#techvision2021

Accenture Insurance Technology Vision 2021

Leaders Wanted

Masters of Change at a Moment of Truth

Voices of **Change**

From insights to action, the path to extraordinary value starts here.

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Contents

Creating and delivering value in insurance has drastically changed. Insurers need to reimagine their businesses, both internally and externally, to meet the changing needs of today's customers. This takes place in the context of a world hungry for a new kind of leadership.

The year 2020 was a catalyst for rapid change. On one hand, we have widespread and accelerated digital transformation coupled with the digital building blocks to create almost anything.

On the other, we have a blank slate, waiting for the next vision of the future to be defined. With these two combined, we have an opportunity we may never see again in this generation—to actively shape our future almost from the ground up. But this is a challenge that demands a new kind of leadership. Leading in an uncertain future will require insurance companies to become skilled at change and reinvention.

To meet the ever-changing needs of customers, insurers need to expand their offerings intuitively, and in partnership with others. To succeed at reaching customers in new ways, insurers need to power their organisations with future-ready technology and operations. In a time where clients are increasingly questioning the value of insurance products and services, and facing new risks to their livelihood, health and wellbeing, the reimagining of the insurance industry could not be more relevant.

While many insurers may have asserted that they were leaders in adaptability, innovation and connectedness, the COVID-19 health and economic crisis threw the gap between intention and reality into sharp relief, exposing inflexible work arrangements and operations; fragile supply chains; untrustworthy information; new customer needs. The pandemic and the resulting disruptions exposed the limitations of long-standing norms for how companies operate and how people live.

Forced to recognize this deepening digital achievement gap, companies began to compress their decade-long transformation agendas into two- to three-year plans. Leaders pivoted to focus on building a digital core that would allow them to simultaneously transform multiple parts of their enterprises and their talent.

In essence, they began looking at technology as a saving grace in an unpredictable time—one that would allow them to accelerate their efforts to minimize the disruptions of the pandemic. Amid this chaos, enterprises not only pivoted faster than they believed they could, but they started demonstrating the adaptability, innovation and connectedness that they thought they'd already achieved.

This journey of reinvention, however, has only just begun. The pandemic radically accelerated changes that companies knew were coming but didn't expect to see so soon. Major shifts that were predicted to materialize over the course of years are happening here and now—such as industry convergence, localized supply chains, mass virtualization and rapidly and continuously changing customer expectations. But, while immediate changes are clear, there's less clarity than ever about what our long-term future holds.

We're left with a global set of circumstances we've never seen before.

The single biggest reimagining of industry in living memory has been ignited. Our customers, and the world, need leaders who will look beyond today's triage effort and start building what comes next. While it will be tempting for companies to retreat to what they know, 2020 brought the need for a different path forward into clear focus. If insurers continue to have a clear-eyed perspective and sharp focus on their expedited digital transformations, reimagining everything from their people, data, architectures and ecosystems, they can emerge as leaders.

For insurers, this means moving from a reactive state of risk indemnification to a proactive mode of ongoing risk mitigation. It will entail the exploration of expanded, disrupted products and services that change how insurers engage with customers. To drive this change, insurers will need to lead the way through unchartered waters, radically rethinking their role in the customer value chain and making crucial changes to their technology and operations to support this new reality.

There is no leadership without technology leadership

Generali is an example of an insurer that took a tech-first approach in their leadership. The leading European insurer recently partnered with Accenture to create the Group Operations Service Platform joint venture. This was initiated to speed up digital transformation across the company through a centralized governance structure. The new cloud-centric model will enable the insurer to achieve greater synergies between different business units.[1]

66%

of Insurance executives report that the paces of digital transformation for their organization is accelerating.

The COVID-19 pandemic has had a dramatic impact on the insurance industry.

99%

Almost all insurance executives (99%) reported that the pandemic created an unprecedented stress test for their organizations.

For example, many life insurers that largely sell in-person or face-to-face had to reinvent the way they sell to customers, with the pandemic speeding up their shift to digital sales and services. Consider the transformation of John Hancock. In June 2020, the US-based insurer introduced an electronic application platform, JH eApp, to streamline and optimize its life insurance sales process. With the pandemic making it difficult to contact a broker or client in person, the app's focus was to provide the distribution partners with tools to conduct business in a remote environment. JH eApp connects the entire application process digitally, eliminating time and paperwork and allowing producers to focus on client questions and needs. Available to anyone aged 18-79, the platform, combined with the company's accelerated underwriting solution, will potentially provide instant underwriting.[2]

What started as an attempt to solve immediate problems during the pandemic has quickly become an opportunity to rapidly re-platform the enterprise, create entirely new kinds of value, and become an industry leader.

Take the example of Haven Life, the digital life insurance agency of Mass Mutual. The insurer leveraged AI to expand access to life insurance during the pandemic. Using a combination of new medical data sets for underwriting and a hybrid AI and human-powered process, its LiteTouch underwriting process enables qualified individuals get instant coverage without a medical exam.[3]

By accelerating their transformations to meet the needs of a world in crisis, leading insurers have ignited a new and different future—one predicated on technology. Rapid digital acceleration during the pandemic has cemented technology as the cornerstone of global leadership. 'Just enough' is not enough now. The gap between digital leaders and laggards grows by the day and taking a wait-and-see approach will land companies on the wrong side of that gap. Leadership demands that insurers prioritize technology innovation in response to a radically changing world. Small pilots and incremental scaling are an obsolete luxury, and the friction between research, development and large-scale deployment must diminish or disappear.

Leaders don't wait for the new normal, they build it. As the saying goes: The best way to predict the future is to invent it. Prioritizing technology is essential to ensuring the enterprise doesn't fall behind. However, true leadership will come from companies embracing radically different mindsets and models. The world has been beset by sweeping change and demands leadership that thinks boldly in response.

From the workforce to supply chains, technology, operating and business models, insurance leaders have spent decades building systems for static purposes, where change happened slowly and expectedly. But today success is coming to those with the audacity to reimagine it all. In the past year insurance carriers were forced to confront deep-seated assumptions about how fast the organization could pivot, where or how work gets done, even what they sell and to whom. While some froze, watching their old convictions crumble, others shattered the bureaucracies and assumptions holding them back—becoming the leaders that everyone will follow.

When push comes to shove, leaders don't see change as disruption—they embrace it as an opportunity to reimagine their business for the better. But bold actions will fall flat without the technology foundation needed to support this ambition. Enterprises that pair big ideas with powerful technology will turn change-readiness into a competitive competency, not a reluctant accommodation.

And there is a temporary vacuum as people, employees, customers and partners all continue to establish a new set of preferences for the next normal. Boundless opportunity lies ahead for the enterprises willing to break from the mentality of "that's how we've always done it" and become part of crafting what comes next.

Broaden the horizons of leadership

Technology makes the boldest ambitions achievable, but people are the north star that provide vision and direction. As they pioneer the new normal, enterprises are poised to have an outsized impact on the world around them—and financial success will be only one measure of leadership.

This is a unique opportunity to rebuild the world better than before the pandemic, and realizing this goal will mean expanding our definition of value to include how well people thrive, the impact of our activities on the environment, growing inclusivity and more. When technology, ambition and a commitment to people converge, the impossible becomes attainable.

Insurance carriers exist at a unique intersection of managing risk and promoting financial and physical wellbeing. With accelerated digital transformations and ecosystem partnerships, insurers can help address some of the deepest-set challenges the world faces. As efforts like sustainability and conscientious consumption become top initiatives, technology solutions are allowing visibility of the full value chain, enabling insurers to build trust with customers in unprecedented ways.

> **2020 Efma-Accenture Innovation in Accenture Award winner Bajaj Allianz General Insurance offers crop insurance to local farmers, with advanced, holistic additional features. With their Farmitra – Caringly Yours mobile app for insurance and agri information services, farmers not only get insurance solutions, but a range of other customized solutions information such as personalised crop advisories, visual crop diagnosis, mandi price, agricultural news and best practices, at no cost and in their vernacular language. Users can also purchase allied insurance solutions such as motor and health insurance policies from Bajaj Allianz General Insurance. This is all provided through an intuitive, integrated app.**

A new era of industry competition is dawning—one where companies compete on their architecture. Growing investments in data, AI and digital twin technologies are giving rise to a new generation of business and intelligence: The mirrored world. Natural language processing, low-code platforms, robotic process automation and more are democratizing technology, putting powerful capabilities into the hands of people all across the business.

It's time for enterprises to transform remote work from an accommodation to an advantage. The global disruption of COVID-19 ignited a scramble to reimagine partnerships—and multiparty systems gained newfound attention.

Our five technology trends for 2021

We have isolated five critical trends for insurers for 2021.

Stack strategically

Architecting a better future

A new era of industry competition is dawning—one where insurers can build their stack to drive efficiency and better serve their customers.

Mirrored world

The power of massive, intelligent digital twins

Growing investments in data, AI and digital twin technologies are giving rise to an emerging era of business and intelligence: The mirrored world.

I, technologist

The democratisation of technology

Natural language processing, low-code platforms, robotic process automation and more are democratising technology, putting powerful capabilities in the hands of people all across insurance businesses.

Anywhere, everywhere

Bring your own environment

Insurers are historically reliant on a physically present workforce, but that has changed dramatically. Remote work is here to stay, and it's time for insurers to transform this into an advantage.

