



# Succeeding in the age of digital transformation

TMT Frontrunners lead the way  
for the Industry 4.0 revolution

## Succeeding in the age of digital transformation

Today business and technology are inextricably linked. And keeping pace with the emerging technology landscape can be difficult for even the most tech-savvy leaders. Deloitte can help. Our technology professionals have deep experience applying technologies to help you achieve your business goals.

# CONTENTS

## **Introduction | 2**

TMT and Industry 4.0

## **As disruptors loom, readiness lags | 5**

## **Spotlight on Frontrunners | 7**

## **Does it pay to be a Frontrunner? | 12**

## **Succeeding in the era of digital disruption | 17**

## **Endnotes | 18**

# Introduction

## TMT and Industry 4.0

The Fourth Industrial Revolution is upon us. The first three were based, respectively, on mechanization, mass production, and computing/automation; *Industry 4.0* is all about the marriage of physical and digital technologies. Just as with the previous revolutions, Industry 4.0 is disrupting and redefining industries.

**T**HIS time, however, the revolution is progressing with unprecedented speed, driven by smart, connected technologies that are developing at an exponential rate.<sup>1</sup> These technology innovations—including cloud computing and platform technologies, big data and analytics, mobile solutions, social and collaborative systems, Internet of Things (IoT) technology, and artificial intelligence (AI)—are fueling and accelerating a new era of digital business transformation. They’re reshaping how organizations work, innovate, and create products—and enabling completely new kinds of products and services.<sup>2</sup> They’re spurring businesses to invent new business models and reimagine how they deliver value to their customers and markets. More broadly, industry boundaries are expanding and blurring, and relationships with business partners are being redefined.

Yet too many organizations remain unprepared for the new revolution. A recent Deloitte Industry 4.0 study of C-level executives around the world indicates that, across all industries, only 14 percent of CXOs are “highly confident” that their organizations are ready to harness the changes associated with the new era.<sup>3</sup>

Technology, media, and telecommunications (TMT) companies have been at the epicenter of the

change wrought by Industry 4.0. They have pioneered many of the smart technologies and high-speed connectivity at its core, making digital innovation possible. To understand how TMT enterprises are responding to the changes, opportunities, and challenges ushered in by the new era, we analyzed a subset of the data from the Deloitte Industry 4.0 study, representing the responses of more than 400 C-level executives from large technology, media, and telecom enterprises worldwide (see sidebar, “Methodology”). Even among TMT companies, the readiness picture is tenuous: Just one in five organizations is “highly prepared” for new business models, smart and autonomous technologies, more powerful customers, and changing trade landscapes.

However, through our analysis we have identified a group of Frontrunner TMT organizations that report being better prepared for the disruptive forces associated with the Industry 4.0 revolution. These pacesetters strongly believe that new technology solutions present a high value proposition for their customers. Not only are they closing the readiness gap, but they’re also more confident in their ability to deliver financial results.

Frontrunners separate themselves from the pack by using digital technologies and business processes to prioritize innovation, and turn innovation into

---

## METHODOLOGY

To obtain a global view of how TMT leaders and organizations are responding to the era of smart and connected technologies, we analyzed a subset of data from the Deloitte Industry 4.0 survey of 1,603 global C-level executives conducted by Deloitte and Forbes Insights in the second half of 2017 (*The Fourth Industrial Revolution is here—are you ready?*).<sup>4</sup>

The 416 respondents studied represent 19 countries from the Americas, Asia, and Europe. Thirty-five percent are from the technology industry, 34 percent from telecommunications, and 31 percent from media. All are C-level executives, including chief technology officers (19 percent), chief information officers (18 percent), and CEOs/presidents (18 percent), with the rest evenly divided among chief operating officers, chief financial officers, and chief marketing officers. All represent organizations with revenue of \$1 billion or more, with 50 percent coming from organizations with more than \$5 billion in revenue.

---

customer value. They do not try to “go it alone,” but seek partnerships to develop new business models. Most of all, they focus on what’s next: capitalizing on new opportunities, anticipating new threats, and satisfying ever-changing customer needs. Emulating these leading enterprises may help your company harness technological change and flourish amid the heightened uncertainty and intense competition that define the Fourth Industrial Revolution. This may require a shift in mindset, and the willingness to give frank answers to questions about your company’s readiness, priorities and capabilities.

## Technology is the key business differentiator

Six in ten TMT CXOs believe that implementing new technology is the key competitive differentiator in today’s business environment. Foundational technologies for the smart, connected era—cloud, IoT, mobile, and AI—are expected to have the largest impact on TMT organizations over the next five years (see figure 1). Emerging specialized technologies—such as quantum computing and nanotechnology—are on the radar but not yet a major focus.

Cloud, IoT, AI, and mobile technologies are vital parts of the networked physical-digital universe, helping organizations collect and process vast volumes of data and become smarter digital enterprises. IoT-enabled sensors take measurements and generate streams of data. Mobile technologies have

an important role to play, too. Smartphones, tablets, and wearable devices can function as sensors, collecting and sending diverse data such as location, acceleration, images, video, activity information, and even health measurements like heart rate and blood sugar. And mobile technologies provide connectivity—not just for phones but for devices such as manufacturing equipment, home appliances, office whiteboards, wearables, and medical tablets.<sup>5</sup>

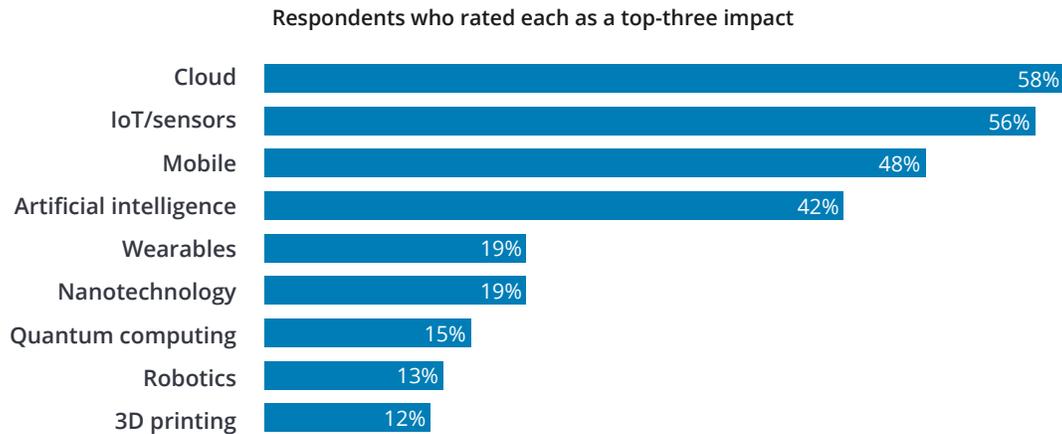
These streams of data are often sent to the cloud, which provides storage and compute power for integrating and processing them. Indeed, cloud computing provides the foundation for delivering many kinds of capabilities as a service. Rather than purchasing servers and software licenses, companies can acquire infrastructure, platforms, and software on a pay-as-you-go basis.

