Forbes insights

Ready, Steady, Grow.

Building A Sustainable Tech Strategy For The Next Decade

IN ASSOCIATION WITH

C L I F F O R D C H A N C E



Table Of Contents



Foreword

Any serious conversation about business strategy involves at least some aspect of technology, and more often it is the critical component. But as the speed of technological advancement increases, regulators and lawmakers are catching up, bringing new risks to businesses.

As companies adapt to this more regulated phase of tech-driven growth, they are anxious to apply new technologies at the right pace—not too fast or too slow—which makes decision making all the more complex.

To help understand some of these issues, Clifford Chance teamed up with Forbes Insights, surveying 300 senior business executives about their approach and attitude toward artificial intelligence (AI), ethics, tech regulation and data privacy. Their answers, together with perspective from global business leaders and the Clifford Chance Tech Group, follow.

We hope you find this report useful and that it helps you prepare for the next phase of techdriven growth.

Megan Gordon

Tech Group Partner, USA

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Partner and Co-Head of the Clifford Chance Tech Group

Paul Landless

Partner and Co-Head of the Clifford Chance Tech Group

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Tech Group Partner, Europe

Technology Development And Adoption: Too Fast Or Too Slow?

"Every company also has to be a technology company because if you aren't, I don't know how you can survive into the future."

SUSAN STORY

CEO, American Water

New technologies are being implemented rapidly. In our survey, 80% of businesses are currently exploring or using Al and associated automation, and 78% are using big data or other advanced technology to address core business issues such as customer/user experience, new business/delivery models or the enhancement of design and manufacturing techniques (Figure 1). FIGURE 1

Use Of Advanced Technologies

Which of the following technologies are you currently exploring or using for business growth?

	EXPLORING	USING
Al and automation	35%	45%
Big data	34%	44%
Enhancement of design and manufacturing techniques	33%	45%
New business/delivery models	31%	45%
Customer/user experience	30%	45%
Distributed ledger technologies	29%	7%
New resourcing models	28%	43%
Connected devices	24%	48%

Despite widespread adoption of these technologies, the majority of executives, 66%, are worried that they are either being too cautious (40%) or too bold (26%) in their approach. Only a third, 34%, feel confident that they are striking the right balance (Figure 2).

FIGURE 2

Too Bold Or Too Cautious?

Which of the following statements best describes your opinion of your organization's risk appetite relating to tech-driven growth?



I am concerned that we may be too cautious in our approach



I am confident that our current approach strikes the right balance



I am concerned that we may be too bold in our approach



Setting the right pace for tech-driven growth starts with asking the right question: How fast should we go? Variables to consider include the attitudes of employees, customers, investors and the wider stakeholder community, the regulatory environment, the competitive landscape and financial resources.

Steve Flavell, co-CEO and cofounder of LoopUp, a remote meetings solution that facilitates real-time collaboration, has to contend with customers who are slower to adopt new technology.

"We operate in an unusual market where the pace of behavioral change has fallen far behind the pace of technological capability," says Flavell. "Conference calling has been around for 30 years or so, and yet despite tremendous capability advancements in the industry over that time, it's telling that around half of the business world still just 'dials in' to calls with phone numbers and codes, rather than using more advanced software. The key driver of this inertia is that people are being asked to learn and adopt new technology in an unusually live and multiparty setting. Any lack of comfort and they revert to their comfort zone. Our challenge is actually to limit the technology we manifest so as to drive actual adoption of the most valuable capabilities. It's worth getting right because the world badly needs to meet remotely a lot more."

In the healthcare sector, technology failures can result in serious harm or death. Surya Mohapatra, independent director of Xylem Inc. and Leidos Inc. and former chairman and CEO of Quest Diagnostics,¹ told us, "You have to move with deliberate speed and be absolutely sure that the technology works. We need to continue modernizing and inventing products because the competition always comes from a different angle, but we also have to be extremely careful because what we do has critical impact. In some sectors speed is key, but to us, quality and reproducibility are much more important."