From me to we

A multiparty system's path through chaos

The future of insurance lies in collaboration. Leading insurers will reimagine their partnerships through ecosystems and multiparty systems.
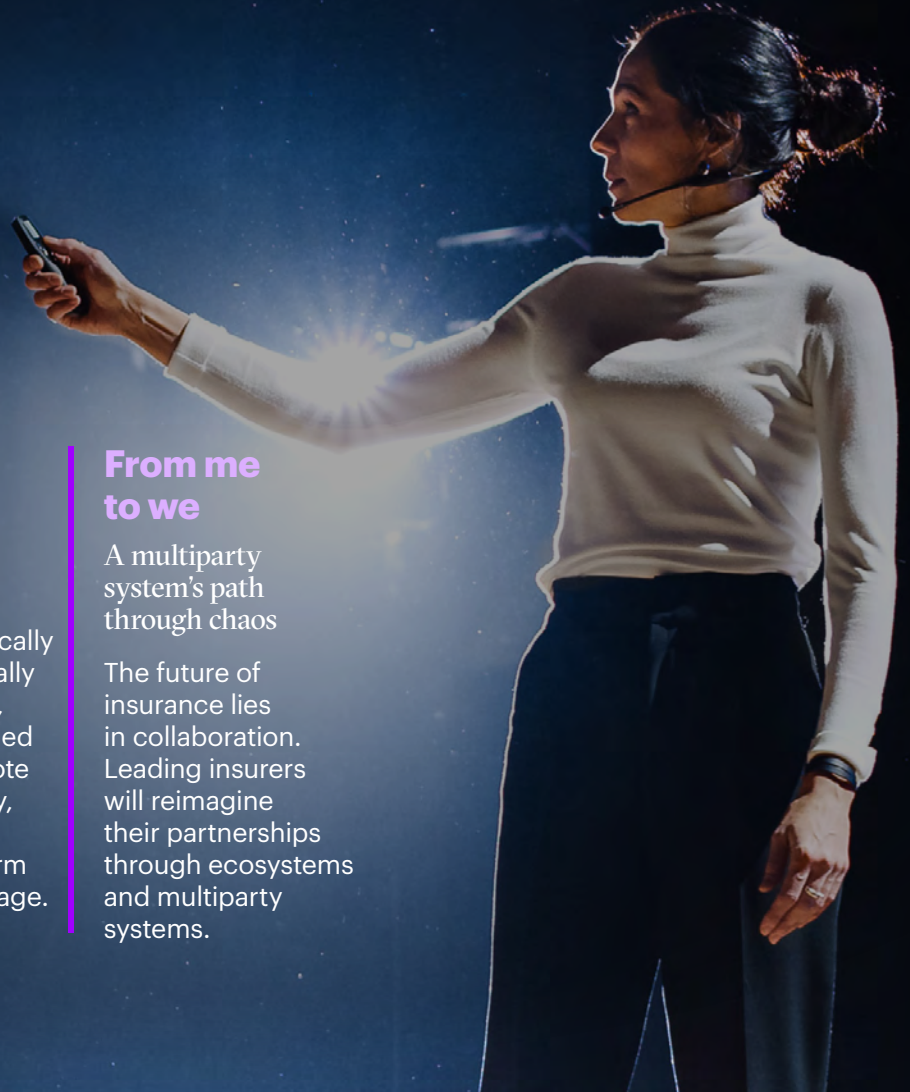
Trend 1

Stack Strategically

Architecting a better future

Over the past few years, the importance of enterprise architecture has ebbed and flowed in the insurance space. Now, thanks to present-day challenges, is the most important moment in history for enterprise architecture.

77%
of insurance executives state that their technology architecture is becoming critical to the overall success of their organization.

Survey results

Of those insurance executives surveyed for the study:

66%
said that the pace of digital transformation in their organizations is accelerating.

This is right in line with the global average for all sectors: **65%**

Over 80% of insurance executives agreed that their organization's business and technology strategies are becoming inseparable— even indistinguishable. **80%**

Strategic leadership is synonymous with technology leadership – but to what end?

The decisions insurers make now will set the course for years to come. Now is the time for insurers to examine their current and legacy technology packages, and understand how to stack them to deliver an ideal experience for customers. Sometimes innovative stacking can unlock new capabilities—for example, Accenture worked with an insurance client to help create new policy origination and claims solutions by stitching together modularized, existing capabilities.

Accenture's global Tech Vision report found that, in response to the COVID-19 pandemic, companies across the globe made rapid digital transformations, accelerating their journeys to the future. **Globally, cloud spending in the first quarter of 2020 was nearly triple that of the previous year, and by November, 70% of companies using cloud had plans to increase spending due to the disruption.**

These rapid transformations and the sudden influx of new technologies have ignited a new era of business— one where architecture matters more than ever, and industry competition is a battle between technology stacks.

Insurance executives agree, with 80% affirming that their technology architecture is becoming critical to the overall success of their organization (31% report that it's very critical). As mentioned above, some insurers have repurposed current technologies. We have worked with other insurance clients to modernize their tech stack entirely, incrementally transforming it into a cloud-native, cloud-based replacement for their current infrastructure.

Insurance carriers are now at a critical decision point. To become—or remain—industry leaders, they must build competitive technology stacks. At the same time, as they make investments in cloud, data analytics, emerging technologies like DARQ, insurers need to think about the long-term impact these choices may have—either limiting or propelling them in the future. Insurers are becoming wise to this trend—57% started using AI technologies over the last three or more years, with a majority reporting an increase in the use of the technologies due to COVID-19, while 48% of insurers started using extended reality-related technologies

over the last three or more years. Over 60% of insurers started using blockchain over the same period.

Insurers are gradually moving past focusing on virtual assistants and conversational AI to using AI technologies for efficiency improvements. Allstate, for example, optimized its digital screening process by using AI and data services to identify fraudulent claims.

Concurrently, extended reality (XR) uses in the industry have primarily focused on improving training experiences. In the case of German insurer ERGO, the company developed a modular virtual reality framework called VR Conversation Coach to enhance sales performance.[5]

When it comes to distributed ledger technology (DLT), insurers are coming together to identify real-world use cases for applying the technology to improve their process flows (e.g. RiskStream Collaborative and B3i are major consortia set up over the last few years). More recently, Aon, Zurich and ACORD partnered to launch ADEPT, a blockchain-based real-time data exchange platform linking brokers and insurers for premium accounting. The platform offers secure, decentralized storage and access to verify information, while reducing the time and cost of reconciliation.[6]

The most dynamic, sustainable and competitive architectures will be the ones that let businesses tap into the full spectrum of technology capabilities available today, building unique solutions for current markets while maintaining a focus on reusability, repurposing and the enterprise's evolving goals. A new era of competition is dawning—one where architecture matters, and insurance leaders will be judged not just on the success of their business plans, but by the ingenuity of their technology choices.

77%

of insurance executives state that their technology architecture is becoming critical to the overall success of their organization.

Fortify: Creating technical wealth

To build a competitive technology stack, insurers first need to invest in a strong foundation. And as 2020 showed, despite their best intentions, many insurers didn't have one prior to COVID-19. Enterprises are weighed down by technical debt accumulated as former technology solutions become outdated, need refactoring or are otherwise holding them back from achieving their current goals.

Instead, they need to build technical wealth—establishing a clear path to move away from static, unadaptable legacy systems and develop an adaptive, reusable approach to technology. This requires leading with technology. However, only 28% of insurance executives report that technology drives their organization's overall strategy and goals, while 14% say visionary technology goals are at the core of their organization's overall strategy, including larger societal goals (sustainability, inclusion and diversity, etc.).

Italian insurer Banca Mediolanum, for example, is pioneering 'smart insurance' with blockchain-based smart-contract technology. This works closely with external resources (oracles) allowing the policy to "trigger" the claim as it happens, sending an immediate notification to the customer about their right to be compensated. The resulting efficiency of the claim process when it's triggered by an oracle and handled with a smart contract allows for a new kind of product (parametric insurance products) for the retail market and a new level of integration in the banking distribution process.

Many insurers have already taken a step toward flipping their approach with cloud transformation. But simply "lifting and shifting" or migrating a handful of enterprise applications won't be enough when companies need to be prepared for change at a moment's notice. Cloud has the potential to transform everything from how businesses operate to how they partner, compete and drive value.

Truly architecting for change means fundamentally re-thinking how applications are developed and taking full advantage of these opportunities. The microservices revolution is at the forefront of this rethinking. Designing applications at a micro level breaks away from the one-challenge-one-solution paradigm and gives enterprises the flexibility they so desperately need. These composable elements can be swapped in or out independently, scaled, or repurposed over time, creating a system that isn't just minimally viable, but maximally valuable.

Insurers can follow similar steps to redesign and reinforce their technical foundation with modular and adaptable building blocks, preparing them to accommodate change when it happens. And it isn't just about being reactive. Generating technical wealth gives companies greater ability to explore and extend the business in new directions, building new value with relative ease.

Accenture recently partnered with an insurer to assist in a complex merger.

When this leading global insurer acquired another large company, it knew that it needed to integrate the acquired company's business units and software applications into its existing IT landscape—or face the additional complexity and expense of maintaining multiple systems.

The insurer enlisted Accenture's help to move the acquired company's on-premise life insurance applications to the cloud where they could be part of a single, unified solution. The goal was to complete the migration within 12 months. Accenture supported the migration of a high-performance financial reporting application, legacy Java applications and multiple integrations with software-as-a-service (SaaS) solutions.

We devised the cloud migration strategy and timelines, including re-platforming, repurchasing or retiring 75 applications, three middleware platforms and four central file shares. As a result, the insurer anticipates cost savings of $12 million a year.

It's also important for insurers to understand how technology is going to impact wider corporate goals. Businesses in every industry are scrutinizing their supply chains, manufacturing and packaging with a sustainability lens, and the increasingly central role of technology means it should be part of this re-evaluation as well. For instance, using cloud-native architectures and sustainable software engineering can reduce carbon emissions by 5% to 10% each—making a greener technology stack overall.

Accumulating technical wealth gives insurers greater ability to explore and extend the business in new directions, building new value with relative ease.

Extend: Competing through tech

With a technology foundation built for change, insurers can unlock the true value of aligning technology and business strategies, tapping into today's wide range of technology options. Insurance executives agree, with 89% saying that their organization's ability to generate business value will increasingly be based on the limitations and opportunities of their technology architecture.

The diversity of today's emerging technology capabilities is driving unprecedented diversity in business tactics and solutions. Insurers no longer need to approach problems in the same ways as their competitors, and their unique technology solutions will be their competitive edge.

Please indicate the statement that best reflects the alignment of your organisation's technology and business strategies:

17.7%

Technology goals are somewhat aligned

38.3%

Technology goals are aligned

28.4%

Technology drives my org

14.1%

Visionary technology goals are at the core of my org

To stake out a share of tomorrow's market, insurers need to reimagine the future of their products, services, operations and more through the lens of what technology is making—or will make— possible, and they need to build the right technology stack to bring their preferred future to life.

How can an insurer manage this technological complexity and the explosion of new tools at their disposal? Take the example of a large insurance client with a typical landscape of vertical platform solutions mixed with custom legacy and SaaS platforms. Accenture worked with the team to use agile ops to accelerate their delivery across all platforms, resulting in a faster pace in a complex, multi-platform environment. Each of these examples demonstrates the convergence of technology and business strategy within certain technology layers. But to tackle the most ambitious challenges and position the enterprise to be flexible and future-adaptive, businesses also need to think holistically across layers.

Ping An Insurance, for instance, is using AI, blockchain, cloud, big data and security to drive its "finance + technology" and "finance + ecosystem" strategies. In addition to using AI and blockchain to transform its core business, some of Ping An's platform-driven ventures blur the lines between multiple industries. Their Smart City "1+N" platform— built on intelligent cognition, AI, blockchain and cloud technology—supports medical insurance, finance, education, elder care and real estate services.[7]

The choices insurance carriers make throughout their technology stack now directly determine the ways in which they do business and ultimately how competitive they are. Organizations that successfully combine their business and technology strategies, and work to find their most valuable combination of technologies across the stack, will be able to develop truly one-of-a-kind offerings with unprecedented agility, capturing new markets no matter how fast the world changes.

Reinvent: A new generation of technology and business

As insurers reimagine the possibilities of technology-powered products and services to create new value propositions, they will soon find they are playing a more active role in the relationship between people and technology than they ever have before.