---

**Six in ten TMT CXOs believe that implementing new technology is the key competitive differentiator in today’s business environment.**

---

**Figure 1. Technologies expected to have the greatest impact on TMT organizations over the next five years**



Source: Data analysis based on Deloitte, *The Fourth Industrial Revolution is here—are you ready?*, Deloitte Insights, January 2018.

Deloitte Insights | [deloitte.com/insights](https://deloitte.com/insights)

The connected universe is getting smarter, with developers infusing AI capabilities such as machine learning into IoT platforms and applications, into cloud services, and even into physical devices at “the edge” of the network.<sup>6</sup> AI and IoT are a synergistic pair. IDC predicts that by 2019, “all effective” IoT efforts will make use of AI, since data alone has limited value unless it’s mined for insight.<sup>7</sup> Conversely, AI thrives upon volumes of data: As AI systems ingest new data and scenarios, they evolve and improve over time, inferring new knowledge. A virtuous cycle emerges: Connected devices and systems generate data, and that data is analyzed for insights that are piped back into the systems to drive

informed decision-making and intelligent, autonomous action.

The majority of TMT CXOs recognize technology as a key business differentiator because of the value it can deliver to their enterprises and customers. IoT and mobile technology enable new revenue streams and service-based delivery models, as well as more efficient operations. AI is becoming essential for better decision-making and smarter products. And while early applications of cloud computing focused squarely on lowering costs and increasing efficiency, leaders have been leveraging cloud to rapidly innovate products and services, build new business models, and reinvent customer relationships.<sup>8</sup>

# As disruptors loom, readiness lags

IT'S unsurprising that smart and autonomous technologies rank among the five issues expected to affect TMT organizations most over the next five years (see figure 2). But TMT CXOs don't have the luxury of focusing only on technology, and will need to grapple with a multitude of associated disruptors. Indeed, rounding out the five issues of greatest impact are: changing regulatory environments; emergence of new business or delivery models; more powerful, tech-savvy customers; and an evolving economic/trade landscape.

Consider changing regulatory environments. Customer data is tremendously important to understanding preferences and behavior, from buying patterns to application usage. Clever companies are mining that data, applying AI, and delivering better customer recommendations and experiences. However, regulations such as the European Union's General Data Protection Regulation are imposing new rules on how the data of EU citizens can be collected, stored, and utilized—and are expected to have

a broad effect even beyond the EU.<sup>9</sup> The changing trade landscape is another issue of concern: Some Western industrial countries are seeing increasing anti-globalization sentiment, and tech-heavy US firms that have expanded their operations into other countries over the past few decades may encounter operational and supply chain interruptions.<sup>10</sup>

Technology companies face a host of other regulatory challenges, ranging from privacy and security to taxation. As noted in Deloitte's *2018 Technology Industry Outlook*, regulators' power is undeniable—for businesses, their impact can be literally “catalytic or catastrophic.” To navigate this difficult environment, companies must keep their fingers on the pulse of regulatory change.<sup>11</sup>

While the regulatory environment is a moving target, one area companies *can* control is how they use technology to put themselves in the best competitive position—through more efficient operations, new business models, and the ability to attract and delight increasingly discerning and empowered customers.

---

Customer data is tremendously important to understanding preferences and behavior, from buying patterns to application usage. Clever companies are mining that data, applying AI, and delivering better customer recommendations and experiences.

---

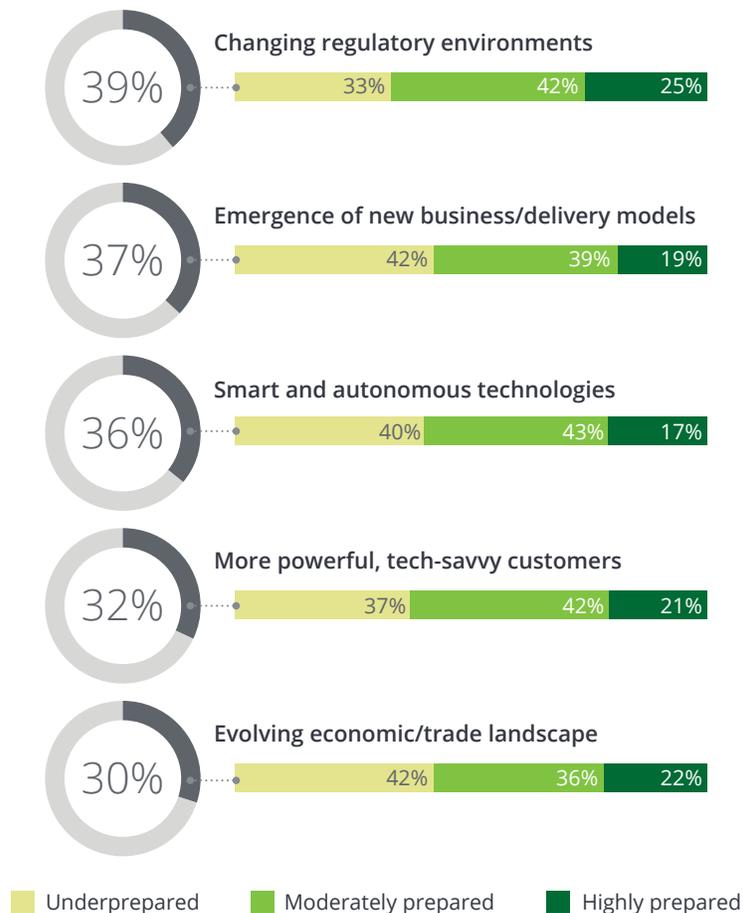
Companies that are unprepared to give customers what they want (maximum value, with minimum risk) through new digital offerings are at risk of failure.

Unfortunately, few TMT enterprises believe they are fully ready to handle the biggest issues: Only one in four organizations is highly prepared for changing regulatory environments, and only

one in five is highly prepared for new business models, smart and autonomous technologies, more powerful customers, and changing trade landscapes (see figure 2). Across the top issues, 33 percent to 42 percent of CXOs rate their organizations as underprepared—a vulnerable position that leaves companies open to disruption by more agile competitors.

**Figure 2. For business issues expected to have the greatest impact on TMT organizations over the next five years, one-third or more of organizations are underprepared**

Respondents who rated each as a top-three issue in terms of impact



Source: Data analysis based on Deloitte, *The Fourth Industrial Revolution is here—are you ready?*

Deloitte Insights | [deloitte.com/insights](https://deloitte.com/insights)

# Spotlight on Frontrunners

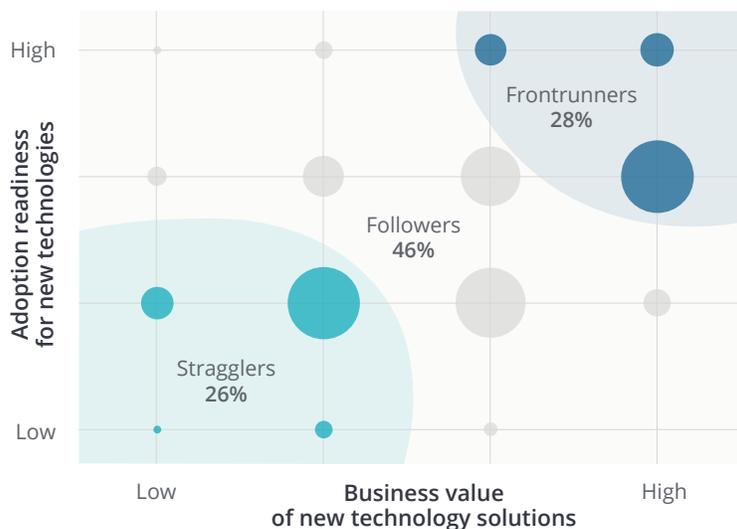
**C**HANGES driven by digital disruption are pummeling TMT organizations. Those not fully on board with the transformative business potential of the smart, connected Industry 4.0 era—or that aren’t fully prepared to harness the new technologies—are in grave danger of being left behind or disrupted out of existence.

