

2019 Communications, Media, and Technology Risk Study

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Welcome to Marsh's *2019 Communications, Media, and Technology Risk Study*. Over the past year, the digital transformation of the global economy has accelerated. Voice assistants have moved beyond smart speakers and are being licensed for integration into everything from cars to a host of consumer devices. Industrial IoT is taking off, with businesses deploying sensors and connected devices for all aspects of real-time business intelligence, from supply chains to production facilities.

Communications, media, and technology companies are providing the platforms and connectivity to power this shift. But as the lines between physical and digital blur, new and more acute risks should be quantified and managed. Liabilities in a digital world are less clear, and risks are more complex.

To understand how these shifts affect companies' risk management decisions, we surveyed more than 175 risk professionals and other CMT executives globally. We thank all of those who participated in this year's survey.

If you have any comments or questions about the results or our interpretations, please drop me a line at the address below or reach out to your Marsh representative. You can also send us a Tweet to @MarshGlobal using the hashtag #MarshCMTRisk.



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What Will Drive Risk in 2019?



5G Networks

The rollout of 5G will bring wireless speed and capacity that can compete with wired broadband. This new technology will disrupt wired internet providers, stoke demand for capable hardware, and increase the expectation of seamless, immediate access to all networks, software, and information. What new services will emerge to take advantage of this new connectivity?



China's Innovation Rise

China's push into AI shakes up the status quo and pushes the nation forward as an innovation leader, not just a low-cost production hub. China's largest tech companies are growing at a rate exceeding the largest tech companies in the US. Will this drive even deeper investment into R&D in more established technology companies?



Fracturing Global Supply Chain

Climate change, geopolitical instability, rising US tariffs, and increased automation are shaking up how and where technology is produced. How will companies adapt to a less stable global supply chain at the same time that global demand for new technology is increasing?



Increasing Contractual Responsibility

As technology becomes ubiquitous and customers place greater trust in its functionality and accessibility, product failures will create more acute consequences for all companies. Users are looking to partners to make reparations for interrupted functionality, whether the cause is environmental, negligence, or hacking.



Expanding Regulations and Increasing Fines

New global regulations — including the EU General Data Privacy Regulation (GDPR) and California's Consumer Privacy Act — show an increasing interest in tightening how companies use consumer data. Global regulators are levying larger fines against technology companies for allegations of antitrust violations and data privacy misuse. These new regulations and larger fines could drastically increase regulatory risk moving forward, especially as CMT companies move into more highly regulated areas such as transportation, medicine, and financial services.



Fake News Gets More Real

The use of AI to create "deep fake" content, including videos, will make it harder for consumers to identify fake videos and more difficult to block fabricated news reports from technology platforms. The persistence of fake content undermines trust in legitimate news and social media platforms and further fragments the media landscape. Advertisers are also wary of seeing their brands next to fake content, which could affect the revenue models of platforms that cannot control misleading content.

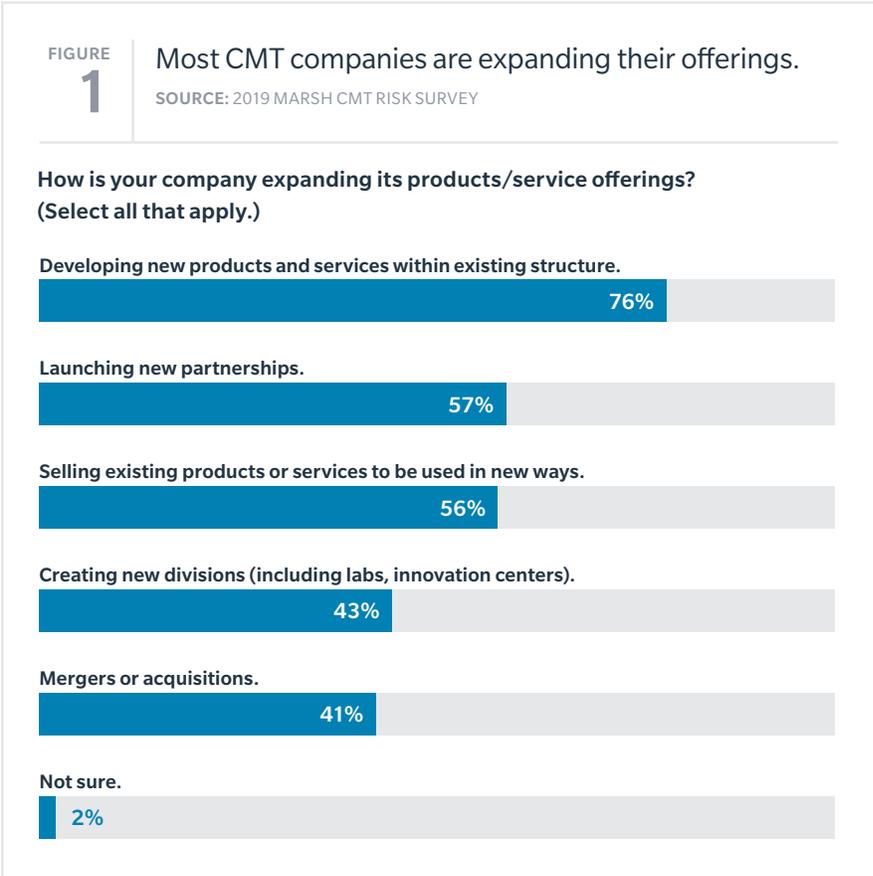
CMT Companies Expanding Products and Services in Multiple Ways

CMT companies continue to play their core role in technology innovation and deployment, whether they are rolling out new products and services or selling existing ones in new ways, according to respondents to the *2019 CMT Risk Survey* (see Figure 1). Nearly every respondent said their company is expanding its offerings, with most using multiple strategies to do so.

