CEO Survey Report 2021 - Luxembourg Findings

Embracing Tomorrow with Optimism

pwc.lu/ceosurvey

pwc

Executive Summary

PwC has surveyed chief executives for our Global CEO Survey annually for the past 24 years. At PwC Luxembourg, we take part in this unique initiative every two years as a way to position Luxembourg on the international stage, but also to provide more specific insights from and for our local CEOs. This report combines the global findings with Luxembourg-specific insights in an attempt to benchmark Luxembourg with respect to the other territories, but also to compare internally the forces that drive the country's growth agenda.

We would like to thank each of our participants for providing their critical insights to the survey and supporting us in achieving a successful response rate. Indeed, this year's sample size of Luxembourg CEOs increased from 59 in 2019 to 82 in 2021 (100 completing at least part of the survey), with about 70% of respondents coming from the financial sector (FS) and 30% from the Consumer, Industry Products and Services (CIPS) sector. The response rate has also reached record levels globally, with over 5,050 CEOs participating in the survey.

The pandemic has marked a period of profound disruption and suffering while simultaneously triggering radical change in firms' operating models and consumer behaviour. Although partial lockdowns around the world persist, vaccine development provides hope for the economy to kickstart its recovery. In line with the global findings, most Luxembourg CEOs are optimistic about a global economic comeback, with 79% of them believing global economic growth will improve in 2021.

The pandemic accelerated certain transformations and raised concerns towards specific threats, with over-regulation and cyber threats being the most relevant ones in Luxembourg. The concern surrounding over-regulation is European-centric, being the second top threat in Western Europe. This may be rooted in compliance as European CEOs are having to adapt their business model to meet regulatory requirements coming from Brussels that are rising in number and complexity. Still, over-regulation is a recurring and even more prominent worry in Luxembourg, which raises the question of how to address this concern in a very competitive international environment.

Cybersecurity has also unsurprisingly surged among the top threats. The rise of the cybersecurity concern is at least partially driven by the shift to full digital operations and home-based working that many companies have experienced, as well as the rise in cyber threats. As a result, companies are including cyber threats in their risk management framework. Even though the issue of cyber-resiliency will take centre stage, we believe that companies should also focus their efforts on preventing such attacks in partnership with the government and its new cyber strategy.

Looking ahead, there is strong confidence in Luxembourg and, in particular, from the financial sector. Luxembourg CEOs will pursue mainly organic growth and combine the launch of new products with cost efficiency measures. As external uncertainties are still in CEOs' minds, they will need to pay close attention to their costs, especially if inflation comes back, but also adapt their products in markets where consumers' habits have changed as a result of the pandemic.

In terms of key focus areas, this is a crucial year for Luxembourg CEOs to push for long-term investments in ESG initiatives and the financial sector globally to take center stage in the ESG revolution. As already pointed out in our previous paper "The growth opportunity of the century", ESG will represent a paradigm shift for the financial industry, and in fact, the biggest revolution since UCITS and AIFMD.

Second, as the pandemic made digitalisation a necessity to survive, 85% of Luxembourg CEOs will increase their long-term investments in digitalisation over the next three years. These companies are willing to reap the benefits in terms of efficiency and customer attraction, and those who will be able to sustain newly created solutions and address the level of online engagement will gain market shares.

Finally, upskilling will be at the centre of their workforce strategy. The rise in digitalisation and automation will change the workforce structure and the needs of companies. The government has also a role to play as for 72% of Luxembourg CEOs, adapting employees to the post-pandemic environment is at least partly a government duty.

Overall, optimism is the key theme that pervades our survey this year - though it is nuanced with shades of concern. Emerging out of a historically negative year, this optimism is rooted in the fundamentals of capturing new opportunities, recognising the accelerated imperatives of digital change, upskilling and building for a sustainable future.

Section 1

Optimism with shades of concern

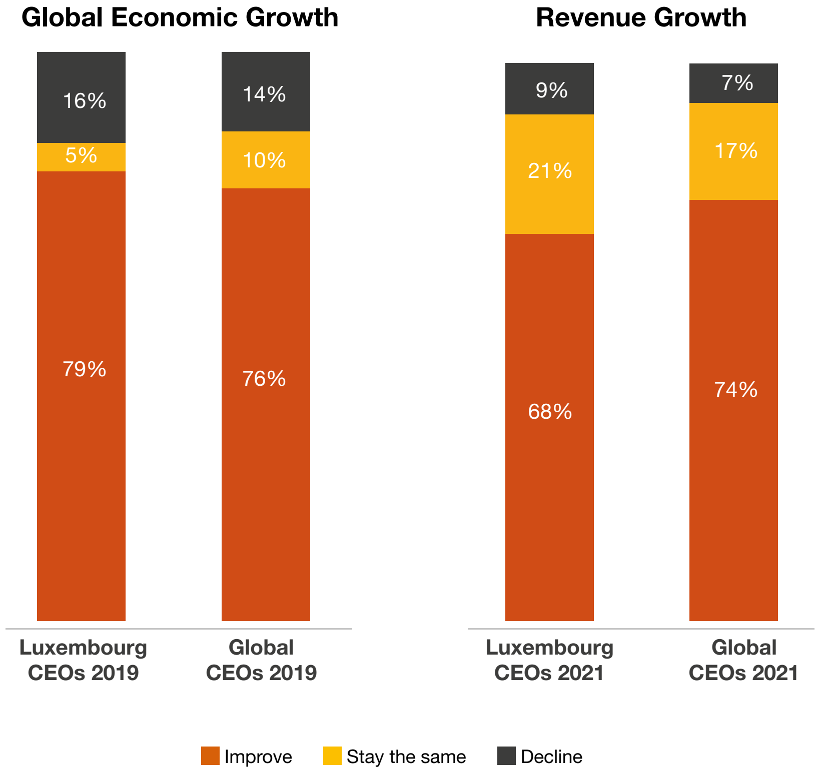
Looking ahead, CEOs are optimistic about the recovery...

CEOs are showing mounting confidence regarding the rate and scale of the global economic recovery, as the vaccine rollout gives rise to hope for a much-needed improvement in economic sentiment. In total, 76% of the Global CEO respondents expect that the economy will improve over the next 12 months. This percentage is slightly higher when narrowing the scope to Luxembourg, where 79% of respondents share the same sentiment (cf. exhibit 1). Luxembourg CEOs' optimism has also improved with respect to 2019 results strengthening the hypothesis of an economic comeback. In line with these positive expectations, CEOs are also forecasting an improvement in their revenue for the next year.

When looking at past figures, CEO sentiment has often proved to represent a reliable indicator for future GDP growth. In light of this, the increased optimism among our respondents in this year's survey hints at the possibility of an economic recovery in 2021 and 2022. Indeed, the IMF predicts a 5.5% growth for the global economy in 2021, reflecting PwC predictions of a return to a pre-pandemic global economy by late 2021 or early 2022.

Exhibit 1

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



Sources: PwC 24th Annual Global CEO Survey, PwC Market Research Centre

Note: the option "Don't know" does not appear in this figure.

Luxembourg's economy has effectively weathered the Covid-19 storm - experiencing a relatively marginal economic impact with respect to its Euro-area counterparts. The Grand Duchy's GDP contracted by -1.5% and -7.4% in Q1 and Q2 2020 respectively; considerably lower than the average -3.7% and -11.7% decline observed in the Euro-area in the same time period. By effectively avoiding a second large-scale lockdown, and due to the structure of Luxembourg's economy led by a resilient financial industry, the country has managed to minimise the economic impact of the pandemic. Regarding the labor market, around 8,500 net salaried jobs were created in 2020, according to the Statistics Portal of Luxembourg (STATEC). This figure is expected to grow for 2021, with unemployment standing at 6.4% in January. Given that the GDP decline in the Euro area was much higher (6.8% against 3.1% in Luxembourg), the region is also poised to make a bigger economic comeback, with a forecasted GDP growth of 3.8% compared to 3.2% in Luxembourg, according to the European Commission, but this is not to take away from the fact that Luxembourg is making a solid recovery.

Considering the uneven industry impacts of Covid-19, certain companies have witnessed favourable changes in consumption patterns throughout the pandemic. Consequently, these companies hold a more positive outlook on the state of the global economy. This was especially common globally among the CEOs of technology companies, who displayed a higher degree of confidence in comparison to their peers that operate in other industries due to the accelerated digitalisation that was observed in the early stages of the pandemic.

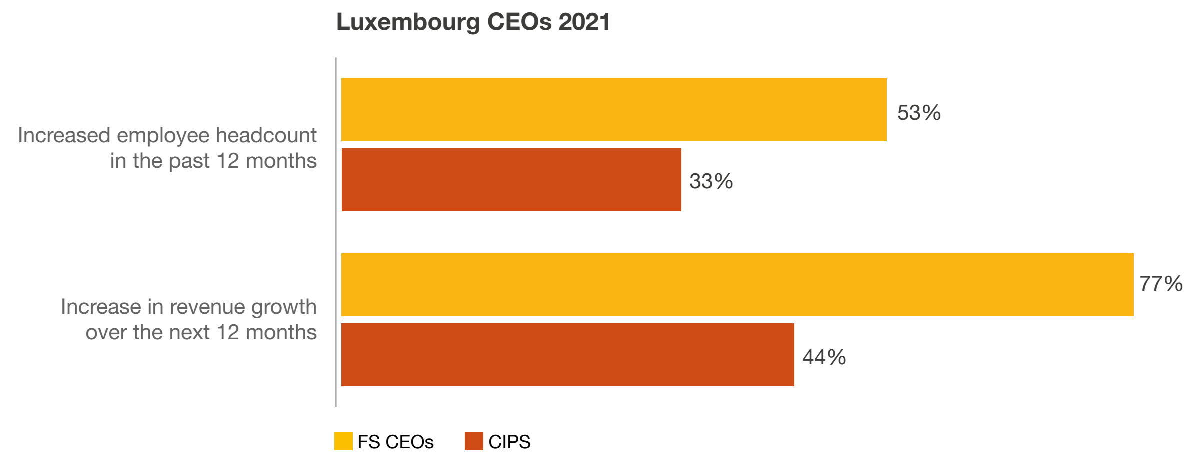
The financial sector is even more confident in Luxembourg and globally. There is a greater divergence in Luxembourg between FS and CIPS CEOs regarding the future economic growth: 16% of FS respondents think the economy will "improve greatly" (same as Global FS CEOs) compared to only 8% of CIPS respondents (12% of Global CIPS CEOs). Particularly, this contrast in economic confidence is further reflected in Luxembourg respondents' expectations of future revenue growth – with 77% of Luxembourg FS respondents foreseeing their revenue growth increasing over the next 12 months compared to only 44% of CIPS respondents. This is mirrored in these companies' hiring activities, with 53% of FS CEOs reporting an increase in their organisation's headcount in the last 12 months compared to 33% of CIPS CEOs (cf. exhibit 2).