What can we learn from TMT organizations that are better prepared to capitalize on the new technologies’ business potential? To better understand what sets these companies apart, we grouped organizations into three conceptual segments, based on how respondents rated the business value of new technology solutions and their enterprise’s readiness to adopt and use smart and autonomous technologies (see figure 3).

- **Frontrunners** (28 percent) strongly believe that their organizations’ new technology solutions present a high value proposition for customers and are ready to use the new technologies.
- **Followers** (46 percent) generally believe in the business value of new technology solutions but lag on readiness.
- **Stragglers** (26 percent) are not yet on board with the business value of new technology solutions and are behind on adoption readiness.

Strikingly, 97 percent of Frontrunners believe that implementing new technology is *the* key to unlocking competitive advantage (versus 54 percent of Followers and 28 percent of Stragglers).

**Figure 3. Frontrunners are “adoption-ready” and understand the business value of new technologies**

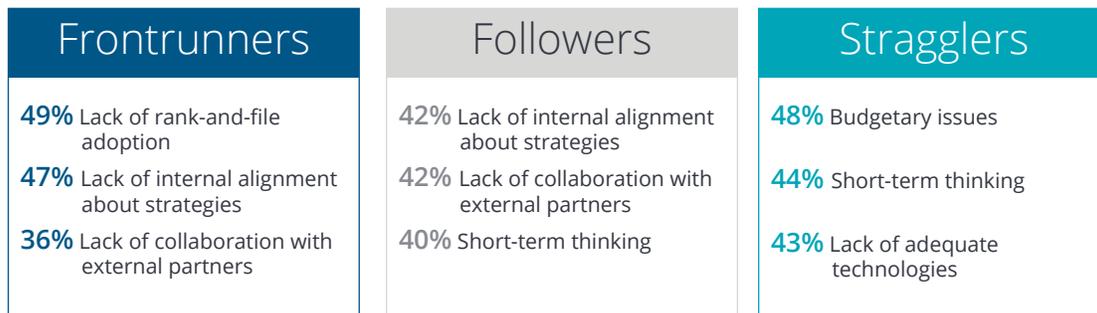


Source: Data analysis based on Deloitte, *The Fourth Industrial Revolution is here—are you ready?*

Deloitte Insights | [deloitte.com/insights](https://deloitte.com/insights)

**Figure 4. Top challenges to new technology adoption**

Respondents who rated each as a top-three challenge for their organization



Source: Data analysis based on Deloitte, *The Fourth Industrial Revolution is here—are you ready?*

Deloitte Insights | [deloitte.com/insights](https://deloitte.com/insights)

And they're ready to put that belief into action. As we'll see shortly, Frontrunners are confident in their ability to use new technologies to create superior products and to deliver value to customers and markets. They're also better prepared to weather the forces of digital disruption. Simply put, Frontrunners are reducing their risk of being disrupted.

### Different challenges, different stages of new technology adoption

The top three challenges to new technology adoption vary among the groups, suggesting they're at different stages in the journey (see figure 4). Stragglers are most challenged by budgetary issues, short-term thinking, and lack of adequate technologies—signs that they're still trying to get new technology adoption off the ground. In contrast, Frontrunners' major problems are associated with more mature adoption: convincing employees to use new technologies, aligning on strategy, and establishing external partnerships. Followers share concerns with both of the other groups.

Frontrunners have advanced past some issues that challenge Stragglers. Only 13 percent of Frontrunners report budgetary issues as a major problem, versus half of the Stragglers. Whereas 43 percent of Stragglers are bothered by lack of adequate

technologies, only 29 percent of Frontrunners report that as a big concern.

### Agility in the face of disruption

Frontrunners are confident in their ability to respond to the inevitable changes and upheavals that lie ahead. Eighty-five percent of Frontrunners say their organization is prepared to fully harness the changes associated with the new wave of digital transformation, versus 63 percent of Stragglers and 60 percent of Followers. Remarkably, 95 percent of Frontrunner CXOs say they're ready to act as stewards for their organizations during this time of change and disruption, contrasted with 45 percent

**Ninety-five percent of Frontrunner CXOs are ready to act as stewards for their organizations during this era of disruption.**

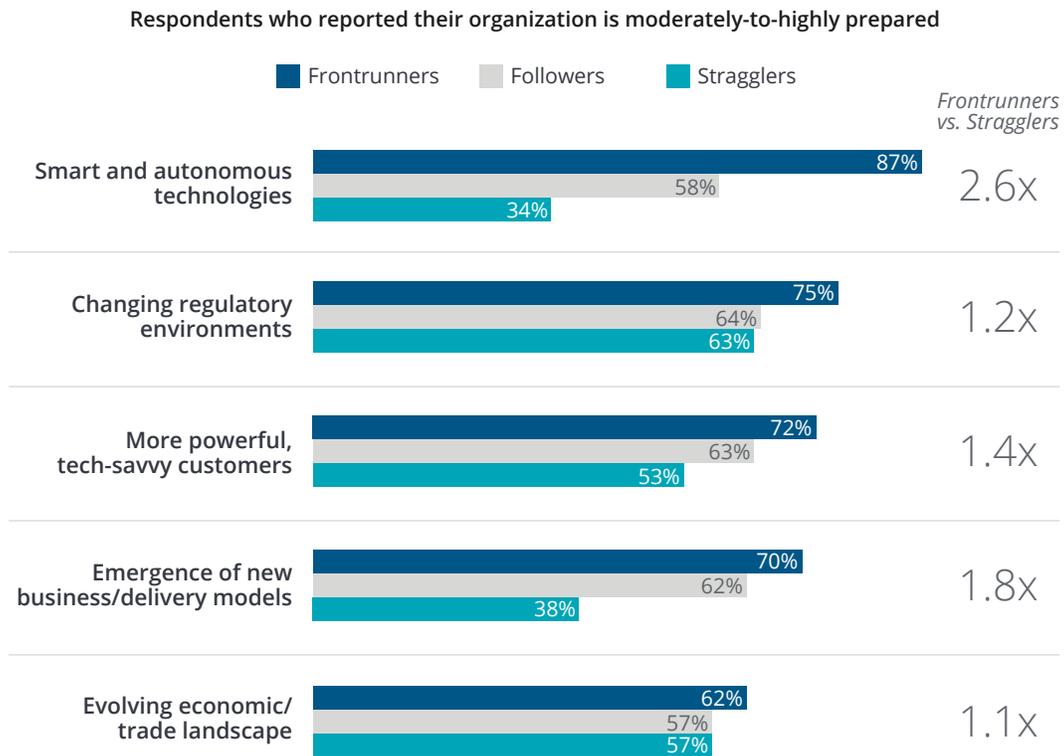
of Stragglers and 58 percent of Followers (see sidebar, “Digital leadership in an age of disruption”).