More than 70% of respondents report they are developing new products and services through existing structures. For example, traditional cable and wireless providers are expanding their product bundles to include security services, smart home support, and out-of-home wireless hotspots. Nearly 60% of respondents say their companies are launching new partnerships, such as alliances between technology companies and automotive manufacturers to develop autonomous vehicles.

Others are selling existing products and services in new ways. Companies that develop connectivity components are seeing their products used in a wider range of devices and industries, such as connected medical devices, industrial IoT factories, and retail supply chain solutions. With that come new risks, including risks that have shifted from humans to machines and software.

CMT companies are also embracing the “lab model” to develop innovations. A little more than 40% of respondents are developing new divisions to create innovative products and services. Innovation labs at technology companies created some of the most prevalent technology in use today.



Mergers and acquisitions continue to be a means to expand product and service offerings. Some in the semiconductor segment seek economies of scale through consolidation, while communication services and technology companies may acquire a media company to gain original content libraries.

For risk professionals, the lesson is clear: You should be engaged as new products and services are developed, add strategic value throughout the business cycle, and push for innovations to help assess, quantify, and finance new risks.

Given the variety of expansion sources, a challenge for risk professionals is to stay on top of and even get ahead of new risks. To meet these challenges and help their companies stay on top, risk professionals should strive to add value to the business by assessing, quantifying, and delivering innovative risk solutions.

Fluid Risk Assessment

When companies roll out new products and services or deploy their products and services into new industries, it creates new risks or alters existing ones. And yet, only one-third of respondents said their companies have a formal process to assess the risks around new products and services (see Figure 2). Too often, risk management appears to be learning of changing business models after the change has been implemented. Consider that 45% of respondents use external announcements to stay abreast of change.

Even in companies with a formal information sharing process, the pace of change and innovation in these companies is often too fast for any risk department to be informed in advance

on all announcements. They still may learn of new products and innovations from external announcements. 45% of respondents said they use multiple tools — both formal and informal — to track new products and services.

The key at CMT companies is how risk management reacts once a change or innovation is announced. The ability to have a process to assess and manage risks that become evident only after new products or services are launched is paramount. Risk management must be seen as taking the risk out of innovation. It must develop an agile mindset as many business decisions will be made quickly with risk management only able to respond after the fact. Enable the business to say

“yes” with confidence, and fall back on risk transfer when things don’t go as planned.

Often innovation at CMT companies exposes them to new liabilities from the industries their products and services are deployed in, whether from disrupting that industry or being integrated into it. Thus, CMT risk managers should look to such things as claims history in other industries to help assess and model risks that technology failures might trigger. If your product is now being used in medical devices, you should consider the liabilities and claims in medical device companies to properly assess your new risks. If there is an automobile recall, can it be blamed on a coding error in your software? You should understand claims in the automotive industry.

Another promising and underused tool for risk modeling is scenario planning, which allows for an evaluation of various changes in products and services. Just getting into a room with a group of people and white boarding the risk can add value. Historically based data and analytics can’t account for massive seismic shifts and the resulting business risks. You need to scenario plan for what could go wrong — and then look across multiple data sources to quantify the impact of a broad range of technology and product failures.

With new products and services being deployed rapidly in the CMT space, the lack of a formal process — underpinned by data, analytics, and modeling — to assess and identify new risks can leave risk management departments out of touch with what is happening in the business. In turn, companies face the prospect of being unprepared should something go wrong.

FIGURE
2

Most companies lack a formal process to assess risks for new products and services.

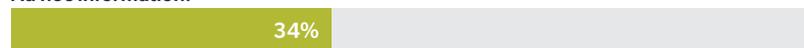
SOURCE: 2019 MARSH CMT RISK SURVEY

How do you assess new and emerging risks related to the products and services which your company develops?

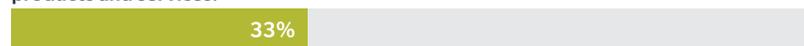
Risk management follows internal announcements and external news sources to learn about our products and services.



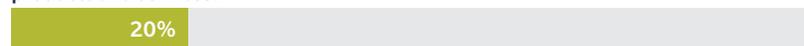
Ad hoc information.



We have a formal process to inform risk management of the end use of all our products and services.



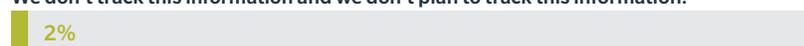
Risk management analyzes sales data to identify likely uses of our products and services.



We don't track this information but we should.



We don't track this information and we don't plan to track this information.



“The ability to have a process to assess and manage risks that become evident only after new products or services are launched is paramount.”

Technology Failures Drive Top Risk Concerns

Nearly all of the top risks for communications, media, and technology companies relate to developing, securing, and maintaining new technology solutions (see Figure 3). For the fourth straight year, data security and privacy tops the list of concerns, which is not surprising given the daily drumbeat of reported cyber-attacks, losses, and related new regulations.

And these risks continue to increase in complexity. Respondents expect that the risks ranked of highest concern now will also be the ones of most concern in the next three to five years.

