

# What's Missing from Your AI Transformation Is a Transformer

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# What's Missing from Your AI Transformation Is a Transformer

**Incumbent firms need more than AI solution providers. They need partners that can help them unlock new ways of doing business, creating value, and navigating organizational change.**

Now, more than ever, incumbent industries are looking to AI technology to solve their unique business challenges—from research simulations in the pharmaceuticals industry to quality assurance in automotive manufacturing to lead generation in banking—and are seeking appropriate external tech partners to source AI solutions. But incumbents are finding it challenging to go beyond off-the-shelf products and foster meaningful collaboration to create tailored solutions that maximize what the AI players have to offer. “When we started building a big data unit, we quickly recognized the big mistake we were making in trying to do everything ourselves,” an executive at a leading European car manufacturer explained to us. “The problem was that we initially viewed tech companies as owners of product solutions, not as true collaborators.”

The stakes of forging successful collaboration are high. When the BCG Henderson Institute surveyed decision makers at incumbent companies around the world, we found that incumbents that successfully fostered meaningful collaborations on customized solutions were three times as likely to derive a high (positive) financial impact from AI as those that did not. (See the sidebar “Survey Methodology.”)

Although nearly all incumbents we surveyed were relying on external tech partners to supply AI solutions that they could not develop themselves, only one-fifth were able to forge meaningful collaborations that maximized AI firms’ value potential. We define *meaningful collaboration* as holistic AI support—extending across access to custom technology, support for talent, training, and change management—that prompts the incumbent to overhaul its processes. This level of support addresses the challenges that incumbents report facing time and again with respect to technology, talent, and change management. Partnering with AI providers that have specialized expertise in industry or function-specific AI applications can deliver far more value to an incumbent than is possible with any off-the-shelf product purchase. Effective catalyst companies collaboratively build and experiment with their clients, enabling them not just to unlock new ways of doing business and creating value, but also to navigate organizational change. We call these catalyst companies *transformers*.

Industry incumbents that identify and effectively collaborate with a transformer gain clear advantages. Beyond their greater likelihood of high financial impact, they are likelier to integrate AI throughout the organization. And they are seven times as likely to integrate AI as a core element across most of their business unit strategies. (See Exhibit 1.)

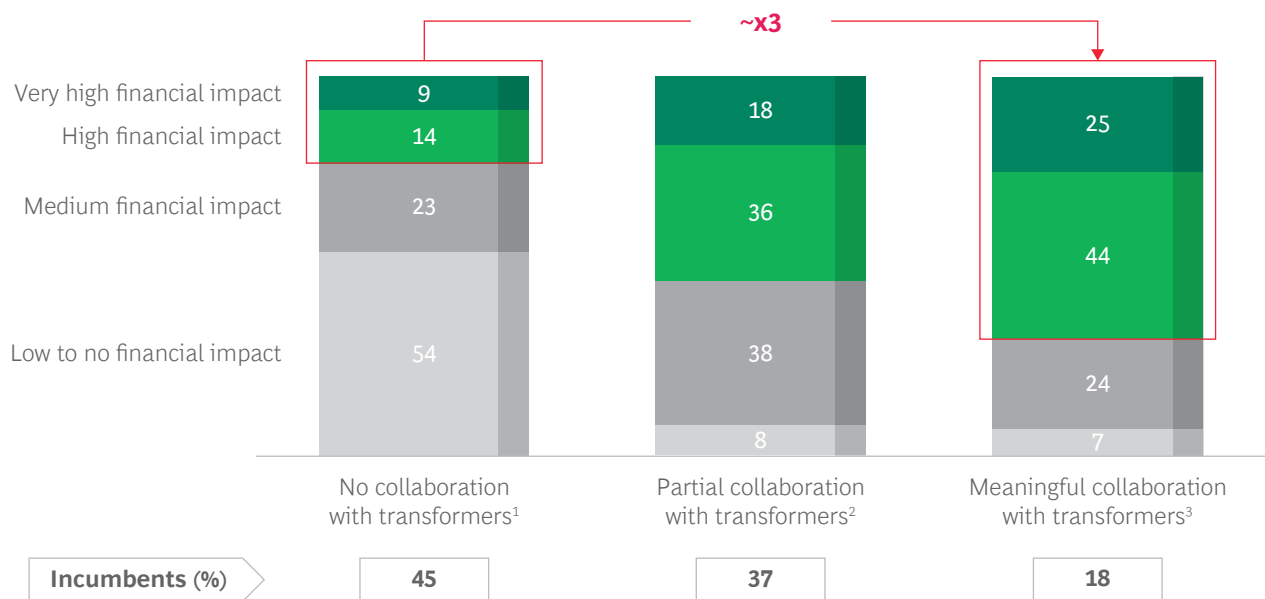
## Survey Methodology

To better understand incumbents’ AI adoption experiences, the BCG Henderson Institute surveyed 600 business leaders at the heart of decision making on technology adoption across six markets: China, France, Germany, India, the UK, and the US. The survey spanned 20 industries, excluding the tech sector, where familiarity with AI is already high. The goal of the survey was to understand the level of AI adoption in each industry, the