The EU recovery plan applied to Luxembourg

In response to the pandemic, the European Union has designed a recovery plan called NextGenerationEU, which amounts to €750 billion. From this amount, €672.5 billion will be dedicated to the Recovery and Resilience Facility plan through which Luxembourg will receive €93 million to allocate towards projects focused on "cohesion and social resilience", "green transition" and "digitalisation, innovation and governance". These include, for example, the reconversion of the former industrial site in Dudelange into social housing, the provision of digital skills training for each employee under short-term unemployment and the investment in ultra-secure connectivity infrastructures. Additionally, the Grand Duchy has been granted €140 million from the €47.5 billion REACT-EU package. The government will allocate €60 million to finance the "Large Scale Testing – Phase 2" project aimed at acquiring medical equipment and developing awareness campaigns, and €10 million will help the country in its vaccination campaign, while the rest will support the partial unemployment policy.

Exhibit 2

Employee headcount over the past 12 months and expected future revenue growth



Sources: PwC 24th Annual Global CEO Survey, PwC Market Research Centre

This is directly attributable to the resilience of the asset management sector throughout the pandemic, supported by the unprecedented policy measures implemented all over the world. Attractive stock market valuations have stimulated a surge in inflows, despite most of the world posting a GDP contraction (-6.3% for the EU*, -3.5% for the US). This increase in inflows can be attributed to the notable increase in the volume of income that was pushed into the fund management and wealth management industries as countries emerged out of lockdown, due to the rise in individuals' savings (saving rates in the EU increased by 3.5% between Q1 2019 and Q1 2020). Alternative funds also observed an increased activity, as high market volatility and the ongoing low-interest-rate environment caused investors to seek out products that have a low correlation with other asset classes and provide portfolio diversification. In light of the improving economic outlook, PwC forecasts an 8.4% increase in Luxembourg's AuM in 2021 alone. That being said, given the high market valuation, the recent emergence of new COVID-19 variant strains and a possible withdrawal of fiscal stimulus strategies, it remains to be seen how long - and on what scale - this uptick will last. While these inflows primarily support the stock market, they need to generate enough investment projects to generate revenue and create value, and not contribute to the risk of asset price bubbles.

It is important to make the distinction that not all the players in the financial sector have been impacted to the same extent. On one hand, many banks were able to shift to full digital operations in just a few days, showing its agility to fully implement remote work practices and engage online with their clients. On the other hand, default risks may increase, as some companies, especially SMEs and retail clients will no longer be able to repay their loans. Currently, the deterioration in the credit quality of banks' customers is temporarily covered by state aid such that the effect on banks will appear as from 2021 only.

In the insurance sector, the impact was also mixed. Insurance claims related to health and unemployment have increased but other claims, such as car accident claims have dropped significantly. More generally, some controversies have risen due to the fact that the pandemic was not covered in their policies. Nevertheless, insurance companies are showing commitment to share the burden of the health crisis through measures, such as frozen tariffs and payment of premiums postponed.

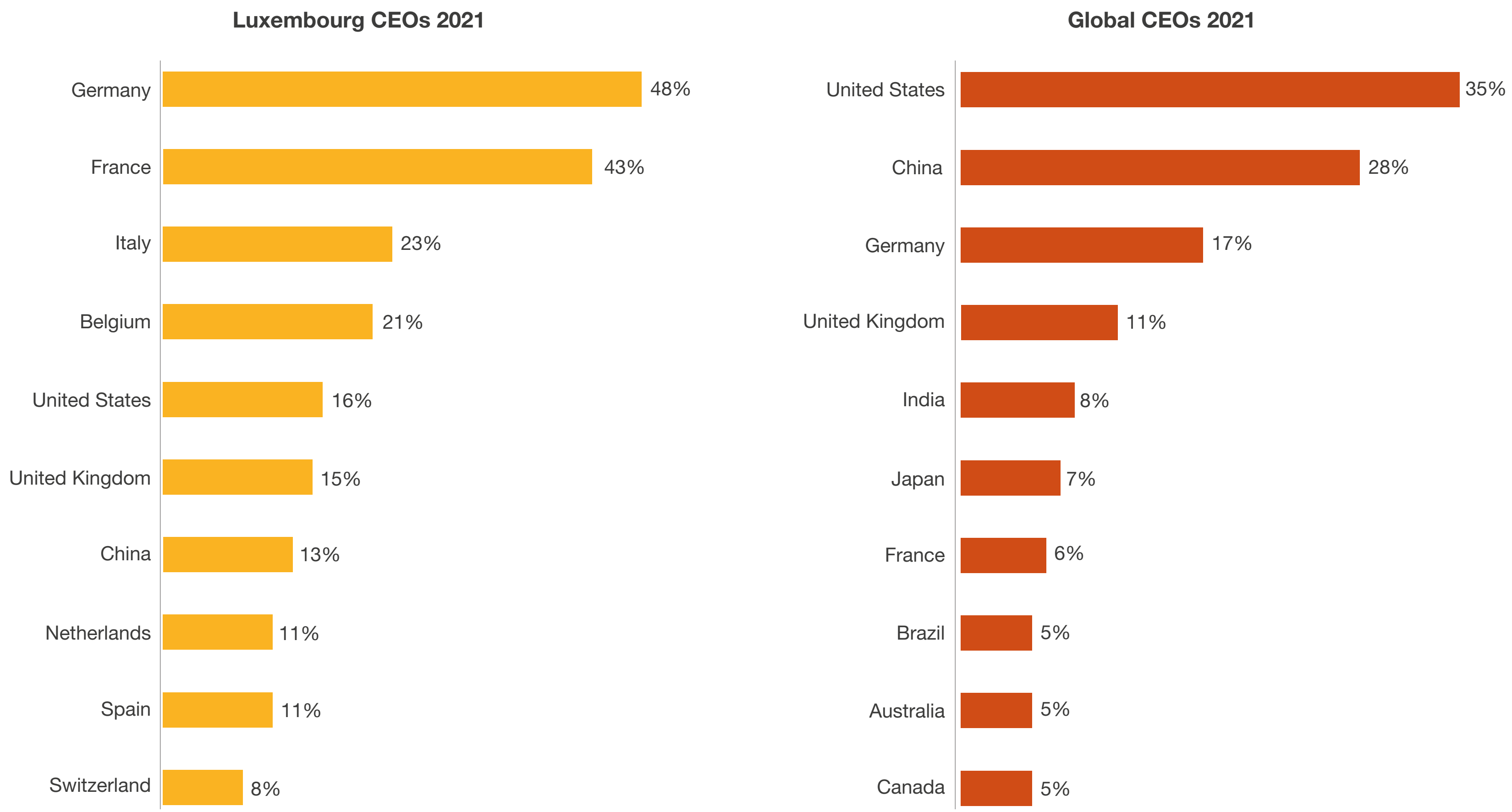
The CIPS sector, on the other hand, was considerably more impacted by the COVID-related disruption - experiencing a significant decline in activity compared to the financial sector. CIPS businesses (particularly hotels, restaurants, cafes and retailers) were among those most heavily affected by the lockdown measures - with their business activities largely paralysed as a result of social distancing and quarantine measures. In light of this, it is perhaps unsurprising that CEO confidence has worsened in this sector, with 21% of Luxembourg-domiciled CIPS respondents expecting a moderate or significant decline in global economic growth (compared to 17% globally). While government support has somewhat succeeded in minimising financial impacts on these businesses, overall confidence remains low. This is reflected in STATEC's confidence indicators, with the retail confidence and overall CIPS sector confidence staying in unfavorable territory. Construction and manufacturing confidence recorded a more positive trajectory as both sectors were able to increase their output rather quickly, despite the steep drop experienced in the spring of 2020.

With regards to the countries key for driving organisations' overall growth prospects, there is a notable divergence between the sentiment of respondents in Luxembourg and Global CEOs (cf. exhibit 3), as well as between FS and CIPS Luxembourg respondents. Luxembourg has almost 80% of its total goods imported from other EU member states, of which trade activities with its three neighbouring countries represent more than 50%. This, in part, explains why Luxembourg CEOs are looking for growth prospects in nearby countries, with Germany, France, Italy, and Belgium being the top four choices. However, as a top international financial center, Luxembourg FS CEOs also expect growth prospects to come from the United States and the United Kingdom. On a global basis, unsurprisingly, the territories most important for the CEOs in terms of growth prospects for the coming year will be the largest national economies: China, the US and Germany.

When looking at sectoral differences, it is interesting to note that our CIPS CEO respondents, who are almost exclusively based in Luxembourg, list China as the fourth most significant country in terms of growth prospects. This is likely a result of Luxembourg observing business opportunities in China. For instance, Cargolux added Shenzhen (China's 4th busiest cargo airport) to its global network in 2020, bolstering the company's position in the industry. Another example would be Rotarex, a gas control business, which has expanded its footprint to Shanghai to better serve the interests of its Chinese customers. In contrast, among the FS respondents, 57% are foreign-based companies, and there is much more diversity in their geographical priorities, which underscores Luxembourg's role as a hub to access other international markets rather than selling back into the Head Office jurisdiction.

Exhibit 3

Top 10 countries/territories most important for the organisation's overall growth prospects over the next 12 months



