FULL VALUE.
FULL STOP.

How to scale innovation and achieve full value with Future Systems
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Under Ghosh’s leadership, Accenture Technology Services has rapidly rotated to the New. More than 180,000 Accenture Technology people have been trained around the world in New IT, including automation, agile development and intelligent platforms. Ghosh has been awarded patents in multiple areas, including IT automation. He is a member of the Accenture Global Management Committee.

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Wilson wrote “The Jobs Artificial Intelligence Will Create,” MIT Sloan Management Review’s #1 Most-Read article of the year and is a longtime contributor to The Wall Street Journal and HBR. His latest HBR article is “The Future of AI Will Be About Less Data, Not More.”
EXECUTIVE SUMMARY

Strategic use of Future Systems can give your company a clear advantage

80% of success is just showing up, right? Think again.

Today’s C-suite is making significant investments in new technologies. Yet they are not necessarily achieving full value. They’re deploying technologies in pockets, or silos, of their organizations, without a strategy for scaling the innovation from these technologies across the enterprise. Unable to scale their innovation, they’re not realizing the full benefits of their technology investments.

This is creating what we call the innovation achievement gap—the difference between potential and realized value from technology investments. For executives who are under relentless pressure to change and grow, it’s frustrating to make these investments and still fall behind competitors. Simply showing up—adopting the technologies—does not guarantee success.

To crack the code on scaling innovation and closing the achievement gap, we collected data from companies across three categories: 1) the adoption of key technologies, 2) the penetration of technologies adopted, and 3) organization and culture. We then scored them on these factors, calling companies in the top 10% “Leaders,” and those in the bottom 25%, “Laggards.”

Just how successful are the Leaders compared to the Laggards? Leaders are seeing more than 2X the revenue growth of Laggards.

“Leaders not only establish an innovation culture and invest more and earlier into new technologies. They also manage to scale innovations across the enterprise by breaking down organizational barriers between departments and using modern technology to make their IT architecture more flexible.”

Marc Zollinger, Accenture Technology Lead CH

Laggards often adopt technologies as individual point solutions without a strategy for enabling systems that can achieve enterprise-wide, game-changing innovation. While they might have pockets of brilliance, they can’t maximize the value achieved.
What’s so special about those in the top 10%? Their mindset, for starters: Crucially, Leaders think in terms of systems and not individual technologies. With a clear vision, they are evolving to what we call Future Systems, or boundaryless, adaptable, and radically human enterprise systems capable of scaling innovations repeatedly and making organizations strategically agile.

Their methods are different, too: Leaders adopt earlier, reinvest more frequently and acquire technology in a more deliberate manner. For instance, they install data streaming platforms, or event hubs, that can process millions of actions in real time before they adopt AI. Leaders have directed a greater percentage of their IT budget toward innovation over the past five years and expect to accelerate investment in innovation faster than Laggards over the next five.

Leaders concentrate not only on technology adoption, but also on its penetration across the enterprise, to enable innovation transfer and a nimbler response to market conditions. For example, they ensure that cloud services permeate across the enterprise and treat data—across organization silos—as a corporate asset.

Finally, Leaders carefully consider how new technologies will interact with the people and processes already in place in their organization, and they nurture talent in creative ways.

Even worse, the lost potential is snowballing: In 2018, Laggards in Switzerland had foregone $2 billion in annual revenue. If they don’t change, they could miss out on a staggering 42% of their annual revenue in 2023. And it’s not just those with legacy systems that are struggling; not all digital native companies are realizing the full value from technology adoption, either.
CLICK THE FUTURE INTO PLACE

Through our in-depth analysis of the data we collected, we’ve been able to pinpoint the many ways in which leaders stand out in their approach to enterprise technology and how they use it to innovate at scale and drive long-term financial performance.
Imagine an electrician who installs a new gadget for a customer, such as a video doorbell. If he doesn’t figure out a way to integrate it with other devices in the house, like the security system or the family’s cell phones, it won’t be possible to achieve the benefits of a truly connected home.