And how are Frontrunners faring on preparedness for the disruptive issues projected to have the greatest impact on TMT organizations in the coming years? (See figure 5.) Frontrunners are 2.6 times more likely than Stragglers to be prepared for smart and autonomous technologies. What’s more, Front-runners are confident that they can use the new technologies to deliver new kinds of value: They’re 1.8 times more likely than Stragglers to be ready for the emergence of new business and delivery models, and

1.4 times more likely to be ready for powerful, tech-savvy customers. They even have a slight edge on preparedness for changing regulatory environments.

Across all segments, about six in ten TMT CXOs report that their organizations are prepared for the evolving economic and trade landscape. But Front-runners feel less prepared for this than other issues and haven’t managed to pull significantly ahead of the other segments in addressing it—perhaps reflecting that this ever-shifting external factor is less under enterprise control than other issues (see sidebar, “Tax legislation may advance transformation”).

**Figure 5. Frontrunners are more prepared for key digital transformation issues**



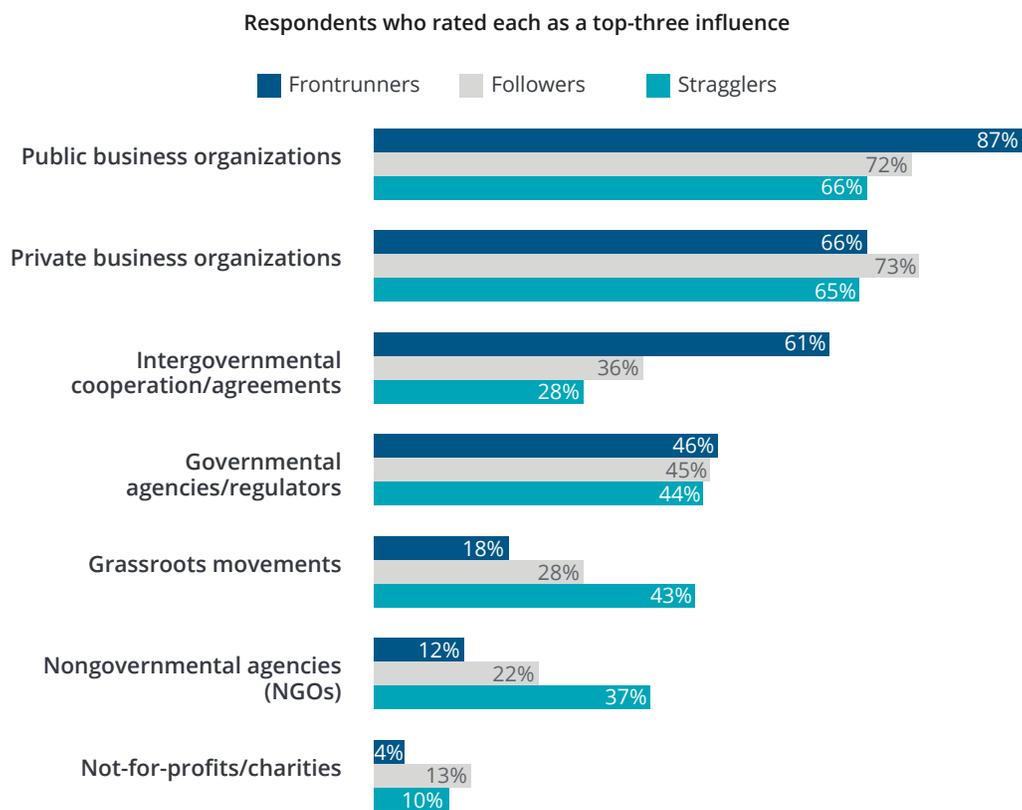
Source: Data analysis based on Deloitte, *The Fourth Industrial Revolution is here—are you ready?*

Deloitte Insights | [deloitte.com/insights](https://deloitte.com/insights)

**DIGITAL LEADERSHIP IN AN AGE OF DISRUPTION**

Which entities will shape society the most in this fast-paced era? CXOs believe that their own businesses—both public and private—will be pivotal, and Frontrunners see public organizations in particular playing a lead role (see figure 6). For Frontrunners, the third spot goes to intergovernmental alliances, cited by 61 percent of Frontrunners, versus just 28 percent of Stragglers. Stragglers are more likely than other groups to look toward grassroots movements and nongovernmental organizations—deflecting some responsibility to entities other than their own. Frontrunner CXOs acknowledge that their organizations (and they as executives) will need to step up and guide societal changes.

**Figure 6. Entities expected to have the greatest influence on how the new digital era shapes society**



Source: Data analysis based on Deloitte, *The Fourth Industrial Revolution is here—are you ready?*

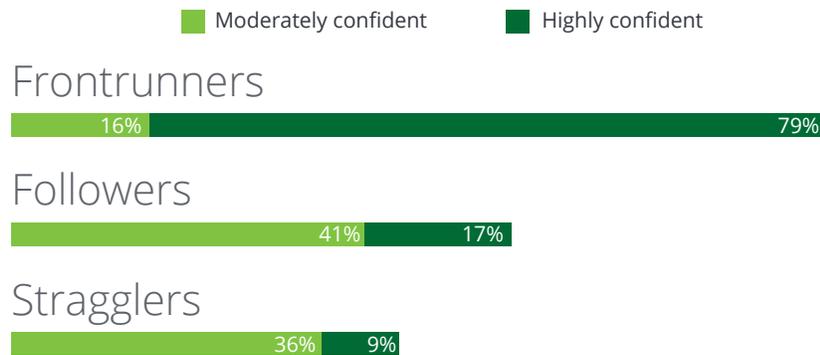
Deloitte Insights | [deloitte.com/insights](https://deloitte.com/insights)

What’s more, Frontrunner CXOs are willing to personally lead digital transformation at their organizations. And they’re very sure of themselves: 79 percent of Frontrunners reported they’re “highly confident” about acting as stewards for their firms during this time of change and disruption (see figure 7), while an additional 16 percent said they’re “confident.” In contrast, just 17 percent of Followers and 9 percent of Stragglers reported being “highly confident.”

**CONTINUED >**

**DIGITAL LEADERSHIP IN AN AGE OF DISRUPTION, CONT.**

**Figure 7. Frontrunner CXOs are more confident in their ability to act as a steward for their organization during this time of change and disruption**



Source: Data analysis based on Deloitte, *The Fourth Industrial Revolution is here—are you ready?*

Deloitte Insights | [deloitte.com/insights](https://deloitte.com/insights)

With Frontrunner CXOs being willing to take responsibility for shaping both society and their own organizations, what traits are needed to lead the charge on both fronts? When asked what CXOs “need to be more of,” the top choices of Frontrunners were innovative, activist, flexible, and transformative. Deloitte’s 2017 *Global Human Capital Trends* study concluded that businesses will need a new kind of digital leader who is able to build teams of engaged participants, partner with broader ecosystems, and promote a culture that encourages innovation, learning, risk-taking, and continual improvement.<sup>12</sup>

**TAX LEGISLATION MAY ADVANCE TRANSFORMATION**

For US-based companies, the changing economic landscape involves additional tax considerations due to significant changes made to the corporate tax code in late 2017. Tax experts suggest that multinational technology companies will likely begin bringing cash back to US corporate headquarters.<sup>13</sup> What will these firms choose to do with the cash influx?