difficulties faced, the operational models used for AI adoption, and any challenges with AI providers themselves—such as navigating an unfamiliar AI marketplace to find a transformer partner and updating the company’s mindset to embrace experimentation and customization.

## Exhibit 1 - High Financial Impact of Teaming Up with Transformers

Incumbent respondents (%)



**Source:** BCG and BCG Henderson Institute 2022 survey of 600 industry incumbents in six countries (China, France, Germany, India, UK, and US).

**Note:** “Financial impact” uses a threshold that varies depending on organization size. We compare the size of the organization with the revenue benefits and cost reductions that the organization derives from adopting AI. The higher financial impact companies are those that fall into the top 50% of companies in terms of impact within each organizational size bucket.

<sup>1</sup>No collaboration = incumbents that did not receive customized support for AI tech.

<sup>2</sup>Partial collaboration = incumbents that received partial support for AI tech—that is, custom tech and either talent/training or change management—and did not make extensive changes to their processes.

<sup>3</sup>Meaningful collaboration = incumbents that received holistic AI support from their engagement with AI players—including access to custom tech and support for talent/training and change management—and as a result made extensive changes to their processes.

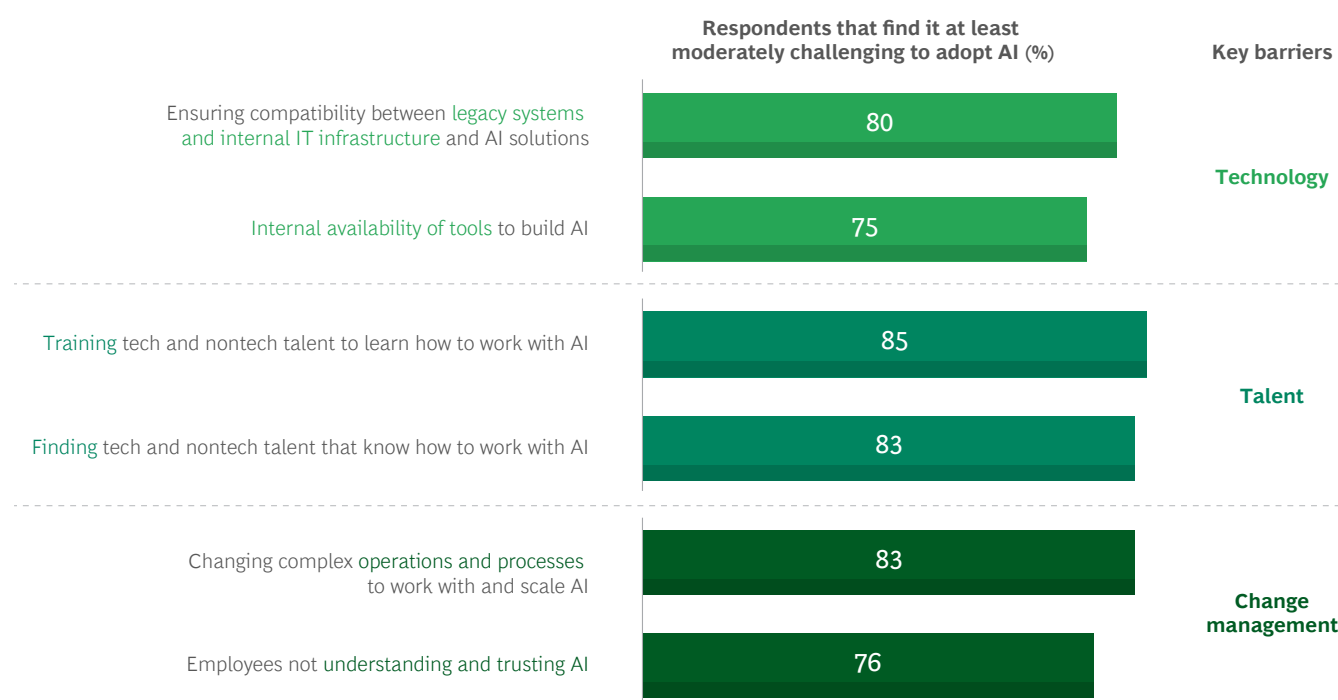
But forging such collaborations isn’t easy for incumbents. At the outset, navigating the AI marketplace poses challenges to new entrants. And once incumbents have selected an AI partner, they must overcome numerous roadblocks to a meaningful partnership that vary depending on their AI experience level—novice, apprentice, or proficient.