A similar scenario plays out on a much grander scale across global organizations. CIOs, CDOs, and CEOs understand technology’s significance to their company’s strategy and growth. So, in every industry, they’re adopting technology that spawns new capabilities. But despite these substantial investments, many still struggle to transfer innovations across the enterprise and realize their potential.

This is causing an innovation achievement gap—the difference between potential and realized value from technology investments.

Why is it that technology is everywhere, but value is not?

Value is difficult to capture in part because of the enormous challenge of innovating with legacy systems. The conventional IT “stack”—spanning software applications, data, hardware, telecommunications, facilities, and data centers—wasn’t built for today’s cloud-oriented world of analytics, sensors, mobile computing, artificial intelligence, the Internet of Things (IoT), and billions and billions of devices. Nor was it designed to adapt to the world of tomorrow, whatever that might be.

But it’s not the case that digital native companies are closing their innovation achievement gaps, while legacy companies aren’t. While they might have started in the cloud, some digital native companies haven’t adapted their systems at the pace of technological change. In every kind of company, growth depends on a systematic and sequential adoption strategy in line with Future Systems—enterprise systems capable of scaling innovations repeatedly and giving organizations the strategic agility they need to stay ahead of their competitors.
Leading companies are achieving significantly more value with the help of Future Systems

How, then, can companies maximize their investment in technology? To crack the code, we conducted our largest enterprise systems survey ever, encompassing C-level executives (half in IT and half in business) at more than 8,300 companies across 20 industries and 20 countries.

We collected data on companies’ IT systems strategies—specifically, about 1) the adoption of key technologies, 2) the penetration of technologies adopted, and 3) organization and culture. Then we scored them on these dimensions, calling companies in the top 10% Leaders, and those in the bottom 25% Laggards. By tracking companies’ performance indicators between 2015 and 2023 (projected), we can see the relationship between technology adoption and achieved, or expected, value.

The difference is staggering: Leaders grow revenue at more than twice the rate of Laggards (see Figure 1).

In 2018, Laggards in Switzerland had what amounted to 12% foregone annual revenue. If they don’t change, they could miss out on as much as 42% of their annual revenue in 2023 (see Figure 2).

Figure 1: Leaders—those that are evolving to Future Systems—are growing revenue at more than double the rate of Laggards. Based on average self-reported annual growth rates for 2015–2018.

Source: All Swiss respondents.
Leaders are poised to extend their advantage over the next five years

Figure 2: An illustrative model of how the difference between Leaders and Laggards’ revenue growth is projected to widen.

Companies failing to evolve to Future Systems could miss out on as much as 42% of their annual revenue by the year 2023. Leaders’ expected growth is represented by the purple line and Laggards the blue line (self-reported). For the sake of simplicity, we illustrate the opportunity cost of not evolving to Future Systems using a company with $10 billion in revenue in 2015. Your specific opportunity cost depends on your revenue in 2015. For instance, if your revenue was $5 billion in 2015, you stand to forgo as much as $10 billion between now and 2023.
THINK LIKE THE TOP 10%

Discover what leaders do differently

01 Leaders invest more in innovation.
02 Leaders don’t just adopt technology, they create systems.
03 Leaders scale technology innovation across the enterprise.
04 Leaders understand that Future Systems must be boundaryless, adaptable, radically human.
Leaders invest more in innovation
How the proportion of IT budgets dedicated to innovation has changed

Figure 3: An overview of IT budget allocation provided by Swiss companies for innovation, both current and estimated for the coming years.
Leaders have a deliberate stance toward technology adoption and a clear vision for what their companies’ future systems should look like. Leaders have directed a greater percentage of their IT budget toward innovation over the past five years and expect to accelerate investment in innovation faster than Laggards over the next five (see Figure 3).