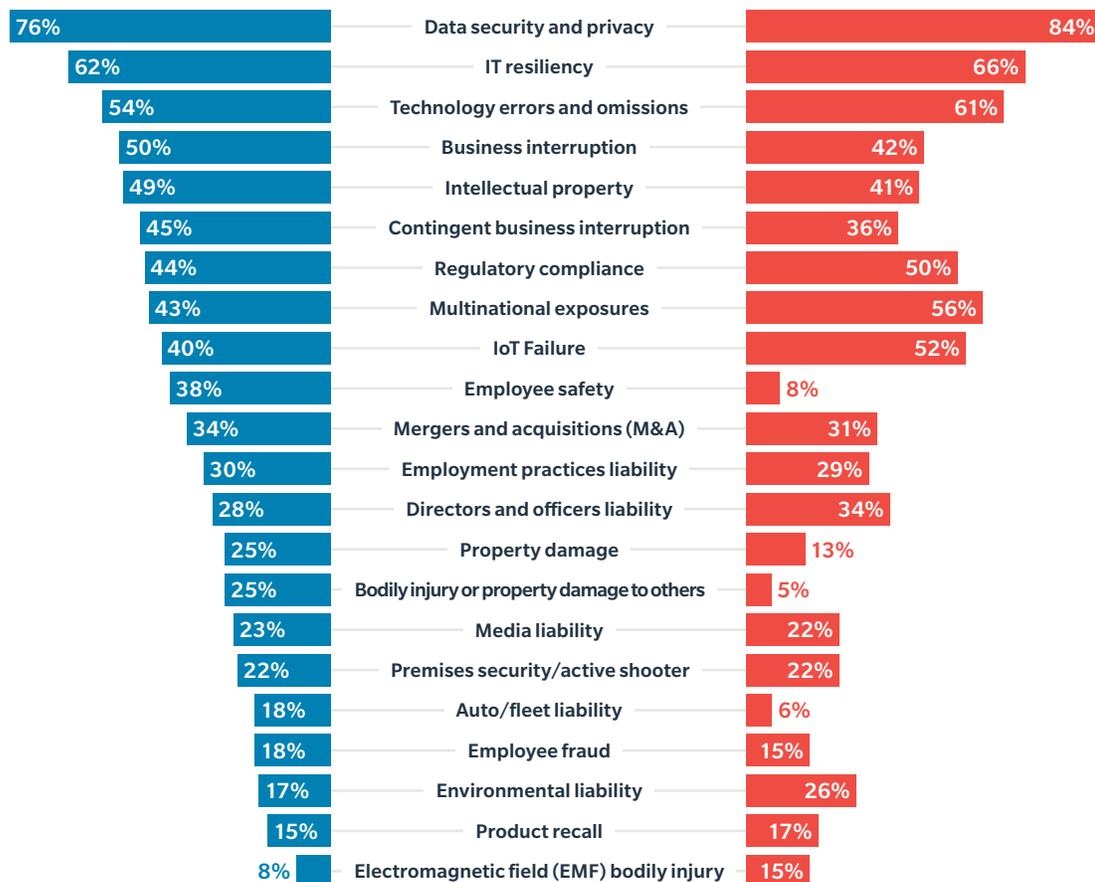
FIGURE 3

Top CMT risks have connections to developing and deploying new products and services.

SOURCE: 2019 MARSH CMT RISK SURVEY

How do you view the following risks to your company? How do you view the following risks changing in the next three to five years?

■ Risks of high or highest concern
■ Growing complexity



Percent of respondents selecting the risk as a high or highest concern.

Percent of respondents expecting risk to increase in next 3-5 years.



Respondents Lean Toward Preventing vs. Transferring Risks

An interesting pattern emerged regarding how a company should split its risk management investment, breaking down into two buckets: 1) identifying and preventing risk, and 2) responding and transferring it. Overall, there was a stronger leaning toward “identify and protect” than might have been expected among the 20 risk areas asked about (see Figure 4).

Half the respondents say that 75% or more of their company’s time and investment should be spent identifying and preventing risks. Another 17% say that 75% or more of their company’s time and investment should be spent transferring the risk. And 33% said there should be an even split between identify and prevent and respond and transfer.

It’s safe to assume that investments in risk identification and prevention support companies’ desire for uninterrupted growth and a positive reputation with both customers and key stakeholders. At the same time, some companies invest more in identifying and preventing risks than transferring it through an insurance product, showing, perhaps, a lack of sufficient return on investment from available insurance solutions, especially products related to technology risks.

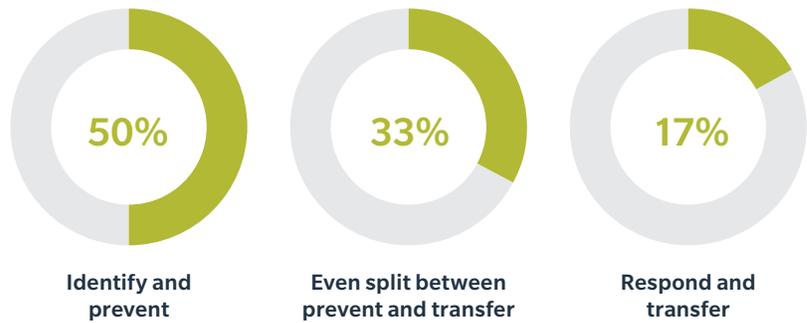
Of the top 10 risks, only employee safety rated as having an available insurance solution that is mostly aligned or well-matched to it (see Figure 5). The insurance solutions available for other risks were seen as being only somewhat relevant or as being completely ineffective.

FIGURE 4

Risk identification and prevention often overshadowed by response and transfer.

SOURCE: 2019 MARSH CMT RISK SURVEY

Where do you invest more of your effort (time and capital): Identify and prevent risk vs. respond and transfer risk?



