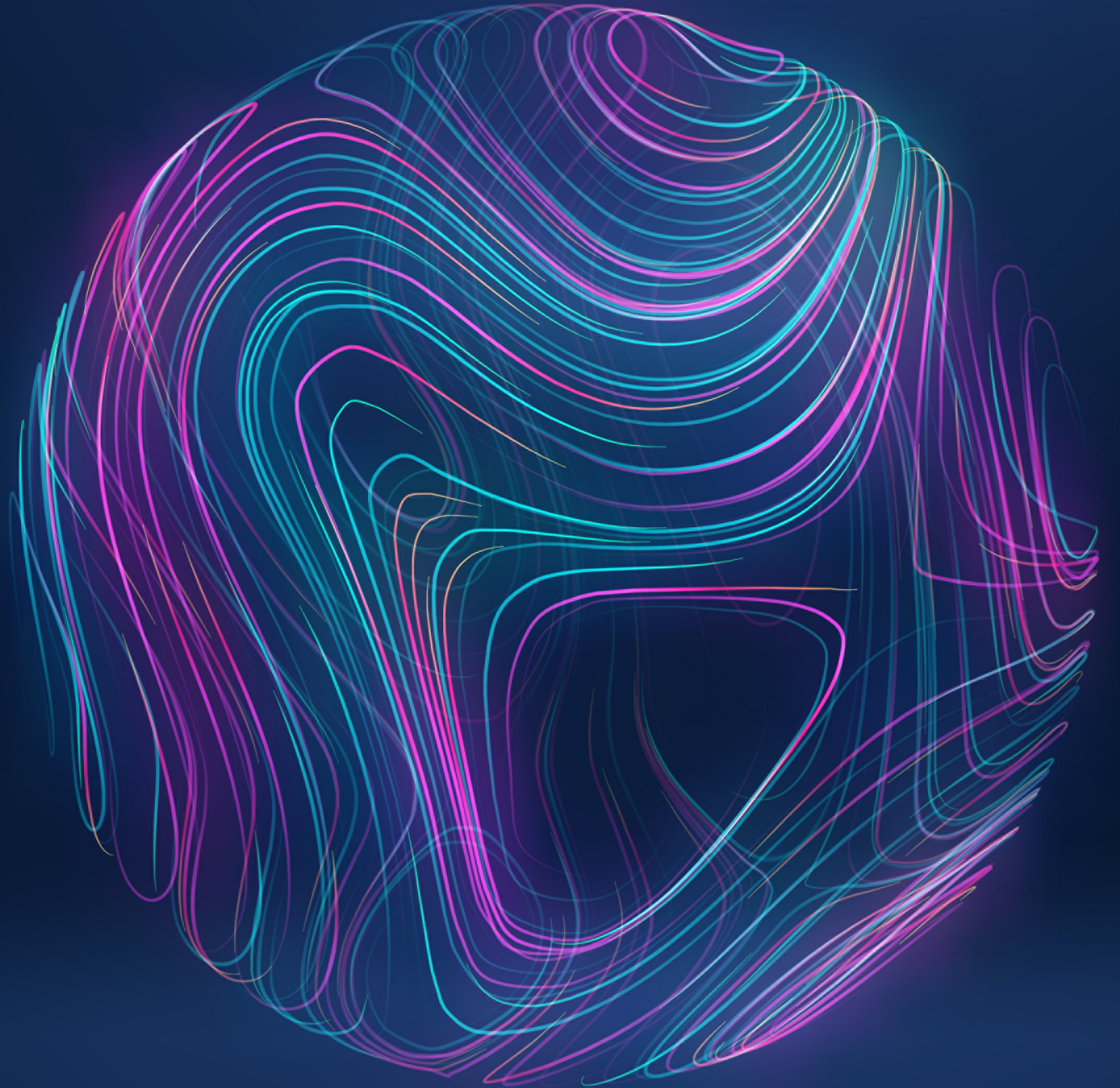


**Deloitte.**

**Technology-inspired  
and business-led:**  
A call for innovation

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A report by the Deloitte AI Institute



## About the Deloitte AI Institute

The Deloitte AI Institute helps organizations connect all the different dimensions of the robust, highly dynamic and rapidly evolving AI ecosystem. The AI Institute leads conversations on applied AI innovation across industries, with cutting-edge insights, to promote human-machine collaboration in the “Age of With”.

