to be a reliable indicator of both the direction and level of global GDP growth in the year ahead.

CEOs have not lost their belief in their organisation’s potential performance. It remains a constant truism that organisations have to be resilient and realistic if they are to succeed and grow in the future, particularly in times of disruption and uncertainty.

**Exhibit 4:**

**Almost half of CEOs expect headcount to increase, but there is more caution around hiring**

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

<table>
<thead>
<tr>
<th></th>
<th>Increase</th>
<th>No change</th>
<th>Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ireland</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>63%</td>
<td>10%</td>
<td>27%</td>
</tr>
<tr>
<td>2020</td>
<td>47%</td>
<td>15%</td>
<td>38%</td>
</tr>
<tr>
<td><strong>Global</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>54%</td>
<td>20%</td>
<td>26%</td>
</tr>
<tr>
<td>2020</td>
<td>49%</td>
<td>22%</td>
<td>29%</td>
</tr>
</tbody>
</table>

To achieve that success and hit their growth targets, CEOs have to be confident they are hiring the right people. Headcount expectations align with the degree of CEO confidence in growth. Like last year, CEOs expect to increase their headcount. What is interesting this year is the contraction of the proportion who plan to increase headcount and a similar increase in those who expect headcount to remain the same.

As we outlined in last year’s CEO Survey, an inward-looking focus on organic growth, operational efficiencies, and launching new products and services were anticipated to be the primary sources of business growth.

47% of Irish CEOs expect to expand their workforce in the year ahead.
success. This sense of caution and entrenchment against rising external tides seems to be prevailing into 2020. With Ireland at almost full employment and the corresponding difficulty in finding the right skilled workers to support growth agendas, it appears that CEOs are looking at maximising the assets they have, and the operational efficiencies they can introduce, to get them through these uncertain times.

66% of Irish CEOs are planning on driving revenue through operational efficiencies

However, in a highly competitive marketplace where optimism is relatively low, more strategic and targeted activities are needed. Although CEOs’ belief in operational efficiencies as a source of growth has risen from 54% to 66%, business as usual isn’t going to sustain your organisation. New products, alliances and smart strategies are required.

Exhibit 5: CEOs believe that organic growth will remain their main driver in 2020

Question: Which of the following activities, if any, are you planning in the next 12 months in order to drive growth?
At the same time, it’s essential to consider where the sources of pessimism and caution are coming from. In Ireland, uncertainty in economic growth has risen by a massive 17%. At the same time, geopolitical uncertainty has risen by 5%, and concerns around trade conflicts are also on the rise.

It’s fascinating as well to consider that climate change and environmental damage has leapt 18% year on year as a threat to business. 2019 was the year when climate change genuinely became a global concern. Raised awareness, global protests and tangible evidence of the impact climate change is having on our planet is a point we’ll return to in Chapter 4.

The combination of these factors is arguably creating a perfect storm of uncertainty for CEOs, which goes some way to explaining their record levels of pessimism in growth and the economy.
Irish CEOs’ thinking cannot be immune to the effects of Brexit, either. Its impact will have influenced the sentiment that has led to the high scores seen in Exhibit 6 for uncertainty in economic growth, geopolitical uncertainty and trade conflicts. In spite of that, Irish CEOs are still very clear in their belief that the UK remains the territory they consider most important for growth prospects in the year ahead. Although there is a likely contraction of business with the UK on the way once the terms of withdrawal are determined over the course of 2020, our nearest neighbour will remain our leading trading partner.

Exhibit 7:
But uncertainty around Brexit is not impacting where organisations are seeing their business coming from

Question:
Which territories do you consider most important for your organisation’s growth prospects in the year ahead?

Exhibit 8:
Ireland remains the place to do business in the minds of CEOs despite threats

Question:
Which of the following are you currently considering?