To overcome these hurdles, incumbents must recognize and change preconceived notions and ingrained behaviors, as well as balance the tradeoffs that arise in any transformation: keeping control over proprietary data versus increasing access in order to improve AI quality; maximizing adoption speed versus retaining IP ownership; partnering with a startup versus with a tech giant; creating a tailored solution versus adapting mature products; prioritizing scaling AI or improving the product first.

### The Value of Transformers

Transformers develop highly specialized AI applications that have a particular vertical or functional focus and cater to one or a select few industries. They collaborate, rather than compete, with incumbents, to eliminate the barriers to AI adoption that incumbents usually face. Our survey found that meaningful support from transformers makes incumbents feel better equipped to tackle the challenges of AI transformation. In most cases, the transformers providing that support are startups or scale-ups—like the European AI scale-up, Shift Technology, which helps insurers adopt AI for fraud detection. Vertical tech companies that have diversified to offer AI-powered solutions can also serve as transformers. For example, B-Soft, a Chinese med-tech company, expanded its IoT offering to include intelligent hospital solutions. In rare instances, tech giants can play the transformer role in areas where they have verticalized their offerings, as in the case of Microsoft’s launch of FarmVibe.AI, an AI-solution that caters to agriculture incumbents.

## Exhibit 2 - Key Barriers That Incumbents Face when Adopting AI



**Source:** BCG and BCG Henderson Institute 2022 survey of 600 industry incumbents in six countries (China, France, Germany, India, UK, and US).

Whatever the size and nature of the AI player, as a transformer it can help eliminate key barriers to AI adoption in three key areas: technology, talent, and change management. (See Exhibit 2.)

### TECHNOLOGY: BRIDGING LEGACY GAPS TO CUSTOMIZED AI

Whether an incumbent chooses to develop customized AI solutions in-house or adapt existing solutions to meet its needs, the process of adopting the technology can be a major impediment to the organization's transformation effort. Our survey found that three-quarters of incumbents were challenged by a lack of tools necessary to build their own AI solutions. And when these established firms looked externally for partners, they still faced significant hurdles: 80% ran into compatibility issues when trying to incorporate AI products into their legacy systems and existing IT infrastructure.

A transformer can bridge an incumbent's technology gaps by developing a customized AI solution tailored to the incumbent's business problem. Transformers are in a unique position to provide such support because in many instances they specialize in a particular vertical or function suitable for a specific industry. This focus gives them a nuanced understanding of the environment in which the incumbent operates and ensures that they are already

steeped in consumer behaviors in consumer-facing industries or in the intricate operational processes of manufacturing industries. As a result, transformers can offer more precisely tailored AI solutions and compatible IT infrastructure and tools, and they can use data that had previously overwhelmed the incumbent to drive better insights from their products.

Our survey showed that significant access to transformers improves the AI transition. Incumbents that collaborated meaningfully with transformers were substantially less likely than incumbents that did not collaborate with transformers to cite problems with internal tool availability (63% versus 81%) or legacy IT compatibility (63% versus 88%) as organizational challenges during adoption. That two-thirds of incumbents deeply engaged with transformers still reported struggling with the transition shows the complexity of the AI transformation challenge.

Chinese med-tech company Insilico Medicine has developed a deep understanding of the pharmaceutical space, where it focuses on clinical stage artificial intelligence to slash the time it takes to discover and design novel molecules. This background enables the company to tailor its AI solutions to incumbent clients' needs with great precision. Insilico's specialization in the early clinical stage develop-

ment of possible breakthrough treatments is extremely valuable to pharma incumbents. This explains why French pharmaceuticals leader Sanofi recently signed a deal to collaborate with Insilico Medicine, enabling Sanofi to tap into the transformer's Pharma.AI platform and its team of interdisciplinary drug discovery scientists to advance high-quality-lead therapeutic compounds to the development candidate stage.