While technology adoption is pervasive among all the companies surveyed, Leaders show a consistently higher rate than others (see Figure 4). They tend to adopt new technologies earlier, develop higher levels of expertise, and prioritize and sequence implementations in optimal ways. In doing so, they create systems rather than point technology solutions.

For example, a significant majority of Leaders (more than 90%) adopt artificial intelligence (AI), a fundamental general-purpose technology. And even more revealing, before implementing AI, Leaders set up complementary technologies such as data lakes (a system or repository of data stored in its raw format) and cloud services (any service made available to users on demand via a cloud computing provider’s servers).

Laggards, on the other hand, have faith in a “fast follower” approach, taking on technology somewhat haphazardly leading to a patchwork across the organization. Only around 40% of Laggards have implemented AI, for instance. Often following fads, they put in place technologies as individual point solutions without a vision for how technologies will complement each other, and without a plan for cultivating enterprise systems. As a result, when a potentially game-changing innovation comes along, they cannot effectively scale it.

For example, a major apparel manufacturer developed a wearable device to help users track their exercise but failed to generate meaningful insights from the data collected. That would have required building a machine learning-based analytics platform that could harness the data to provide real-time predictive analytics that customers could use. Because the company opted not to, sales were limited. It was forced to cease production and eventually stop offering support services on apps for existing customers.

While Laggards don’t move beyond innovating in pockets, Leaders set their sights on innovating at scale. Because of that perspective, they show the highest levels of penetration across the 13 critical business processes our survey covered. In fact, Leaders target three times more business processes with technologies they adopt than Laggards. As a result, their systems allow for a seamless flow of product and service innovations from one process to another.

Leaders believe that humans and machines can bring out the best in each other and that innovations within the organizations as well as in their ecosystem of partners can be scaled. It’s one reason they’re motivated to build Future Systems that are:

- **01 Boundaryless**
- **02 Adaptable**
- **03 Radically human**
Leaders master technology adoption

<table>
<thead>
<tr>
<th>Technology</th>
<th>Leaders</th>
<th>Laggards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big data analytics</td>
<td>68%</td>
<td>100%</td>
</tr>
<tr>
<td>Streaming/Real-time data</td>
<td>59%</td>
<td>99%</td>
</tr>
<tr>
<td>Cloud SaaS/Software as a service</td>
<td>59%</td>
<td>97%</td>
</tr>
<tr>
<td>Internet of Things (IOT)</td>
<td>54%</td>
<td>99%</td>
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<tr>
<td>Cloud IaaS (Infrastructure as a service)</td>
<td>52%</td>
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</tr>
<tr>
<td>Cloud PaaS (Platform as a service)</td>
<td>51%</td>
<td>97%</td>
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<tr>
<td>Data Lakes (data repository)</td>
<td>50%</td>
<td>98%</td>
</tr>
<tr>
<td>Open Source</td>
<td>46%</td>
<td>98%</td>
</tr>
<tr>
<td>Cloud Native Applications (custom)</td>
<td>41%</td>
<td>98%</td>
</tr>
<tr>
<td>Top-Down AI (e.g. expert systems, logic and</td>
<td>42%</td>
<td>98%</td>
</tr>
<tr>
<td>inference engines)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hybrid Cloud</td>
<td>48%</td>
<td>92%</td>
</tr>
<tr>
<td>Bottom-Up AI (e.g. deep learning, machine</td>
<td>41%</td>
<td>98%</td>
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<tr>
<td>learning)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NoSQL databases (key-value, document, graph)</td>
<td>35%</td>
<td>98%</td>
</tr>
<tr>
<td>Distributed logs/event hubs</td>
<td>30%</td>
<td>96%</td>
</tr>
<tr>
<td>DevOps automation/CI/CD</td>
<td>29%</td>
<td>98%</td>
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<tr>
<td>Blockchain</td>
<td>34%</td>
<td>94%</td>
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<tr>
<td>Robotics</td>
<td>41%</td>
<td>93%</td>
</tr>
<tr>
<td>Edge/Fog Computing</td>
<td>32%</td>
<td>95%</td>
</tr>
<tr>
<td>Microservice Architectures</td>
<td>27%</td>
<td>97%</td>
</tr>
<tr>
<td>RPA (Robotic Process Automation)</td>
<td>27%</td>
<td>92%</td>
</tr>
<tr>
<td>Extended Reality (AR/VR/MR)</td>
<td>36%</td>
<td>95%</td>
</tr>
<tr>
<td>Serverless Computing</td>
<td>31%</td>
<td>94%</td>
</tr>
<tr>
<td>React/Event-driven architectures</td>
<td>31%</td>
<td>97%</td>
</tr>
<tr>
<td>DevSecOps</td>
<td>25%</td>
<td>97%</td>
</tr>
<tr>
<td>FaaS (Function as a Service)</td>
<td>27%</td>
<td>95%</td>
</tr>
<tr>
<td>Containers, Docker, &amp; Kubernetes</td>
<td>25%</td>
<td>96%</td>
</tr>
<tr>
<td>3D Printing</td>
<td>37%</td>
<td>90%</td>
</tr>
</tbody>
</table>