Sources: PwC 24th Annual Global CEO Survey, PwC Market Research Centre

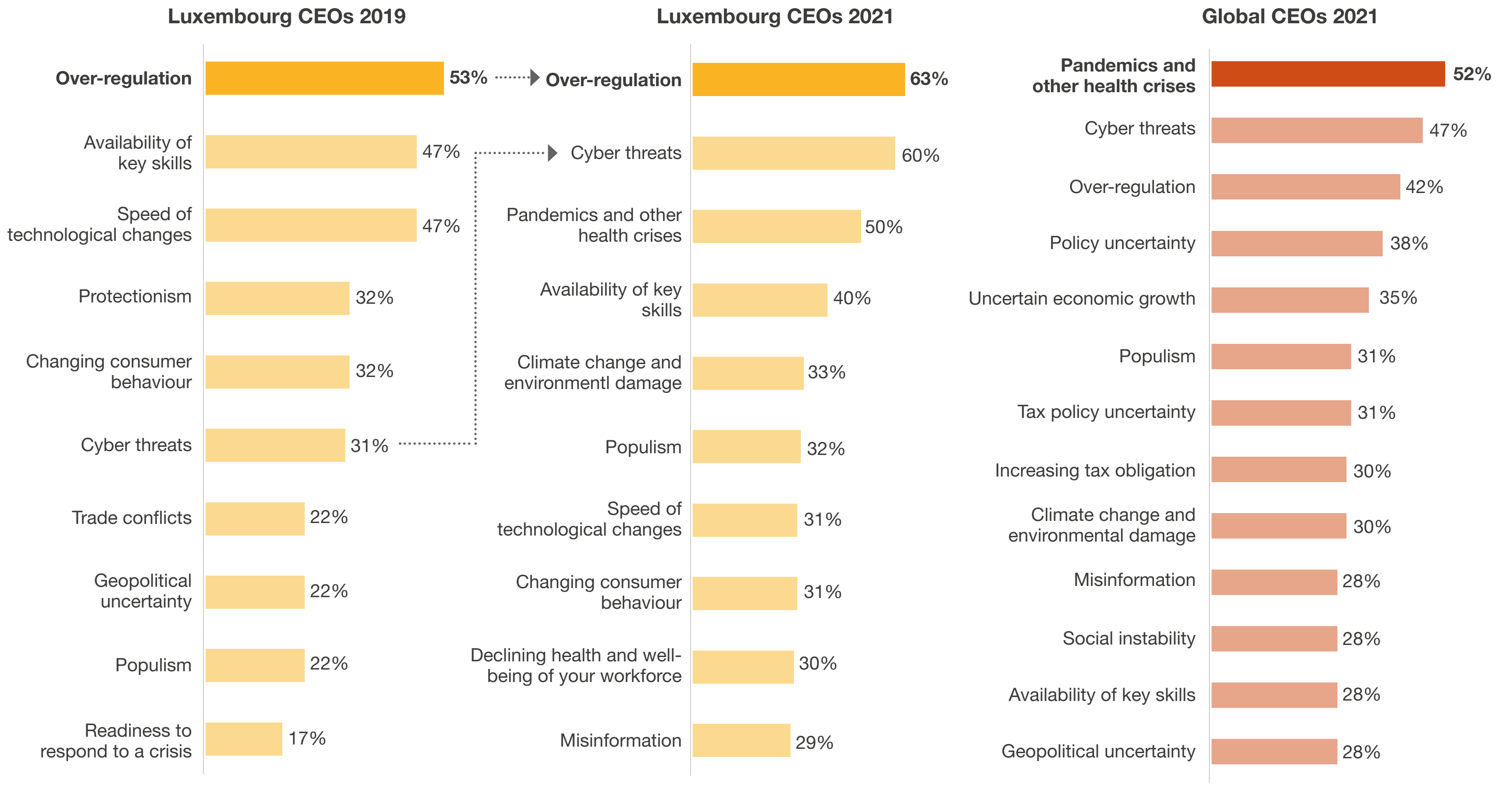
... but concerns surrounding over-regulation remain prevalent for Luxembourg CEOs

Overall, the respondents in this year's survey largely hold a positive outlook for the future as we emerge into a post-pandemic business landscape. However, this optimism is tentative - marked by rising anxieties surrounding the emergence or exacerbation of certain threats that stand to negatively impact their respective businesses.

Unsurprisingly, the most commonly cited threat globally for 2020 was "pandemics and other health crises". However, Luxembourg CEOs are more concerned with over-regulation; which also ranked first in 2019. This worry seems to be largely specific to Luxembourg, with 63% of the country's CEOs voicing concerns that over-regulation may jeopardise the growth of their organisation, 21% more than at the global level (cf. exhibit 4).

Exhibit 4

Top 10 potential business, economic, policy, social and environmental threats to the organisation's growth prospects



* This is a multiple-choice question, as a result, the graph can be interpreted as follows: over the 5,050 global respondents, 52% have selected "very concerned" by pandemics, 47% have selected "very concerned" by cyber threats, etc. In contrast, among the 82 respondents in Luxembourg, 63% have selected "very concerned" by over-regulation, 60% have selected "very concerned" by cyber threats, etc.

Sources: PwC 24th Annual Global CEO Survey, PwC Market Research Centre

The concern surrounding over-regulation is rooted in compliance - as Luxembourg CEOs continue to face more stringent regulations, they are having to adapt their business models, creating more costs and uncertainty for their company. There is a mutual feeling amongst CEOs that regulation is hindering business. A combination of reducing and simplifying regulatory requirements for businesses in Luxembourg could alleviate this burden even though most of the new regulations are set at the European level. To anticipate this burden, 51% of Luxembourg CEOs are factoring these topics in their risk management activities.

In terms of the financial sector, Luxembourg CEOs are most likely anticipating the increased compliance costs from the EU regulation on sustainable finance, which will have a far-reaching impact on their business, explaining why a slightly higher share of FS CEOs are extremely concerned with regulation (66% of FS CEOs vs 58% of CIPS CEOs). Those that are able to see past the compliance burden and leverage the regulation to implement a transformative change - integrating ESG into their strategy and thereafter into their operations and product offering - will benefit the most in the long-term.

Overall, the fact that Luxembourg CEOs already pointed out over-regulation in 2019 may reflect a long-standing concern about the slow deterioration of Luxembourg's competitiveness vis-a-vis other destinations such as Ireland, the UK or Singapore. That being said, while 38% of global CEOs are worried about "policy uncertainty", this issue does not appear in the top 10 threats in Luxembourg, indicating the favourable Luxembourg business environment characterised by stable regulation.

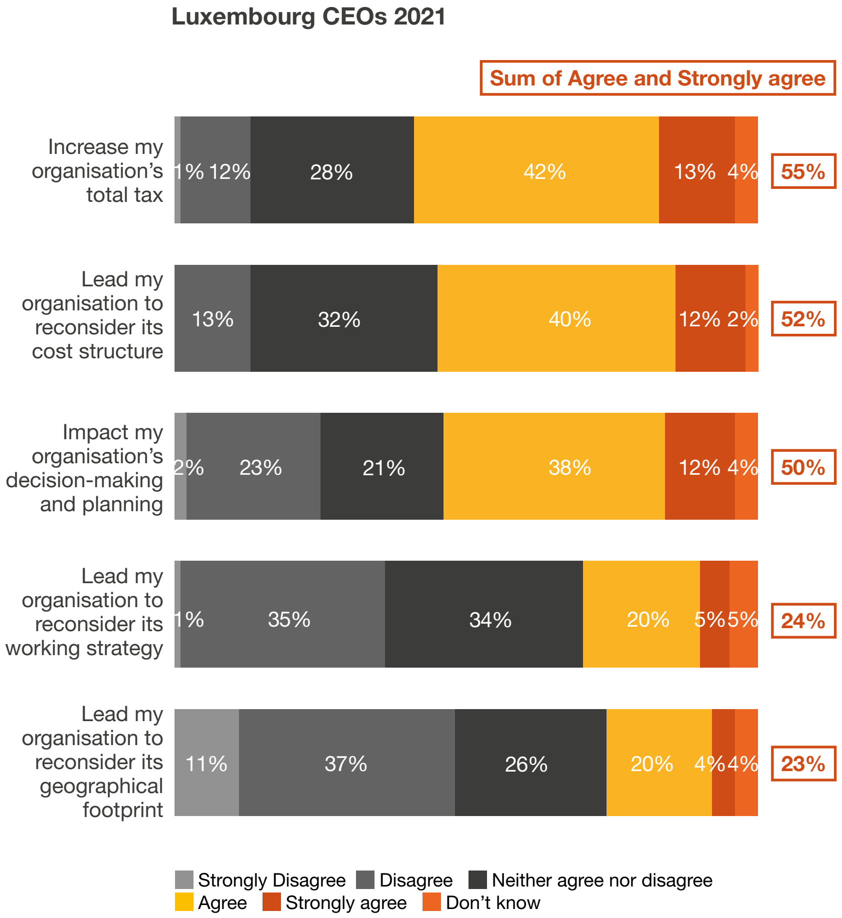
Over-regulation aside, our survey findings demonstrate that Global CEOs, especially, are worried about how governments will try to cover the expenses of the COVID-19 crisis. While both Global and Luxembourg CEOs are threatened by a potential future increase in the tax rate (60% and 55%, respectively) (cf. exhibit 5), the recent remarks from Luxembourg's Minister of Finance confirm that the government will not need to raise taxes in order to support the economic recovery of the country. In fact, the expected future growth will reduce the relative debt burden. This will reassure the FS CEOs, in particular, as 62% of them are worried about a total tax increase compared to 38% for CIPS CEOs.

This news is of key importance because survey respondents in Luxembourg have implied that the impacts of an expected tax increase are significant enough to warrant relocating to another domicile, with 23% of Luxembourg CEOs selecting this course of action.

Finally, the financial sector faces a separate concern: the long-standing, ever-increasing struggle to maintain sufficient profit margins amid rising fee pressure. Indeed, active and passive mutual funds' fees are forecasted to drop by 26% and 34.9% by 2025. Policymakers, regulators and market participants could address this concern by providing an efficient platform for communication, avoiding bottlenecks, ensuring a quick time to market for products, and developing new products much needed for the industry players, such as alternatives accessible for retail clients and ESG products listed in Luxembourg.

Exhibit 5

How strongly do you agree or disagree with the following statement? Tax policy changes to address rising government debt levels in the territory in which you are based…



Sources: PwC 24th Annual Global CEO Survey, PwC Market Research Centre

Note: due to rounding, the sum of percentages in each category might not add up to 100%.

The Covid-19 pandemic enhances the need to address cybersecurity

As digital technologies grow increasingly sophisticated and are embedded into every aspect of our lives, the volume of valuable data that is being generated is increasing exponentially year-on-year. While data analytics enhances user experience and streamlines operations, the risk of this data being compromised represents a significant threat.

Given the rapid uptake of digital technologies during the COVID-19 pandemic and subsequent lockdown, it comes as no surprise that cybersecurity risks rank among the most commonly cited threats in this years' survey. On the global scale, 47% of the CEOs that we surveyed cited cyber threats as a risk. In Luxembourg specifically, cyber threats climbed from sixth to second place in the top-ten ranking of threats in 2020 alone; with 60% of the country's CEOs being extremely concerned about this issue, compared to only 31% in 2019.

There is a clear discrepancy between sectors when it comes to the concerns over cybersecurity risks, with FS CEOs voicing a considerably higher degree of concern than their CIPS equivalents (69% vs. 38%), a trend that is comparable to Global CEOs (56% vs. 39%). The difference may reflect more of a perception issue than a reality as cyber-attacks present an issue for all industries. In the financial sector, as consumers become more reliant on digital financial services, the financial industry continues to bear more pressure from cyber-attacks, endangering the reputation and economic stability of financial institutions, leading to both an increase in direct and indirect costs. In other sectors, CEOs may underestimate the risks as they do not endanger the financial stability but should still be considered for their own sake. As an example, a major retail shop in Luxembourg faced hacker attacks last May forcing them to close three of their shops for several days. Moreover, a construction company was the victim of a cyber-attack preventing the firm from accessing its own files. The healthcare industry is also at risk due to the sheer value of its client database.

By mapping key operational and technological interconnections as well as critical infrastructure, companies can better understand the interdependencies in the global system. Even after the pandemic, customers and businesses will continue to interact digitally, and thus, CEOs will need to ensure that the issue of cyber-resiliency remains centre stage. This concern is magnified in institutions where systems and data are interconnected. Given that attackers are highly skilled and elusive, cyber-attacks are becoming easier to carry out and can spread easily through the entire system, causing widespread disruption, loss of confidence and potential losses for firms. The question that CEOs should ask is not "if" a cyber-attack will occur but "when".

But being cyber-resilient is not enough, companies must take an active approach - putting controls in place to proactively monitor and prevent emerging cybersecurity threats. Indeed, there are still improvements to be made in this area to keep up with the accelerated pace of digitalisation. The lack of data on the number of cyber-attacks and their related cost prevent companies from knowing the full consequences of these attacks but this does not mean that they should not try to prevent them.