The risks for which insurance solutions were rated the least effective were generally in areas that respondents deemed as their top risks, including data security and privacy, IT resiliency, and IoT failure. The most “traditional” coverage areas, such as property, D&O, and auto liability rated highest in terms of satisfaction with available solutions.

Dissatisfaction with insurance solutions available today are mostly related to policy terms and conditions that are not aligned with rapidly evolving/emerging loss triggers or event scenarios. CMT companies also face critical policy exclusions that are not evolving to meet the new risks.

FIGURE 5

CMT companies looking for insurance solutions better aligned to their needs.

SOURCE: 2019 MARSH CMT RISK SURVEY

For those portions of risk being transferred, how would you rate currently available insurance solutions?

■ Risks of high or highest concern

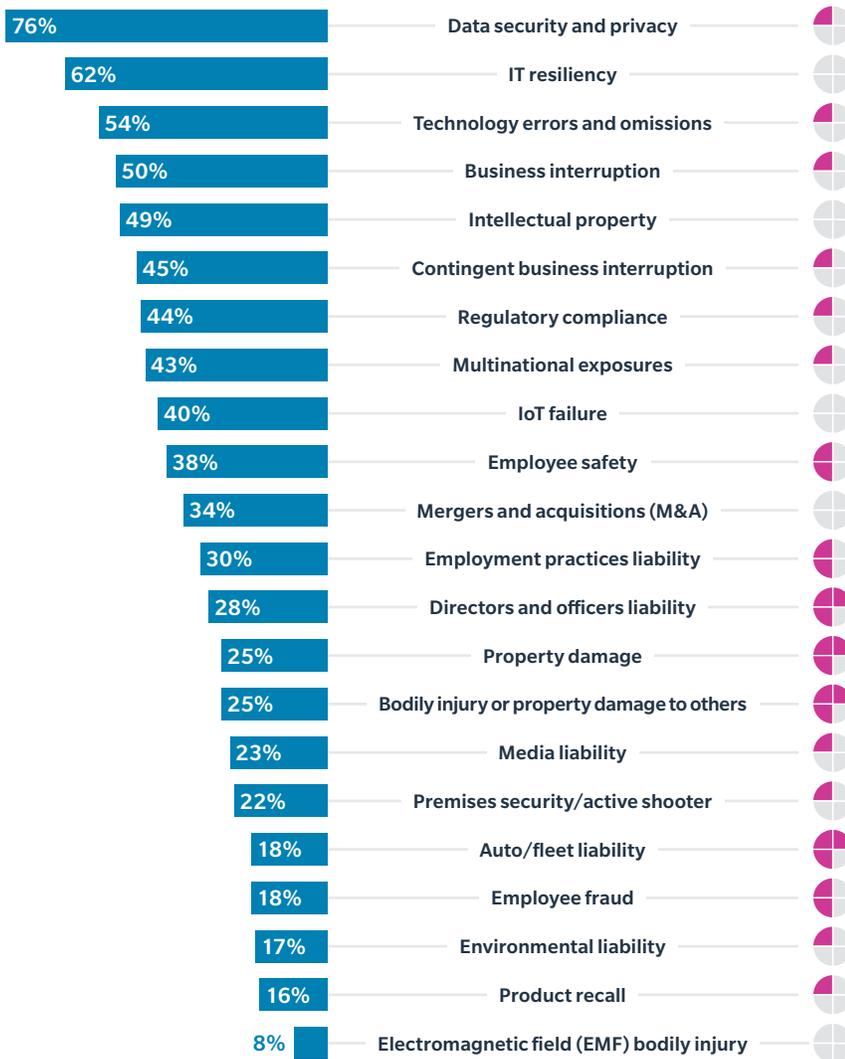
■ Solution rated “mostly aligned” or “well-matched to the risk”*