In the automotive sector, self-driving cars also raise complex ethical questions. The U.S. National Transportation Safety Board says that the federal government has failed to provide the necessary oversight of autonomous-vehicle testing on public roads.² Autonomous test vehicles were involved in 37 crashes between September 2016 and March 2018, including a fatality.³ The severity of the harm caused, and the difficulty of the ethical issues, has resulted in an environment where, ironically, the pace of adoption has slowed because of a lack of clear workable rules.

Megan Gordon, Tech Group Partner, USA at Clifford Chance, says futureproofing needs to go far higher up on the board agenda. "Everyone feels, for good reason, that they need to get on top of the newest technologies. But sometimes you don't see the full implications until 10 years down the line."

- 1 Xylem Inc. develops water solutions through smart technology. Leidos Inc. is a civil defense, health and intelligence company. Quest Diagnostics develops products, tests and tools to enhance patient care.
- 2 "U.S. Oversight of Self-Driving Cars Falls Short, NTSB Says in Review of Uber Death," Washington Post, Nov. 19, 2019.
- 3 "In Review of Fatal Arizona Crash, U.S. Agency Says Uber Software Had Flaws," Reuters, Nov. 5, 2019.

Data: Are Businesses Prepared For The Challenges Ahead?

Data fuels machine learning, and AI is at the heart of bringing different technologies together.

Our survey reveals that executives are concerned about their level of preparedness for dealing with data, the ethical challenges it poses and potential risks such as cybersecurity breaches (See: The Double-Edged Sword: Big Concerns About Big Data). Here, more than in any other area, there is tension between maximizing profit and doing the right thing.

When the data used to feed AI is strong and free from bias, AI can perform better than humans at certain tasks. One technology company's health research unit, for example, has developed AI that outperforms radiologists at detecting breast cancer. But AI is only as good as the input information. A large social media and technology company has faced well-publicized challenges with algorithms that exhibit biases in targeting job ads at potential candidates; automated decision making for another company resulted in it offering better credit to men than to women.

With so much on the line, using data effectively and transparently is crucial. "Market power is changing," says Paul Landless, Partner and Co-Head of the Tech Group at Clifford Chance. "It is no longer simply about the data, but more the analytical capabilities to use data to identify new opportunities. But with this new power comes new responsibilities."

The Double-Edged Sword:

Big Concerns About Big Data



Collaboration: The Opportunities And Risks

Technology is now so complex and fast moving that few companies can go it alone. When it comes to growth, three-quarters of our survey respondents are choosing to collaborate by merging with or acquiring other companies; forming joint ventures, partnerships and licensing agreements; or procuring third-party technologies. This compares with only 25% of respondents who are relying on organic growth (Figure 3).

For American Water, the largest U.S. water utility company, partnerships have helped the business grow and develop new capabilities more quickly. CEO Susan Story says that by working collaboratively with startups, American Water has built digital apps and tools that help frontline employees better serve their customers.

"The risks when dealing with startups are that they have rarely properly protected any of their intellectual property, completed Freedom to Operate searches or implemented diligent Open Source Software Compliance guidelines. This needs to be fixed as soon as the technology is to be implemented on a large-scale business model or it may turn into a significant risk later down the line," says Claudia Milbradt, IP Partner, Clifford Chance Tech Group.

FIGURE 3

How Companies Are Pursuing Tech-Driven Growth



CLIFFORD CHANCE VIEWPOINT

Paul Landless On The Risks Of Collaboration



In the belief that survival depends upon the speed of innovation, businesses are racing to collaborate to access new technologies, data and intellectual property, which is creating incredible dependencies and vulnerabilities.

As businesses collaborate, they leave behind a trail of data relating to the business model, markets and geographies. This leads to cyber, data protection or resiliency risks. In many cases, the established and slower players stake their growth on newer players who can provide superior data analytics or product innovation, and in the process, they begin to surrender customer access, integration and interactions.

Other businesses refuse to partner and collaborate so that they can keep control of their technology stack. They are highly focused with a narrower customer and product base. They will become relatively static, but they may be better able to withstand the shock of a major cyber incident or a major corporate bankruptcy of a technology player. They may be slower and may fall behind for most of the race, but they may win in the end.