Source: All respondents worldwide (n=8,356)

**Figure 4:** Technology adoption rates, Leaders and Laggards. Figures here show rates of adoption of specific technologies in aggregate. Leaders also, by and large, adopt these technologies earlier than Laggards.
Boundaryless systems take advantage of blurring boundaries to create new spaces where ideas and partnerships can flourish.

Historically, the components of the IT stack—database, applications, and infrastructure—have been treated as independent entities. These days, rigid divisions are fading. 75% of our global respondents say that systems are breaking down the boundaries between data, infrastructure and applications, between humans and machines, and even between competing organizations. Among the Leaders, 79% globally and even 93% of the Swiss respondents support this statement.

Systems which are boundaryless utilize the cloud, have a uniform approach to data, security and governance, and have established paths for exploring unconventional partnerships—giving businesses almost infinite opportunities to improve how they operate.

TAMEDIA:
Taking communication to new level

Tamedia strategically digitized over recent years. The company expanded its capabilities from print and online newspapers to online marketing, advertising, and platform marketplaces through smart investment. To support its multichannel operations, the media giant implemented flexible and scalable IT architectures, incorporating microservices and state-of-the-art analytics models, such as carforyou.ch. Tamedia’s adoption of new mediums to break new ground in a changing world is why the business is regarded as a Leader. The company is equipped to continue with its mission of European-wide collaboration between group companies and departments.
02 Adaptable:
Adaptable systems learn, improve, and scale by themselves, eliminating the friction that hinders business growth and helping humans make better decisions, much faster.

Powered by advances in cloud, data, and intelligent technologies, those with adaptable systems aren’t fazed by change. The companies we surveyed understand how self-learning systems enable strategic agility: Eighty percent of our Swiss respondents want systems that allow them to pivot to new directions.

Key markers of adaptable organizations include enterprise-wide use of automation and AI, a continuous data supply chain in the cloud to power AI in the enterprise, and a stable but modular, flexible, decoupled, and constantly evolving architecture.

FIRMENICH and GIVAUDAN: Redesigning a classic
The invention of perfume is thousands of years old. That didn’t stop Firmenich and Givaudan from changing with the times, using the latest technology to enhance products. As a driving force behind its digitization strategy, Givaudan introduced an AI tool to improve olfactive performance in final formulas. Additionally, the fragrance manufacturer aims to use customer insights to assist perfumers. Firmenich launched its Digital Lab in partnership with Ecole polytechnique fédérale de Lausanne (EPFL), a well-known science technology institution. The enterprise is harnessing AI to design and improve its fragrances. These new and innovative approaches that adapt the perfume design process and facilitate personalized cosmetics distinguish Firmenich and Givaudan as Leaders.3,4
**03 Radically human:**

Radically human systems talk, listen, see, and understand just like we do, bringing elegant simplicity to every human-machine interaction.