One attractive option is to boost innovation and, in turn, competitive advantage. Some companies may use the incoming cash to invest in their internal R&D initiatives and attract top talent. Others may bolster innovation by acquiring IP, buying specific capabilities, or even purchasing smaller firms. Tax reform also gives companies an incentive to rethink their operating models—where they make things and perform services, such as software development—and even their delivery models—how they bring innovations to market. Time will tell which companies choose to use the cash windfall in growth-oriented ways, but Frontrunner firms, with their focus on innovation and turning advances into market value, will likely be among those to do so.

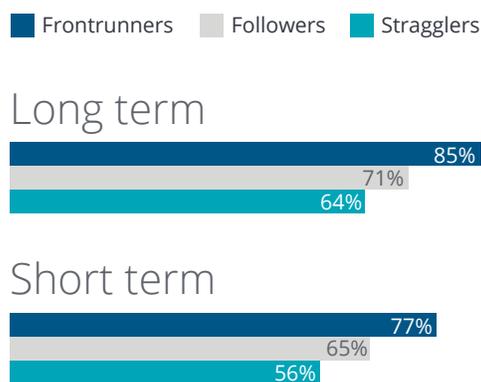
Whenever enterprises undertake transformational activities that involve adopting new technologies and creating new business and operating models, tax considerations come into play and should factor into the planning process. For example, the complexity of building new technology platforms and solutions often requires specialized expertise and may necessitate creative partnering that pools skills—but such arrangements (whether formal joint ventures, revenue sharing agreements, or crowdsourcing) come with complicated tax implications. ***When tax meets technology: Tax implications of Industry 4.0*** explores potential tax ramifications and highlights potential risks and opportunities.<sup>14</sup>

# Does it pay to be a Frontrunner?

**F**RONTRUNNERS seem to have their act together: They're further ahead on adoption of new technologies and better prepared for key digital transformation issues. But—bottom line—do Frontrunner CXOs feel ready to deliver financial results in this time of change?

The answer is a resounding *yes*. Eighty-five percent of executives at Frontrunner organizations are confident in their ability to deliver financial results in the long term, and 77 percent believe they can deliver them even in the short term. On both measures, Frontrunners are outpacing the other groups (see figure 8).

**Figure 8. Confidence in ability to deliver financial results**



Source: Data analysis based on Deloitte, *The Fourth Industrial Revolution is here—are you ready?*  
Deloitte Insights | [deloitte.com/insights](https://deloitte.com/insights)

## What sets Frontrunners apart

Compared with the other segments, Frontrunners are more likely to display four distinctive traits that help them harness the potential of smart, connected technologies and capitalize on the new wave of digital transformation:

- They practice an innovation mindset.
- They understand how to turn innovations into customer and market value.
- They amplify their technical and business capabilities through partnering.
- They craft strategies for the future.

## Focusing on innovation

Frontrunners concentrate much of their attention on innovating new products and services, inventing new business models, and infusing new technologies into the organization. They're creating new paths to value and are putting themselves in a stronger position to disrupt their industries—not waiting to be disrupted themselves. When asked where their enterprise focuses its discussion over the course of a year, Frontrunner executives ranked “developing new products and services” as paramount (with 71 percent rating it a top topic). The No. 2 and No. 3 priorities are close behind, with two-thirds citing “introducing new business models” and “adopting new and advanced technologies.”

Stragglers are still mired in the status quo, focusing on improvements to business-as-usual: getting to market faster with their current products, and improving productivity. Seventy-two percent of

Straggler CXOs ranked “increasing speed to market” as a top topic, followed by “increasing productivity,” at 56 percent. They’re devoting less energy than others to issues that could help them capitalize on new technologies: Only 56 percent report “developing new products and services” as a top topic, and less than 40 percent rank “introducing new business models” and “adopting new and advanced technologies” as key focus areas for their organizations.

### INNOVATIVE PRODUCTS AND SERVICES PRESSURE INCUMBENTS TO STEP UP THEIR GAME

Consider the case of telecom in China. WeChat, a mobile messaging platform created in 2011 by Internet titan Tencent, has already topped 1 billion user accounts, surpassing the 878 million subscribers reported by China Mobile, which controls two-thirds of China’s mobile market.<sup>15</sup> In Q3 2017, China Mobile reported that voice usage decreased 7.1 percent compared with the same period the previous year, blaming the “substitution impact of over-the-top business.” Indeed, as customers move away from traditional voice services and increase their use of messaging platforms such as WeChat, the state-owned telecom firm has been forced to ramp up its own data services.

What’s more, WeChat goes far beyond messaging: It’s a Swiss Army knife of functionality that lets users arrange for a taxi, order food, find a table at a restaurant, play games, pay utility bills, pay for purchases, meet people, and much more.<sup>16</sup> Telecoms aren’t the only companies that should be worried. In the mobile payments space, the extremely popular WeChat Pay and Alipay are causing incumbent payment operators to play catch-up.<sup>17</sup>

## Turning innovation into customer value

It’s one thing to talk about innovating—Frontrunners also know how to translate innovation into new value for customers. They’re figuring out how

to use new technologies to create first-rate products and services—and how to deliver those innovations to market.

Eighty-two percent of Frontrunners are confident in their ability to deliver the best possible product or service to their customers, versus 68 percent of Stragglers. (See figure 9.) Being able to translate new technologies into innovations that bring new value to customers can mean a big win, at the expense of other, less-adept organizations. Indeed, Frontrunners are upbeat about using new technologies to redefine customer relationships (89 percent say they’re capable, versus 57 percent of Stragglers).