Consequently, companies need to transform their risk management process to cope with this new threat. Given those concerns, both Global and Luxembourg CEOs are factoring cyber threats in their risk management framework. Interestingly, 70% of Luxembourg CEOs have already done so, compared to 59% of Global CEOs. Furthermore, in Luxembourg, we notice that FS CEOs are more active in their integration of these risks than their CIPS counterparts (79% vs. 48%) but it does not mean that these risks should be considered any less in the CIPS sector (cf. exhibit 6).

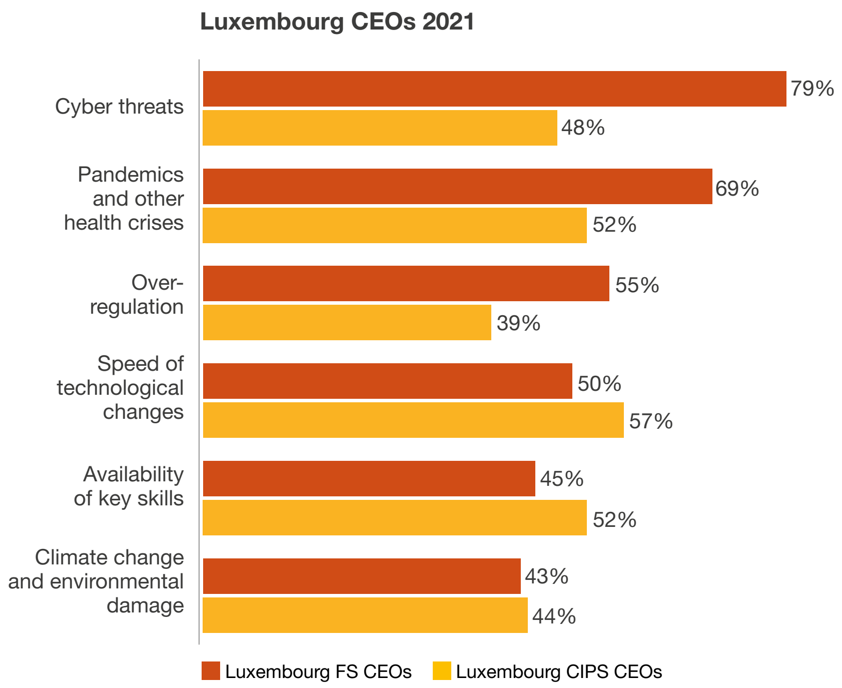
Companies also need to be transparent about the protocols they have in place to ensure the security of their digital systems in order to foster and maintain the trust of their clients and employees. Therefore, the way a company measures and reports cyber risk is a critical aspect to address.

Good practices for risk management applied to cybersecurity

A risk management framework is first and foremost for CEOs to measure their exposure to the different types of cybersecurity risks, identify the parameters to monitor and anticipate future challenges. However, challenges with assessing the costs of putting in place such risk management practices have yet to be overcome. A systemic approach to cyber risk is needed to combine efficiency and simplicity. Second, an efficient cyber risk management framework should evaluate business priorities and identify gaps in cybersecurity controls. Third, the firm should assess the current firms' exposure to existing gaps as well as monitor cybersecurity programmes overtime. Moreover, incorporating cyber risk into the financial stability analysis of companies should improve their ability to comprehend and mitigate system-wide risk.[1]

Exhibit 6

Which of the following threats, if any, are explicitly factored into your strategic risk management activities?



Sources: PwC 24th Annual Global CEO Survey, PwC Market Research Centre

1. AT&T, https://cybersecurity.att.com/blogs/security-essentials/cybersecurity-risk-management-explained

The survey also reveals that individual firms' actions alone are not enough, and regulation, as well as public policy interventions, are needed to guard against underinvestment and protect the broader system. Echoing Luxembourg CEOs' previous sentiment about over-regulation, excess use of regulation could be counter-productive. What may be more useful is to have smart cybersecurity regulation applicable to a wide range of industries to avoid significant compliance costs.

Both Global (50%) and Luxembourg (54%) CEOs believe that adequate physical and digital infrastructure is considered to slightly be more a government priority. However, with any public good, companies do not bear the cost of such infrastructures, and therefore, do not feel responsible for their efficient usage. At least, Luxembourg has the advantage of already having an organisation, the LUxembourg Commercial Internet eXchange (LU-CIX), that monitors and coordinates in case an outside attack targets the Luxembourg internet infrastructure. The next step would be a platform collecting and sharing available information on threats, attacks and responses across the private and public sectors to enhance the ability to detect and respond proactively and effectively. A platform supported by the Computer Incident Response Center (CIRCL) in Luxembourg exists as well as the international Malware Information Sharing Platform (MISP). They aim to share information on the type of cyber-attack, but it does not provide important details, such as the cost the company has to incur or the frequency of these attacks.

Section 2

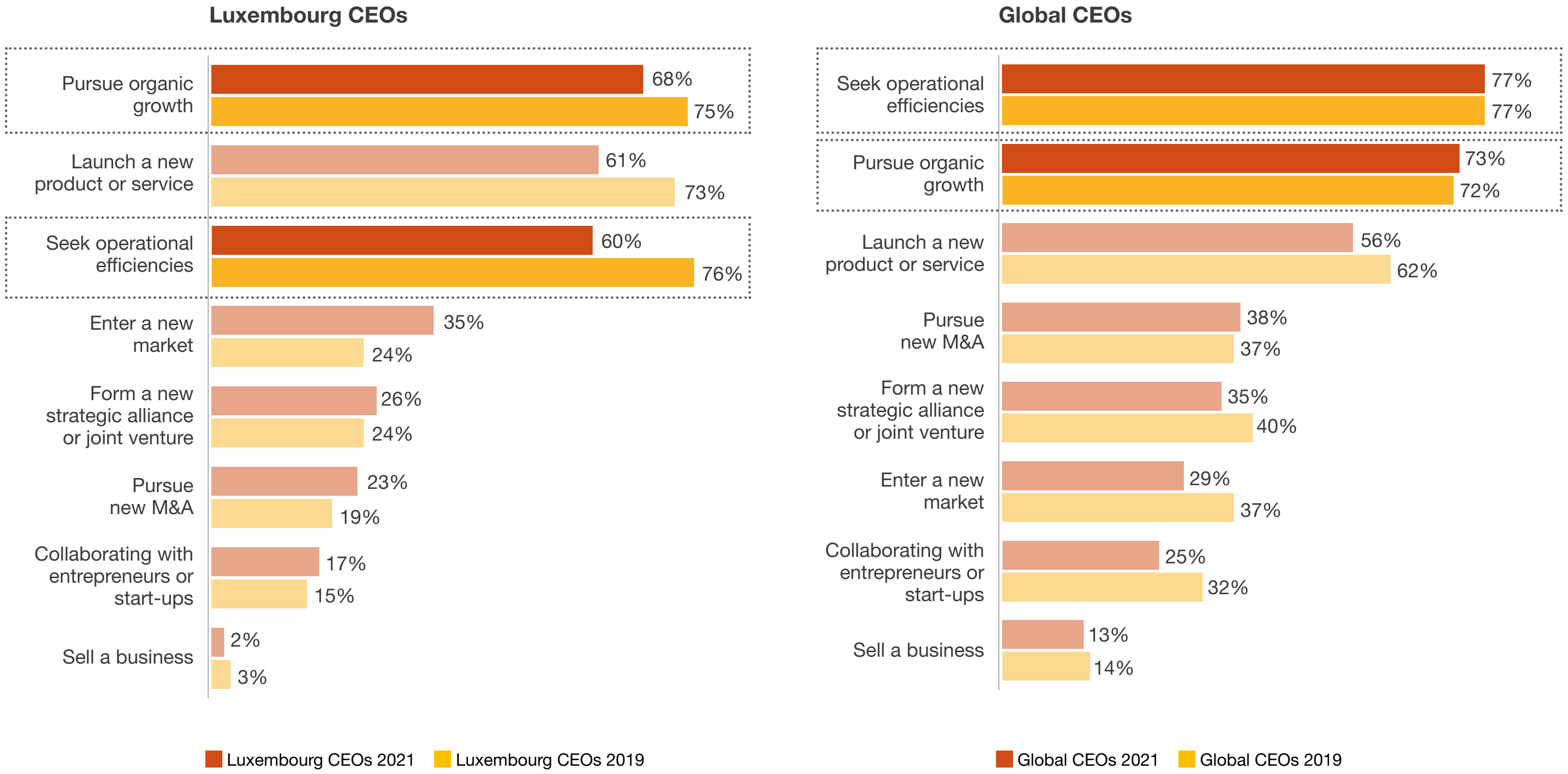
Setting the agenda for tomorrow

Adapting to consumer needs and keeping your costs under control

When looking into the future, both Luxembourg and Global CEOs think they will pursue organic growth, develop new products or services, and improve internally by implementing cost-efficiency strategies. While Luxembourg CEOs have ranked in first place "organic growth" activities, global CEOs have emphasised more operational efficiencies as a key driver of growth as well organic growth (cf. exhibit 7). These same strategies were also prioritised in 2019, pointing to the preference of both Luxembourg and Global CEOs for looking inwards for growth when faced with external uncertainties. Specifically, Luxembourg FS CEOs plan to focus more on organic growth than CIPS CEOs, 74% and 54% respectively. In fact, CIPS CEOs, in Luxembourg, believe that launching a new product or service is the main driver of growth in the next 12 months.

Exhibit 7

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



Sources: PwC 24th Annual Global CEO Survey, PwC Market Research Centre

For the companies that have managed to adapt quickly to the new environment, there are opportunities in launching new products or services related to the emergence or reinforcement of new habits brought about by social distancing and home-based working. In the long term, companies can leverage the new reality and, if they are agile in adapting to customers' evolving needs, create new business opportunities. Indeed, monitoring customer trends in both the FS and CIPS sectors will be a key determinant of any given organisation's ability to adapt and succeed in a rapidly-changing environment. We note especially the importance of reshaping the customer experience with user-friendly digital interfaces that will help customers through the digital transformation that many businesses in a variety of industries have taken on and extract the benefits from that transformation. Thus, CEOs will probably adopt a customer-centric approach in order not just to survive but thrive in a post-pandemic environment.

However, for internal resources to be used efficiently, the launch of new products and services must be accompanied by cost-cutting strategies in order for businesses to stay competitive. Especially given the uncertainty revolving around the inflation comeback, CEOs that are not in a position to increase their prices will have put a greater emphasis on controlling their costs. Though the following is applicable to all sectors, given the fee pressure driving the AWM industry, we stress the need for FS CEOs to seek operational efficiencies by leveraging advanced technologies and tools, such as big data analysis and artificial intelligence in order to implement effective cost-cutting strategies.