○ *0-25%

○ *25-49%

○ *50-74%

○ *75-100%

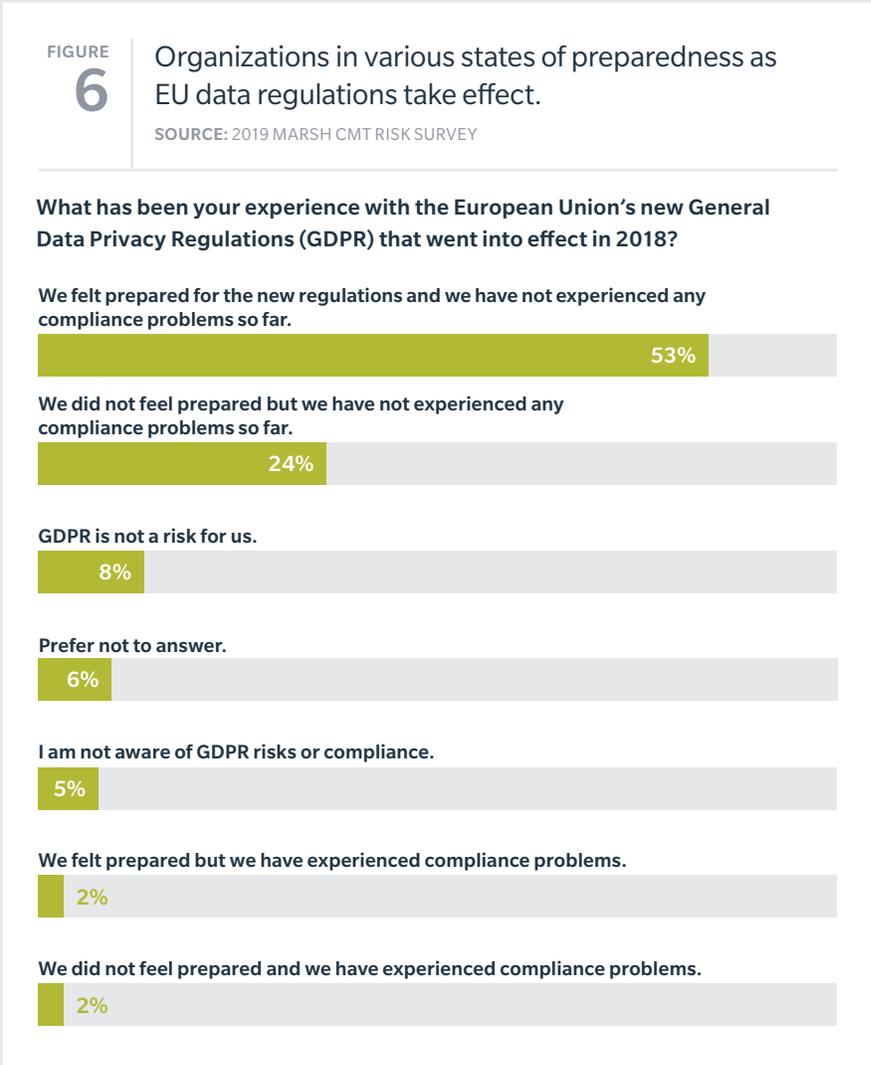


Most Companies Felt Prepared for GDPR as Regulations Flourish

Regulation ranked high on the list of risk exposures for CMT companies again in 2018, the year in which the EU General Data Protection Regulation (GDPR) came into effect. Relatively few survey respondents said they experienced compliance problems in the regulation's first few months, but more than 20% indicated that may have had more to do with luck than preparation: Just over 50% of respondents said they felt prepared for the GDPR (see Figure 6). In future years, given the size of potential fines and the expanding regulatory environment, companies will most likely need to do more to prepare for increasing regulations.

Most CMT organizations expect regulatory risk to increase in the coming years. For example, a new privacy law enacted in California is set to become the most stringent and comprehensive piece of data protection legislation in the US, referred to by some as the US GDPR. The California Consumer Privacy Act (CCPA) takes effect January 1, 2020 and will, among other things, give consumers the right to know what personal data is collected, how and why it is being collected, and with whom the data is shared. Consumers will be allowed to access their data, request that it be deleted, and prevent it from being sold to third parties.

And with similar regulations being discussed in other jurisdictions, organizations will need to prepare for a range of compliance issues. Not being aware of coming regulations or not being prepared for them is not a viable option.



“Given the expanding regulatory environment, and, specifically, the size of potential fines and penalties, companies must formalize their approach to regulatory risk management.”

Realignment vs. Alternative Risk Solutions

Given the continued increase in risk complexity, evolution of business models, and level of dissatisfaction with some risk transfer options, what are companies doing? The top changes respondents are making have to do with their risk transfer programs: expanding terms and conditions, changing limits, and

purchasing new towers of liability (see Figure 7). These are traditional approaches to risk management and can be effective, but companies should bear in mind that as products and services expand to new industries, their liabilities are also expanding. Traditional approaches might not be enough to tackle these risks.

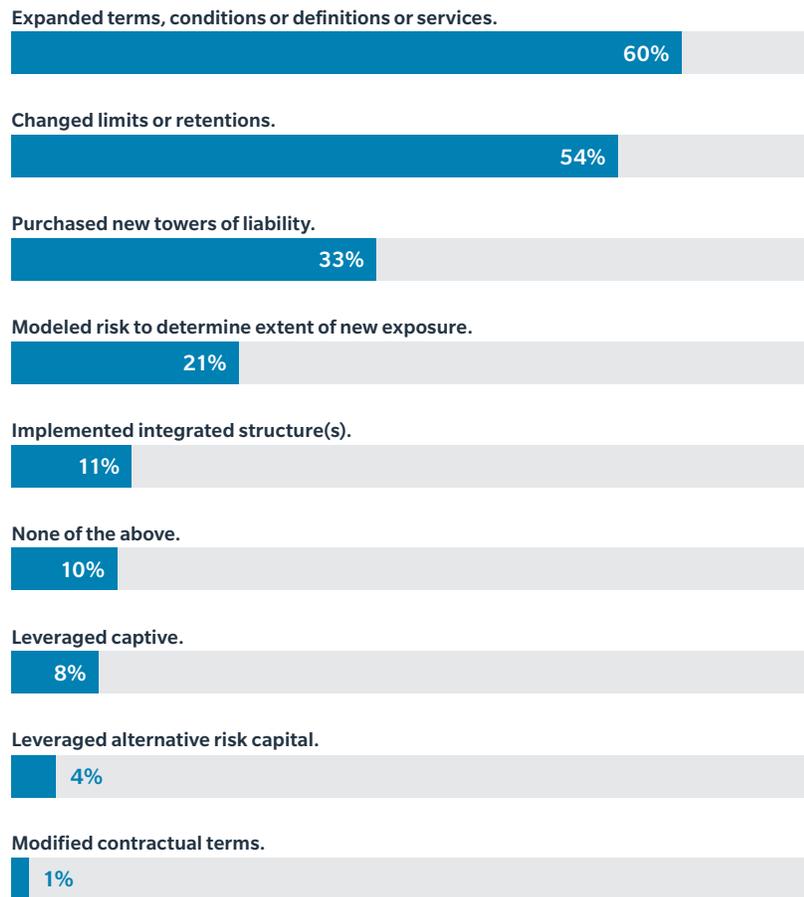
Few appear to be making use of available innovations in such areas as risk modeling or alternative risk transfer. As CMT companies push the boundaries of innovation, they are concurrently pushing beyond the boundaries of traditional, silo-driven insurance solutions and accompanying underwriting models.