Paul is a fintech expert and has extensive experience in helping companies deal with data, cyber, AI and smart contracts issues. He has a particular interest in application of DLT in financial markets trading and risk management.

Tech For Good

Technology changes the competitive landscape but also has a broader impact on society. The benefits are a key focus for executives.

Around the globe, business leaders recognize the potential benefits and risks of advanced technologies. More than a third of respondents (39%) say that the greatest opportunity resulting from tech-driven growth is a better quality of life. Other benefits include people developing new skills to engage with technology (37%), wealth creation (34%), new business models with better services and a more connected world (both 33%) (Figure 4).

But these benefits must be weighed against the social impact. If mismanaged, this could all go very wrong. Given technology's potential to displace people from job markets, impoverishment is a concern for 30% of our respondents, and almost a quarter (24%) are worried about the potential erosion of human rights and privacy (Figure 5).

FIGURE 4

The Opportunities Of Advanced Technologies

Which of the following do you see as the greatest opportunities for society as a result of tech-driven growth?

(Respondents could select up to three options.)

Better quality of life	39%
Humans developing new skills to engage with technology	37%
Wealth creation	34%
New business models with better services	33%
A more connected world/ community building	33%
Greater information exchange, knowledge sharing and transparency	32%
More fulfilling jobs	28%
More equal opportunity for jobs	28%
More jobs available	27%

The Risks Of Advanced Technologies

Which of the following do you see as the greatest threats to society as a result of tech-driven growth?

(Respondents could select up to three options.)





Executives also recognize that the adoption of advanced technologies comes with significant ethical and legal challenges. While 51% see opportunities for their companies in AI and automation, 44% acknowledge the associated ethical difficulties. This pattern is repeated across big data, customer/user experience and new business/delivery model technologies (Figure 6). Less clear to executives we surveyed is how to practically address these risks within their businesses.

FIGURE 6

Technological Opportunities Introduce Ethical Challenges

Which of the following technologies present the greatest opportunities for tech-driven growth and the biggest ethical challenges to your business?

(Respondents could select up to three options.)



As executives continue to embrace advanced technologies, it is critical that they build ethics into the DNA of their business. Regulators across the globe are still grappling with the risks, but in 2019 there were a significant number of legal developments regarding technology, including publication of legislation and ethical guidelines for Al. Businesses must be prepared (See: Tech Ethics: Ignore At Your Peril).

Jonathan Kewley On Tech Ethics: Ignore At Your Peril



The sustainable use of technology is something every CEO needs to engage with, and fast. Customers, employees, shareholders and investors are paying more attention than ever to ethics and values. They care about doing the right thing. Not just what is legal, but what is right.

It's common to see this discussed in the context of environmental, social and governance (ESG) principles, but technology has somehow been left off the list. This needs to change.

At the creation or deployment of any new technology, businesses should have some basic, irreducible principles that protect the people exposed to it. Think of this in the same way as building a car if it crashes, it will protect the people inside. Safety is "designed in," otherwise the product cannot go to market. In the same way, technology must be peoplecentered and ultimately protect, not harm.

This requires a systematic rethink of traditional governance and compliance structures. Tech ethics put people before profit in the short term and require developers, coders, innovators and technologists to look at their work through a new lens. This might slow projects down, but in the long term, it will be the companies that adopt this approach that gain market advantage and win the trust of their customers.

Jonathan has wide-ranging experience in helping clients with complex tech projects, spanning M&A, fintech, IP, and business carve-outs. He regularly advises companies on tech ethics, data, AI, cybersecurity and blockchain regulation.

Regulators: Enabling Progress

"Our business model is a virtuous cycle: We invent, we protect through patents, we license, and then we use the licensing royalties to reinvest in the next generation of technology. Without a rule of law globally to make sure that patent rights will be protected, valued and enforced, our business model cannot work."