Towards much-needed new products in the AWM realm

For Luxembourg's Asset and Wealth Management (AWM) industry, pursuing organic growth will be dependent on introducing new business and product solutions that will enable the industry to respond to the appetite of investors. Three areas show a promising future:

- In the alternative space, while the government's initiative on the RAIFs has been extremely successful, opportunities still exist in expanding the asset servicing offering to the alternative asset management realm, thus allowing Luxembourg to boost its position as an investment hub. Making alternative investments accessible to retail clients and leveraging the likely reform of ELTIFs should be investigated.
- In the ESG space, Luxembourg must closely monitor the development of an EU-wide ESG label to be able to provide the deployment of commercially-viable and ESG-compliant products.
- Finally, even though Luxembourg has not taken the passive train, passive ESG funds will surge, pointing to a clear opportunity for the growth of these products in Luxembourg, for example through tax incentives.

Key Focus Area #1: Turning the ESG challenge into an opportunity

Environmental concerns are gaining prominence at the global level, with 30% of our Global CEOs being extremely concerned with climate change, a 6% increase on the 24% figure observed the previous year. However, while sustainability risks and considerations are undoubtedly becoming increasingly entrenched in the financial landscape, the most significant potential for further penetration lies ahead. Indeed, while climate change ranks among the most pressing threats for our respondents, around 60% of organisations still do not factor climate change in their strategic risk management activities. Though climate change stands in the top five threats faced by Luxembourg CEOs (33% are extremely concerned), 57% have still not integrated it into their risk management activities. These results are quite worrying for three reasons:

First, while certain corporates may still be unsure as to the importance of ESG and the urgency with which it must be incorporated, society and the younger generation of investors are not. According to the most recent Eurobarometer Study, the younger the respondent, the more likely he/she is to say that climate change is the most serious issue facing the world. In the financial sector, investors are also ahead of asset managers: an increasing number of investors, being institutional or retail investors (especially high net worth individuals) want to invest in ESG products, pushing the asset manager to modify its offering accordingly. As society increasingly comes to value ESG principles, we observe that companies who fail to integrate ESG into their practices, their products and services will be left behind, regardless of which industry they belong in.

Second, climate and ESG risks can have a material impact on organisations. They can take the form of physical risks (from severe disasters, weather events, gradual climate changes), or more likely in Luxembourg, transition risks (associated with the transition to a lower-carbon global economy). More relevant to Luxembourg, are the liability and investment risks arising from climate and ESG matters impacting the value and viability of a business. Thus, adopting sustainability from a risk management perspective can enable companies to anticipate and take corrective actions if necessary, but also reallocate their capital towards more sustainable sectors/suppliers while meeting their commercial objectives.

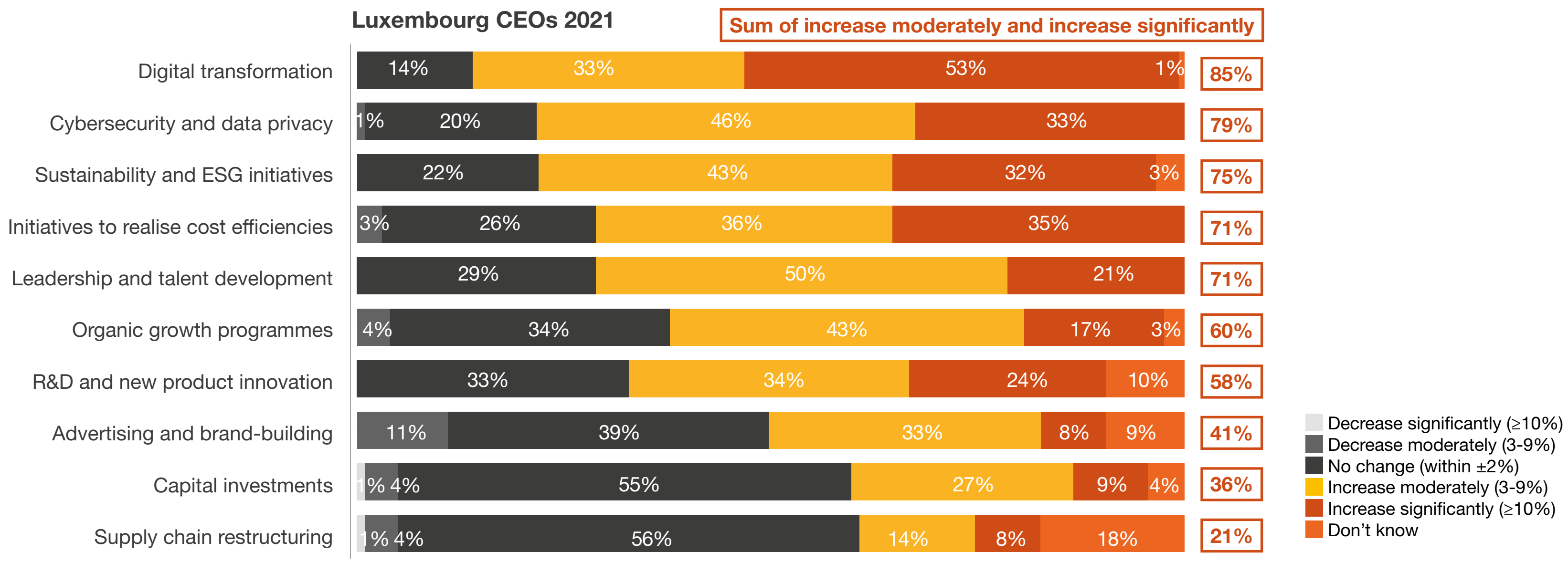
Third, ESG is not just about brand image. Adopting ESG standards can enhance performance as the following benefits are expected: (1) better employee engagement leading to higher productivity and sales volume, (2) strong support in the firm's valuation on capital markets and a reduced cost of capital, (3) improved shareholder satisfaction which will help the company fulfil its strategy, and (4) a chance to implement a differentiation strategy.

To summarise, we believe there is a risk that companies that do not embrace ESG will be left behind as ESG considerations will enable companies to be more resilient towards sustainability risk, but also be aligned with the long-term priorities of society.

Looking ahead, if climate change is not a major source of concern, it is unquestionably an area of investment. Indeed, 60% of Global CEOs plan to increase their long-term investment towards sustainability and ESG initiatives. This percentage is higher in Luxembourg with 75% planning such an increase (cf. exhibit 8), and it is even higher among financial leaders (82% of financial leaders plan to increase long-term investment in this area compared to 59% of CIPS leaders). We can definitely consider that ESG will increase in significance, driven by an alignment of the public and private sectors.

Exhibit 8

How do you plan to change your long-term investments in the following areas over the next three years, as a result of the COVID-19 crisis?



Sources: PwC 24th Annual Global CEO Survey, PwC Market Research Centre

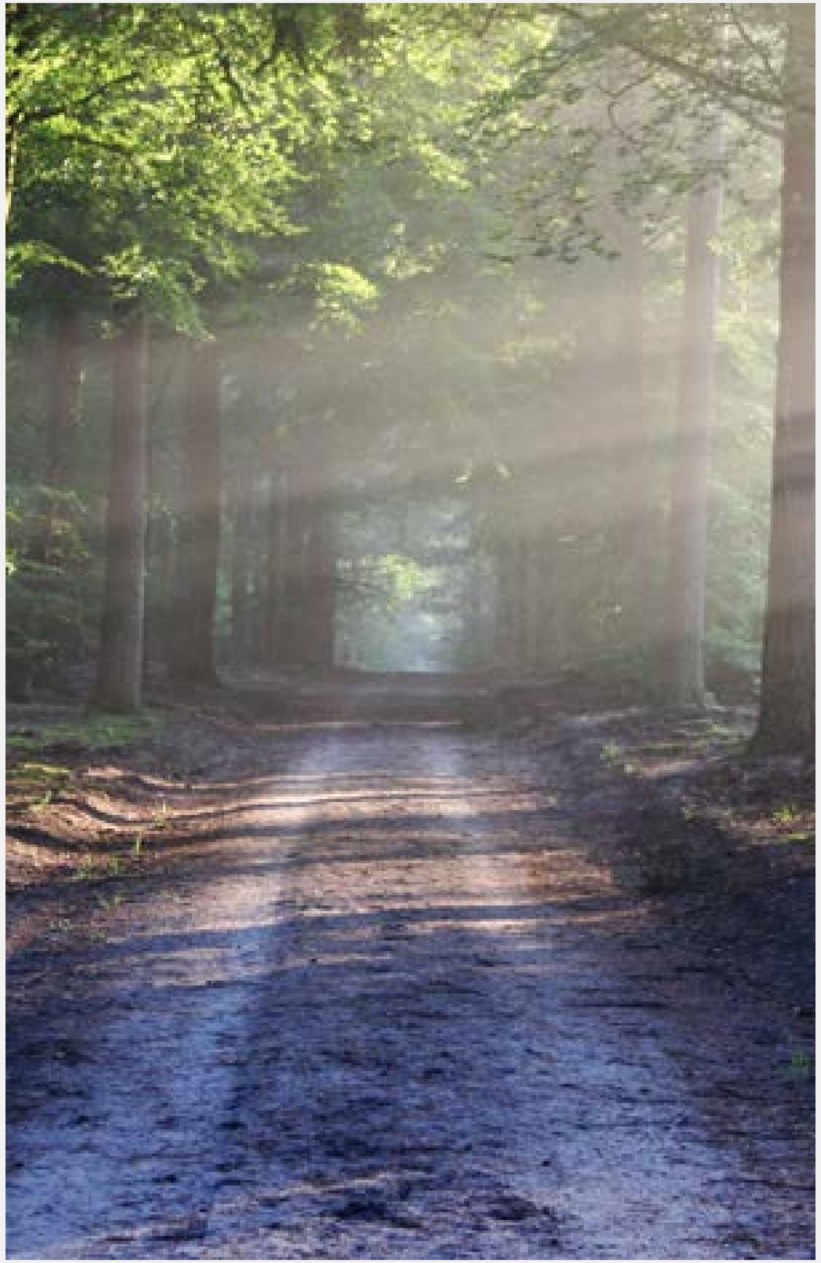
Note: due to rounding, the sum of percentages in each category might not add up to 100%.

ESG developments - implications for the financial sector

The financial industry and capital markets are a vehicle to support the transition to a net-zero and sustainable future. The Covid-19 pandemic heightened our awareness of ESG issues, thus serving as a catalyst for the shift to a low-carbon global economy. In order to ascertain the fast-increasing degree of importance attributed to ESG by players in the financial industry, one need look no further than the dramatic increase in ESG assets. Global ESG asset growth has already outpaced that of mutual funds – a trend that we forecast to accelerate over the coming years. Europe is the frontrunner in this rapidly developing space, accounting for approximately 70% of global ESG assets. PwC expects Europe to solidify its position as the global ESG leader, forecasting assets held in European ESG funds to grow by a CAGR of between 13% and 28% until 2025, such that ESG assets will account for roughly 50% of overall European fund industry assets by 2025. With 21.4% of all global ESG funds already domiciled in Luxembourg as of end-2019, Luxembourg has the potential to emerge as the global hub for ESG funds. The fact that 83% of Luxembourg CEOs in the financial sector plan to increase their investment in ESG shows that the industry is adapting to the demands of investors and regulators.