FIGURE 7

CMT companies are more likely to change insurance program components than to model new risks.

SOURCE: 2019 MARSH CMT RISK SURVEY

How have you adjusted your risk management program in response to how your products or services are being deployed? (Select all that apply.)



As CMT companies risks evolve, we believe successful companies will be those that explore new approaches to risk assessment and aggressively explore alternative program structures and sources of risk capital.

FINANCING RETAINED RISKS

For the risks that a company decides not to transfer, there are a limited number of ways to finance a loss should it occur. For CMT companies, cash on hand — sometimes built in as a specific line item in a budget — was the top choice among survey respondents for where those funds would come from (see Figure 8). CMT companies would next turn to existing lines of credit, or make new debt or equity offerings.

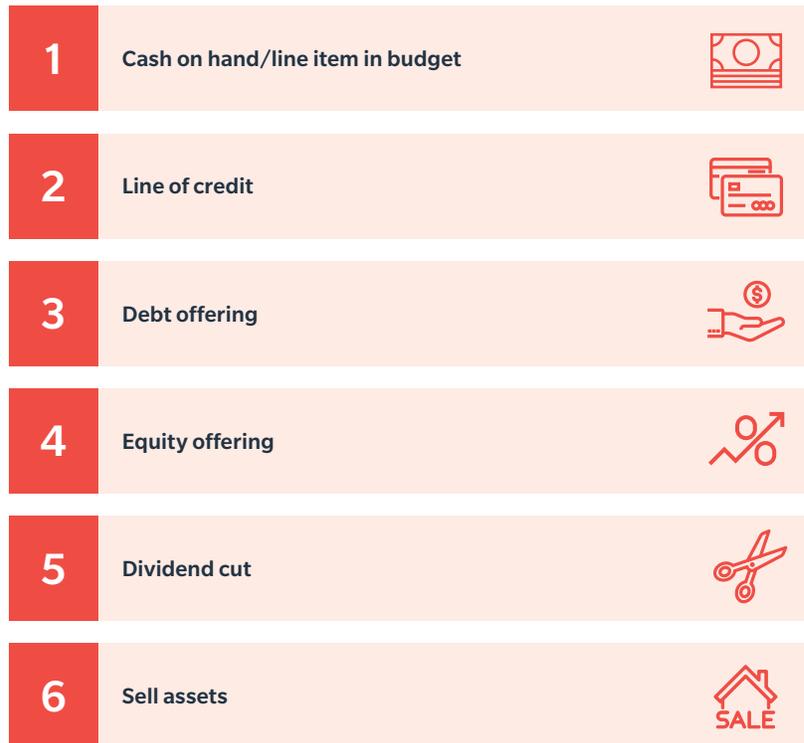
However, these sources of funds may be better directed toward innovation and other business improvements, not paying for an insurable loss. And while we often hear of the margins and large amount of cash-on-hand for leading CMT companies, we are also well aware that the priority is for this cash to be available to fund growth, as opposed to off-strategy losses.

FIGURE
8

Companies looking to cash on hand for retained risks.

SOURCE: 2019 MARSH CMT RISK SURVEY

**When you have a loss to retain (fully or partially) where do you look for funds?
Rank in the order of expectation.**



Convergence and Expanding Ecosystems

As technology becomes further engrained in society and CMT companies continue to innovate, they find themselves operating in multiple sectors (see Figure 9).

In some sectors, every respondent was involved in multiple areas. For example, data processors are no longer just processing data, and are overlapping into software, search and information services,

and media. Even hardware and electronic component companies are seeing the value of data, as seen in the overlap in these sectors.

The increasing complexity of overlap among CMT sectors further demonstrates the need to understand new liabilities and interconnected risks.