The convergence of business and technology means it's highly likely that the first time a customer makes an insurance claim or select a policy, they will most likely interact with a near-human AI agent.

Take an example from the recent Efma-Accenture Innovation in Insurance Award to AXA Asia. Their empathetic AI-powered chatbot, Emma, provides personal support and guidance for customers using natural language conversations to support customers' overall well-being. Mitsui Sumitomo Insurance Group (Japan) is another Efma-Accenture award winner with MS1 Brain, which fuses the strengths of humans and AI—with AI partnering with agencies—to drive a customer-centric sales process. The solution collects, analyzes and utilizes customer information to accurately understand needs and offer the most appropriate products.[8]

However, consumers are not yet convinced of the technology. Accenture's Insurance Consumer Study shows that pure machine interaction was ranked as the least appealing option with under 10% of consumers saying they were comfortable with engaging with a robot when making a claim, applying for a loan or mortgage, or asking for advice on products and offerings. Human interaction ranked second, with trust with in-office human advice falling from 2018 to 2020. Human interaction informed by AI ranked first.

The great diversity of technology capabilities available to businesses today is creating limitless possibilities—but also new challenges and new ways competitors can gain the upper hand. As insurers accelerate their innovation strategies to meet the demands of today's market and future markets, they need to be strategic—the technology choices they make today will have a far-reaching impact. If insurers are using too many clouds and licensing too many new technologies, they are approaching a danger zone in which it is impossible to integrate and calibrate legacy and new technology in a strategic, meaningful manner. However, it doesn't have to be that way.

Now is the time to strategically migrate to the cloud, leverage AI and take advantage of next-generation infrastructure. The architecture built today will determine each insurer's future.

Decision points

Is your business prepared to be a technology leader?

- Technology is reshaping the insurance industry, and this evolution went into overdrive in 2020. Revisit (or create) your vision for the future of technology in your industry: Identify what has accelerated, what has lagged, and what has changed forever

- Evaluate current digital transformation efforts against those of your competitors. Accelerate investments in core technologies like cloud, data analytics and mobility

- Identify new avenues for digitally driven products, services and customer experiences that leverage growing technology capabilities

How are you creating a competitive edge with your technology choices?

- Focus on building technical wealth. Reimagine your approach to application development to take advantage of cloud capabilities, microservices and the flexibility they unlock. Focus on creating reusable components that are maximally valuable, not just minimally viable

- The future is here already. Begin piloting or scaling efforts and investments in next generation technologies like DLT, XR or AI. Leading in cutting-edge technology areas will be the main source of competitive advantage—make sure you have a strategy for them

How will your relationship with your customer be reshaped by next-generation technology?
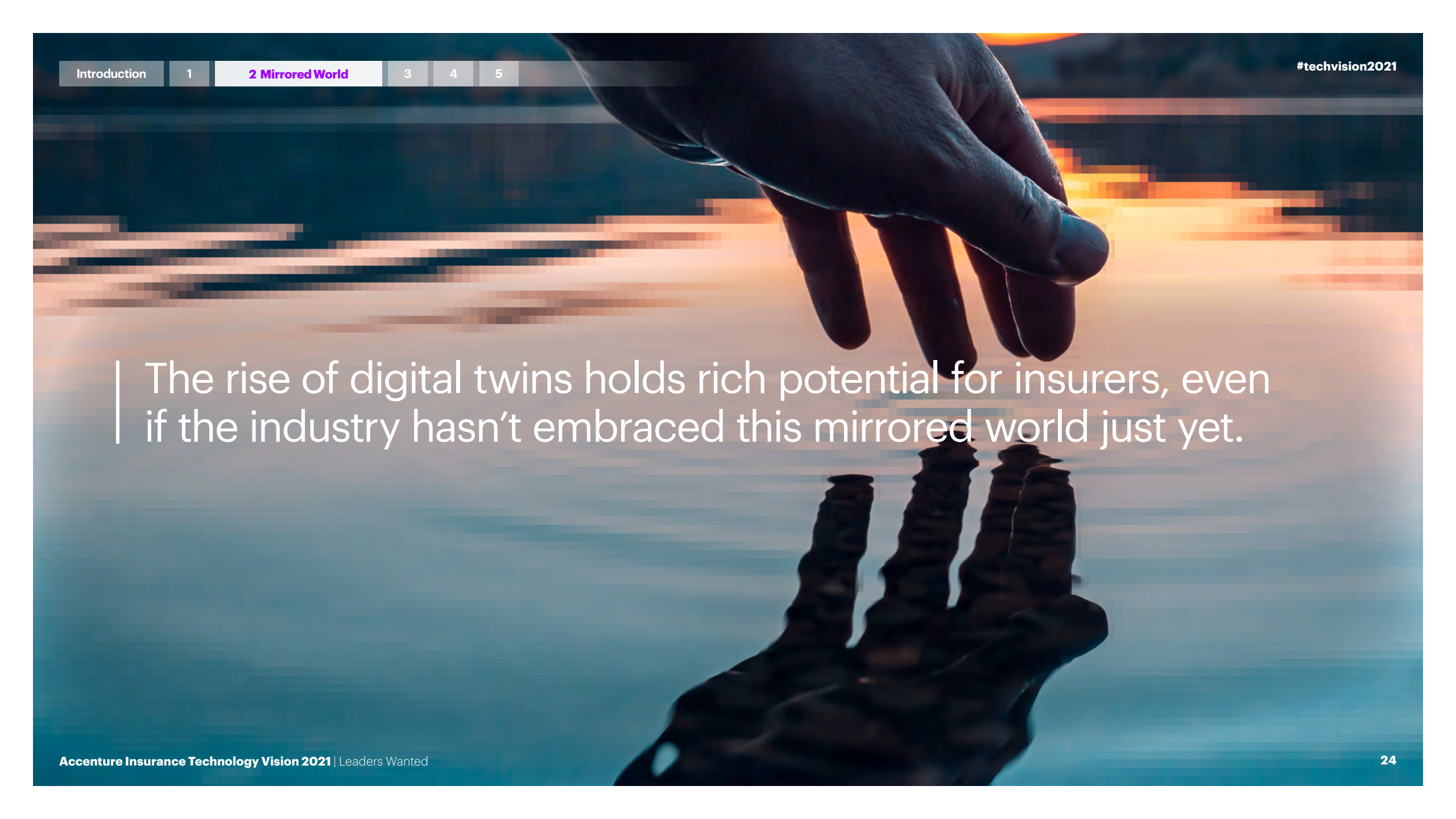
- The first time a customer uses a new technology may be through your products or services. Conduct design thinking and strategic foresight exercises to evaluate how the enterprise will be brought closer to the customer in unexpected ways

- Make trust a core design principle of new technology strategies. Prioritize data privacy, ethical design and continuous governance as you build. Trust and adoption will go hand in hand for the next generation of products and services

Trend 2

Mirrored World

The potential of massive,
intelligent digital twins
for insurance

The rise of digital twins holds rich potential for insurers, even if the industry hasn't embraced this mirrored world just yet.

> **When digital twins were initially adopted, they were championed for their ability to monitor, simulate, and streamline the data of discrete devices.**

But recently, the scale of the models, layering in of AI and increase in adoption have transformed the equation. Leaders are starting to connect massive networks of intelligent twins, linking many twins together to create living models of whole factories, product lifecycles, supply chains, ports and cities. They are creating unbroken threads of data—fabrics that will soon be essential to every enterprise's digital strategy.

While we may find digital twins in the digital marketing and website design departments, the mirrored world has not yet taken hold in the insurance industry. At the same time, it could be said that insurance invented the original use of the mirrored world through its use of actuarial science to model potential risk scenarios.

While insurers have only just begun to tap into the renewed potential of digital twins, the opportunity is exponential. Digital twins might be a new, worthy source of intelligence for insurers, at a time when

93%

of insurance executives believe that their organization requires a mission control, or central intelligence hub, to gain insights into complexities and model their organization's processes, people and assets.

The mirrored world is not a new concept, but taking it to an industrial scale, with the help of digital, opens up new paths. As more enterprises build and connect intelligent twins, bringing more of their organization into digital space, they are opening a cornucopia of new opportunities and ways of doing business.

Consider how digital twins already let businesses gather, visualize and contextualize data from across their physical assets and projects, bridging their physical operations and digital capabilities. AI helps them act on that data, dynamically responding to real-time information, asking "what-if" questions about possible future scenarios, and designing and testing new products in the virtual world long before ever constructing them physically.

As enterprises connect more expansive networks of twins and build out the mirrored world, these capabilities will grow exponentially. Leaders will be able to make data and intelligence the primary orchestrators of the business,

increasing real-time agility at scale, overhauling their innovation processes, and forming entirely new mirrored-world ecosystems and partnerships.

What technology is your organization scaling up or experimenting with this year?

Technology	Scaling	Experimenting
5G	19%	27%
Artificial Intelligence (AI)	39%	16%
Cloud	45%	12%
Digital Twins	18%	24%
Edge Computing	22%	19%
Internet of Things (IoT)/Smart Sensors	36%	15%
Robotic Process Automation (RPA)	20%	20%
Robots/Autonomous Robots	9%	12%
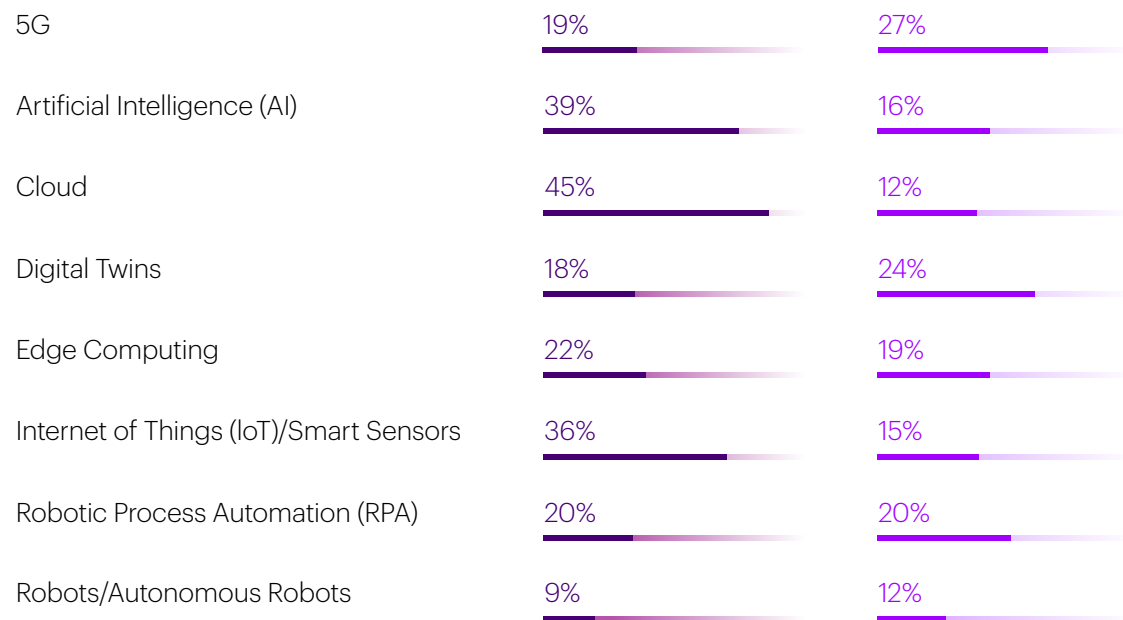
——— Scaling

Applying technology to change
a process (or multiple process)
in a full production system.