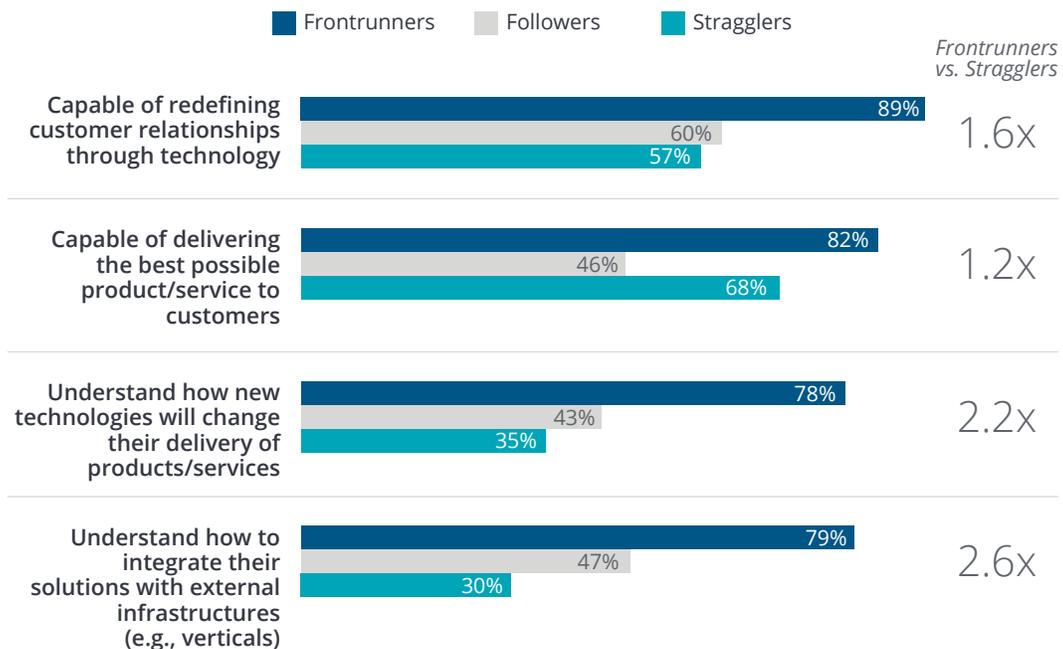
New product/service creation is one piece of the value puzzle; getting those innovations into the hands of employees and customers is another critical piece that Frontrunners are putting into place. Even when considering new technology investments, Frontrunners are already thinking practically about how they’re going to integrate them with internal and external capabilities. For this leader group, the top two factors that influence their investment in advanced technologies—outweighing even ROI and availability of appropriate in-house skills—are the abilities to integrate new technology with what they already have in-house, and to connect to external solutions. Moreover, Frontrunners are 2.6 times more likely than Stragglers to understand how to integrate their solutions with external infrastructures, such as verticals. And they’re 2.2 times more likely to understand how they’ll need to change their product/service delivery in response to new technologies.

## Amplifying capabilities by partnering

Partnerships may be the “secret sauce” to becoming a Frontrunner. At the very least, Frontrunner CXOs revealed that they don’t go it alone in this era of fast-paced change. Nine in ten Frontrunners report being capable of mobilizing a large, diverse ecosystem to deliver value to customers. Only six in ten Stragglers can say the same.

Frontrunners seem to understand that the complexities and relentless pace of digital transformation have altered the familiar concept of “buy or

**Figure 9. Frontrunners are more adept at bringing innovations to market**



Source: Data analysis based on Deloitte, *The Fourth Industrial Revolution is here—are you ready?*

Deloitte Insights | [deloitte.com/insights](https://deloitte.com/insights)

### TRANSLATING NEW TECHNOLOGIES INTO NEW VALUE FOR CUSTOMERS

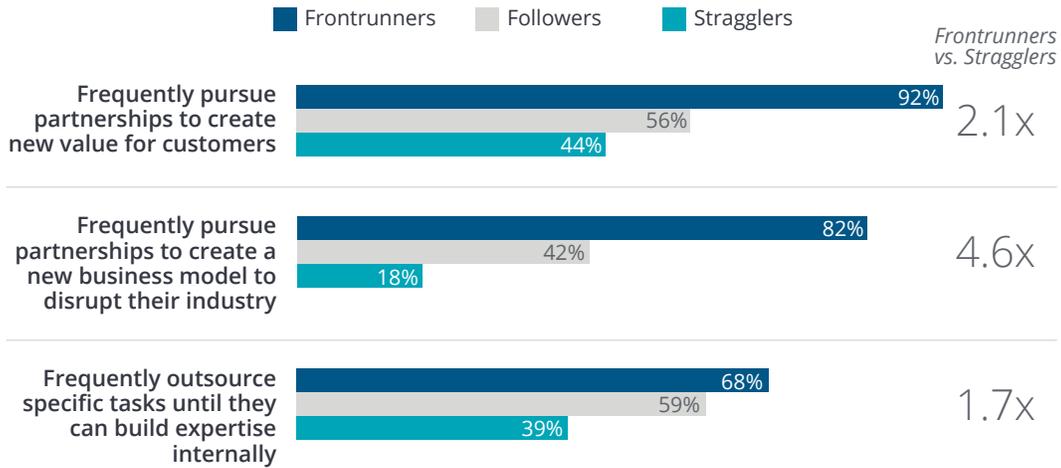
In the media industry, traditional television and movie viewing have been turned on their heads. For most of its history, television has meant watching linear programming broadcast on a predetermined schedule, while movie viewing required visiting a theater or buying or renting physical media to watch at home. Mature broadband and wireless infrastructures and cloud-based technologies now make it possible to stream video content on demand without leaving one’s couch.

Netflix is a prime example of disruption to legacy TV and movie viewing: The company licenses rights to stream content from creators (and also develops original content); maintains a robust, cloud-based aggregation and delivery platform; and streams on-demand video content to nearly 118 million users worldwide who pay a monthly subscription fee.<sup>18</sup> Through their viewing behaviors and preferences, this user base generates a vast data set. Netflix combines it with extensive data about shows and applies sophisticated machine-learning analysis to provide personalized viewing recommendations.<sup>19</sup>

build”—it’s now *buy, build, or partner*. As noted by Deloitte’s Global Technology, Media & Telecommunications Industry leader Paul Sallomi in our *2018 Technology Industry Outlook*, this is an important change—and an essential strategy for TMT companies.<sup>20</sup>

The complexity involved in designing today’s technology platforms requires deep expertise in a wide array of areas. The rising number of technology partnerships is an acknowledgment that to compete more effectively, developing end-to-end solutions can be less appealing (and less attainable)

**Figure 10. Frontrunners rely more on partners for technical and business expertise**



Source: Data analysis based on Deloitte, *The Fourth Industrial Revolution is here—are you ready?*

Deloitte Insights | [deloitte.com/insights](https://deloitte.com/insights)

than collaborating. These partnerships are driven by a need for comprehensive solutions that demand best-in-breed assets from multiple companies. In many cases, would-be competitors are using *coopetition* (cooperative competition) to pool their resources for mutual gain, in areas where they don't compete directly.

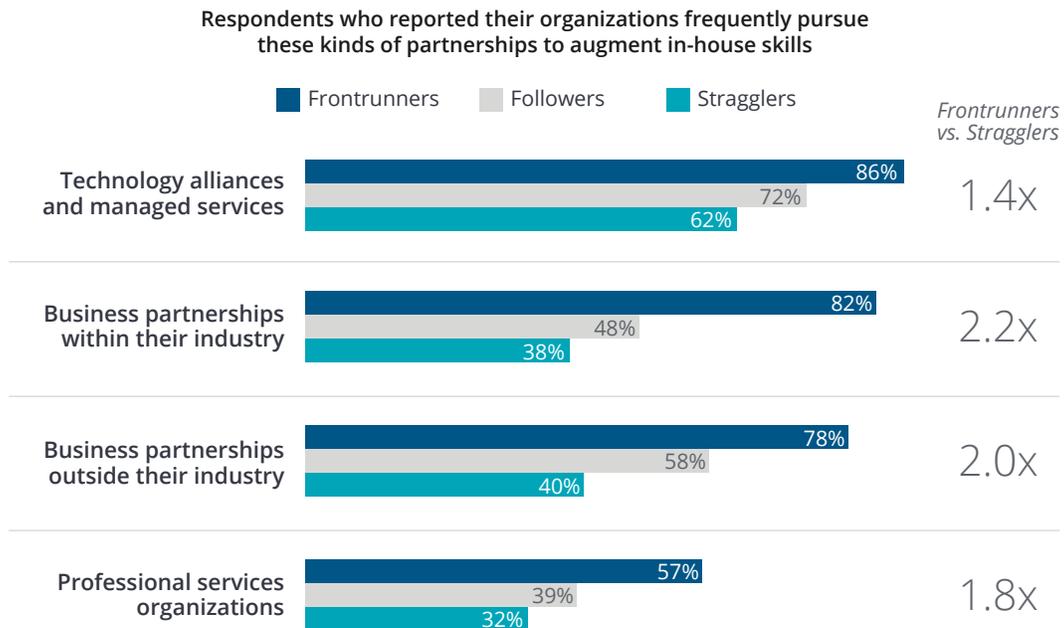
Frontrunners make heavy use of partnerships—not only to augment their technical expertise but to assist in their business transformation (see figure 10). In fact, Frontrunners are 4.6 times more likely to pursue partnerships frequently for help creating a new business model to disrupt their industry.