<table>
<thead>
<tr>
<th>Territory</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>34%</td>
<td>30%</td>
</tr>
<tr>
<td>USA</td>
<td>14%</td>
<td>13%</td>
</tr>
<tr>
<td>Germany</td>
<td>24%</td>
<td>6%</td>
</tr>
<tr>
<td>China</td>
<td>9%</td>
<td>5%</td>
</tr>
</tbody>
</table>
Even in spite of the threats from Brexit and a potential slowing of growth in GDP, Ireland continues to be the place that CEOs want to do business. Positively, 95% of those surveyed said they intended to increase or maintain their investments in Ireland (Exhibit 8) and over half are planning on launching a new product or service (Exhibit 5). Our competitive corporation tax rate, skilled workforce and continued membership of the EU makes Ireland one of the first places global organisations look to when they are setting up operations overseas. Infrastructure issues are being ironed out, with new dwelling completions accelerating to 23.2% in 2019 and construction output increasing by 5.9%. The unemployment rate is projected to decline from 5.2% in 2019 to 5.0% in 2020. All indicators point to Ireland remaining at the forefront of investment consideration and location in 2020 and beyond.

95% of CEOs intend to increase or maintain their investments in Ireland.
However, the availability of critical skills and cyber threats are still the most significant threats to growth, according to Irish business leaders, with the speed of technological change closely behind. Having the right people capability and the right technology and digital strategy in an organisation is essential. The challenge is for businesses to be able to employ and train the right people and ensure that they can deploy the right technology strategy to keep them ahead of the curve and safe from external actors. The opportunity is where those resources come from and how that strategy is implemented.
There are always going to be risks to business, but that is not to say that they will come to pass. What matters is the preparation and contingency plans that business leaders adopt to mitigate the impact on their organisation should the threats materialise.

At the start of 2020, while uncertainty remains very much present, some threats to the economy are not looming quite so large. A no-deal Brexit has been averted for now, trade tensions have diminished, and international tax reforms are still in the works. But they are not the indeterminate factors they were in September last year, when all the worst-case scenarios were playing out in the media and in the minds of business leaders as they completed their CEO Survey questionnaires.

Trends in Ireland at the time were overshadowed by a no-deal Brexit which appeared a very real possibility given the rejection of any legislative progress in Westminster. Since the majority re-election of the Conservatives, a path to progress has been set and the Withdrawal
Agreement Act made law and approved by the European Commission.

The true effect and impact of Brexit on this nation and its economy will only become clear over the months and years ahead. However, if the timelines are adhered to, the substantive terms of future trade relationships between the UK and the European Union will become more apparent within the calendar year.

Further afield, there is the prospect of the White House administration starting to take the same hard-line over tariffs with Europe in 2020 that they started with China in 2018. The impact of any new trade agreement between the US and the UK after Brexit could also have an impact, but that is unlikely to play out until the end of the year at the earliest.

At the same time, the economic impact of the BEPS 2.0 project on Ireland is likely to be significant in comparison to other countries. The OECD continues to work towards a global solution to tackle the tax challenges arising from the digitalisation of the economy. G20 ministers endorsed the proposed two-pillar solution in 2019. However, key details have still to be agreed, and accord needs to be found in 2020 to give the project a real chance of delivering a multilateral solution.

In any case, the combined impact of the pillars could harm Ireland’s corporate tax offering. It may drive up the effective rate of tax paid by companies based here and negatively impact foreign direct investment.

Ireland has never been anything but resilient, and there are few indications that the pessimism seen in the headline results of the survey are bleeding into CEOs’ belief in their business’ ability to weather any storm and come out ahead. By focusing on the opportunities and creating smart strategies to maintain and exceed growth expectations in your organisation, you can keep your eye on the paths to success, rather than on the risks to the economy that have not yet crystallised.

Contact us at ceosurvey@pwc.com to discuss what the survey’s economic findings mean for you and your business.

Ciarán Kelly
Advisory Leader
The availability of key skills remains a challenge for all organisations. 57% of Irish CEOs say upskilling employees is the most important action to close the skills gap in their organisation, up from 30% last year. The development and empowerment of existing staff, enhancing their capabilities and employability, is essential. But only 12% have made ‘significant progress’ at establishing an upskilling programme. Businesses need to be prepared for change and to absorb the costs of that change. The survey results indicate that CEOs who have embraced the potential of upskilling are realising the rewards such as a stronger corporate culture, greater innovation, and higher workforce productivity. It’s their responsibility to prepare their people for the new world of work and start that journey now.
Exhibit 10:
Business leaders are transforming key functions in their businesses - but not across their whole organisations

Question:
Which of the following business functions in your organisation are undergoing or have completed digital transformations?