——— Experimenting

Applying technolgy to testing within a process
(e.g. A/B testing), but not yet changed the
process in a full production system.

For insurers, the mirrored world is still more concept than reality. Only 25% of insurance executives report their organization is experimenting with it, and 18% are scaling up digital twins this year. However, if other industries are anything to go by, the mirrored world will soon be the foundation on which insurers manage their operations, form and test new strategies, collaborate with partners and more. While it may not be a well-developed strategy at present, 87% of insurance executives agree that digital twins are becoming essential to their organization's ability to collaborate in strategic ecosystem partnerships, and 68% expect their organization's investment in intelligent digital twins will increase over the next three years.

During the COVID-19 pandemic, many organizations struggled because they couldn't easily answer big-picture queries. Imagine the difference if more enterprises had faced COVID-19 with intelligent twins—they could have modelled and visualised big picture scenarios with ease, allowing them to ask big picture questions at critical moments. Even after the pandemic is over the world will continue to change more rapidly than ever. Developing these capabilities can no longer be put off.

There are four main areas where insurers can benefit from this big picture mindset—distribution, underwriting, operations and claims.

Case study

The effectiveness of digital twins can be seen in the collaboration of Swiss Re and Microsoft in their launch of Digital Market Centre, which intends to build "risk digital twins"—a virtual world to simulate different risk scenarios. Using Azure's cloud technology, AI and IoT capabilities, the platform will focus on better ways to predict and manage risks,   with the initial focus on connected vehicles and the manufacturing industry.[9] [10]

Insurance leaders have cause to rethink their five- and 10-year plans in light of the pandemic and unpredictable times ahead, and the mirrored world must be their north star. Intelligent digital twins are driving a step change in how businesses operate, how they collaborate, and how they innovate— and enterprises that get left behind will struggle to participate in the markets and ecosystems of the future. The carriers that start today, building intelligent twins of their assets and piecing together their first mirrored environments, will be the ones that push industries, and the world, toward a more agile and intelligent future.

65% of executives expect their organization's investment in intelligent digital twins to increase over the next three years.

Fortify: Unleash the power of data

To gain the organizational insights and greater agility the mirrored world promises, you first need a strong and comprehensive data foundation for your twins. When intelligent twins are connected in mirror environments, they are a powerful way to turn data into actionable, big-picture insights. But incomplete or incorrect data will lead to false conclusions.

High-quality historic data is critical for intelligent twins—it's what the twin uses to monitor real-time machine performance, build models of customer behavior to help design custom products and more. This is where insurers have a competitive advantage, with extensive, rich data at their fingertips. If we consider just the amount of data generated through telematics or connected vehicles, insurers will have access to most of the ~30 terabytes of data per car every day by 2025. Allstate, for instance, collects data worth about "11,000 terabytes" from 1.2 million people every day, enabling them to provide personalized experiences.[11] [12]

While access to historic data may be a benefit for insurers, they cannot rely on it blindly. On top of this they need to layer real-time data collection or they'll miss out on the real-time, present-day analytics intelligent twins can provide. There are two sides to this: Investment in sensors and IoT devices to collect data, and the tools to prepare, analyze and visualize the massive amounts of information gathered. Again, insurers are well-placed to achieve this.

Take the example of The Discovery Insure Vitalitydrive program, a unique driver behavior programme that rewards driving well through the use of newly developed smartphone and sensor technology.

The technology works by using a patented sensor, developed by Discovery Insure and Cambridge Mobile Telematics, in conjunction with a smartphone application. Once installed and connected, it measures driving behavior including speed, distance and time, phone use, acceleration, braking and cornering. The sensor pairs with the driver's smartphone, via Bluetooth low energy, to provide location data and uploads the trip data to Discovery Insure's system for scoring purposes.

Today, many enterprises are already investing in IoT devices and sensors, but struggle to fully utilize the data these devices generate. New cloud-based services and platforms are being developed to bridge this gap and help enterprises achieve real-time insights. Snowflake, for instance, offers clients data warehousing as a service, which can load continuously generated real-time data, requires no manual effort, and can even digest semi-structured data.

From there, intelligent twins can make real-time data actionable in the moment—making the possibilities of Industry X a tangible reality.

Going even further, companies are starting to explore how multiple intelligent twins, connected in mirror environments, can use real-time data to safely increase autonomy.

As enterprises continue to deploy intelligent twins and build the mirrored world, they will also need to think about data integration across the multiple twins in a digital thread, or if multiple sub-components all feed a single twin, then data integration between those sub-components. Twins that represent different pieces of the same operation will need to be designed with data synchronization in mind, to maintain an accurate representation of the whole. Twins that represent different stages of a process, or that need to be connected to twins in other systems—for instance, the twin of a solar farm and the twin of a power grid—should have APIs that allow them to interact. And organizations purchasing connected machines or devices from different vendors should ensure that data interoperability challenges will not prevent them from linking these systems.

Intelligent twins and mirrored environments have the potential to help insurers optimize operations, detect and predict anomalies, pivot to prevent unplanned downtime, enable greater autonomy and dynamically adjust their designs and strategies with every new piece of data they collect or new test that they run. While each of these capabilities can save money and increase efficiency, their true value lies in what they represent together: A new way of understanding the business, and a new way of running it.

Extend: A risk-free playground for innovation

Intelligent twins have powerful simulation capabilities, and with your data foundation in place they can help insurers as they reimagine their innovation process.

They are, essentially, a risk-free playground to explore new product ideas, strategize for many possible futures, and explore limitless "what-if" scenarios. Most businesses experimenting with this kind of simulation today are doing so at a smaller scale, but the capabilities they are demonstrating will only become more valuable when enterprises can tap into multiple twins in fully mirrored environments. For instance, intelligent twins can completely transform product development. They enable AI-driven generative design, where human workers and AI systems iteratively work together, shrinking design and manufacturing timelines significantly. And they allow enterprises to complete more product testing in simulation, meaning they can put off physical manufacturing for much longer, saving time and money and potentially moving manufacturing closer to the customer.

> Consider the case of digital twin orchestrator Piprate. The Irish insurtech was set up on the foundation of improving data-sharing practices in the insurance industry. They create a digital footprint or twin of every insurable risk (cars, homes, businesses, etc.) and facilitate the secure sharing of this data between the various stakeholders in the insurance value chain through DLT.[13] [14]

Insurers can use intelligent twin simulation to explore possible future scenarios and inform their strategies. This could have beneficial implications for predicting and mitigating risk.

From generative design to personalization to security—or in the case of insurance, risk management—intelligent twin simulation is about bringing the right data and the right AI models together, and exploring various possibilities, futures and strategies from the safety of a twin. Soon, the mirrored world will bring this future-focused intelligence and agility to bigger stages, with bigger impact.

Reinvent: Build the big picture

87% of insurance executives agree digital twins are becoming essential to their organization's ability to collaborate in strategic ecosystem partnerships.

As companies continue to reinvent themselves in the wake of 2020's challenges, truly gaining big picture visibility means going beyond their own four walls. Today's businesses are not self-contained; they rely on partnerships, co-experimentation and global collaboration, and this must be reflected in the mirrored world. It's not always enough to have a real time view of what's happening within your own organization. The full picture includes what's happening with the supply chains, partners and governments that you rely on too.

If more insurers digitize their physical operations and systems with intelligent twins, they will be able to share designs, information and insights easily across silos and across ecosystems, virtually test how future products might work together and conduct business in ways that were not possible before.

How will your business evolve when the power of comprehensive visibility, unlimited simulation and safe experimentation is at your—and your ecosystem partners'—fingertips? The mirrored world is unlocking new and vital opportunities; to ensure you have a place in this future, you need to begin your transformation today.

Decision points

Is your business prepared for the mirrored world?

- Audit your data practices. Evaluate what tools and technologies are being used and where data is being warehoused to deconstruct data silos

- Identify where COVID-19 may have impacted historic data and its ability to drive accurate insights

- Prioritize building streaming analytics capabilities. Digital twins will need a healthy data "supply chain" to be effective. Embed sensors in physical products and spaces, and invest in solutions that deliver rapid ingestion, preparation and analysis of the data generated

How can digital twins transform your innovation process?

- Develop a list of key use cases for where digital twins will generate the most impact in your enterprise

- Reimagine how product development cycles would look with digital twins at the center

- Integrate intelligence capabilities with digital twin efforts. Pilot generative design or synthetic data solutions to explore how they enhance design, testing and product development

How will you, as an insurer, engage wider systems of digital twins?

- Design twins from the outset with the intent to connect them across the business or ecosystem. Make API strategy a priority when developing digital twins. This includes evaluating and including external (or open) sources of data, as well as ensuring construction of an API for the twin itself

- Have ecosystem-scale thinking lead digital twin strategies. Target large systems as the long-term goal

- Target digital twins. Think entire offices, supply chains, and more. Use individual twins as a means to gain greater visibility into larger collaborations

- Short-list potential digital twin-driven partnerships. This could be collaboratively building a new twin or tapping into an already established network of digital twins

Trend 3

I, Technologist

The democratization of technology

Powerful capabilities are now available to people across business functions, adding a grassroots layer to any insurer's innovation strategies. For example, analytical tools that do not require data scientists to interpret and query data, but can instead interpret a user's natural language search requests and return the relevant data.

Automation tools are a rising in the insurance industry, which are configurable by the business users without central IT teams. Now, every employee can be an innovator, optimizing their work, fixing pain points and keeping the business in tune with new and changing customer needs. As insurers focus on aligning their businesses to a rapidly changing world, this real-time, on-the-ground input is crucial.

In fact, insurance executives rated above the global average on their prioritization of technology democratization.

91%

Almost all (91%) of insurance executives believe technology democratization is becoming critical to their ability to ignite innovation across their organization. According to the Future Systems 2.0 survey, 34% of leading insurers cited that more than 20% of their workforce is dedicated to innovation full-time.[15]

Grupo Catalana Occidente's intra-entrepreneurship program, for example, aims to promote innovation culture within the group and across all employees. The insurer engages employees in innovation through a combination of crowdsourcing ideas on the Xplora Space digital platform and experience-based workshops at the Xplore Academy. Xplora Inspira live events aim to provide inspiration from entrepreneurs and enable collaborations with start-ups through Xplora Stars.[16]

Technology democratization adds a grassroots layer previously missing from enterprise innovation within insurance carriers, extending it to the very edges of the business. Too often IT departments or technologists work to uncover the needs of the organization in silos, building or buying a new tool and then rolling it out and training business units on the new technology. With technology democratization, everyone can be an innovator. The tools of democratization are the spark to ignite transformation, and people across the organization will sustain it.