DONALD ROSENBERG

Executive Vice President, General Counsel and Corporate Secretary, Qualcomm

Regulation is often associated with impeding and restricting activities, but it can also bring clarity and certainty. "Companies are worried that if they embrace new technologies, regulators may clamp down later," says Samantha Ward, Litigation Partner in Clifford Chance's Tech Group. "They want to do it in the right way from the start so that it is sustainable and avoids issues further down the line."

Our survey shows very different attitudes to tech regulation across the globe. Among U.S. respondents, there is a perception that regulators are lagging behind technological advancements. Many American executives believe the U.S. is taking a laissez-faire approach—38%, the largest percentage from any region, say that there are too few regulatory and industry standards regarding technology (Figure 7).

In the highly regulated European market, executives are evenly split between those who believe there is too much regulation (32%) and those who feel there is too little (33%). Notably, European regulators are taking a consistent approach to data protection, as demonstrated by the EU's General Data Protection Regulation (GDPR) legislation, which protects the personal information of individuals. Meanwhile, competition authorities in Australia, the EU and the U.S. are pushing for their respective "enforcement toolkits" to be expanded to allow for a greater degree of scrutiny of tech-related M&A activity. "Proposals to introduce additional regulation and antitrust rules governing the conduct of tech companies is sparking concerns of overregulation which could stifle innovation and deprive young tech companies of much needed funding," says Nelson Jung, Antitrust Partner in Clifford Chance's Tech Group.

FIGURE 7

How Executives Feel About Regulation

There are too many regulatory and industry standards	арас 44%	EUROPE	UNITED STATES 25%
There is the right amount of regulatory and industry standards	31%	35%	37%
There are too few regulatory and industry standards	25%	33%	38%

In the Asia-Pacific region (APAC), where regulation is strongest, 44% of executives—the largest percentage from any region—believe there is too much regulation. "In Asia, there is a jigsaw puzzle of different standards for outsourcing, data privacy or intellectual property protection," says Clifford Chance's Paul Landless. "This makes overregulation a natural outcome."

Our survey also reveals that U.S. and European executives feel less equipped than their APAC counterparts to deal with regulatory issues related to advanced technologies. This includes big data and automation as well as connected devices and new business/delivery models (Figure 8).

For Jonathan Kewley, Partner and Co-Head of the Clifford Chance Tech Group, this is not a surprise, given that "where there is regulation, even if it is intense regulation, people feel more prepared."

FIGURE 8

Preparedness For The Legal And Regulatory Impacts Of Advanced Technologies

How well equipped is your business for dealing with the legal and regulatory issues associated with the following technologies?

(% well or extremely well equipped)

	APAC	EUROPE	UNITED STATES
Big data	54%	39%	39%
Automation	54%	41%	41%
Connected devices	53%	44%	40%
New business/ delivery models	44%	39%	38%



Paul Landless adds that strong regulation in the APAC region provides companies with an advantage because it creates certainties, leading to more precision about capital commitments. Ethical standards around AI in Singapore, for example, have moved the conversation to a higher level. "In the banking and financial services space, some of the questions around 'Is it legal to do this?' have been overtaken by 'Is it right to do this?'" he says.

At Qualcomm, a U.S. semiconductor company that designs telecommunications products, regulation is of prime importance. Every year, the company invests 20% of its revenues in research and development and derives the bulk of its profit from its patent licensing businesses. As Donald Rosenberg, executive vice president, general counsel and corporate secretary, explains, "We don't file patent applications in every country. We analyze where we think it's most important to file our patents, and our decision making considers the state of the rule of law in that particular jurisdiction from a patent protection perspective."

Many technology companies, especially those with the most groundbreaking, tech-driven business models, find the global regulatory environment more constrictive than Qualcomm. Some of the biggest and most innovative technology companies have become well known for run-ins with regulators globally because of regulators' unpreparedness for these organizations' new business models and the tech companies' tendencies to push legal and regulatory boundaries.

Among them are "shared economy" companies, such as ride-sharing apps and online lodging marketplaces. Both have been embroiled in multiple regulatory-driven disputes worldwide. In London, for example, a ride-sharing company lost its license for the second time over safety concerns, and an online lodging marketplace has faced challenges from authorities in several European cities.