- IT (including cybersecurity) 74%
- Finance and accounting 59%
- Operations (including supply chain) 55%
- Customer service 43%
- Sales and marketing 41%
- Human resources 27%
- Research and development 18%
- Don't know 4%

44% of Irish CEOs say the availability of key skills is inhibiting the implementation of new technologies in their organisation.

As digital functions become the new normal, organisations must ensure that transformation takes place and takes hold across their whole business. Not just in the areas where you would expect to see it in effect. Real transformation needs to apply to the entire organisation, consistently and coherently. To keep pace with the speed of technological change, they will have to upskill their future workforce. But one thing is clear: automation, changes in demographics and artificial intelligence make it harder for organisations to attract, develop and retain the skilled talent they need.

Businesses are facing enormous challenges as they try to address their skill gap issues. Key skills are becoming increasingly hard to find in certain areas, especially where digital transformation and data analysis are concerned. If operational efficiency is the route to growth, organisations need to look inside to find the solution to their workforce challenges.
In Ireland, we found that business leaders now recognise the transfer and upskilling of employees from across existing business functions as the most important way to close skills gaps in their organisations. It is interesting to note that only 30% of CEOs felt transferring and upskilling was the solution to their skills challenges last year, a figure that has doubled in 2020. The realisation is dawning that the resources you need are right there in your organisation. The skills gap can be bridged using the people you have at hand and by tapping into their potential.

At the same time, as enhancing existing resources to solve resourcing challenges has doubled, hiring from competitors has contracted to 16% from 27% last year. In uncertain times, people are less likely to move between roles and the costs of hiring are proving to be prohibitive.

57% of Irish CEOs say ‘Transfer and upskilling’ employees is the way to close a skills gap.
Exhibit 12:
Few businesses have made significant progress in their upskilling initiatives

Question:
How much progress has your organisation made in the following areas related to upskilling? [Showing ‘significant progress’ only]

- Implementing a diversity and inclusion strategy to attract a wide range of talent and ensure inclusiveness in how we work
- Defining the skills needed to drive our future growth strategy
- Improving our workers’ and leaders’ knowledge of technology and its potential implications
- Building employee engagement through open communication on skills of the future
- Collaborating with academic/government institutions on the skills needed for the future
- Establishing an upskilling programme that develops a mix of soft, technical and digital skills

As much as businesses understand that they need to adopt proactive, responsible attitudes to their current staff concerning their key skills, our results show that few CEOs say their organisations have made ‘significant progress’ in establishing upskilling programmes.

Defining necessary skills is a priority and should be encouraged. Technology knowhow amongst existing staff, and amongst the decision-makers who will determine how it will be integrated into the business is essential in building the workforce for the future. It will also define what upskilling should occur. In this process, employee engagement is essential, and is proven to be a key factor in the success of any upskilling programme.
Exhibit 13:

However, those businesses that have upskilled their staff are seeing positive returns

Our results illustrate that when upskilling programmes are implemented, organisations see significant positive returns, in Ireland and internationally. When one looks at the global results in 2020, across the board, organisations that have made the most progress in upskilling are achieving better business outcomes. At the top of the list of the improvements that accrue from upskilling are stronger corporate culture and employee engagement. There is a correlation between economic optimism, revenue confidence and upskilling.

73% of Irish CEOs say their upskilling programmes are effective at driving business growth.
As we can see from Exhibit 13, upskilling has the most significant impact on corporate culture and employee engagement. We know that organisations with strong and distinctive corporate cultures achieve competitive advantages in their industries\(^5\). Leveraging upskilling and creating a culture of continuous development ought to lead to higher workforce productivity, more growth and fewer skills gaps and mismatches. Both employees and employers have a vested interest in their collective future.