For example, Accenture has partnered with a client in the UK to deploy a platform which allows business users in various functions to query data using natural language requests e.g 'show me the sales performance in health for the last three months'. This empowers the business users by providing them relevant data that they directly need, but also adds value to the central MI team who can can reduce the amount of standard regular reports they produce, and instead use that capacity to develop deeper specialist skills in data to uncover trend and bring insight to the business.

This is a golden opportunity for insurers to make their employees a core part of their digital transformation effort. The insurance executives we spoke to agreed—84% said their organization

must train their people to think like technologists, using and customizing technology solutions at an individual level, but without highly technical skills.

However, the shift to technology democratization is not necessarily an easy or an instant one. To be successful, insurance leaders will need to extend the innovation imperative across every business unit. Insurers will need to actively teach their people to think like technologists, enabling them to solve problems with technology. They will also need to put the infrastructure and resources in place to support this. This includes a clear strategy on safety-

90%

of insurance executives agreed that for tools of technology democratization, organizations need to ensure that training strategies include a focus on security and data governance.

By empowering everyone, those closest to a problem can be the ones to create solutions, keeping insurers connected to customer needs at every step of the value chain.

Fortify: Bypass the skills gap

For years, many enterprises have had great ambitions for their digital transformations, but struggled to recruit and keep the highly technical workers needed to bring those plans to life.

Companies may have been looking at this problem too narrowly. Even as specialized technical skills remain in high demand, enterprises can increasingly lean on technology democratization to circumvent the skills gap in some areas. It's a parallel strategy that will further close the disconnect between workforces and the technologies needed to deliver the most creative solutions in today's market. The impact, however, goes beyond training. Technology democratization facilitate ways of working that share innovations and encourage collaboration, so people duplicate their efforts in silos. Unconstrained devolution of power to business teams could result in proliferation of incompatible technologies (e.g. multiple RPA tools), and greater potential for misuse (employees searching for data outside what they should look for) and maybe risks duplication and lack of best practice sharing, so technology guardrails and governance are essential in stopping the proliferation of conflicting technologies and processes.

For example, Generali's We LEARN reskilling initiative kickstarted in early 2020 was aimed at providing its employees an opportunity to develop new business, digital and behavioral skills needed to grow in the digital era. Through a mix of online learning and interactive community support, employees could get trained for new roles such as data scientists or learn skills to help carry out their current roles more effectively. Through this initiative, the insurer aims to reskill 50% of its employees by 2021.[17]

Enterprises can't afford to wait and hire someone tomorrow to build the solution they need today. Existing cloud solutions offer a stepping stone into these spaces. Amazon's Honeycode, for instance, is an Amazon web services (AWS) service that lets people build mobile and web apps without writing a single line of code. Salesforce's Lightning App Builder is a point-and-click tool for creating custom pages on the Salesforce app. For the many organizations migrating their people to Microsoft Teams, Power Apps can be directly embedded. These tools, and many others, offer an incredible opportunity to bridge the gap between complex technology and workers at every level of the organization. It's easy to see these examples as a story of speed and efficiency alone. But there is a far more profound message underneath.

When access to powerful technology capabilities reaches throughout an organization, Insurers can create solutions directly at the point of need.

Zurich One-Path, for example, has harnessed the power of big data and machine learning to transform the life insurance sector from heavily manual, lengthy underwriting processes orientated business, to a business powered by AI and Data Insights and assistive robotic decision-making tools for underwriters to provide an insurance outcome in seconds, whist still maintaining regulated risk frameworks. The AI driven underwriting system co-created with UTS Advanced Analytics Institutes Australia simplifies the process for highly skilled underwriters through improving operational efficiencies while achieving improved customer experience with higher straight-through processing rates.[18]

Extend: Active grassroots transformation

Businesses are already using the tools of democratization to speed up development and enable greater agility in one-off or limited instances. But the investment needed to fully capitalize on this trend doesn't end with the tools themselves. Activating a grassroots layer to your digital transformation requires investment in your people. You don't need to teach them how to become expert coders, but you do need to train them to think like technologists.

For most organizations, this means a two-pronged strategy. At a basic level, employees will need to learn what tools are at their disposal, and how and when to best deploy them. But more importantly, enterprises need to invest in employees' overall technology literacy. You need to help your people understand the logic of machines, the benefits and risks to different decisions, and how to see technology not just as a tool but as a solution. When the workers closest to customers, clients or internal problems have the context to identify new opportunities and experiment with solutions, they will be able to deliver more customized responses and offerings, with greater agility than ever.

Employees with outdated skills no longer need to spend years retraining, as low-code apps fulfil mission-critical needs. Companies will also need to ensure that training strategies include a focus on security and data governance. These staples must be baked into full-scale development projects.

For its multi-national business, US-based insurer CNA launched CNA ComPass that allows the insurer and its strategic network associates to write and manage local admitted placements around the world in real time. The innovation came out of a need for solving the challenges that came with having its associates work on multiple, disparate systems, Excel spreadsheets that limited data visibility, delayed communications and an overall inefficient process. Instead of going with a legacy system overhaul, CNA, with the help of Appian, chose a low-code automation platform approach, coupled with an agile delivery methodology, to build CNA ComPass. Apart from the automation leading to 60% savings on time, this has also helped field underwriters focus more on production and client engagement while automating simpler tasks.[19]

Finally, long-term training initiatives to elevate general technology know-how for all employees are picking up steam. Nationwide announced they would spend $160 million over five years to provide "future capabilities" training for their 28,000 employees in the U.S. and elevate their digital literacy.

And Accenture's Technology Quotient (TQ) program is a global learning initiative to help employees across the firm raise their "TQ" through training and competitions. The program helps employees understand and articulate important technology concepts as well as their business value and applications.

It covers everything from mature strategies like DevOps and cloud to more cutting-edge technologies like blockchain and AI, and is built for any role or skill level. TQ aims to make every employee conversant in technology and to see it as part of the solution to the most pressing client needs. Programs like these can be scaled across the organization while still offering employees a personalized experience. SkyHive, for instance, is using AI to help enterprises analyze their workforce's current skills and identify new and emerging skills they will need in the future.

With this in mind, Bajaj Allianz general Insurance Company in India launched SkillSity, an AI-powered, personalized learning experience platform. Built on the foundation of a dynamic skills framework stitched with a fabric of social learning, it provides a highly adaptive and contextualized learning experience. It has a powerful recommendation engine with state-of-the-art AI, making content relevant to each individual based on a variety of factors including their interests, their role in the organisation, learning behaviors and business initiatives. The platform's capability to capture and interpret granular data allows detailed insights into learning behaviors which helps in better aligning the content delivery with a user's expectations. [20]

Quick training programs won't cut it. Thinking like a technologist requires insurers to invest in the knowledge and development of their people.

Reinvent: Power your innovation engine

The value of technology democratization and wide-scale technology training will only grow over time. As it does, it will challenge the typical notions of who "owns" technology in the company, how technology strategy and planning is done, and the role of IT at large. Right now, while the capabilities of democratized technology continue to grow, leaders have a chance to reimagine the intersection of technology and the organization—and ultimately to reinvent how their IT and non-IT employees work together. It is also an opportunity for IT functions to develop leaner teams with deeper skills specialism, with the simpler change from 'low code' outsourced to the business.

Generali set up a Smart Automation Centre of Excellence to accelerate selected projects and get business benefits from the combined use of different technologies, enabling growth of new skills and promoting a cultural change for the entire Group towards a "Human+Machine" near future. As part of the process, Generali trains employees positioned as "Smart Automation experts" through tailored masterclasses to help them upskill.[21]

Leaders in this area are unlocking more freedom and exploration for employees. Without taking steps to empower your people in this way, you'll be holding back your own digital transformation. The insurance industry is adapting and transforming around you, and your customers' expectations are evolving accordingly; your organization must evolve in kind. Customer, client and business-specific expertise has long been spread across the business, and recognized as critical capabilities for the workforce as a whole. Now, with rising demand for robust, rapid responses to changing needs and the realization of truly democratized technology, the time has come for tech literacy and capabilities to join that list. Successful digital transformation will be the first win for insurers that get it right, but that's just the start. With every employee empowered to contribute technological solutions to business needs, savvy enterprises will have an innovation advantage for years to come.

Decision points

Is your enterprise poised to take advantage of technology's growing democratization?

- Pick one area of the enterprise to begin experimenting with technology democratizing solutions. For instance, give agents and brokers the tools needed to design their own apps, or customer service agents the ability to automate workflows

- Evaluate your existing access. Many cloud providers are beginning to include robotic process automation or low-code solutions as part of their services. Identify what tools the enterprise may already have access to, or what additional investments need to be made, to power grassroots innovation

- Add technology guardrails to ensure regulated use of technology

How are you training your workforce to think like technologists?

- Invest in technology literacy and training programs across your organization

- Educate employees on the technologies available to them, and how to use them to design solutions. Leverage self-selection and AI to find hidden aptitudes

- Teach employees the "business of tech" by ensuring that plans to adopt democratized technologies are accompanied by training for security, governance and more. Teach employees to understand the costs of scaling and maintaining solutions, how security gaps create enterprise risk, and how to avoid creating institutional friction like incompatibility and data silos

How can democratized technologies make IT groups more effective—and vice versa?

- Establish teams to support and guide the use of democratized technologies across your organization. Update IT policies to give employees flexibility to explore the use of new technologies, but have IT play a role in establishing guardrails

- Bridge the gap. IT will still be leaned on to scale and iterate on innovative solutions. Try using technologies like low-code to bridge the gap between the business and technical sides of your organization during prototyping and design stages

The year 2020 saw the biggest workforce transformation in living memory—77% of the insurance executives we surveyed agreed their organization's employees just faced the largest and fastest human behavioral change in history due to COVID-19.

Leaders made drastic moves to keep businesses going and employees safe during the pandemic, sending their people to work from home and doubling down on technology solutions to keep them productive. Billions of people around the world changed their behavior overnight. Insurance—although traditionally reliant on in-person experiences—made the bold shift in their workforce, prompting a reinvention of how they manage, motivate and source talent.

Initially, insurers could have been forgiven for assuming that these radical changes were a short-term solution to a temporary problem. However, the need for employees to work from home continued throughout the year. As insurers took the shift in their stride, it was clear that effective remote work posed a longer-term solution to a number of persistent business challenges.

Rethinking the talent space

COVID-19 brought about the unique opportunity to rethink the talent space in insurance, and build it for the better.

82%

The majority of insurance executives we surveyed (82%) agreed that leading organizations in their industry will start shifting from a Bring Your Own Device (BYOD) to Bring Your Own Environment (BYOE) workforce approach.