Deloitte AI Institute aims to promote the dialogue and development of artificial intelligence, stimulate innovation, and examine challenges to AI implementation and ways to address them. The AI Institute collaborates with an ecosystem composed of academic research groups, start-ups, entrepreneurs, innovators, mature AI product leaders, and AI visionaries, to explore key areas of artificial intelligence including risks, policies, ethics, future of work and talent, and applied AI use cases. Combined with Deloitte’s deep knowledge and experience in artificial intelligence applications, the Institute helps make sense of this complex ecosystem, and as a result, deliver impactful perspectives to help organizations succeed by making informed AI decisions.

No matter what stage of the AI journey you’re in; whether you’re a board member or a C-Suite leader driving strategy for your organization, or a hands on data scientist, bringing an AI strategy to life, the Deloitte AI institute can help you learn more about how enterprises across the world are leveraging AI for a competitive advantage. Visit us at the Deloitte AI Institute for a full body of our work, subscribe to our podcasts and newsletter, and join us at our meet ups and live events. Let’s explore the future of AI together.

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Necessity is the mother of invention, and the 2020 pandemic compelled enterprises to adapt and innovate in the face of adversity. Across the upended business landscape, stores and offices closed, supply chains were disrupted, consumer spending shifted, and the future was uncertain. Yet, companies that embraced a courageous, no-constraint mentality found new ways to work through the disruption, achievements made more impressive by the speed at which they were accomplished.

As the health crisis hopefully comes to an end and the urgency for change wanes, companies should find new charges that can push them to transform with the same intensity and speed. The need is to embrace and embed innovation-first thinking and strategy throughout the organization, building institutional muscles that allow an organization to transform again with speed and agility. Enterprises that heed the lessons of 2020 can pursue transformative initiatives that are technology-inspired, business-led, and technology-enabled, and in that, they will likely have a distinct competitive advantage.

# Innovation with purpose

In the first months of the pandemic, executives spoke about innovation in about half of earnings calls, which was commensurate with the same period a year earlier, [according to a Deloitte analysis](#). Yet, the nature of the innovation discussed was somewhat different: B2C companies mentioned e-commerce; energy, resources, and industrial enterprises focused on supply chains and balance sheets; and financial services and insurance businesses discussed risk management. Across the world, retail businesses were shuttering stores and pivoting to e-commerce, and product companies were identifying new materials suppliers and figuring out the raw logistics of keeping food on store shelves.

The focus on innovation was specific to use cases. Rather than an ambiguous vision of innovation for business value, what was needed were targeted approaches to long-standing business challenges. This kind of thinking can be essential for successful and valuable digital transformation. Initiatives for the sake of “keeping up with the corporate Joneses” can struggle to deliver measurable value because their purpose is unclear relative to enterprise strategy. Companies that win with innovation are often those that focus on the solution’s application, following a clear North Star or objective through these endeavors.





Yet, one challenge to use-case-driven projects is that innovative tools and services (like scalable public clouds, as-a-service offerings, and the myriad tools under the umbrella of AI) are often underappreciated in the value they can deliver. In this, technology-enabled initiatives may fall short of their promise because it is unclear how, where, and why they can be applied in the organization.

Fundamentally, courageous enterprises that maintain a no-constraint mentality hold AI as a pillar of strategy and planning. What's likely needed is a cultural shift that champions shared data accountability, technology transformations led by the business (and not just IT), and a collective imperative to imagine the art of the possible through

integrative strategy development. This moves far beyond whiteboarding potential and seeks to use emerging technologies in a structured, purposeful way that unlocks speed and agility. It can begin to transform the enterprise such that it has the ability to quickly and repeatedly experiment, pilot in the market, and rapidly scale from there.