There is a potential downside to upskilling key staff. Those businesses that are furthest along the upskilling journey, particularly in Ireland, cite keeping career-enhanced staff in their organisations as the primary challenge to their future plans.

5  PwC Global Culture Survey 2018

**Exhibit 14:**
Retention is the single biggest challenge for businesses once staff have been upskilled

**Question:**
Please rank the greatest challenge your organisation currently faces in its upskilling efforts. [Showing top 5 answers]

But for those business leaders asking themselves: “what happens if we invest in developing our people and they leave us?” the question they really need to be asking is: “what happens if we don’t and they stay?”

25% of Irish CEOs say retaining employees who have been upskilled is a challenge

A fifth of those surveyed feel that they lack the budget, people, time and knowledge to conduct the upskilling programmes they need. A commitment is necessary for business to accept that there will be a natural erosion of the workforce if they upskill. There should be an equal commitment to finding the budget and mechanisms to strengthen packages on offer to staff and create a corporate culture of inclusion and value that makes people want to stay once they have new and vital skills.
Upskilling as a principle applies across organisations, from top to bottom and involves identifying the skills that will be most valuable to the future in your business and taking the steps necessary to prepare your staff to learn and deploy them. Importantly, upskilling is not a once off exercise, but rather it is about setting employees a lifelong learning journey.

As well as identifying the skills and planning the training necessary, there needs to be an education and engagement process that takes place with your employees. We are living at a time when what you learned at school and college and in the workplace to date is not going to be enough to sustain your career for the rest of your life. Lifelong learning needs to be accepted as the norm.

There also has to be a reassurance to staff that greater automation does not mean they will lose their jobs. The skills most essential to the future are not ones that will be replaced by AI - they are soft skills like...
Giving your employees the tools to disrupt their lives, disrupt the way they work and drive innovation encourages them to invest in their career and the organisation they work in. This will, in turn, drive a greater sense of purpose and belonging and make them less likely to leave. This is why upskilling is an imperative - it’s not just the future of work you are building, it is the future of your people. You can’t protect jobs, but you can and must, protect your people.

Collaboration, cognitive ability, social and emotional intelligence, the ability to deal with ambiguity and change - the human touch that underpins a positive culture in a functioning workplace.

And the process of upskilling is not just a single, one shot, fix all exercise. At a time when disruption is commonplace across every aspect of our lives, and rapidly increasing, retraining for the new skills businesses need will be continual.

Crucially, an opportunity exists for business and government to work together to create a national upskilling programme. It needs to take account of the current make-up of the workforce and the skills they will need to achieve a sense of purpose and value, both for themselves and as employees of the future. It is imperative for governments to be a part of the upskilling conversation. The social and socio-economic impacts of failing to do so would cost more than the cost of training the working population to be fit for the future.

Contact us at ceosurvey@pwc.com to discuss what the survey’s upskilling findings mean for you and your business.

Ger McDonough
People & Organisation Consulting Partner

Doone O’Doherty
People & Organisation Tax Partner
Cybersecurity

There is enormous value in the data that organisations gather and store. It can shape future growth strategies and assess the performance of existing plans. But there is an ever present threat from cyber actors willing to take advantage of any vulnerability for their own ends. Cybersecurity risks remain a leading business threat with 78% of Irish CEOs describing it as a risk to their growth prospects, with the increasing complexity of cyber threats and data privacy regulations the factors having the greatest impact. At the same time, businesses need to be transparent, responsible and mindful of their customers as they harvest and mine the information they collect to create new platforms for growth in the future.
The volume of data that businesses collect is exponentially increasing every year. It provides a wealth of opportunities if it can be used in the right way, helping your organisation grow and prosper. However, as more data gets harvested, the more it is stored, and the more vulnerable it potentially becomes. Cyber threats in all shapes and sizes are growing at the same rate as the quantity of the data you hold.

The value of data and how to use it for competitive advantage creates its challenges. Every business needs to have a comprehensive cyber prevention strategy in place that reflects the continually evolving threat landscape.