Today, a multitude of entities, such as international and supranational as well as regional governments, list sustainable bonds in Luxembourg. In 2016, the Luxembourg Stock Exchange launched a platform dedicated to green financial instruments (Luxembourg Green Exchange). With 34% of funds and 35% of assets under management in responsible investments funds, Luxembourg is the leading green dedicated exchange. Additionally, over 50% of worldwide sustainable bonds are listed on the Luxembourg Green Exchange. Luxembourg has, therefore, the potential to strengthen its position in the listing of ESG bonds and other ESG instruments.

That being said, investment is not the be all and end all of attaining a sustainable model of finance. In order to best prepare for the ESG revolution, fund managers require timely and accurate data in order to be able to meet regulatory reporting requirements and quantify their impacts. Overcoming data-related hurdles will be a significant challenge but solutions, such as data analytics, data harmonisation, and common labelling are promising. Making progress on ESG metrics/labels will be especially important, and this is where regulators can make a difference, by launching ESG labels recognised at the European level. The development of an asset servicing industry able to provide and process ESG-related data could also boost employment opportunities for those who will be able to respond to the rising needs of the investors, asset managers, and companies.



ESG developments - implications for the CIPS sector

Even though Luxembourg CEOs in the CIPS sector are less prone to invest in sustainable projects over the next three years than their peers in the financial sectors (58% and 83% respectively), a majority is still eager to become more sustainable. ESG developments in the non-financial sector can take many different forms depending on the sector but they face a set of common key challenges:

First, companies will need to increase their supply chain oversight. This encompasses direct suppliers but also second and third-tier suppliers whose practices are harder to monitor. Second, this requires companies to make efforts to measure their carbon footprint, and more generally, establish KPIs (in terms of resource use, human resource policies, sustainable marketing efforts, etc.) that will help them monitor their ESG efforts. Client demand, regulation and the developments in the FS sector will all play a part in pushing corporate to improve their ESG performance. Third, in order to build and sustain trust with their stakeholders, these companies will need to report more on their ESG achievements. Sustainable reports do exist among international companies, but we believe that all companies will need to report more on these aspects from hotels to restaurants.

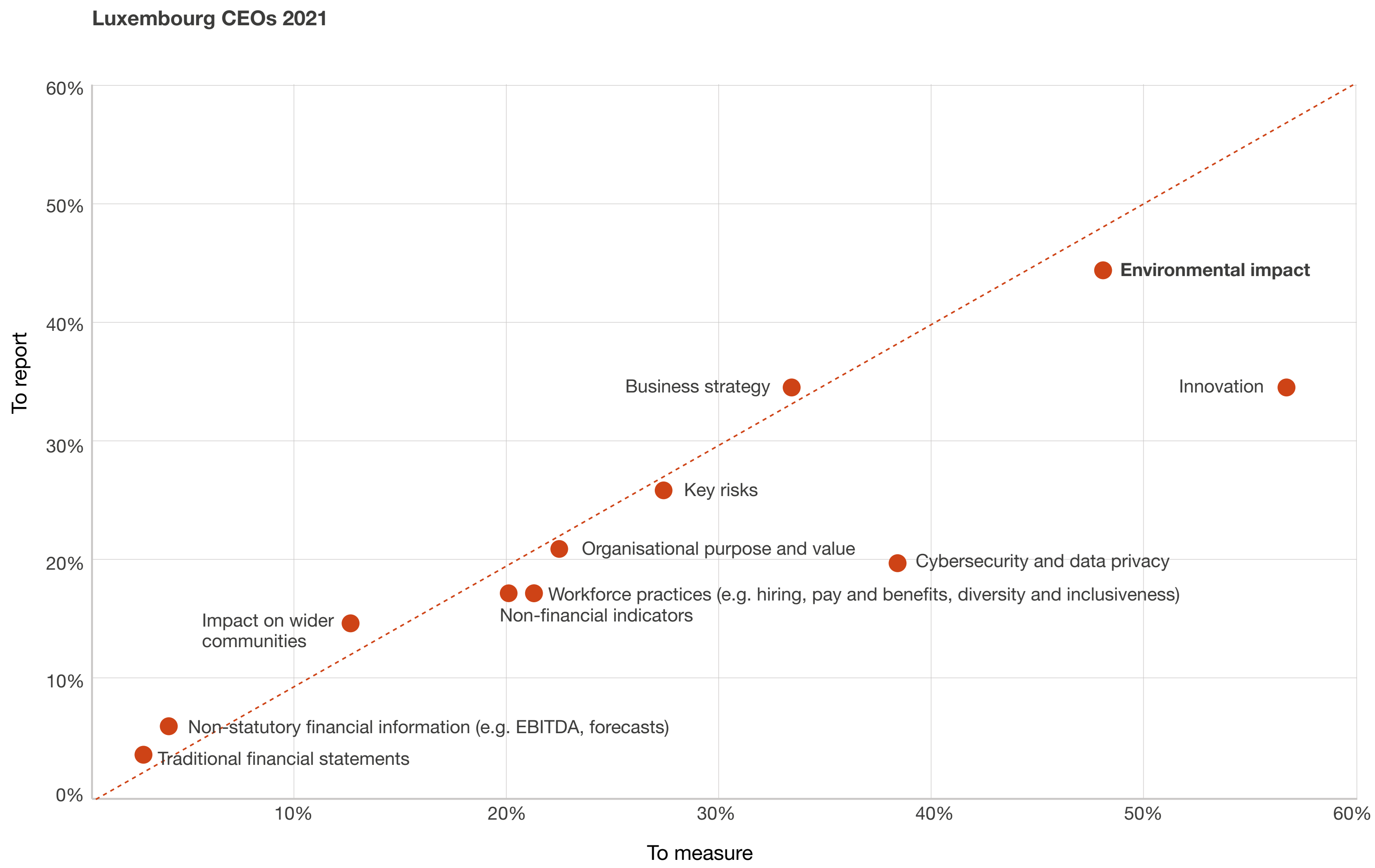
As a result, a huge amount of resources will be devoted to ESG in the mid-and long-term, and some industries will not be able to finance this sustainability transition by themselves, requiring aid from the government. The pandemic has especially given rise to government initiatives, such as the Fit 4 Resilience program, led by Luxinnovation, that support SMEs structurally impacted by the COVID-19 crisis in their efforts to seize digital, sustainability and circular economy opportunities. Public-private partnerships will likely continue to gain ground even after the pandemic.

Beyond investment, there is also a data challenge related to the measurement and reporting of ESG performance, but 48% of Luxembourg companies are motivated to measure more, 44% to report more (cf. exhibit 9). The figures are even greater among financial leaders, which have been deeply impacted by the upcoming European regulations. Indeed, 51% of the local financial companies are motivated to report more while only 37% of the sector is considering it globally. But to do more reports linked with ESG, businesses need to be able to measure their impact. That is why 53% of financial CEOs and 38% of CIPS CEOs are pushing their organisations to do more in terms of measuring their environmental impact. In fact, many companies are choosing to focus on their environmental impact as the focus on climate change risks has taken so much importance. We often observe that within ESG, E is taking centre stage. However, we believe that societal and governance issues also deserve equal attention with a myriad of issues requiring increased stakeholder consideration.

Luxembourg has long been at the forefront of attempting to overcome the hurdles preventing heightened ESG adoption. In 2006, the state launched the LuxFlag Label, whose goal is to assess the sustainability of financial products. Then, the country developed a "Sustainable Finance Roadmap" in 2018, and in 2020, it provided financial incentives for ESG investment, with the reduction to the "Taxe d'abonnement" in proportion to the ESG assets investment funds manage. Even the recovery plan, named "Recovery and Resilience Plan", aims to accelerate the green transition as the Finance Minister Pierre Gramegna explained: "*The government fully shares the objectives sought by the European recovery efforts, which strengthen solidarity between the Member States and provide a qualitative recovery which prepares the green and digital transition".* The translation of this commitment into concrete tools favoring the ESG transition of the companies represents the next step. Entities from both the public and private sectors need to reflect on what is required to boost ESG investments and further the transition for both FS and CIPS.

Exhibit 9

In which of the following key areas of impact and value do you believe your organisation should be doing more to measure/report?



Sources: PwC 24th Annual Global CEO Survey, PwC Market Research Centre

Key Focus Area #2: Embracing digitalisation in your business model

Digitalisation is not a new trend, and companies have been allocating significant investment to enhancing their digital infrastructure and streamlining their operations for well over a decade. However, the rate with which this trend accelerated throughout the COVID-19 pandemic has transcended all possible predictions. Today's challenge relates to the use of these digital tools to enhance efficiency and develop new products in a timely manner. Nowadays, companies no longer wait to have their product 100% completed before launching it in the market. On the contrary, digital businesses adopt agile ways of developing products and services, shortening time to market. Digitalisation also means using all the relevant channels of communication with the clients, adapting to consumers' digital habits to provide accurate, timely information that they really need. Companies cannot be intrusive, but need to engage digitally. Finally, digitalisation has changed the way companies manage their own operations, from online training to home-based working, and their business validation processes.

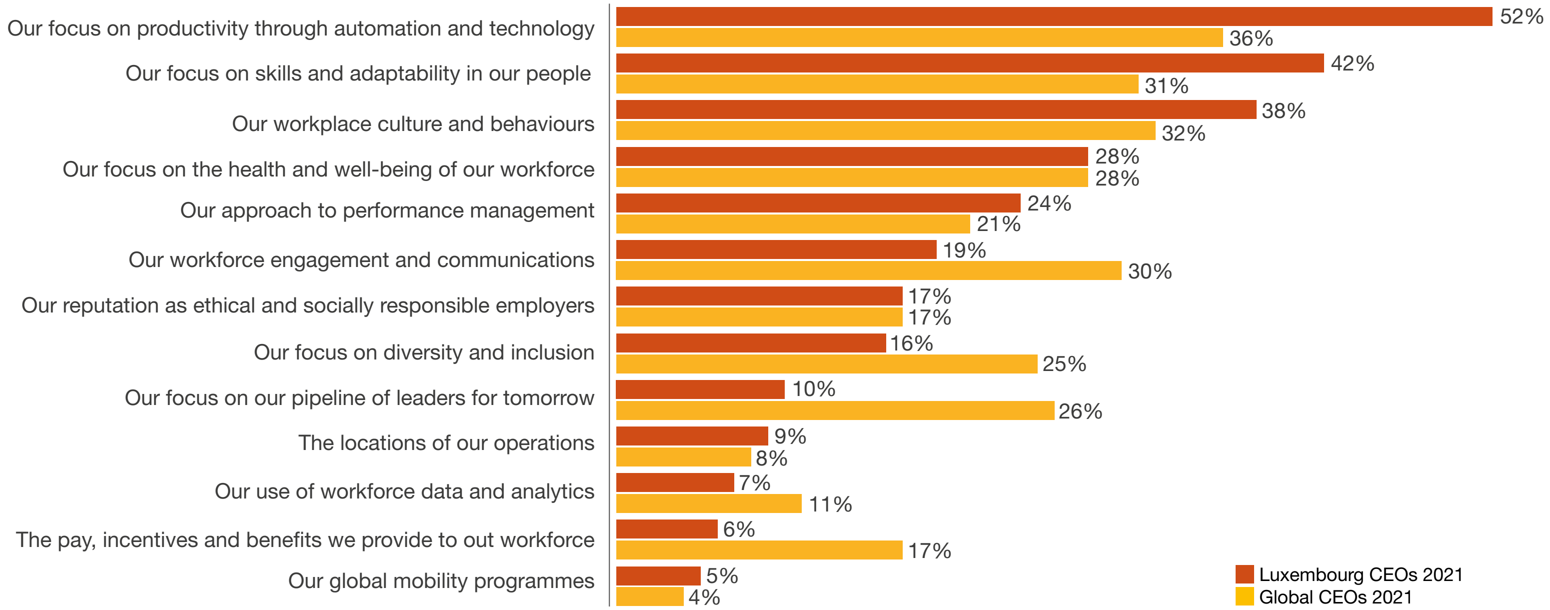
Digital transformation is, thus, multi-faceted, and significant investment is needed in order to reap the full benefits it provides. All of this is on Luxembourg CEOs' minds, with 85% of survey respondents planning to increase their long-term investments in digital transformation over the next three years. The objective is not only to cope with the changes in their internal operations, but also to take advantage of digitalisation to expand into new markets and gain market shares. We see three potential consequences of this evolution:

First, some innovations will be disruptive, with players leveraging technological innovations to streamline their operations. Indeed, half of Luxembourg CEOs plan to refocus their strategy on productivity through automation and technology (cf. exhibit 10). The combination of investments in data analytics and artificial intelligence will allow firms to shift to a more trusted data environment which in turn will allow for more effective compliance processes and regulatory reporting. The alliance of technology and digitalisation can also improve product delivery. For instance, by combining artificial intelligence and machine learning, companies can analyse large amounts of data in order to better understand consumer trends and forecast needs or preferences. This applies as well to all retail companies that have huge volumes of data on their consumers at their disposal, and online activities have enabled companies to better track and handle their data. Once companies make use of data with the right analytical tools, it has the potential to increase the efficiency of online marketing, which relies increasingly on online social media campaigns. But CEOs must not forget that the power of AI requires higher responsibility in terms of ethics and data protection.

Given these forthcoming trends, one needs to anticipate changes in the structure of employment. In other words, automation will have side effects which may pose a challenge to the workforce structure - as innovation has always done in the past. Applied to the asset management industry, digitalisation combined with automation can put at risk standardised activities and back-office duties, still very prevalent in Luxembourg. Therefore, collaborative efforts from standard-setting

Exhibit 10

Which aspects of your workforce strategy are you changing, if any, to make the greatest impact on your organisation's competitiveness?



Sources: PwC 24th Annual Global CEO Survey, PwC Market Research Centre

bodies, national regulators, supervisors and the private sector will be essential to avoid an increase in the unemployment rate. In other sectors, digitalisation reduces the need for offsite channels. If companies can deliver their products and services online, the need for commercial and office areas will decrease, with negative consequences for a number of professions: from real estate agents to employees involved in maintenance work. Anticipating changes in the structure of employment will also avoid leaving people behind in the digital train.

Second, digitalisation must go hand in hand with consumers' changing habits and the evolving ways of working. The pandemic forced firms to address their level of online engagement and interconnectivity to meet new consumers' behaviour and needs. Those who followed this path and are able to sustain their newly-created solutions will create a competitive advantage in the upcoming years. This trend is very present among financial and CIPS entities that have increased the digitalisation of their business models, allowing them to expand their virtual service offerings and adopt a more direct consumer approach. In general, digitalisation has for the first time revolutionised our way of working with the surge in remote working made possible thanks to technology. These new tools may be a new way to retain talents by offering them more flexibility. They will also allow companies to spend less on physical expenses (travels, office space, etc.), thus reducing their carbon footprint and improving their internal sustainability objectives. While almost all companies are digitalising their processes and operations, the public sector has to adapt and make sure to provide the same level of digital engagement. This may require the digitalisation of administrative processes and some IT investments, accelerating digital transformation to align with the new ways people and companies interact.

Finally, as suggested above, the benefits of digitalisation must go beyond short-term financial performance and create long-term societal value. Digital innovation will, indeed, play an integral part in achieving the UN's Sustainable Development Goals, which focus on improving people's quality of life, fostering equitable growth and promoting environmental protection.[2] To this end, firms should measure these transformations not only in terms of monetary benefits but also with respect to their ability to increase employee engagement, loyalty and well-being. Additionally, they can contribute to solving societal challenges by increasing the accessibility of their products and measuring the environmental impact of becoming more digital. Digital enhancement is also relevant in the public sphere as it enables more efficient and effective public administration processes and services in sectors, such as health care.[3]

2. World Economic Forum, https://reports.weforum.org/digital-transformation/unlocking-digital-value-to-society-building-a-digital-future-to-serve-us-all/
3. NIM, https://www.nim.org/en/publications/gfk-marketing-intelligence-review/all-issues/digital-transformation/digital-transformation-and-value-creation-sea-change-ahead

Key Focus Area #3: Integrating upskilling into the core of your workforce strategy

In order to change with the times and unlock the opportunities presented by new technologies, a more diverse range of technical skills will be required. Upskilling policies will play a pivotal role in ensuring that the current workforce does not experience dramatic disruptions as a consequence of the accelerated digitalisation. Investing in upskilling policies is a must, especially in a context where the vast majority of companies and workers still feel they lack appropriate digital skills.

This paramount necessity is particularly highlighted in Luxembourg, which needs a qualified workforce to keep its key role in the financial industry. Given that the country has historically represented a back office centre of excellence, a ramping up of its digital infrastructure and upskilling of its current workforce represents a true opportunity to re-invent itself and enhance its value proposition, especially to become a real contender in the alternatives space. The local CEOs we surveyed are fully aware of the importance of automation and relevant upskilling, with 52% and 42% of the country's CEOs respectively identifying these areas among their top priorities in terms of investment.

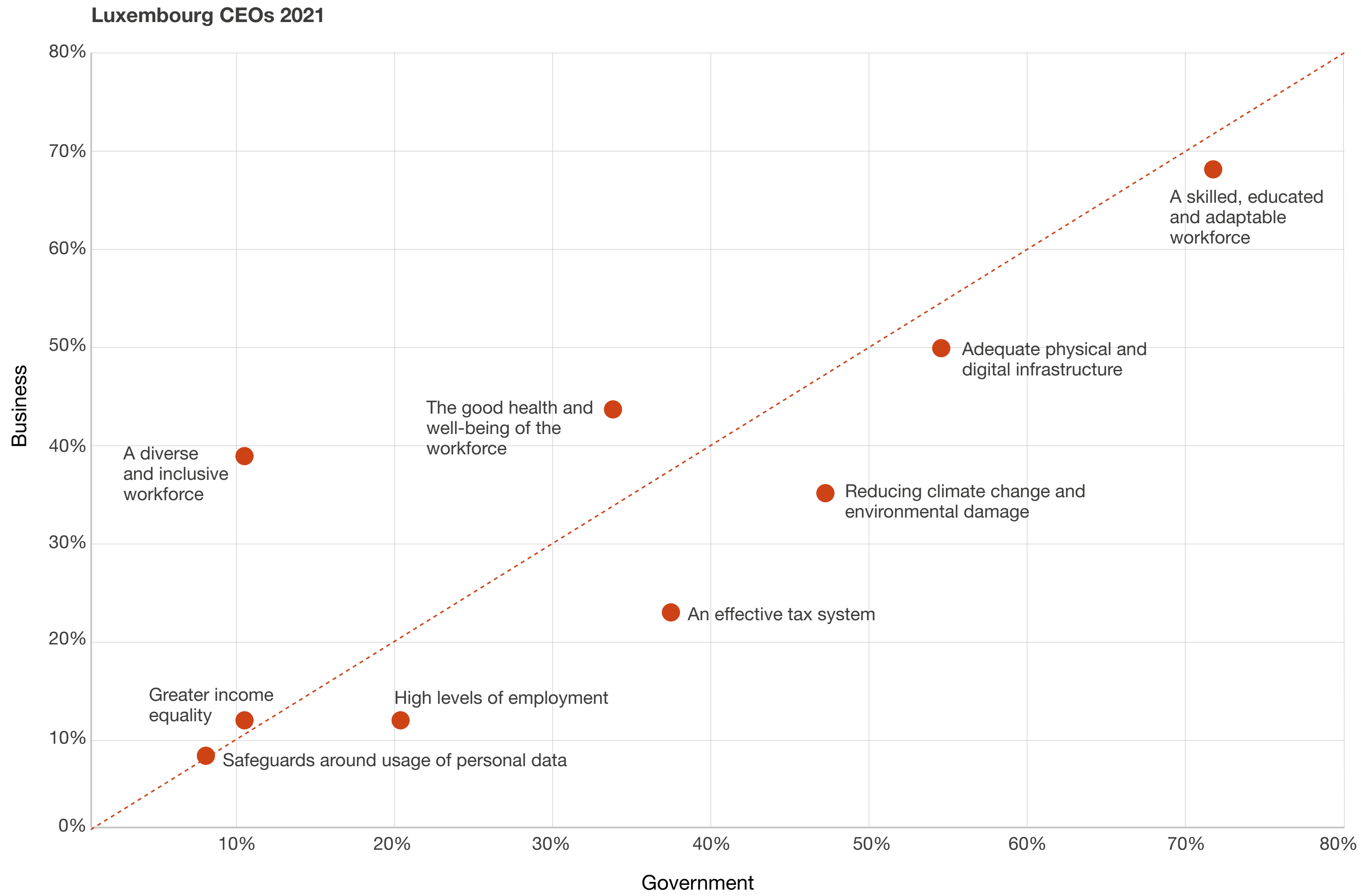
That being said, the upskilling of the workforce is too important and capital-intensive of a task to be completed solely by the private sector. Public-private partnerships are required to achieve this process by designing an accommodating regulatory framework with specific measures supporting the entire economy and reviewing the relevance of the vocational training curriculum in light of the new skills needed. We have already observed a widespread trend of businesses asking the government to strongly consider the topic, with 72% of local CEOs claiming that such programmes should be a top government priority (cf. exhibit 11). On the other hand, 61% Global CEOs would argue that it is more a business priority. This may be rooted in the fact that the public sector in Luxembourg has priorities well-aligned with the long-term needs of the private sector. To this end, the University of Luxembourg has launched a new learning programme focused on green finance since September 2020, but also in new space activities and data science in order to provide skills that will match future employers' needs.