A full 82% of our survey respondents in Switzerland believe systems will interact seamlessly with humans, and 78% think these systems will embrace the way humans work.

Radically human companies empower people to break down organizational barriers. Ninety-one percent of Leaders are extremely effective at working with cross-department teams that combine IT and business to create customer-centric solutions, compared with only 41% of Laggards.

Thanks to technologies such as natural-language processing, computer vision, voice recognition, and machine learning, these systems are becoming less artificial and more intelligent, making them easier to interact with and more efficient.

Leading radically human companies have a structured, fail-fast approach to evaluate the potential of emerging technologies, they apply responsible AI frameworks to build human-machine trust and they use human-centric design as a standard practice.

Companies that can think in terms of systems, as opposed to point-solutions, stand to outpace others in terms of both revenue and margin growth. It starts with envisioning their own version of boundaryless, adaptable, and radically human future systems.

**ROCHE: NAVIFY Tumor Board adds the human touch.**

Complex issues like health care require attention to detail and a human touch. In 2017, pharmaceutical giant Roche introduced the NAVIFY Tumor Board. The cloud-based solution acts as a clinical workflow and supports decision making for cancer patient case reviews in multi-disciplinary team meetings called tumor boards. Gathered data is consolidated and hosted on intuitive dashboards to facilitate collaboration during tumor boards while accelerating personalized healthcare. Radiologists can upload patient records to the same dashboard that displays patients’ records from other departments, such as pathology and oncology. This holistic approach enables medical professionals to quickly select the best course of action. This human-centric approach makes Roche radically human and, consequently, a Leader. 5,6
Companies have to put their mindset into practice with the right methods, honing the technology and capabilities that will help them rise above the rest. These behaviors come as second nature to some companies, but others can learn to implement them. Here are five key actions Leaders consistently take to close their innovation achievement gaps:

01 Adopt technologies that make the organization fast and flexible.
02 Get grounded in cloud computing.
03 Recognize data as being both an asset and a liability.
04 Manage technology investments well—across the enterprise.
05 Find creative ways to nurture talent.
Adopt technologies that make the organization fast and flexible

Leaders are moving to decoupled data, infrastructure, and applications that enable greater flexibility and a faster-moving IT culture. **86% of Leaders in Switzerland (83% globally) agree that it’s important to decouple data from legacy infrastructure, compared with only 29% of Laggards (37% globally).**

Laggards are also far behind in the adoption of DevOps, automation, and continuous integration/continuous deployment, with a 29% adoption rate both in Switzerland and globally. All of these technologies and approaches are designed to help companies eliminate dependencies in their systems and processes, which in turn makes them more agile. Across the world, companies cite architecture flexibility as one of the biggest barriers to innovating at scale (see Figure 6).

These technologies include microservice architectures, containers, and Kubernetes. Microservice architectures are enabled by a suite of tools that break applications into simple, discrete services. Containers package an application so it can be run in isolation from other processes. Kubernetes are an open-source container-orchestration system for automating application deployment, scaling, and management (see Figure 5).

Even digital native companies are faced with the need to update monolithic enterprise architectures. When one travel industry disruptor first launched their business just over a decade ago, speed to market was paramount, so getting the right long-term, scalable architecture in place wasn’t a priority.

Then the company faced the challenge of scaling its platform to meet the demands of a growing customer base and geographic expansion. As part of a decoupling initiative, it migrated its platform to microservices, which allows the company to rapidly respond to change and add new features as it experiences explosive growth.

Leaders opt for flexible, uniform, and scalable architectures capable of responding to market demands, like seamless customer payments. Laggards, on the other hand, find it difficult to move away from rigid IT architectures, which leaves them unable to maximize investments in innovation.

**Figure 5:** Leaders’ adoption of critical technologies that allow decoupling outpaces that of Laggards by a massive margin. 