CLIFFORD CHANCE VIEWPOINT

Dessislava Savova On Aiming For The Highest Levels Of Compliance



We need to work toward creating global, cohesive standards in data and Al regulation. In the meantime, companies that want to scale their businesses globally should be looking to the highest level of regulatory compliance globally, not the lowest. Designing products carefully and thoughtfully to comply with a complex regulatory landscape will make them easier to sell. Technology buyers want to know if vendor sites are secure, if their clients will understand and approve of how their data is being used, and if the systems can be switched off if something goes wrong.

Companies that consider regulation from the inception of a product and involve other business functions (not just the legal team) in understanding how to create products that meet regulatory compliance will grow their business as a result. Those who do not aim for the highest levels of compliance globally may soon find themselves unable to launch a product or enter new markets, or even be forced to withdraw products. It is time to make a long-term strategic decision, and invest in pursuing compliance at the highest levels as a key factor in the success of a business.

Dessi specialises in new technologies, and accompanies clients in their digital transformation and in designing and implementing their strategic data, cyber and AI projects.

Getting Involved: The Role Of Business In Regulation

When it comes to the role of business in technology regulation, executive opinions vary by region.

U.S. executives are more likely to believe businesses should be more involved (39%), followed by executives from the EU (35%). APAC executives, who work within a precise, business-friendly and fast-enacted regulatory environment, are less inclined to see a role for business in developing technology regulation (27%) (Figure 9).

FIGURE 9

How Executives Feel About The Involvement Of Business In Regulation

	ΑΡΑϹ	EUROPE	UNITED STATES
Business has struck the right balance in terms of its involvement in technology regulation	37%	37%	39%
Business should stay away from technology regulation	36%	28%	22%
Business should become more involved in regulating technology	27%	35%	39%

In the U.S., the hope is that with business involvement, regulations, once enacted, will better answer the needs of businesses and also protect society in the future. "A good company should not only try to comply with the regulations we have today, but really think about what the regulations should be and what could go wrong with technology," says Surya Mohapatra.

"It's essential for businesses to be involved in regulation, and not only because they need to shape it in a way that's beneficial to them, but because any regulation that comes out is only as good as how effectively it can be implemented," adds Clifford Chance's Megan Gordon.

CLIFFORD CHANCE VIEWPOINT

Megan Gordon On The Legal Pendulum Swings In The U.S.



U.S. business is beginning to pay the price for outdated regulations in the technology arena. U.S. authorities are bringing enforcement actions by trying to fit a square peg in a round hole wrapping old sets of regulations and outdated regimes onto new technologies. This means that companies don't have much certainty. Once you have an enforcement action out there, others will follow. Nobody wants to be the test case enforcement action that the regulators decide to use to make a point.

The lack of nationwide regulations that apply to data, for instance, means that individual states in the U.S. are taking up such regulatory issues, and this leads to fragmentation. Although they typically would not favor regulation, in this case, U.S. companies really do want federal legislation. The alternative is dealing with every different state putting forth different regulations and not having a nationwide standard. Companies will need to take the lead in terms of thinking about ethics and saying what's right and wrong because relying on the government to do that is going to take too long given the pace of change in technology.

Megan is a data privacy and cybersecurity investigations specialist. She advises multinational companies on how to manage data risk exposure, and designing and implementing their compliance programs.

Workforce Of The Future: A Generation Destroyed Or Empowered?

"The biggest opportunity for creating an equitable society is the collaboration between people and technology. We spend a lot of time talking about the rise of technology and the (perceived negative) impact that it will have on work. But the reality is that if we think about it in the context of people plus technology, then we're going to be able to create more positive opportunities for societies and workforces."

RENEE MCGOWAN

CEO Asia, Mercer

The growth of advanced technology will have a massive impact on jobs. The economist Daniel Susskind argues in his new book, A World Without Work: Technology, Automation and How We Should Respond, that we face a future when most human work will be displaced by machines and that we are vastly underestimating the negative effects of technology. The historian Yuval Noah Harari, author of Sapiens, paints an equally bleak picture involving the rise of a "useless class" of the jobless and the aimless.