What does this mean in practical terms? Think back to the early days of the BYOD movement, where companies allowed employees to bring their own preferred laptops or smartphones into the office to perform their work. Employers had to implement new policies and tech solutions for a wide range of devices, enabling that flexibility while mitigating the risk from devices that weren't entirely within their control. But it also gave employees a chance for a better work experience and ultimately saved companies money. Now we've moved beyond BYOD and into BYOE: Employees are bringing entire environments to work.

They may be on a company laptop, but that laptop is connected to a personal home network that also hosts smart speakers, security cameras, gaming consoles, and more—the average U.S. household already averages 10 connected devices. The laptop itself is sitting on the dining room table between the day's mail and the kids' homework. And in the middle of all that is the employee themselves—leaning heavily on technology to meet the demands of their job while surrounded by the demands of their life. But even as organizations around the world embraced these and other pivots to keep moving, they didn't have time to appreciate the larger ramifications of the shift. When people can work via BYOE, they can do their jobs in different or even brand-new ways that will outlast the pandemic.

After the pandemic, BYOE work also won't be limited to employees' homes. It will give people the freedom to seamlessly work from anywhere—whether that's their home, the office, the airport, enterprise partners' offices, or somewhere else. In a BYOE model, leaders can rethink the purpose of working at each location, and when it makes sense to be at certain sites or with certain people. This evolution requires insurers to address the security ramifications of the BYOE movement and enable the cultural shifts and evolving purpose of physical office space. At a time when remote work is an extended possibility for at least part of the working week, it also has positive ramifications for how talent is sourced.

Insurers need to ask themselves the question, what does it mean to be an employer of choice? Traditional boundaries to employment have been eliminated—insurers can source talent from across the globe, and conversely, talent can work for the global employer they find the most attractive. A heartening 88% of insurance executives believe the remote workforce opens up the market for difficult to find talent and expands the competition for talent among organizations. Insurers, therefore, need to consider what else they can offer employees. This goes beyond competitive compensation and covers important issues such as inclusion, diversity and sustainability policies.

As insurers reimagine the future of the workplace, they face two key realities: First, BYOE is here to stay, with remote employees reluctant to return to old, office-based ways of working. Secondly, insurers will need to employ effective strategies to differentiate themselves in offering employees an enabling infrastructure and culture that allows for more flexibility and freedom. The advancement of remote collaboration tools and remote monitoring technologies during the pandemic has only made this approach more effective and more promising.

43%
Almost half of insurance executives (43%) report investing in digital collaboration tools

48%
say they have invested in cloud-enabled tools and technologies to support their remote workforce during COVID-19.

Looking forward, the virtualization of the workforce offers opportunities to expand on human-machine interaction, boost resiliency and realize the promise of Industry X to harness the power of constant change. But success in this new future will require more than adopting new digital solutions at scale. To get the best from the BYOE model, insurers need to think about the entire organization in a new way. They need to toss out convention and reimagine how their workforce model can best support and enable their people, and they also need to reimagine their company culture—how remote employees and on-premises employees collaborate, what work is better done in which locations, and what the purpose of physical offices will become.

The right balance will be different for every insurance carrier. Each individual worker will also have their own needs and the technologies enterprises need will vary too. But one thing rings true for all. The leaders of the future insurance workforce will be the ones that lean into this future, seeing it not as something to be endured but as something that drives value. The strongest organizations will be physically distributed, creatively connected, empowered by technology and able to innovate from anywhere.

Fortify: From patchwork solutions to permanent strategy

Businesses have spent the last 12 months doing half of the BYOE equation. In more roles and industries than anyone thought possible before, people now can work remotely thanks to rapid tech rollouts and expansions of existing solutions. But now that the initial rush to get out of the office is over, it's time for the other half of the equation: Ensuring that BYOE work can be done seamlessly and securely.

Thankfully, the insurance industry is not starting from scratch, and there is already a remote workforce in many fields. Where some insurers may struggle, however, is in the area of insurance agents. By nature, agents relied on a physical presence and in-person interaction. One of the largest US insurers, for example, has the largest presence in the country, but this presence is mostly physical.

The first step to evolving successfully to BYOE, therefore, is to understand the impact on employees and what they require to perform their job effectively.

One of the biggest challenges of the BYOE shift for employees and employers is security. At the height of the pandemic, many companies had to overlook the security concerns of having employees work from home, because the most pressing need was simply to keep them working at all. Now, companies need to accept that their employees' environments are a permanent part of their own enterprise attack surface and adjust accordingly. Videoconference service Zoom saw its user base double between December 2019 and the end of March 2020, from 100 million to 200 million users. Attackers responded in force; in March, the Anti-Phishing Working Group got eight reports about Zoom phishing attacks.[28] In April they got 1,054. The user base doubled; attacks multiplied by more than a hundred.

Security was a pain point for enterprises long before the company attack surface expanded to include employees' homes and their connected TVs, speakers, smart home devices and security cameras. That's why approaches like Accenture Labs' CyTwin have rapidly grown in popularity. CyTwin is a digital twin solution that offers companies clear consolidated visibility into their security postures. Much as a roadmap can show you the different routes you can take to reach a destination, CyTwin shows companies the pathways attackers could exploit to penetrate their critical systems. It estimates the impact of potential breaches at scale and helps businesses to prioritize remediation actions that mitigate the biggest risks. This kind of priority-focused analysis is critical at a time when risk is everywhere and the company "footprint" is spreading ever wider.

With the workforce more distributed than ever, insurers need to bolster their efforts to keep employees and their interactions with the company safe. The payoff is worth the investment: The enterprise benefits of embracing a BYOE workforce outweigh the challenges. Put yourself in a position to capitalize on those benefits by addressing your BYOE risks and pain points now, so they don't grow alongside your new strategy.

Extend: New workplace, new opportunities

Once insurers have their full footing with BYOE, there are even more benefits to reap. Few companies have realized it yet, but this new future offers the opportunity to really rethink operating models—even if carriers traditionally relied on physical work.

When companies go virtual-first, they have new opportunities to integrate emerging technologies into the workforce. Robots, alongside many other innovations, are often presented as a zero-sum option: Either a human has a job or a robot does. But with a virtual-first BYOE strategy, you can have a full warehouse of robots doing the physical work, coupled with offsite employees safely doing the monitoring and strategy. It's not one or the other, but the best of both.

Perhaps more important than any other benefit, a BYOE strategy lets you rethink how you recruit new employees. Almost every major company already runs its business globally, but still sees itself tied to geographies; opening up to the idea of geographically distributed employees, by default, will finally give companies access to a truly global talent pool.

> And shifting to a BYOE strategy may make new approaches to filling roles more attractive. During the pandemic, when many companies were forced to furlough or lay off employees, and others were struggling to fill roles and meet surging demands, the chief human resources officers from Accenture, Lincoln Financial Group, ServiceNow and Verizon jointly created a platform to connect displaced workers with new roles.[29] The platform, called People + Work Connect, maps out employees available for work and roles that need to be filled, letting HR professionals from different companies collaboratively fill talent needs across their organizations and keep more people employed.

BYOE strategies will make systems like these valuable beyond the pandemic, because organizations will be able to collaboratively fill roles regardless of physical location. A large US insurance carrier, for example, is considering how to build and operate their own talent marketplace, providing a socially-responsible, ethical way to move talent around the marketplace.

In the long run, embracing BYOE isn't just about accommodating a benefit your people have gotten used to, or even about increasing resilience against future disruptions. It's an opportunity to reimagine what you do and what you can offer to the employees who help you deliver it. The benefits are vast: True global

access to talent; having a workforce that's constantly "on" by virtue of coverage across time zones; even delivering on sustainability goals by right-sizing company office spaces and cutting down on polluting, energy consuming employee commutes. As tempting as it may be to pull back to what's familiar, think about what your organization can do moving forward with intent.

Insurers need to take the opportunity to reimagine what they do and what they can offer to the employees who help deliver it.

Reinvent: Embrace the new work culture.

BYOE is the gateway to working from anywhere. Leading insurers will lean into this opportunity and reimagine their business in this new model.

The last piece of the BYOE puzzle is the most challenging, and important: Culture. Returning to the BYOD versus BYOE comparison is the best way to make this challenge plain. Bring your own device, for all the initial difficulties it caused, was limited to tech functionality and security. When we use the word "environment" though, that includes people's lives. A person's environment is more than just devices and WiFi networks. It's kids, pets, the construction happening next door, the sick relatives they're supporting, their stress levels—the humanity of the equation. None of these challenges are new for any of us as people, but "going to work" used to provide some separation that kept them largely out of the employer's purview. No more. The enterprise must accept that the employee environment is now part of the "workplace," and accommodate for people's needs just as they would for people's technical requirements. This will be a large, slow-to-emerge cultural shift, but there are quick wins to find your footing.

Some of the first steps are simply admitting that the BYOE approach is a work in progress and committing to continued improvement. Microsoft Teams enabled many organizations to quickly transition their people to remote work, and the company continued to roll out new features meant to support a more lasting remote workforce.

Features like hand-raising and background noise suppression were created to improve the actual experience of working remotely, beyond just making it technically possible. And in response to research on remote meeting fatigue, Microsoft created Together mode, which mimics the feeling of sitting in a room with colleagues—making it easier to see non-verbal body language and making discussions feel more natural.

Another focus area is the disconnect between in-person and remote workers. Right now, so much is tied to geography, but the future will be all about balance. Workers in different roles will benefit from the best work environment for their particular needs, but without careful implementation it could lead to a divided workforce, where in-office and remote workers struggle to collaborate and become demoralized or feel unsupported.

Optimizing your organization for a BYOE strategy is a moving target and best practices are still evolving. But one thing is certain: Waiting to act isn't an option. To create an organization that attracts the best talent and keeps employees engaged, enterprises will need to constantly experiment with new solutions, pursuing and supporting cultural changes like these across the organization.

BYOE is the gateway to working from anywhere, and leaders in the future will be the ones that lean into this opportunity and reimagine their business in this new model. The future of work starts today.

Decision points

How is your business making remote work sustainable, seamless and secure?

- Identify where you made rapid digital transformations and prioritize addressing outstanding security concerns. Cyber attacks are on the rise and the enterprise's attack surface is wider than ever

- Commit the necessary resources to security teams to minimize risk to both the business and employee

- Re-evaluate technology strategy to ensure benefits of remote work are being maximized. Examine VPN needs and access requirements, ensure employees are trained to use the tools they have, and create a pipeline for employees to introduce new collaborative solutions to the organization

How are your people responding to remote work?

- You are performing a massive workforce experiment—evaluate how it is going. Invest in workplace analytics tools and develop a set of KPIs to build a deeper understanding of how employees are responding to remote work

- Open the lines of communication. What is working for some teams or individuals may not be for others. Survey your people to understand what benefits (or challenges) they are facing with remote work. Ensure any return-to-office strategies account for this sentiment

- Partner with your workforce to understand the new demands they face as their home becomes their office. Uncover accommodations the enterprise can make as the employee's environment—including their personal life— becomes part of the "workplace" and requires different accommodations

How are you thinking about the purpose of place moving forward?