One element to this is education. Business leaders should be knowledgeable about the web of emerging technologies and how they can address long-standing business problems in new ways. Unique opportunities can be found, and identifying them means, in part, asking the right questions:







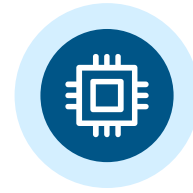
### Data

The exponential growth in business and customer data likely holds game-changing insights. Leaders are investing in data, making it an asset on the balance sheet with expected returns. What is the quality of enterprise data, how is it curated and accessed, who is accountable, and what tools are needed to permit businesswide, real-time, reliable data availability? Also, what data is outside the enterprise? How is external data captured, and how can new sources of data be created (e.g., through data in motion or IoT)?



### Hardware

On-prem, legacy technology can burden forward-thinking, innovative plans. Where are the opportunities to shift toward computing in the cloud, offloading applications, and seizing cost efficiencies in scalable as-a-service offerings? How can new technology be used to streamline and radically accelerate innovation, liberating IT to focus on driving business value rather than technology maintenance?



### AI tools

AI is the output from algorithms, deep learning neural networks, GPU-enabled infrastructure and software, and the skilled talent to use and apply it. What type of AI solution can deliver value for target use cases, considering robotics and intelligent automation, autocoders and adversarial networks, machine learning, image recognition, and more? What are the opportunities to build, lease, and acquire AI assets that service a number of use cases, such as driver-based forecasting, natural language generation and processing, and computer vision?



### People

Enterprises are operating in the [Age of With™](#) defined by human-machine collaboration. Does the business enjoy the right skills, talent, and knowledge from the board room to the back office, and, if not, what is the path to securing it? Are human workflows being shifted away from execution and toward problem-stating, problem-solving, and process improvement?

# Qualities of a tech-inspired enterprise

The emerging technologies changing every industry are proliferating, fast. In AI alone, 74% of companies surveyed in Deloitte's 2020 State of the AI Enterprise say these tools will be integrated with all business applications within three years. Pervasive AI may be the future, but companies will likely not get there if the strategy is one of buying a new technology once it's needed or simply being a "fast follower." This will likely ensure that the results fall short of the potential, since application of emerging technology often requires early learning and experience to develop speed over time. Given that, organizations may struggle to keep up by just trying to mimic the successes early adopters achieve.

Rather, AI is no longer optional, and maintaining a business-led, technology-enabled ethos is likely not quite enough. The competitive advantage in

technologies like AI is rooted in imagining how and where it can be used and courageously following the vision of technology-inspired, business-led, and technology-enabled.

**Bilingual talent** – Using emerging technology requires data and machine learning engineers, AI product managers, and research scientists. In some enterprises, the role of chief automation officer is being added to the C-suite. Across these

roles and in others, what's needed are people who have an appreciation for the potential and limits in AI, the nuances of a given industry, and the strategic considerations involved in conceiving and driving business initiatives. Finding the right use cases that allow the organization to be pragmatic in its approach to transformative endeavors likely requires leaders who speak more than one enterprise language.



**Leadership posture** – As found in Deloitte’s 2020 Global Technology Leadership Study, for baseline organizations (i.e., those operating from a largely “business-as-usual” perspective), 39% of CIOs were the advisers representing the enterprise’s technology functions in strategic planning. In leading vanguard organizations, however, 29% of technology leaders serve as “visionary guides” for technology possibilities. This approach acknowledges that using emerging technologies is typically never just an IT project, but instead a business-led initiative informed by the bilingual leadership that has a seat at the enterprise planning table.

**Risk and reward tolerance** – The “fail fast and often” philosophy is often misunderstood as synonymous with risk-taking. Rather, it is a concept of iterative advancement. Across industries, enterprises may tout a readiness to fail in pursuit of innovation, which has its place, but the more important factors are being ready to take some risks such that outsized rewards can be seized. Exploring how AI can address important problems means being ready to iterate and make meaningful improvements in the process.