Whether overall net job losses will materialize is a matter of debate. Some experts stress that technology advancements will lead to more job creation than elimination. The World Economic Forum, for example, says that while 75 million jobs will be displaced by machines and algorithms by 2022, 133 million new roles will be created.⁴

The business leaders we surveyed are aware of the impact that tech-driven growth may have on employment—25% of executives surveyed expect that automation will lead to net job losses, and 20% recognize that their employees are concerned about the future of their jobs.

While businesses may not be addressing the future of jobs as a social issue, many are giving employees technology tools that make their jobs easier or are ensuring employees learn the technology skills they'll need.

At American Water, field employees directly helped develop digital tools that allow them to immediately reference their customers' water usage, service information, potential water quality and meter problems and other data to help solve customer issues on the spot.

^{4 &}quot;Machines Will Do More Tasks Than Humans by 2025 but Robot Revolution Will Still Create 58 Million Net New Jobs in Next Five Years," World Economic Forum, Sept. 17, 2018.

"Employees adopt[ed] tools more quickly because they took part in developing them. We also get a tremendous amount of input about the needs of our customers from our frontline employees, and we put that feedback into these tools," says Story, asserting that strong employee engagement translates into customer satisfaction. "Utilizing our frontline employees and their input to develop these tools, and not have it be top-down, has made a world of difference."

Businesses acknowledge that they cannot solve all the issues related to jobs, training and education by themselves. Roughly a third of executives surveyed believe that governments and lawmakers need to support tech-driven growth by introducing a basic universal income and obligatory training, reskilling and education requirements for businesses.

However, Renee McGowan, CEO Asia of human resources consulting firm Mercer, told us: "Regulators and governments are not equipped at the moment to keep up with this pace of change across a broad range of industries. Organizations and regulators need to get far more deliberate about working together and recognizing that they've got these operating imparities."

Dealing With The Unknown: Are Boards Ready?

"Very rarely does a good board and good management team sit down and say, 'What you are doing is the best and everything else is wrong.' You have to bring some healthy skepticism to your own process, to your own progress and challenge yourself. The board and the management have to really test themselves."

SURYA MOHAPATRA

Independent Director, Xylem Inc. and Leidos Inc.; Former Chairman and CEO, Quest Diagnostics

The legal and regulatory issues associated with tech-driven innovation are accelerating so fast that 55% of executives believe that boards and management will need to devote more attention and resources to them. Additionally, 53% believe that understanding the legal and regulatory issues associated with advanced technologies will be key to maintaining a competitive advantage in the future.

However, most respondents to our survey acknowledge that they have a long way to go. Currently, less than half believe they have strong in-house capabilities to deal with the legal and regulatory issues of tech-driven growth. Additionally, when looking at specific technologies, only 52% believe their boards have a high level of expertise in automation, 49% in big data and 45% in connected devices (Figure 10).

All of which suggests that management teams and boards need new skill sets and possibly a more creative way of thinking about risk strategy. Leaving this to the next generation may be too late.



believe understanding the legal and regulatory issues of advanced technologies will be key to maintaining a competitive advantage

Preparing To Deal With The Unknown

In your opinion, what is the level of expertise across your board of directors regarding the following issues?



How do you assess your current in-house capabilities in terms of the legal and regulatory issues relating to tech-driven growth?



(% good or substantial capabilities)

Board Development: New Skills, New Blood

To successfully grow with advanced technologies, businesses need to increase their focus on the opportunities these tools provide while at the same time educating their board members on the evolving risks and regulatory environment.

"[As board directors], we need to keep ourselves abreast of some of the governance changes that are in the works, such as data privacy, so that we are never caught by surprise. For this type of information, I would go to a prominent law firm to provide us with relevant education," says Mohapatra.

In addition, Qualcomm's Rosenberg told us: "We invest enormous amounts of money in long-term research and development, and our board needs to understand both how our company is currently performing and what our plans are for the future. Our board has regular sessions not only with the CEO and the business heads, but also with technologists who come and describe what our company is working on. Questions are asked and answered and the board members get a good sense about our direction."