When CEOs and Boards evaluated their market threats or competitors, few previously considered cyber threats. Today, the sheer volume and concentration of data and transactions, coupled with easy global access to digital platforms, magnifies businesses’ exposure to cyber-attacks. The very complexity of cyber threats themselves is a stumbling block for many organisations as they seek to define a cybersecurity strategy. Almost 80% of Irish companies, and 75% of international ones, are struggling to keep up with the complexity of evolving cyber threats. For the stakeholders and guardians of data in organisations, the expansive and expanding threats on the horizon can be overwhelming. The risks of getting a cybersecurity policy wrong, and the potential financial and reputational repercussions, can in themselves be paralysing.

It is not just the threats that result in uncertainty on how to move forward. Cybersecurity and data privacy regulations themselves can also cause an organisation to stutter as it moves toward a solid strategy. It has been almost two years since the introduction of the General Data Protection Regulation (GDPR). It has revolutionised the way that personal information is used and handled, fundamentally altering the data landscape in Ireland. Anecdotally, many organisations are still behind the curve in adopting the regulations, and face financial sanctions, reputational damage and public scrutiny should they be found to have data protection shortfalls.

Exhibit 15: Complex threats and data privacy challenges are shaping the way that businesses approach their cybersecurity solutions

Question: What key factors are having the greatest impact in shaping your cybersecurity strategy? [showing top 5]
These two factors have the knock-on effect of creating anxiety over the public perception of data privacy and a business’ ability to keep it secure from theft and exposure. With 87% of consumers saying they will take their business elsewhere if they don’t trust a company is handling their data responsibly, there is a huge fear and pressure to get cybersecurity right.

There is also increasing public irritation at the way that personal data is used, to target advertising and influence elections. The implication that “big business” is complicit in using data in nefarious ways means that having an ethical, transparent cyber policy is necessary. Getting your cybersecurity right when you are already lagging behind the trends and threats that accelerate every day is becoming more and more of a business imperative.

People will no longer tolerate businesses self-regulating their approach to data management and security. CEOs will increasingly need to collaborate with a diverse range of governments to shape appropriate solutions that deploy technology and leverage data in a safe way. One that protects consumers and respects their values while being flexible enough to foster innovation.

As the Fourth Industrial Revolution rolls out and we trust AI to make more decisions with human consequences (such as decisions involving hiring and medical treatment, access to financial assistance and social services), this balancing act becomes all the more important. The way forward will not be as unfettered as in the gold rush days of the internet. But it must be sufficiently enabling to unlock the enormous productivity and other benefits of these technologies.

There are challenges for every business unit when it comes to cybersecurity and threat prevention. It’s not just the IT department, but marketing, sales, HR, supply chain and business partners that need to have joined up and watertight protections in place. But there are also opportunities to change your approach to privacy, refresh your IT systems and ensure they are fit for today’s digital economy.

This year, we asked CEOs to think about the future (2022 and beyond) on whether and where they thought how governments will regulate the technology sector. Over three-quarters of Irish CEOs predict that governments will introduce legislation to regulate the internet and a majority believe legislation will be introduced to financially compensate individuals for the personal data the private sector collects. It is clear that many societies will no longer tolerate self-regulation and that CEOs will increasingly need to collaborate with a diverse range of governments to shape appropriate solutions.

---

5 PwC Consumer Intelligence Series: Protect.me Report 2017
Insight:

The importance of cybersecurity in the digital age is impossible to overstate. As the volume of data that organisations hold increases, so do the threats from external, and occasionally internal, bad actors. That makes having the right data strategy in place in your business all the more important. As well as making sure it remains secure, you also need to ensure that you analyse and use it in ways that are transparent and ethical, and produce the strategic direction that will deliver growth.

In November 2019, PwC conducted the Digital IQ Survey which tracked the aspirations of executives and IT professionals worldwide when it came to their data, and how they manage and protect it in the current environment. It was apparent from the survey that there was universal agreement in the value of investing in data and its uses to drive competitive advantage.

The two main ambitions for investment in data shared one thing in common - both were centred around making their business an industry leader. The first ambition was to be able to create data-enabled products and services, while the second was to be the most efficient organisation in their sector.