- Reimagine how your physical space is utilized. Plan for optimizing offices to account for a growing remote contingent, and how the enterprise can transform these spaces. Explore creating XR capabilities and environments that will foster immersive digital collaboration

- Revise recruiting and talent strategies to take advantage of talent pools outside your typical geographic markets. For example, think about your recruiting process: Resume intake; basic requirements; who candidates interview with (and how). These, and more, will need to be reworked to connect with a wider network

- Emphasize the culture. Ensure that the informal advantages of workplaces are virtualized as well. Team-building efforts and "water cooler" conversations need to find their digital home as the enterprise builds toward a future with a mix of in-person and remote employees
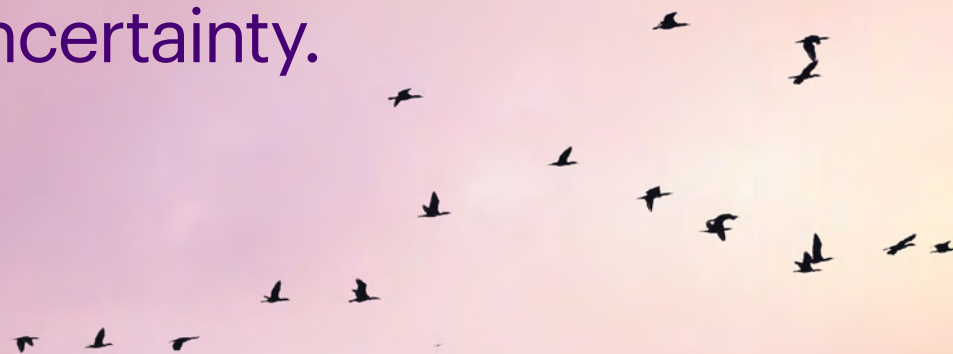
From Me to We

A transformation opportunity for the insurance industry through resilient, trusted and secure partnerships

COVID-19 made it clear that insurers needed to reimagine the value they provide customers. The value cannot be provided alone. Insurers also need to navigate a climate of disruption and uncertainty.

COVID-19 made it clear that companies can't navigate through disruption and uncertainty alone. One of the biggest impacts of the pandemic was how it unveiled global enterprise fragility, leaving companies cut off from their partners, scrambling for answers and needing to build new, trustworthy relationships.

For instance, the highly communicable disease demanded that businesses develop deep insight into how people and things were moving, without sacrificing privacy or efficiency—a capability existing systems were not ready to meet. Across many areas, multiparty systems quickly shifted from ambitious undertakings to desperately needed solutions.

Insurers are aware that their future relies on creating smart, tailored offerings for their customers—90% of executives state that multiparty systems will enable their ecosystems to forge a more resilient and adaptable foundation to create new value with their organization's partners. With the strategic use of ecosystems and multiparty systems, insurers can completely transform their business models, provide hyper-relevant experiences to the customer and plant themselves at the core of new evolving digital marketplaces.

Insurers are leveraging technology to develop new ecosystem-based business models with insurance at the core and enabled by industry clouds that redesign customer journeys and provide more value to the customer. The majority of insurance executives (84%) consider ecosystems an important strategy while 54% of insurance executives are actively seeking ecosystem capabilities.[22] Most insurance executives (89%) agree that to be agile and resilient, their organizations need to fast forward their digital transformation with cloud at its core.

The digital age allowed businesses to expand their reach in unprecedented ways, with the proliferation of data analytics, cloud and mobility letting companies seamlessly share insights and services.

But despite widespread investments in transformation technologies, businesses never really changed the way they partner. This resulted in a moderate to complete supply chain disruption, according to

76%

of insurance executives.

The digital age allowed businesses to expand their reach in unprecedented ways, with the proliferation of data analytics, cloud and mobility letting companies seamlessly share insights and services. But despite widespread investments in transformation technologies, businesses never really changed the way they partner. This resulted in a moderate to complete supply chain disruption, according to 76% of insurance executives. Leaders in insurance are adopting future-ready technology architecture to share/consume ecosystem partner APIs and incorporate insurtech services into their value chain for faster distribution, underwriting and claims operations.

89%

of them state that multiparty systems will enable their ecosystems to forge a more resilient and adaptable foundation to create new value with their organization's partners. This comes at a time where the insurance industry is seeing new partners willing to fast-track key insurance capabilities. Almost half (48%) of Q4 2020 insurtech transactions were represented by marketing and distribution solutions. With the right partnerships, insurers have the opportunity to extend distribution models, using APIs to tap real-time sources like atmospheric, seismic and satellite data for faster and more accurate pricing and underwriting, or using flight APIs for faster, straight-through processing of parametric claims like travel insurance.

Consider Zurich insurance, which recently developed APIs to enable real-time data sharing with customer systems related to risk engineering information, policies and claims. Or Chubb, which has launched Chubb StudioSM. This "digital insurance in a box" solution simplifies and streamlines the distribution of the company's insurance products through its partners' digital channels around the world. There is also the opportunity to monetize proprietary information and data services, as with Nationwide working with Bold Penguin on Commercial Digital Storefront, a multi-product, multi-carrier quotation platform.

But even with these technology solutions at their disposal, insurers need to be wary of building pseudo-ecosystems that are not fully committed to the ecosystem mindset. It is tempting for companies to look at their ecosystem as an appendix to the enterprise—an approach that limits the promise of the underlying technology. It is possible for an enterprise to build efficient solutions within their company, but still generate friction in working with partners by creating data silos or incompatible standards.

Looking to the future, insurers need to adopt a broader ecosystem-forward approach: Driving the most value for the ecosystem as a whole, of which the company is a part. Accenture's Future Systems Survey for 2021 observed that insurers that are future-ready see a 2.8x boost in corporate profitability and 1.7x higher efficiency.

Insurers are being called to reimagine how they create value in a new landscape. What it means to provide insurance has to evolve, both internally and externally, to meet the changing needs of customers today. To do that, carriers will be called on to expand their offerings and power their organizations with future-ready technology and operations. This cannot be achieved rapidly and at scale, alone. Therefore, a trusted foundation for partnership will be critical to survival. Leading insurers will look beyond mere survival and spot the opportunity to emerge as established leaders. And if insurers don't reimagine the way they provide and sell insurance, they will continue down a path of compressive disruption, while new entrants step into the breach with customers.

Fortify: When clouds collide

Rapid digitization during the pandemic has paved the way for insurers to rethink partnerships. Cloud rotations have always been gateways to deep collaboration, and now that every company has accelerated their cloud transformation at once, there is an abundance of potential partners.

Simultaneous and accelerated change is creating a network effect that will lead to new services, business models and value generation. As companies merge and combine their growing cloud capabilities in exciting new ways, new partnerships will be forged and industry boundaries challenged. The most immediate step insurers need to take is to make sure they have the foundation needed to participate in this ecosystem economy.

As partners combine their digital efforts, the resulting ecosystems are generating novel solutions—and new expectations for whole industries. Industry-focused clouds, for example, are creating a customized environment for industries with specific requirements and challenges, like regulatory controls, inconsistent network access, data governance needs and more. But more than just creating an industry standard, this common ground provides a new way for ecosystems to innovate and flourish.

The industry cloud approach delivers exciting ways to create new products—for shared customers. US insurer Branch, for example, is shaping the future of insurance distribution with a first-of-its-kind discount structure for its clients through embedded partnerships. By stripping out the inefficiencies of the insurance-buying process and embedding insurance in moments of convenience, Branch creates amplified value and all but eliminates effort for consumers.

Successful leaders are adopting an ecosystem mindset that feeds through business and technology strategy, eschewing the industry boundaries of the past.

Ping An, one of the largest insurers in the world, demonstrates how powerful an ecosystem-first approach can be. The company aggressively pursued digital transformation, and in the process, built five groups of cloud platforms for automotive, personal finance, health, property and smart cities.[23] Each platform is used to incubate innovative apps or services for customers, and act as a funnel into the broader Ping An business.

The ecosystem model allows the company to cross-sell and integrate services between the five areas.[24] Today they have more than 500 million people using their digital products, with a third of their new customers coming from ecosystem engagements.[25] More importantly, the technology has extended the company's ecosystem to include 618 banks, 84 insurance companies and 3,000 other financial institutions, driving more than $5 billion in revenue in the first half of 2019 alone. And things didn't slow down in 2020: The COVID-19 pandemic saw 30 new banks seek out partnerships with Ping An in an effort to secure the technology they needed to pivot through the pandemic.[26] This approach is something that all insurers can learn from.

Companies with robust digital presences were able to make the quick moves needed in a time of crisis.

The lesson learned for every business leader is that technology-based ecosystems are the foundation for future growth and leadership, and you can't play the game if you don't have the right equipment. Investing in the platforms that will create a launchpad for new partnerships is the most immediate action for enterprises to take—but it's just the first step.

Leading insurers are adopting an ecosystem mindset that feeds through business and technology strategy, eschewing industry boundaries of the past.

Extend: Transform partnerships with multi-party systems

The seamless transfer of data between insurers and their ecosystems is key to driving the most value out of partnership.

Cloud is the cost of admission to digital ecosystems, but multiparty systems are effecting deeply rooted transformation in the way businesses partner and how industries operate. It's more than a technology solution. Multiparty systems rebalance cooperation and benefits among participants, forge lines of transparency, and establish trust in ways that other systems are incapable of. Building multiparty systems relies on more than just investing in technology—it involves supporting the process of establishing a consortium, governing the networks that are built and more. The power of multiparty systems to transform partnerships is immense, but leaders should focus on this as a business-case and value-driven change—not just a technology-driven one.

For instance, the speed of business is dramatically impaired by the slow pace of transactions, especially when it comes to trade for globe-spanning enterprises. Companies need to share non-uniform data, repeatedly reconcile accounts and even transpose paper documentation. Multiparty systems offer solutions to these persistent problems.

90%

of insurance executives state that multiparty systems will enable their ecosystems to forge a more resilient and adaptable foundation to create new value with their organization's partners.

Of course, these systems are not being built in a vacuum. Success will still be tied to how well enterprises integrate and govern them alongside the rest of the business. Solutions to this challenge are already emerging. Many DLT platforms share language runtimes such as Ethereum's Virtual Machine (EVM) or Digital Asset's Modeling Language (DAML), enabling the portability of shared business logic across ecosystems.

And this portability has been extending into full transaction interoperability across ecosystems through emerging projects such as Hyperledger Cactus and Digital Asset Canton frameworks.