Our survey shows some companies are starting to increase the collaboration between technology executives and their boards as well as enhance technology-focused scenario planning and business resilience. However, fewer have changed the composition of their boards or reshuffled committees' responsibilities to account for technology innovation (Figure 11).



Solutions Firms Have Adopted/Are Adopting To Deal With The Threats From Tech-Driven Growth

Enhanced the collaboration between the board and top IT executives on technology-related issues	43%
Started/enhanced technology- focused scenario planning and business resilience exercises for the board	41%
Made sure that technology- related issues are handled as part of the overall corporate risk program	40%
Added an advisory committee to focus on technology-related threats	39%
Introduced new technology-focused board committees	36%
Enhanced the collaboration of the board and top management on technology- related issues	35%
Introduced technology- focused seminars for the board with external experts	33%
Elevated the importance of technology-related issues	31%
Added technology experts to the board	30%
Rearranged responsibilities of the board committees regarding technology	29%

Ling Ho On Bringing The Boardroom And The Back Office Closer Together



Boards are very much focused on the front-office issues around products and customers, but they have underestimated and are underprepared for risks associated with back-office systems. Companies need to rebalance their reporting and accountability lines to bring the boardroom and the back office closer together.

Traditional, established companies are trying to digitalize and modernize, but they are struggling to recalibrate the workings of their culture and organization around the back-office function.

The operational difficulties caused by the fragile state of old IT systems are a source of risk and raise serious resilience questions. Equally important, businesses need to understand the data they have, where it is and how it gets from "A" to "B" between different business units. Additionally, third-party vendor risk with respect to back-office technologies is becoming more acute as companies increasingly surrender their own IT strategies to external vendors. The external dependency, the lack of understanding and the difficulties of combining that external function with internal complexity all mean that businesses are creating major vulnerabilities—and boardrooms need to take note.

Ling advises clients on intellectual property related matters with a particular focus on IP, cyber, tech disputes and risk management.

In Summary: Proactive Approach To Tech-Driven Growth

To continue to grow and thrive, companies must take a proactive approach to tech-driven growth.

Here's how:

Set the right pace for your business

Business leaders are using advanced technologies without always understanding the risks and consequences. To succeed, companies need to focus on the right level of collaboration, recognize the overall impact of advanced technologies and focus on auditing and testing much more readily. Deep understanding will give deep protection against future regulation.

Make technology part of your values

Tech-driven growth is having an impact on much more than companies' balance sheets. It is affecting how society functions and how people live and work. While executives are divided over how technology will influence the society of the future, those who build ethics and social responsibility into their DNA will be the long-term winners.

Aim for the highest levels of compliance

Without a cohesive global road map for the ethical implementation of advanced technologies, executives face uncertainty. Some jurisdictions have put into effect more stringent or progressive regulations than others, and some companies have grown due to lax regulations. In the future, companies need to aim for the highest levels of compliance. They should see this as a global risk, not just a country risk, and should invest time and effort in dealing with it.

Develop your management teams & boards

Just half of boardrooms have top technology expertise around the table, and only half of companies have in-house capabilities to deal with the legal and ethical aspects of tech-driven growth. Boardrooms and management teams need to focus on increasing the tech expertise and capabilities in the room, bringing in new perspectives and testing "groupthink."

Methodology

The research in this report is based on a Forbes Insights survey of 300 senior business executives from around the globe, undertaken in June and July 2019. Respondents came from China, France, Germany, India, Japan, the United Kingdom and the United States. All of the executives are C-level officers, including CEOs (14%), CFOs (15%) and CIOs (15%). Executives represented all major industries, including financial services, consumer goods & retail, energy & resources, healthcare, life sciences & chemicals, industrial products/manufacturing, private equity, infrastructure, telecommunications, media & technology, and transportation & logistics. All are from companies with revenues of at least \$1 billion, including 20% with revenues of \$10 billion or more.

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If you would like further information or to discuss the issues outlined in the report with one of our tech law experts please email ReadySteadyGrow@cliffordchance.com.

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