But as high-reaching as their ambitions were, there was a matching realisation that there are real challenges in making them a reality. The greatest of these was their lack of confidence in the quality of the data that they hold. But their ability to protect that data from theft and leakage and to managing privacy risks were close behind. Their concern about data protection is justified: only 25% of consumers believe that businesses handle their data responsibly. 6 This would suggest that businesses must not only have a data strategy, but a data trust strategy. The need to establish ways to have trust in the data they hold. They need to know that it is fit for purpose, clean and consistent across all the platforms where it is used. They also need to build trust with their customers and partners, and be able to transparently and faithfully demonstrate that the data they have shared with the business will be stored securely, and used ethically.

Data has value, and has huge potential to create value for an organisation. But the focus for business leaders should go beyond the ways that they can use it to generate profits and growth. They need to consider the ways that data can be a business risk, if it should be exposed by cyber threats or theft, or if inaccurate data is used for strategic decisions. The value that data holds can be removed as quickly as it is earned, and the long term repercussions of data breaches can cause permanent damage to reputation, or expose them to regulatory scrutiny.

To establish digital trust, businesses need to have the ability to demonstrate watertight data protection and systems security. They need to have defined procedures and responsibilities for the management and ethical use of data in the organisation. And they need to bring all parts of their business together to create an organisation-wide IT, cyber and operations team to maintain trust now and into the future.

Contact us at ceosurvey@pwc.com to discuss what the survey’s cybersecurity findings mean for you and your business.

Pat Moran
Cyber Leader

Robert Byrne
Technology Consulting Partner

6 PwC Consumer Intelligence Series: Protect.me Report 2017
Climate change and its environmental impact is now the fourth most important economic threat according to Irish CEOs. This jump of 18% from last year shows that Irish businesses are increasingly aware of the need to put a response to climate change in place. This isn’t just a responsible reaction, it is also a business imperative. Organisations need to consider what products, services and practices will deliver reputational and competitive advantage.
The last time we asked global executives about their opinions on climate change was ten years ago. Since then, there have been empirical and alarming indications that the world is facing a genuine and unparalleled crisis. It is one that CEOs need to consider as they develop their future strategies.

As an export economy with significant population and trading centres located on the coastline, the nation is particularly vulnerable to storm surges, sea-level rise and gale-force winds. Only 44% of Irish CEOs say their organisations have assessed the potential physical risks of future climate events, such as damage to the infrastructure compared to 56% for global CEOs. This is a markedly low figure given that 40% of the Irish population live within 5km of the coast.

As CEOs try to navigate disruptive weather impacts, climate policies, rising expectations from the public and the demands of remaining competitive, they are facing higher levels of climate-induced uncertainty. At the same time, opportunities are emerging for business. There are distinct benefits of “going green” such as reputational advantage, new product and service opportunities, and being able to take advantage of government or financial incentives.

One thing is sure. The time to plan is now. The cumulative global data from the CEO Survey shows that there is a significant disparity between attitudes of international business leaders compared to indigenous ones. For example, 91% of Chinese respondents agree that climate change initiatives will lead to significant new product and service opportunities.

Exhibit 16:
Compared to ten years ago, Irish CEOs are more likely to recognise the benefits of investing in climate change initiatives.

<table>
<thead>
<tr>
<th>Question:</th>
<th>Ireland 2010</th>
<th>Ireland 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our response to climate change initiatives will provide a reputational advantage for my organisation among key stakeholders, including employees</td>
<td>43%</td>
<td>67%</td>
</tr>
<tr>
<td>Climate change initiatives will lead to significant new product and service opportunities for my organisation</td>
<td>26%</td>
<td>50%</td>
</tr>
</tbody>
</table>
It’s not just the right thing to do; businesses need to leverage responsible positions to make themselves more appealing to consumers and engage consumer sentiment. A majority of Irish CEOs believe their stakeholders have reasonable expectations regarding their approach to climate change. These expectations need to be matched by businesses demonstrably walking the walk as well as talking the talk, or those expectations could quickly turn to criticisms if they are not being followed through.