Frontrunners are inclusive and aggressive in pursuing partners to bolster their in-house skills. They're about twice as likely as Stragglers to pursue partnerships frequently with professional services firms, with partners outside their industry, and even with partners in the same industry—including competitors (see figure 11). Eighty-six percent of Frontrunners frequently pursue technology alliances and managed services. TMT organizations as a whole also frequently use contract employees (28 percent), public-private partnerships (55 percent), academic institutions (54 percent), and business process outsourcing (50 percent)—with Frontrunners and other groups on par in their pursuit of these relationships.

### PARTNERING TO EXTEND BUSINESS REACH

The advent of audio streaming has had a marked effect on the music industry. According to Nielsen, in 2017, on-demand audio streaming surpassed all other music ownership formats and accounted for the majority of audio consumption for the first time.<sup>21</sup> Consider Spotify, the digital music streaming service that allows users to browse and search for music and play it on demand, on a freemium or subscription basis. How did Spotify evolve from its launch in Sweden in 2008 to a global music service by 2017, with 170 million active users and availability in 65 countries?<sup>22</sup> Part of the answer lies in partnerships: Spotify has partnered with technology giants, social networks, gaming platforms, peer-to-peer ridesharing firms, automotive companies, and even airlines, in a continual effort to expand its business model and audience reach.<sup>23</sup> Spotify hasn't ignored the "buy" part of the build-buy-partner triad either: The company has reportedly spent more than \$120 million on acquisitions since 2014.<sup>24</sup>

**Figure 11. Frontrunners partner with a diverse ecosystem**



Source: Data analysis based on Deloitte, *The Fourth Industrial Revolution is here—are you ready?*

Deloitte Insights | [deloitte.com/insights](https://deloitte.com/insights)

## Crafting strategies for the future

They may be driving the current wave of digital transformation, but Frontrunners aren't resting on their laurels. Even if they're transforming their businesses, disruption and competitive upheaval represent an ever-present threat.

Frontrunners recognize that staying ahead of the game will require strategic thinking and planning. Seventy-three percent of Frontrunners are currently engaged in active scenario planning for their organization's future, compared with 57 percent of Stragglers.

Three-quarters of Frontrunner CXOs are confident that their organizations' leadership is aligned around a shared view of the future for their business

and industry, and around what will be required for success. And "lack of leadership vision" is much less of an obstacle for Frontrunners, dropping almost to the bottom of the list of top technology adoption challenges. For Stragglers, it remains the No. 4 challenge.

Of course, when it comes to digital transformation, future strategies must have cybersecurity as their foundation. This includes considering cybersecurity implications before beginning a digital initiative, taking a proactive approach to cybersecurity (for example, by employing dedicated cybersecurity resources and funding cybersecurity initiatives), and incorporating cybersecurity best practices into initiatives. By taking this course of action, organizations tend to feel more prepared to address potential security challenges in key digital technology areas such as analytics, IoT, and cloud computing.<sup>25</sup>

# Succeeding in the era of digital disruption

**D**ESPITE being near the center of digitally driven competitive upheaval, Fronrunner TMT enterprises are staying fast on their feet, preparing for potential disruptors and inventing business/delivery models to create new customer and market value from technology innovation. Rather than hoping they won't fall victim to digital disruption, they're becoming stronger through digital transformation.

The future looks bright for Frontrunners. But what if your company is behaving more like a Follower or Straggler? Does your organization have what it takes to succeed in the smart, connected era? Amid constant change, how will you position your enterprise to not just survive but thrive?

If you're clinging to old ways of operating and delivering value to customers, you're vulnerable. Here are some guidelines for becoming a digital transformation Fronrunner:

## Be prepared

The century-old Boy Scouts motto—"be prepared"—turns out to be great advice for modern-day digital businesses.

- Is your enterprise ready to adopt smart, autonomous, connected technologies? How will you use them for competitive advantage?
- Are you ready to meet the needs of empowered, digitally savvy customers? How will you engage with and delight them?
- Are you prepared for changing regulatory environments and evolving trade landscapes—and the effect they may have on your business?

## Move from innovation to business value

Make innovation a core focus for your organization. It's a means to an end: delivering greater value to your customers and the market, while fending off your rivals.

- Is development of new products and services a strategic imperative for your organization? How will you integrate them with existing internal and external systems?
- What kinds of new revenue streams will your innovations unlock?
- Which kinds of new business or delivery models will you need to invent?

## Broaden your ecosystem

Augment your technical and business expertise by building a strong network of partners.

- Do you have relationships in place for handling specific technical tasks when you don't have in-house expertise?
- Are you pursuing partnerships to jointly create a new, disruptive business model in your industry?
- Are you building an extensive, diverse network? Consider technology alliances, managed services, and partnerships with professional services organizations, enterprises both outside and inside your industry, and academic institutions. It may even be fruitful to establish partnerships with competitors, in the right situations.

## Reimagine the future

Organizations that fail to reimagine and reinvent their future will likely fall behind their competitors.

- Is your organization's leadership aligned around a shared vision of the future for the business?
- Are you engaged in active scenario planning for the organization's future?
- Are you looking in creative places for the best new ideas? Vision doesn't always come from the top; it may be lurking in grassroots experimentation.

If your organization can already answer most of these questions with a "yes," then you may already be a bona fide Frontrunner. If you answer many with a "no," then it's imperative to identify areas for improvement and to develop a strategy for change. Tackling the shortcomings should better position your enterprise to weather disruptions and thrive in an age of digital transformation.