Leaders create architectures and processes built for change
Get grounded in cloud computing

Cloud computing is essential to Future Systems because it enables companies to successfully utilize other technologies, including AI and analytics. As such, Leaders treat the cloud as a catalyst for innovation. 95% of them have adopted sophisticated cloud services like serverless computing, compared to 30% of Laggards (both globally), who tend to see the cloud as a cost-effective “data center” (see Figure 6).

Swiss Financial Services institutions are also moving more aggressively to the public cloud despite the strict regulatory requirements. Using cloud computing services and AI, they can offer a range of services in mobile payments, banking, insurance, and wealth management. And the shift to the cloud in Switzerland is highlighted by Microsoft operating two data centers in the Zurich and Geneva regions. They support data residency for security, control, and redundancy. The Microsoft Cloud in Switzerland is launching with more than 30 customers and partner organizations.7

Figure 6: Swiss Leaders use sophisticated cloud services more than Laggards.
Recognize data as being both an asset and a liability

Out of the 28 technologies we surveyed companies about, respondents ranked “technologies associated with real-time data capture and analysis” as the most important to transforming/improving their business processes.

Leaders ensure data quality, creating security measures that anticipate threats and building ethically responsible frameworks for managing data and AI. This establishes a virtuous cycle of data creation and consumption, because quality is always improving.

As a result, 94% of global Leaders trust that the data at their disposal is reliable enough to drive business change, compared with 64% of Laggards. Misuse of employee or customer data can result in a very costly loss of trust, and incorrect decisions borne of bad data and analytics.

AI must gain the trust and confidence of the people who use it to avoid the risk of adverse effects on business performance, brand reputation, and regulatory compliance. 86% of Leaders have a systematic way of managing AI in a responsible/ethical manner, compared to 42% of Laggards.

Bonnier AB, a large media group with more than 180 companies, wanted to achieve full compliance with the European Union’s General Data Protection Regulation (GDPR)—a tall order, given that each of these companies managed its own IT systems.

Against a tight timeline, Bonnier AB implemented an automated solution for GDPR compliance that included advanced pattern-matching and machine learning techniques to automatically discover personal data across its systems. It also brought together the company’s disparate data sources and deployed a machine-led compliance solution to help two of its key business units achieve compliance at speed and scale.

Now Bonnier can scan personal data throughout the data lifecycle. It is also able to use powerful visualization of Personally Identifiable Information (PII) through Knowledge Graphs to unlock deep insights from its data landscape. These insights enable the company to develop new offerings, reduce inefficiencies, and find new growth opportunities—turning a compliance-led data program into a competitive advantage.

Figure 7: Being able to trust your own data is the foundation for using AI technology.
04 Manage technology investments well—across the enterprise

Swiss Leaders have clear visibility into company-wide technology investments. For example, 89% of them systematically track return on investments in automation and AI across the organization, compared to only 39% of Laggards (47% globally) (see Figure 8).

Leaders work toward business alignment—a key stepping-stone for innovation transfer—by breaking down barriers between IT and other departments. They also establish innovation centers, creating pipelines for innovation transfer. For example, they might consider how improvements in machine-learning-driven sales and customer relationship technology could be used to predict and preempt employee turnover.

A health insurance company, for instance, is using live dashboards to track bots and automated activities running across their portfolio of businesses. The visibility allows them to calculate the benefits of these investments in real time—for example, by knowing that one bot saves 15 minutes of someone’s time every time it runs, which is 200 times per week.

The company can also identify new opportunities to expand their automation program. And perhaps the most intangible yet crucial benefit of the dashboards is their power as a visualization tool to persuade non-believers, softening the resistance people have to any kind of culture change and paving the way for greater automation adoption.

Leaders track ROI on automation and AI initiatives

Figure 8: Leaders systematically determine the financial impact of investment in automation projects across the whole company.
Leaders understand that investing in talent is the best way to advance Future Systems. As these systems evolve, so must the IT workforce. In fact, a workforce immersed in yesterday’s technologies is one of the biggest obstacles to creating the expansive, flexible, human-centric systems necessary for success.