The seamless transfer of data between the business and the ecosystems it participates in is key to driving the most value out of partnerships, and how well those systems are architected will determine if the ecosystem reaches its full potential. Even the most advanced multiparty systems can be rendered ancillary by rigid architectures that keep data self-contained. Even worse, with bad data, it's stretching the old axiom of "garbage in, garbage out" to "garbage in, garbage forever."
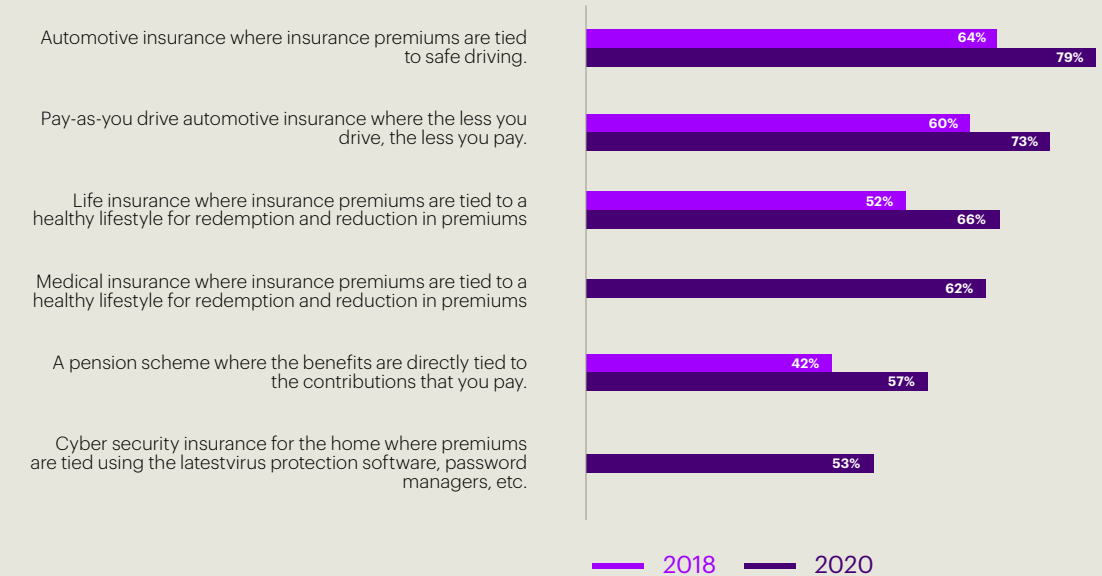
Reinvent: A new perspective on value

As insurers begin to set ground rules for how they will create value in the post-pandemic world, their ecosystem partnerships are taking center stage.

Insurers are finding immense financial opportunity in constructing new ecosystem-based business models, but in the process their efforts are also driving a reinvention of basic components of society's fabric. Just as multiparty systems drive benefit for everyone in the ecosystem, it's important that enterprises insurers partner with on these undertakings do it with a wider perspective of what value means.

In exchange for delivering the value customers want, insurers will receive the data they need to deliver deeper, customized and relevant services. In Accenture's recent Insurance Consumer Study,[27] 74% of millennial and younger consumers say they would share significant data in relation to receiving lower prices based on health, driving behavior and exercise habits, compared to 63% of consumers aged 55+. In the same study, insurance consumers showed a marked increase in the interest in data-led services.

Consumers are much more interested in personalised, usage-and behavior-based insurance.

	2018	2020
Automotive insurance where insurance premiums are tied to safe driving.	64%	79%
Pay-as-you drive automotive insurance where the less you drive, the less you pay.	60%	73%
Life insurance where insurance premiums are tied to a healthy lifestyle for redemption and reduction in premiums	52%	66%
Medical insurance where insurance premiums are tied to a healthy lifestyle for redemption and reduction in premiums		62%
A pension scheme where the benefits are directly tied to the contributions that you pay.	42%	57%
Cyber security insurance for the home where premiums are tied using the latest virus protection software, password managers, etc.		53%

— 2018   — 2020

There are ambitious ecosystem efforts underway right now, many spawned by the challenges of COVID-19 but designed to far outlast its impacts. At their zenith they will transform the world. If you've hesitated to explore a full ecosystem approach, now is the time to recognize the opportunity; if you've already been exploring, it's time to move beyond small-scale implementation and become a leading partner in shaping tomorrow's industries.

Decision points

How are digitally-led partnerships driving value for your enterprise?

- 2020 saw a surge of companies moving to digital platforms for shopping, work, and more. Review which platforms your business—or customers—leaned on most in the last year

- Take advantage of industry-focused cloud solutions and have a strategy for using these solutions to enhance ecosystem collaboration. Find partners with a shared set of customers and explore collaborating to build unique digital products

Is your business ready to participate in multiparty systems?

- Multiparty systems are steadily growing in adoption. Designate a team to scan prominent multiparty systems emerging in the insurance industry, their current and long-term impacts, and the enterprise's relative preparedness to engage them. Make understanding the technology, identifying technical partners and providers and addressing skills gaps a priority

- Multiparty systems is more than technology—it reshapes business practices and models. Determine if multiparty systems is the right solution by evaluating the business case that will drive your participation. This could include areas where transactional data has yet to be digitized or complex networks that would benefit from a common and trusted platform

Which business relationships will be transformed by the growth of multiparty systems?

- Think beyond the walls of the enterprise. Interview strategic partners to understand

- Their exposure to multiparty systems. Consider running strategic foresight exercises with these partners to evaluate the need for and impact of a multiparty system

- • Consider joining industry consortiums or establishing a working group of inter-enterprise partners. Create the process for assessing the value of any multiparty systems strategy against the benefit to all participants, not just the enterprise in isolation

About the Accenture Technology Vision

For more than 20 years, Accenture has developed the Technology Vision report as a systematic review across the enterprise landscape to identify emerging technology trends that will have the greatest impact on companies, government agencies and other organizations in the coming years. These trends have significant impact across industries and are actionable for businesses today.

Accenture Labs and Accenture Research collaborate on the annual research process, which includes

- Input from the Technology Vision External Advisory Board, a group of more than two dozen experienced individuals from the public and private sectors, academia, venture capital and entrepreneurial companies. In addition, the Technology Vision team conducts interviews with technology luminaries and industry experts, as well as nearly 100 Accenture business leaders from across the organization.

- A global survey of business and IT executives to understand their perspectives on the adoption and impact of technologies in their organizations. This year, Accenture Research conducted a global survey of 6,241 business and IT executives—including some 685 banking executives—to capture insights into the adoption and use of emerging technologies.

As a shortlist of themes emerges from the research process, the Technology Vision team works to validate and refine the set of trends. The themes are weighed for their relevance to real-world business challenges. The Technology Vision team concentrates on the themes that will soon start to appear on the C-level agendas of most enterprises.

Survey Demographics

Business survey

Accenture Research conducted a global survey of 553 Insurance business and IT executives to capture insights into the adoption and use of emerging technologies. The survey, fielded from December 2020 through January 2021, helped identify the key issues and priorities for technology adoption and investment. Respondents were C-level executives and directors at companies across 26 countries.

31 Countries

1	Argentina	10	Germany	19	Singapore
2	Australia	11	Indonesia	20	South Africa
3	Austria	12	Ireland	21	Spain
4	Brazil	13	Japan	22	Switzerland
5	Canada	14	Malaysia	23	Thailand
6	Chile	15	Mexico	24	United Arab
7	China	16	Peru		Emirates
8	Colombia	17	Portugal	25	United Kingdom
9	France	18	Saudi Arabia	26	United States
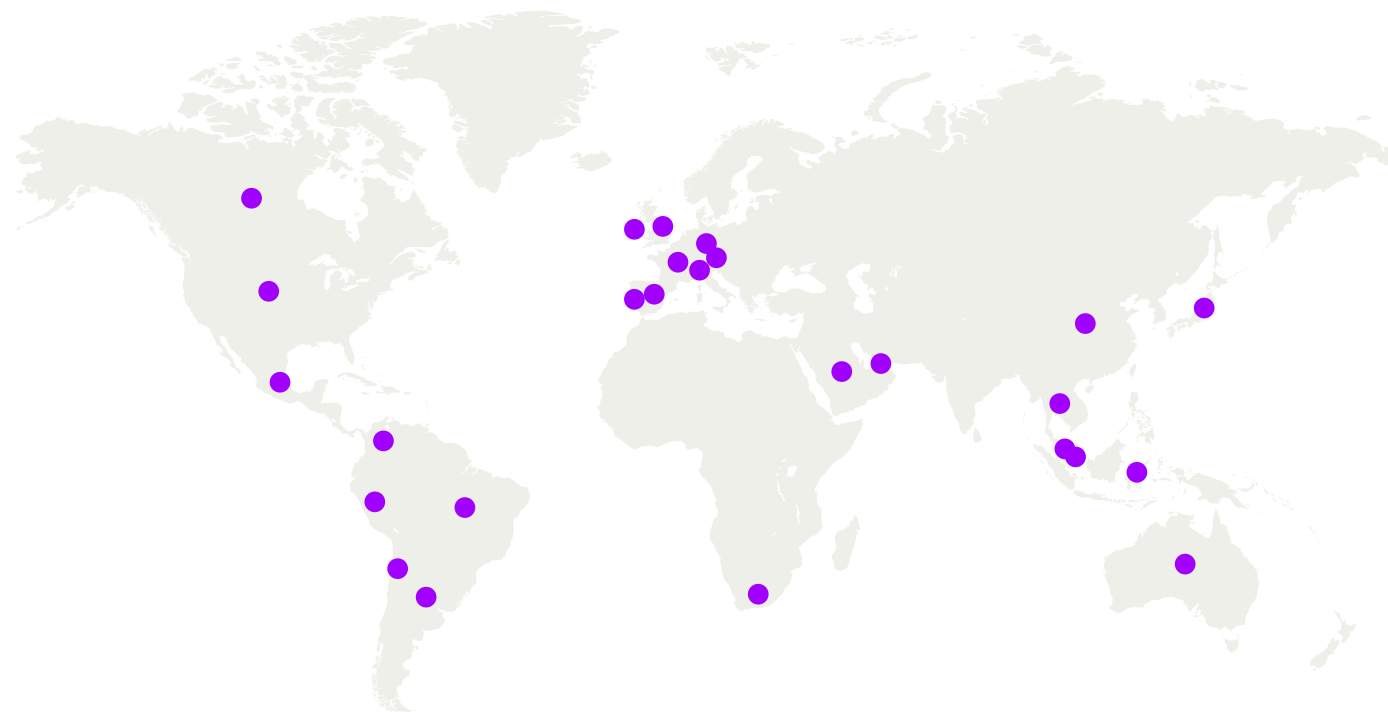
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Accenture Research shapes trends and creates data-driven insights about the most pressing issues global organizations face. Combining the power of innovative research techniques with a deep understanding of our clients' industries, our team of 300 researchers and analysts spans 20 countries and publishes hundreds of reports, articles and points of view every year. Our thought-provoking research—supported by proprietary data and partnerships with leading organizations, such as MIT and Harvard—guides our innovations and allows us to transform theories and fresh ideas into real-world solutions for our clients. For more information,
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