Interestingly, CEOs from the CIPS sector are the ones asking the most for an upskilling of their workforce. Indeed, 88% of them consider this to be the government's priority. This significant gap between the two sectors could be explained by the pandemic and the acceleration of the green transition. While the financial sector was already digitised to a large extent, the CIPS sector has had to digitise their entire operating model upon the announcement of the working from home orders. The shift in operations has been very successful and smooth. Now, with home-based working becoming more popular, online purchases of products and services becoming the new norm, the entire workforce will require upskilling to be able to deliver safe and innovative solutions to their clients.

The country needs to keep the talent both internally developed and externally acquired. To do so, employee satisfaction should be optimised and the pandemic has highlighted a way to perform this objective.

Exhibit 11

Which three outcomes do you think should be government/business priorities in the country/territory in which you are based?



Sources: PwC 24th Annual Global CEO Survey, PwC Market Research Centre

Caring about employees and giving them the tools to adapt to the new environment appears to be very important for CEOs. While upskilling of the workforce cannot be completed solely by the private sector, promoting diversity & inclusion as well ensuring the good health and well-being of the workforce are tasks that Luxembourg and Global CEOs agree should be taken on by businesses, mainly through Corporate Social Responsibility (CSR) programmes. Indeed, providing an environment in which employees feel recognised and well treated is also conducive to innovation and will enable companies to remain competitive as well as recognised for their contribution to society.

Home-based working - key takeaways

For many companies, home-based working became the norm, bringing positive results for both employees and employers. However, for companies in sectors for which remote working is not as feasible, such as manufacturing, retail or social and healthcare services, home-based working has limited potential for the future. Similarly, for those companies that rely heavily on the physical presence of cross-border employees, the pandemic has reduced their activities (restaurants, hotels, catering, etc.). For others, working from home has significantly reduced the time they spend commuting and cut their carbon emissions. Furthermore, as business leaders were first concerned by their employees' productivity, they were reluctant at the beginning to let their employees work from home. But the crisis has shown a growing trust from employers and productivity, conjointly with a better working-life balance, has even been improved. This is reflected in CEOs' answers as 28% of them consider their employees' well-being as a way to increase organisation's competitiveness.

However, the long-term impact of home-based working is still to be debated in regards to its impact on some sectors of the economy, and regarding diversity and inclusion. Firstly, while flexible working can become an equaliser for men and women, it could increase the care burden for women in the long-term, especially if schools return to a virtual environment. Raising mental health awareness among employees at all levels of the company is then key to corporate strategy and creating a positive work environment. Furthermore, the cross-border situation in Luxembourg regarding employment and company taxation, social security and payroll creates challenges that need to be explored and addressed quickly. Regulatory constraints are applicable since people working for more than 25% of their time country of residence are subject to the local legislation. In this context, CSSF has warned against the risk of losing substance as home-based working increases.

A message from John Parkhouse, PwC Luxembourg CEO

Thank you for taking the time to explore the 2021 version of our Luxembourg CEO survey. Our goal was to provide you with an insight into what our business leaders think about the current economic outlook in Luxembourg, and how they are planning for the future. We hope that you found our research both interesting and useful.

I would like to start off by saying that Luxembourg has proved to be resilient in the face of last year's pandemic and our CEOs' optimism is well aligned with macroeconomic indicators regarding the current and projected state of our local economy. Given that the GDP decline in the Euro area was much higher than in Luxembourg, the region is poised to make a bigger economic comeback, but this is not to take away from the fact that Luxembourg is making a solid recovery and that the labour market has held up relatively well during the crisis.

As we emerge out of the pandemic, the strong ties formed with our neighbours (Germany, France, Italy, and Belgium) will enable our CEOs to seek out new growth opportunities. Our respondents also view China as a promising economic and financial partner and expect growth prospects to come from the United States and the United Kingdom, two of the primary financial centres.

While our CEOs largely hold a positive outlook for the future, this optimism is nuanced - tainted with shades of concern regarding the emergence or exacerbation of certain threats that stand to negatively impact their businesses. Echoing PwC's global chairman Bob Moritz, "CEOs now face two fundamental challenges: first, how to build trust with a broad range of stakeholders, whose expectations of business are higher than ever before; and second, how to adapt their businesses and deliver sustained outcomes in a rapidly changing external environment. Organisations that get this right will be best placed to come out of the pandemic as strong, resilient and productive businesses, able to withstand future shocks."

In this year's survey, we see a particular concern from CEOs in Luxembourg regarding both over-regulation and cyber risks - areas for which we have conducted a deep dive. As CEOs prepare to set their agenda for tomorrow, we highlight three key focus areas:

First, turning the ESG challenge into an opportunity. As society increasingly comes to value ESG principles, we believe that companies who fail to integrate ESG into their practices, their products and services will be left behind, regardless of which industry they belong in. Adopting ESG standards is no longer just about brand image, as it can enhance performance and bring long-term societal benefits. **We encourage companies to take the opportunity to integrate climate risk into their risk management framework in order to anticipate upcoming changes in regulation, technology and consumer behaviour as we transition to a low-carbon economy.**

Second, embracing digitalisation into your business model. Though digitalisation is not a new topic, the pandemic made it a necessity to survive. But for companies to reap the benefits of this accelerated digital transformation, they must refocus their long-term investments accordingly. We note three potential consequences of this full digital process: (1) innovations will be disruptive, with players leveraging technological innovations to streamline their operations, (2) digitalisation must go hand in hand with consumers' changing habits and the evolving ways of working, and (3) the benefits of digitalisation must go beyond short-term financial performance and create long-term societal value. **We strongly recommend companies to adopt a more direct-to-consumer approach, leveraging emerging technologies to reshape the customer experience with simple but effective digital interfaces.**

Third, integrating upskilling into the core of your workforce strategy. We highlight in our survey that half of Luxembourg CEOs plan to refocus their strategy on productivity through automation and technology. This will unquestionably challenge the structure of employment and CEOs need to ensure that employees do not get left behind. Focusing on the skills and adaptability of the workforce has, thus, become the second part of the equation. **We advocate for companies to put their employees first, by promoting their well-being and giving them the tools to adapt to the new environment. Private-public partnerships are a promising solution to these challenges, echoed by this year's participants.**

Overall, the pandemic's dual role as an accelerator of transformation and amplifier of disruptive forces is the thread that runs through our 24th CEOs survey, and our results show that economic recovery is expected soon. As the pandemic continues to test our resilience and capability to find growth opportunities in challenging and uncertain times we offer to you Thomas A. Edison's advice: *Our greatest weakness lies in giving up. The most certain way to succeed is always to try just one more time.*

A note on the sample

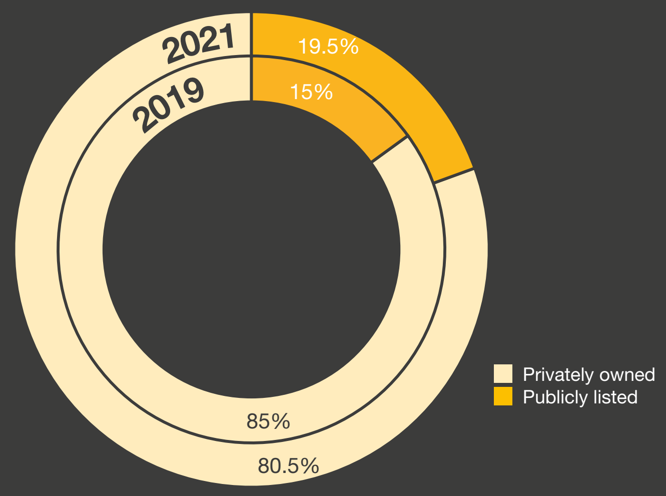
This year, we observe an increase in the sample size of Luxembourg CEOs from 59 in 2019 to **82 in 2021**. According to this year's survey, 71% of our respondents come from the financial sector, with 43% representing the asset and wealth management industry, which is in line with Luxembourg's financial hub status in Europe.

Similar to the 2019 Survey, the large majority are small-to-medium, privately-owned companies, with more than 80% of Luxembourg CEOs operating in privately-owned companies, and around 69% of respondents' companies having less than 500 employees in this year's survey.

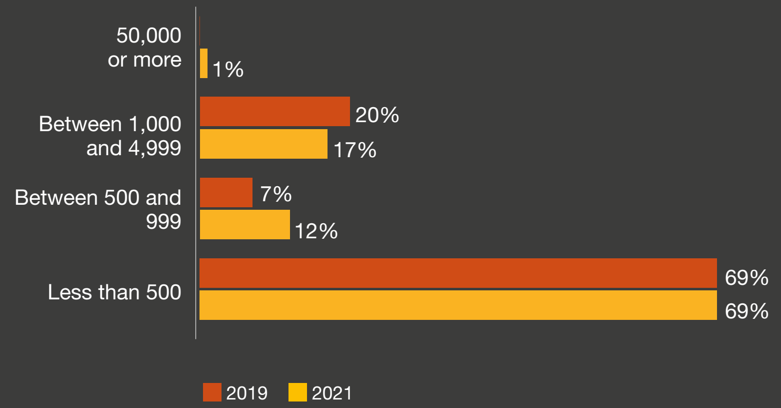
Respondents breakdown by industry

Industry	Number of respondents	%
Financial Services	**58**	**71%**
Of which		
Asset and Wealth Management	*25*	*43%*
Banking and Capital Markets	*11*	*19%*
Insurance	*8*	*14%*
Other Financial Services	*8*	*14%*
Real Estate	*4*	*7%*
Private Equity	*2*	*4%*
Industrial Manufacturing & Automotive	**7**	**9%**
Technology, Media & Telecommunication	**5**	**6%**
Consumer Markets	**4**	**5%**
Energy, Utilities and Resources	**3**	**4%**
Government/Public Services	**3**	**4%**
Health Industries	**2**	**2%**
TOTAL	**82**	**100%**

Ownership



Organisation's headcount



Sources: PwC 24th Annual Global CEO Survey, PwC Market Research Centre

Note: due to rounding, the sum of percentages in each category might not add up to 100%.

John Parkhouse
CEO &
Senior Partner
PwC Luxembourg
+352 49 48 48 2133
john.parkhouse@pwc.com

François Mousel
Partner,
Clients and Markets Leader
PwC Luxembourg
+352 49 48 48 2182
francois.mousel@pwc.com

Laurent Probst
Partner,
Digital Transformation
and Public Sector
PwC Luxembourg
+352 49 48 48 2199
laurent.probst@pwc.com

Olivier Carré
Partner,
Financial Services
and Markets Leader
PwC Luxembourg
+352 49 48 48 4174
olivier.carre@pwc.com

Sandra Paulis
Partner,
Client Service Program
and Client Experience Leader
PwC Luxembourg
+352 49 48 48 2445
sandra.paulis@pwc.com

The Luxembourg Findings of the PwC 2021 Global CEO Survey have been drafted with the assistance of our inhouse PwC Luxembourg Market Research Centre, led by Dariush Yazdani. It identifies and provides insights and analysis to our asset managers, private banks, financial service providers, professional associations, and public and European Union institutions clients. Visit them at https://www.pwc.lu/en/market-research-centre.html.

pwc.lu/ceosurvey