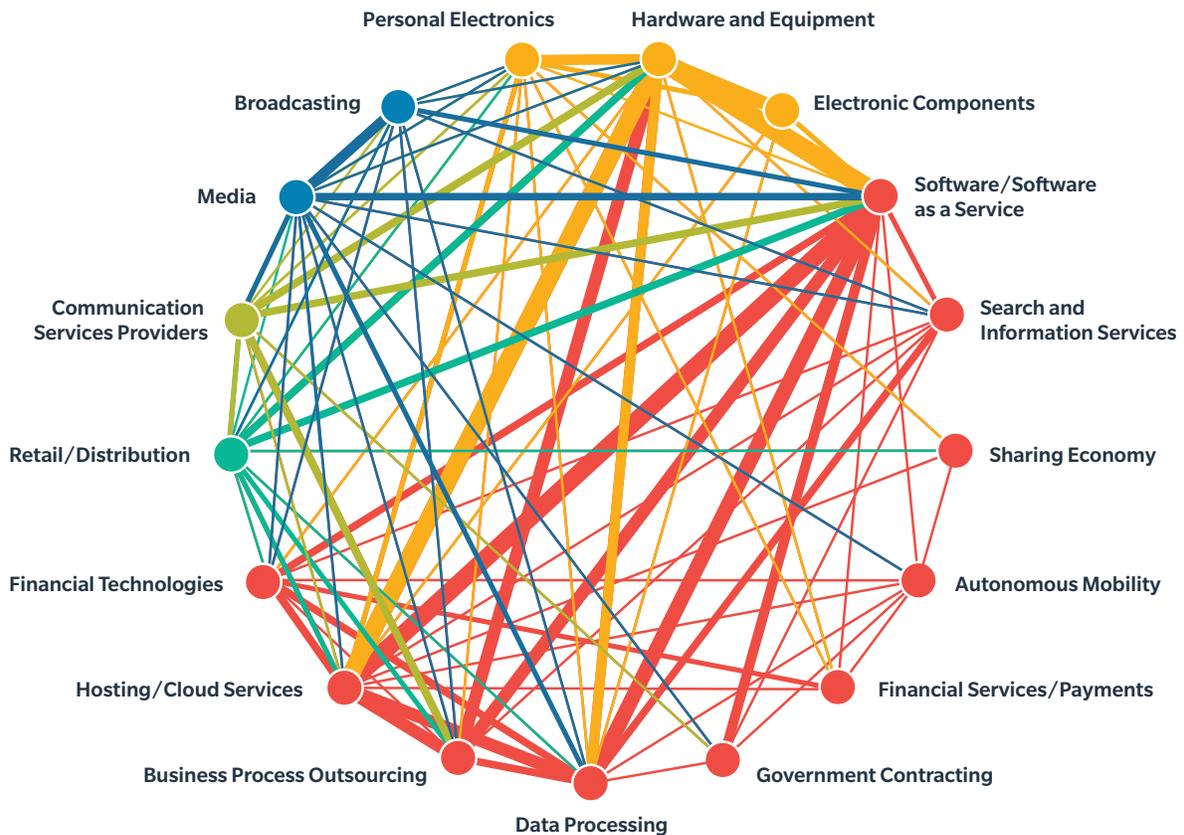
FIGURE
9

CMT companies increasingly operate across sectors.

SOURCE: 2019 MARSH CMT RISK SURVEY

Which of the following best describes your company? Select all that apply.

- Media
- Communication Services
- Software and IT Services
- Hardware and Electronic Components
- E-commerce



Thicker lines indicate more frequent convergence among respondents.

A New Mindset



Expansive

Communications infrastructure, technology innovation, and the pursuit for “eyeballs” permeate and enable disruption across every industry. A broad range of new and emerging risks will follow.



Adaptable

It’s more than change being a constant. It’s an acceleration, and we should move to continually question our understanding of risk, our responses, and our relevance.



Resourceful

IoT and the data economy are creating unimaginable and unbounded data sets. There is a tremendous opportunity to leverage new sources of data for risk assessment, risk mitigation, and risk treatment.



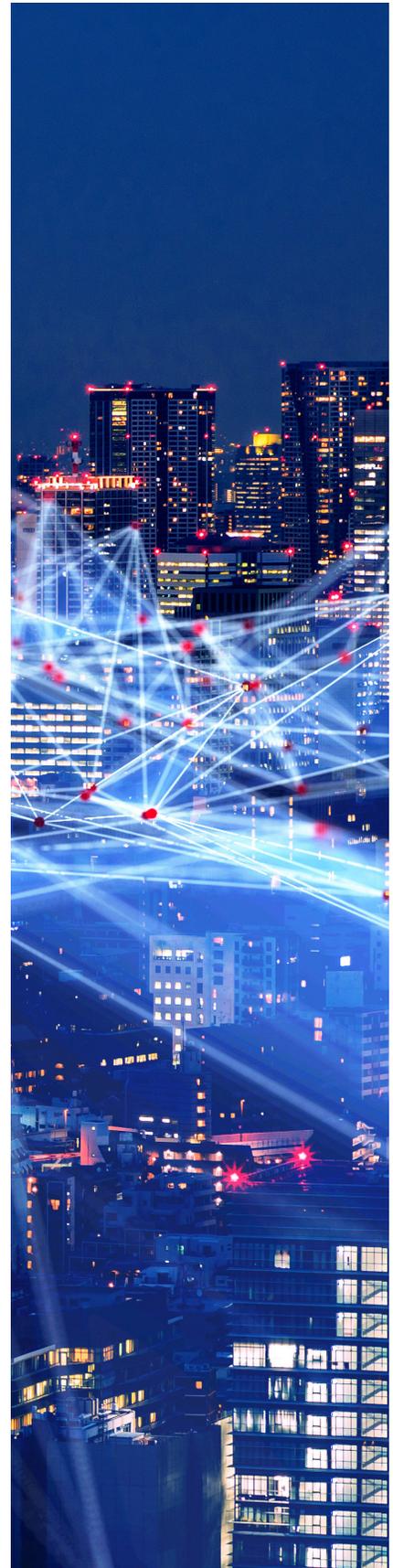
Predictive

As risk professionals, we are experts at looking in the rearview mirror. The pace of change is accelerating, and we should use new data sets and tools to improve our ability to look ahead and inform overall business strategy.



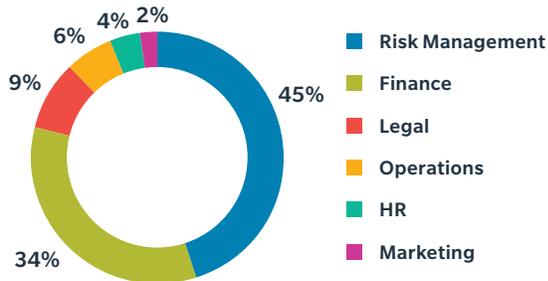
Old School

Sophisticated data, analytics, and tools are the price of entry. But we need to talk, to discover, to pick up a marker and explore ideas on a white board. We are in uncharted territory.