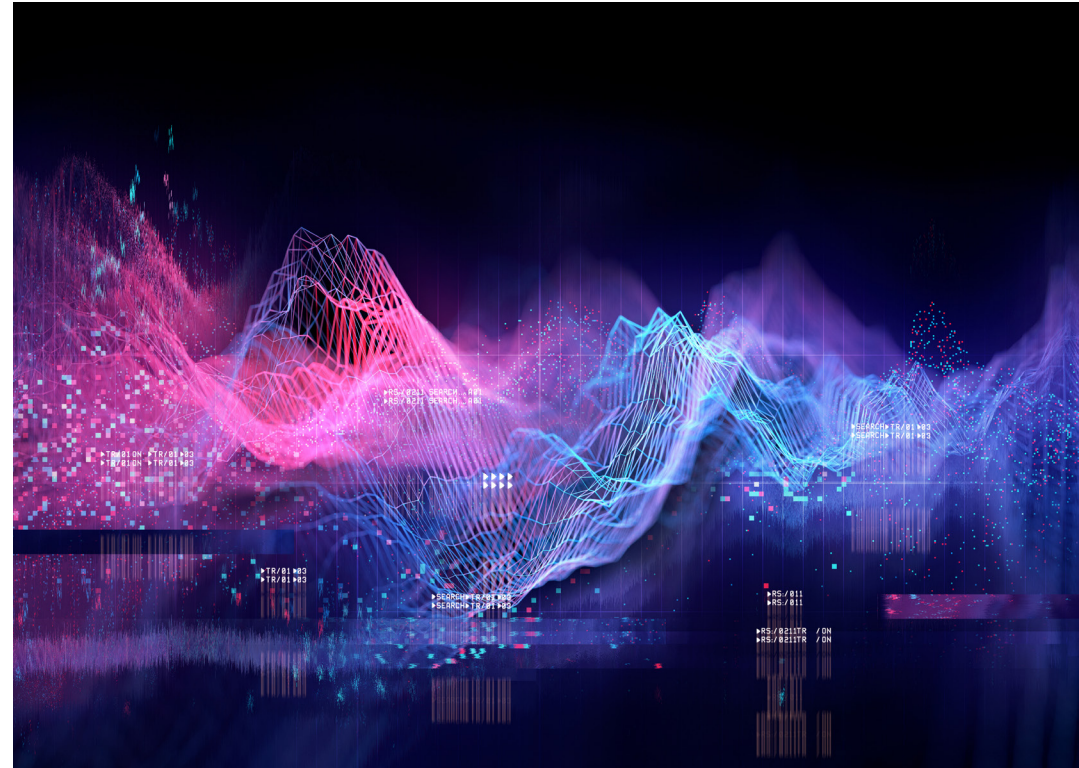
**Partners for the journey** – Because new technologies are advancing so quickly, success in using them often includes working with trusted advisers that understand the vast fertile ground of technology constellations. Third parties that have done these kinds of projects before can help identify the use cases and develop the novel solutions that make the enterprise risks worth taking. While there are many paths to value, collaborating with service providers, systems integrators, and advisers can help the business chart a path to creating enduring, valuable, and scalable solutions.



# Remember the lessons of 2020

As organizations return to a calmer, more predictable business environment, leaders have an opportunity and imperative to hold fast to the hard-won lessons learned. The move-fast, no-constraint mentality that was essential during the pandemic should now be pointed toward market advantage and shareholder returns—and with the same level of enthusiasm, importance, and urgency.

Some businesses will forget and inevitably slide comfortably to the old ways of planning and operating. Yet, others will not, and they will push ahead into a new normal that they define. Indeed, the competitive landscape for years to come is being shaped and structured today by the organizations with the courage, resolve, and inspiration to solve long-standing business challenges in entirely new ways.





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