## ENDNOTES

1. Deloitte, *The Fourth Industrial Revolution is here—are you ready?*, Deloitte Insights, January 2018.
2. Michael E. Porter and James E. Heppelmann, "How smart, connected products are transforming competition," *Harvard Business Review*, November 2014.
3. Deloitte, *The Fourth Industrial Revolution is here—are you ready?*
4. Ibid.
5. Deloitte Digital, *Choosing the right mobile communications technology for IoT*, May 23, 2016.
6. David Schatsky, Navya Kumar, and Sourabh Bumb, *Intelligent IoT bringing the power of AI to the Internet of Things*, Deloitte Insights, December 12, 2017; John Roach, "AI's big leap to tiny devices opens world of possibilities," Microsoft, June 29, 2017.
7. IDC, "IDC sees the dawn of the DX economy and the rise of the digital-native enterprise," November 1, 2016.
8. James Comfort, Craig Hayman, and Susanne Hupfer, "Under cloud cover: How leaders are accelerating competitive differentiation," IBM Center for Applied Insights, 2013.
9. Deloitte, *The time is now: The Deloitte general data protection benchmarking survey*, 2017.
10. Rumki Majumdar, *Special topic: Why reversing globalization may not be a good idea*, Deloitte University Press, August 9, 2017.
11. Paul Sallomi, *2018 Technology Industry Outlook*, Deloitte.
12. Anthony Abbatiello et al., *Leadership disrupted: Pushing the boundaries*, 2017 Global Human Capital Trends, Deloitte University Press, February 28, 2017.
13. Deloitte, "2017's tax code changes: Thinking through the implications for technology companies," April 2018.

14. Gareth Pritchard et al., "When tax meets technology: Tax implications of Industry 4.0," January 24, 2017.
15. Nicole Jao, "WeChat now has over 1 billion active monthly users worldwide," TechNode, March 5, 2018; Yang Ge, "China Mobile profit growth ticks up on booming data demand," Caixin, October 20, 2017.
16. Connie Chan, "When one app rules them all: The case of WeChat and mobile in China," Andreessen Horowitz, August 6, 2015.
17. Zen Soo, "China's mobile payment giants forcing incumbents to innovate," *South China Morning Post*, December 16, 2017.
18. Rani Molla, "Netflix now has nearly 118 million streaming subscribers globally," *Recode*, January 22, 2018.
19. Libby Plummer, "This is how Netflix's top-secret recommendation system works," *Wired*, August 22, 2017.
20. Sallomi, *2018 Technology Industry Outlook*.
21. Sarah Perez, "On-demand streaming now accounts for the majority of audio consumption, says Nielsen," TechCrunch, January 4, 2018.
22. Spotify, "Company info," accessed May 7, 2018.
23. Bart Doorneweert, "How Spotify experiments with partnership-enabled business model innovation," Value Chain Generation, June 14, 2015.
24. Tim Ingham, "Spotify has spent \$120m on acquisitions in little over three years," Music Business Worldwide, June 19, 2017.
25. Cisco, "Cybersecurity as a growth advantage."

## ABOUT THE AUTHORS

### SUSANNE HUPFER

**Susanne Hupfer** is a research manager in Deloitte's Center for Technology, Media & Telecommunications, Deloitte Services LP, specializing in the technology sector. She conducts research to understand the impact of technology trends on enterprises and to deliver actionable insights to business and IT leaders. Prior to joining Deloitte, Hupfer worked for more than 20 years in the technology industry, in roles that included software research and development, strategy consulting, and thought leadership.

### JEFF LOUCKS

**Jeff Loucks** is executive director of Deloitte's Center for Technology, Media & Telecommunications, Deloitte Services LP. In his role, he conducts research and writes on topics that help companies capitalize on technological change. An award-winning thought leader in digital business model transformation, Loucks is especially interested in the strategies that organizations use to adapt to accelerating change.

### PAUL SALLOMI

**Paul Sallomi** is the Global Technology, Media & Telecommunications Industry leader and US technology sector leader for Deloitte LLP. He has spent more than a quarter century working with companies in the technology, media, telecommunications, and manufacturing industries to shape and execute options for growth, performance improvement, and risk mitigation.

## ACKNOWLEDGEMENTS

The authors would like to thank **Brenna Sniderman** and **Mark Cotteleer** of Deloitte Services LP's Center for Integrated Research for sharing their expertise and contributing thoughtful suggestions for our work. We would also like to thank **Shashank Srivastava** for his support in data analytics.

## CONTACTS

### **Susanne Hupfer**

Research manager  
Deloitte Center for Technology,  
Media & Telecommunications  
Deloitte Services LP  
+1 617 585 5993  
shupfer@deloitte.com

### **Paul Sallomi**

Global Technology, Media &  
Telecommunications  
Industry leader  
Deloitte LLP  
+1 408 704 4100  
psallomi@deloitte.com

### **Jeff Loucks**

Executive director  
Deloitte Center for Technology,  
Media & Telecommunications  
Deloitte Services LP  
+1 614 477 0407  
jloucks@deloitte.com

## ABOUT DELOITTE'S CENTER FOR TECHNOLOGY, MEDIA, & TELECOMMUNICATIONS

In a world where speed, agility, and the ability to spot hidden opportunities can separate leaders from laggards, delay is not an option. Deloitte's Center for Technology, Media & Telecommunications helps organizations detect risks, understand trends, navigate tough choices, and make wise moves.

While adopting new technologies and business models normally carries risk, our research helps clients take smart risks and avoid the pitfalls of following the herd—or sitting on the sidelines. We cut through the clutter to help businesses drive technology innovation and uncover sustainable business value. Armed with the Center's research, TMT leaders can efficiently explore options, evaluate opportunities, and determine whether it's advantageous to build, buy, borrow, or partner to attain new capabilities.

The Center is backed by Deloitte LLP's breadth and depth of knowledge—and by its practical TMT industry experience. Our TMT-specific insights and world-class capabilities help clients solve the complex challenges our research explores.

# Deloitte.

## Insights

Sign up for Deloitte Insights updates at [www.deloitte.com/insights](http://www.deloitte.com/insights).



Follow @DeloitteInsight

### **Deloitte Insights contributors**

**Editorial:** Matthew Budman, Nikita Garia

**Creative:** Molly Woodworth, Emily Moreano

**Promotion:** Shraddha Sachdev

**Artwork:** John W. Tomac

### **About Deloitte Insights**

Deloitte Insights publishes original articles, reports and periodicals that provide insights for businesses, the public sector and NGOs. Our goal is to draw upon research and experience from throughout our professional services organization, and that of coauthors in academia and business, to advance the conversation on a broad spectrum of topics of interest to executives and government leaders.

Deloitte Insights is an imprint of Deloitte Development LLC.

### **About this publication**

This publication contains general information only, and none of Deloitte Touche Tohmatsu Limited, its member firms, or its and their affiliates are, by means of this publication, rendering accounting, business, financial, investment, legal, tax, or other professional advice or services. This publication is not a substitute for such professional advice or services, nor should it be used as a basis for any decision or action that may affect your finances or your business. Before making any decision or taking any action that may affect your finances or your business, you should consult a qualified professional adviser.

None of Deloitte Touche Tohmatsu Limited, its member firms, or its and their respective affiliates shall be responsible for any loss whatsoever sustained by any person who relies on this publication.

### **About Deloitte**

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee ("DTTL"), its network of member firms, and their related entities. DTTL and each of its member firms are legally separate and independent entities. DTTL (also referred to as "Deloitte Global") does not provide services to clients. In the United States, Deloitte refers to one or more of the US member firms of DTTL, their related entities that operate using the "Deloitte" name in the United States and their respective affiliates. Certain services may not be available to attest clients under the rules and regulations of public accounting. Please see [www.deloitte.com/about](http://www.deloitte.com/about) to learn more about our global network of member firms.

Copyright © 2018 Deloitte Development LLC. All rights reserved.  
Member of Deloitte Touche Tohmatsu Limited