64% of Leaders in Switzerland believe that without some retraining, more than 50% of their IT workforce’s skills will become obsolete in three years, compared to 27% of Laggards. However, this is not the case for non-IT staff, with only 11% of Leaders predicting more than 50% of their skills will no longer be relevant.

Leaders are far outpacing Laggards in skills training: They use experiential learning at nearly three times the rate of Laggards (75% versus 29%) and they launch apprenticeship programs at a higher rate than Laggards (79% to 47%). 87 percent of Leaders are using AI and advanced analytics to personalize learning, predict skills needs, and match workers’ skill requirements with appropriate training modules. Only 31% of Laggards use these techniques.

A large utilities company is currently exploring how 3D, Extended Reality, and AI technologies can help nuclear fleet operators to train their powerplant personnel in any scenario, at any time.

With VR, they can design training scenarios and simulations that would otherwise be too inaccessible, expensive or dangerous if carried out in the real world. This kind of simulation is also useful in emergency response planning in large, complex sites like shopping malls and theme parks. The human-like interaction with technology can make a notable impact, not just by training workers but by making facilities safer for everyone.

Leaders also make sure their talent is not afraid to experiment and present non-traditional ideas—important components of learning and growing. 93 percent of Leaders have fostered a fail-fast culture, for example, versus only 42% of Laggards.

My organization has an effective strategy in place to develop its future talent

![Figure 9: 87% of Leaders, for example, use AI and advanced analytics to personalize learning.](image-url)
Architecture is the biggest barrier to innovating at scale

Figure 10: Across the world, companies cite architecture flexibility as the biggest of four barriers to innovating at scale. Respondents were asked about their effectiveness in addressing each barrier.
OUR PLAN, YOUR MOVE

Spending money on the latest technologies and working hard to solve problems as they arise is simply not enough to get to the top in today’s fiercely competitive business environment.
Though they might both possess knowledge, talent, and ambition to spare, the distance between the Leaders and Laggards is huge: Swiss Leaders have twice the revenue growth of Laggards, who could miss out on up to 49% of their annual revenue by 2023 if they don’t change.

To scale innovations repeatedly and grow twice as fast as others, companies have to depart from adopting technologies as point-solutions. Instead of a patchwork of technologies, they must evolve future systems by cultivating the mindset and methods of the top 10%, right now. Those that wait will find it increasingly difficult to catch up, as new technologies proliferate and the pace of innovation accelerates.

Leaders already enjoying a considerable head start will not be standing still. The systems they have in place are specifically designed to not only accommodate innovations in technology, but also scale them across the enterprise. The race is not to arrive to some fixed endpoint in the future, but to build boundaryless, adaptable, and radically human systems for the future.
NOW IS THE TIME TO MAKE YOUR MOVE TO FUTURE SYSTEMS. HERE’S HOW:

**Boundaryless**

1. **Break through the cloud ceiling**
   Cloud isn’t the finish line—it’s the starting point.

2. **Design for disruption**
   Insulate against change by leveraging flexible architectures and designing interoperable systems.

3. **Decouple the entire IT stack**
   Remove unnecessary dependencies across all layers of the solution stack.

4. **Explore new, unconventional business models**
   When boundaries disappear, new partnerships open up to solve significant problems.

**Adaptable**

1. **Stage an architectural intervention**
   Let go of old ways of working to create architectures that can constantly flex and adapt.

2. **Identify the biggest friction points in your business**
   Technologies like AI, blockchain, and microservices can help solve your biggest business challenges.

3. **Understand the need for responsible AI**
   Adaptive systems must gain the trust and confidence of the people they work with and for.

4. **Let data be your captain**
   Start with quality data and apply a data-centric approach to your most important business decisions.

**Radically Human**

1. **Master human-centric development**
   Put humans at the center of your design processes, recognizing that data and technology alone can’t solve every problem.