50% of Irish CEOs agree that climate initiatives will provide a reputational advantage for their organisation

At the same time, there is an acknowledgement among two-thirds of our business leaders that investing in climate change initiatives will provide a reputational advantage among stakeholders and employees. In this era of scrutiny and sentiment-driven consumer selection, taking a constructive and demonstrable approach to ecologically ethical behaviours and practices are essential for competitive advantage and growth.

Exhibit 17:
Chinese CEOs are the most likely to recognise climate change opportunities

Question:
Do you agree that climate initiatives will lead to significant new product and service opportunities for your organisation?

<table>
<thead>
<tr>
<th>Country</th>
<th>% Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>91%</td>
</tr>
<tr>
<td>UK</td>
<td>51%</td>
</tr>
<tr>
<td>Ireland</td>
<td>51%</td>
</tr>
<tr>
<td>USA</td>
<td>42%</td>
</tr>
</tbody>
</table>

67% of Irish CEOs believe that climate change initiatives will provide a reputational advantage for their organisation.
Exhibit 18:
Irish organisations need to assess the risks associated with climate change

Question:
My organisation has assessed the transition risks to a ‘greener’ economy

Only 40% of Irish organisations have assessed the potential transition risks to a ‘greener’ economy. What is clear from the outputs of our survey is that this is far behind our international counterparts. We encourage Irish businesses to undertake activities, so they can project transition risks forward for their organisations, and begin to plan and take action accordingly. Business leaders need to be pragmatic and imaginative when it comes to solutions in this space.

Just 39% of Irish CEOs believe their organisation will benefit from government funds or financial incentives for ‘green’ investments and behaviours in their businesses. Organisations should actively investigate and see if they could benefit from the incentives available. These include Enterprise Ireland’s Green Offer initiative to help companies to implement environmental management and sustainability programmes.
many investors are demanding greater accountability and so many consumers are demanding better options that embracing sustainable business is becoming a must to remain competitive.

While the challenges are significant, businesses in Ireland are in a unique position to effect positive change. From a technological perspective, we’re already seeing new tech solutions and offerings being used to help organisations decarbonise. For example, a start-up is using AI technologies including machine learning and advanced satellite imagery to help count and map out every single tree in the United States. This is supporting organisations to enter carbon offset markets and help them meet their decarbonisation targets.

Governments also have an important role to play to stimulate market solutions for clean technologies. From electric vehicles to decentralised clean energy grids,
As government support to enable technologies to reach critical lift-off point, scale and replace higher emission traditional counterparts is vital. Investment in R&D, clean infrastructure, carbon pricing, tax incentives, redirecting of subsidies and public procurement will all be key for catalysing change.

In Ireland, organisations, including PwC, are actively working together for a low carbon future. Almost 50 leading Irish companies who took the Business in the Community Ireland (BITCI) Low Carbon Pledge in 2018 are already achieving emission reductions.

As we see sustainability move up the investors and regulators agenda, more companies are reporting metrics that matter, not just to the environment but also to the successful achievement of their strategy and compliance with local regulations. As a result, treating the compilation and reporting of non financial data with the same rigour and independent review as financial data is becoming increasingly mainstream.

By making climate action central to business strategy, and by doing it at scale throughout companies and across industry sectors, we can still affect the system transformations that will be central to all our futures.

Contact us at ceosurvey@pwc.com to discuss what the survey’s climate change findings mean for you and your business.

Fiona Gaskin
Sustainability Partner

Kim McClenaghan
Sustainability Leader
Methodology

The survey was carried out in Autumn 2019 amongst leading CEOs with 125 responses in Ireland and 3,501 globally in 83 countries. The sample of 1,581 CEOs used for the global and regional figures in this report are weighted by national GDP to ensure that CEOs’ views are fairly represented across all major regions. The previous Irish survey was conducted in Autumn 2018.

Notes:
• Not all figures add up to 100% as a result of rounding percentages and excluding ‘neither/nor’ and ‘don’t know’ responses from exhibits.
• The base for global figures is 1,581 (global respondents) unless otherwise stated.