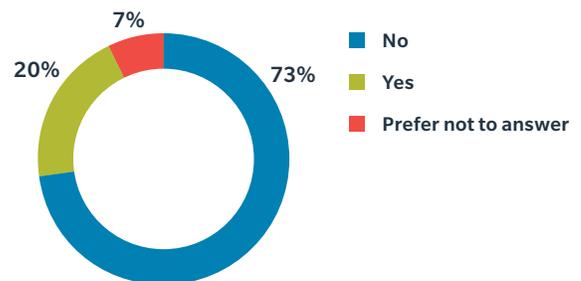


Survey Demographics

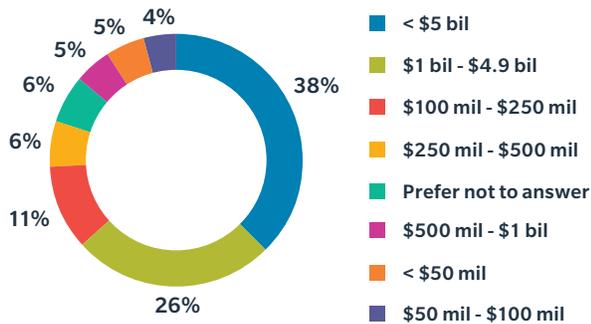
Role of Respondents



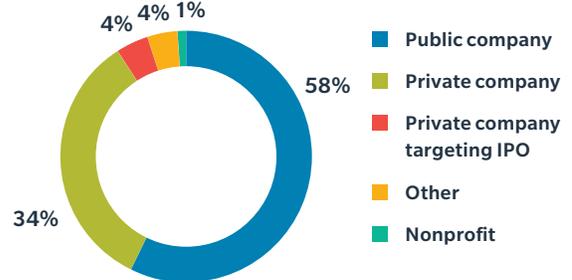
Respondents in the C-Suite



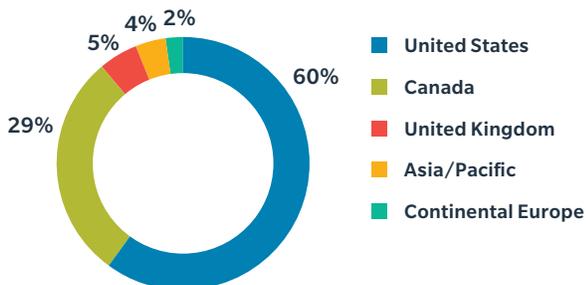
Respondent Company Revenue



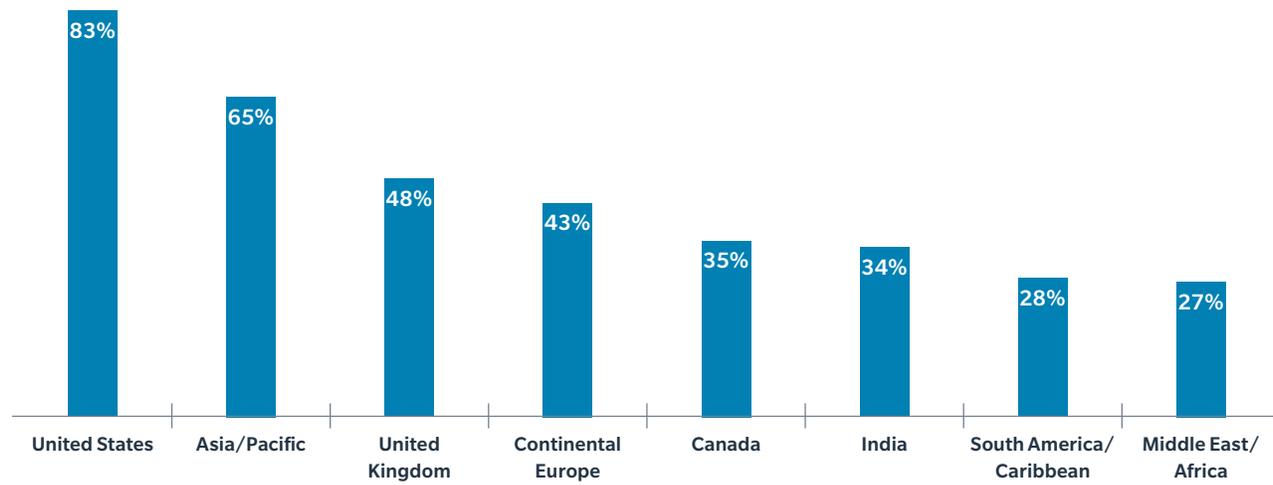
Respondent Company Ownership



Respondent Company Headquarters



Geographic Risk Exposures of Respondent Companies



Additional Insights

This survey and report are part of the thought leadership that Marsh & McLennan Companies produce each year, which includes research, insights, events, and occasional commentary on current items of interest to our clients.

Marsh's CMT Practice also hosts several national events throughout the year, which in 2019 are expected to include:

- CMT Risk Roundtable at RIMS Annual Conference.
- Silicon Valley Technology Risk Forum.
- Media Client Council.



Marsh's Communications, Media, and Technology Industry Expertise

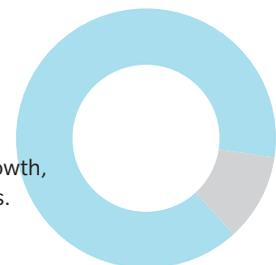
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ABOUT THIS REPORT

Marsh's CMT Risk Study — now in its fourth year — draws from the survey responses of more than 175 CMT risk professionals from around the globe. For more information on the report and how Marsh can help you mitigate your CMT risks, please contact:

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