2. **Break down organizational and cultural barriers**
   Scrutinize how organizational or cultural boundaries may hinder speed and accountability. Embed an end-to-end ownership culture from initial idea to user experience.

3. **Don’t wait to experiment with emerging technologies**
   Experimenting early is the best way to start socializing and imagining the commercial possibilities of emerging technologies.
ABOUT THE RESEARCH

We employed a multi-method research approach for Future Systems. Specifically, the research program included surveys, interviews, and case study research, and economic and machine learning modelling for diagnostics.

Our research, and that of our partners in our ecosystem, employs ethical and responsible research methods. Respondents reveal their identities voluntarily, we anonymize all data from companies in our data set, and report results in aggregate form. We commit to not using the data collected to personally identify the respondents and/or contact the respondents.

1. Survey

The Accenture Future Systems Survey, 2019, is the largest survey of C-Suite executives on enterprise systems. The survey collected data on:

a. Technology adoption
b. Application of technologies at scale across organizational processes
c. Organizational and cultural readiness to adopt and create symbiotic systems of technologies
d. Multiple measures of financial and operational performance

The graphic opposite summarizes the survey demographics.

8,356 companies, global
50% IT, 50% non-IT, C-level only

Our dataset contains a range of companies from very high-growth (16%+) to those witnessing declining revenue and margins, and many in between.

Average revenue growth: 6.4%
Average gross margin growth: 5.7%
Average employee growth: 4.6%

20 industries

Financial Services
Banking (524)
Capital Markets (515)
Insurance (515)

Communications
Media & Technology
Media & Comms. (515)
Telecommunications (351)
High Tech (350)
Software & Platforms (350)

Health & Public Service
Health (356)
Public Services (515)
US Federal (353)

Resources
Utilities (515)
Energy (Inc. Oil & Gas) (350)
Metals & Mining (350)
Chemicals (350)

Products
Retail (351)
Consumer Goods & Services (521)
Travel (350)
Industrial Equipment (358)
Life Sciences (515)
Automotive (352)

20 countries (HQ)

Australia (538)
Brazil (388)
Canada (313)
China (1,012)
France (395)
Germany (543)
India (246)
Japan (631)

Netherlands (155)
South Africa (155)
Singapore (40)
Thailand (61)
Malaysia (12)
Philippines (20)

Spain (396)
Switzerland (209)
UK (579)
USA (2,254)
Inference approach
First, we define and group companies into Future System Leaders and Laggards. That is, we identify companies that are ahead in terms of their evolution to Future Systems and those that aren’t, or are evolving slowly. We then investigate if Future Systems leadership is correlated to financial performance.

Definition of Leaders and Laggards
We create a Future Systems Score, composed of three components: 1. Technology adoption. 2. Extent of technology adoption across organizational processes, and 3. Organizational and cultural readiness for technology adoption.

The top 10% of the companies on this score we called Future Systems Leaders, or simply Leaders, and the bottom 25% (Future System) Laggards. The remaining 65% of companies in our sample sit somewhere between Leaders and Laggards.

Calculation of the performance difference
Using the definitions above of Leaders and Laggards, we compare their financial performance—measured by average revenue growth—and calculate the difference in performance between Leaders and Laggards. To ensure that the results were robust, we calculated the difference in performance—the performance gap—in every industry. The results are robust throughout.

The regression below summarizes our (simplified) modelling approach:

\[
Revenue = a + \beta_1 \times \text{technologies adopted} + \beta_2 \times \text{processes transformed} + \beta_3 \times \text{technology process} + \beta_4 \times \text{control variables} + \mu
\]

Where \( \beta_1 \) and \( \beta_3 \) are the key coefficients of interest and \( \mu \) is the error term of the regression.

ACKNOWLEDGEMENTS
The authors would like to thank Prashant Shukla, PhD, the Research Lead for Future Systems, as well as Surya Mukherjee and David Lavieri from Accenture Research for their contributions to this report.

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