#### **TALENT: OVERCOMING THE AI SKILLS DEFICIT**

Incumbents face a talent and skill deficit when it comes to incorporating new AI technology. Successfully adopting AI entails shifting the incumbent workforce's roles and responsibilities and meeting the need for new skills. "We simply do not have the skills to develop AI solutions internally," an executive at a multinational European bank told us. Top-flight tech talent prefers working for tech firms, rather than for industry incumbents. Our survey found that incumbents almost universally face challenges in sourcing tech talent (83%) to meet the requirements of working with new AI. In addition, the vast majority of incumbents (85%) cited providing the necessary training to their current employees to work with new technology as a roadblock to AI adoption.

Collaborating with transformers eliminates this talent deficit. That's because, while incumbent industries cannot compete for top talent, transformer AI firms, working on cutting-edge AI, appeal to workers with a tech skill set that incumbents find difficult to access on their own. Our survey data indicated that 92% of incumbents that didn't collaborate with transformers struggled to find top talent, whereas 66% of incumbents that meaningfully engaged with transformers cited talent recruitment as a challenge.

Besides giving incumbents access to a larger talent pool, working with a transformer enhances the incumbent's brand as an innovator, which in turn makes it a more attractive destination for top talent. Transformers can also help incumbents select, recruit, and onboard tech talent.

Incumbents further benefit from the fact that transformer firms already specialize in the incumbents' industry, so these previously inaccessible workers already speak the same language as the adopting incumbent workforce. This common ground is vital in facilitating the upskilling the organization's non-AI workers—helping them understand the tech's potential, how to use it, and how to interpret its insights. Of incumbents collaborating in meaningful ways with transformers, 69% cited training as a challenge, while 93% of noncollaborating incumbents said they struggled with training.

The tech startup Cognite, which provides AI-powered services for heavy-asset industries such as oil and gas, also helps incumbent industries incorporate its AI. The company's Cognite Academy offers training programs, such as Cognite Data Fusion Fundamentals, to help employees understand AI-derived data and translate it into action.

#### **CHANGE MANAGEMENT: REINVENTING WAYS OF WORKING**


Incorporating AI technology into an incumbent's existing operations and workforce is a fraught endeavor. The complexity of upending existing processes to accommodate new tech presented a challenge for 83% of incumbents, according to our survey. At the workforce level, 76% of incumbents were challenged by their employees' lack of trust or understanding of AI technology. The task at hand is not only to reinvent incumbents' operations, but also to win over their employees.

Transformers act as a change agent, smoothing an incumbent's transition. By providing a customized AI approach, transformers can chart AI-specific strategies, reimagine existing processes, and establish AI governance. Our survey showed that incumbents with meaningful transformer collaborators had less difficulty than those without a transformer partner in changing complex operations (67% versus 92%) and having employees not understand or trust the technology (67% versus 81%). Meaningful transformer engagement can also help fight cultural resistance, by shifting the mindset of employees from viewing AI as a threat to seeing it as an opportunity, helping reinvent job descriptions with AI, and establishing trust in AI insights—all of which help the AI tools put down deep roots inside organizations. A transformer that is well integrated with the incumbent company it collaborates with doesn't work in isolation from the incumbent's other business units. As a result, it can promote a rethink of the entire customer value chain, pushing the boundaries of what can be automated and changing human roles.

For example, the Chinese agri-tech company XAG has collaborated with farmers in China to revolutionize traditional farming practices. After watching farmers in Xinjiang province strap heavy tanks to their backs to spray their cotton fields with pesticide, the company developed a host of AI-powered tools, including agricultural mapping drones and real-time information services, that combine farm and crop data with visual recognition technology, reinventing the way farmers operate. In another case, to win over incumbent pomelo fruit farmers who were known to resist change, XAG provided them with a customized mobile data tracking app so that they could track crop growth and pesticide use on their mobile devices. The app offered the farmers new and timely information while also allowing them to decide how to use the tech. XAG helped them interpret the insights on optimal pesticide use to navigate a shift toward building more sustainable orchards and to better cope with the many variables farmers must manage in raising a successful crop.

It should be noted that the same three barriers posed by traditional AI—technology, talent, and change management—will continue to challenge incumbents that seek to integrate new generative AI models. (See the sidebar "The Need for Transformers in an Age of Generative AI.")



A close-up photograph of a person's hand pointing at a digital screen. The screen displays a background of binary code (0s and 1s) in a light blue/cyan color. A prominent red rectangular highlight is visible on the left side of the screen, partially obscured by the hand. The hand is in the foreground, with the index finger pointing towards the red area. The overall image has a high-tech, digital aesthetic.

**Incumbents adopting AI should seek a transformer that provides three critical ingredients: tech, talent, and change management.**



The Challenges to Meaningful Collaboration

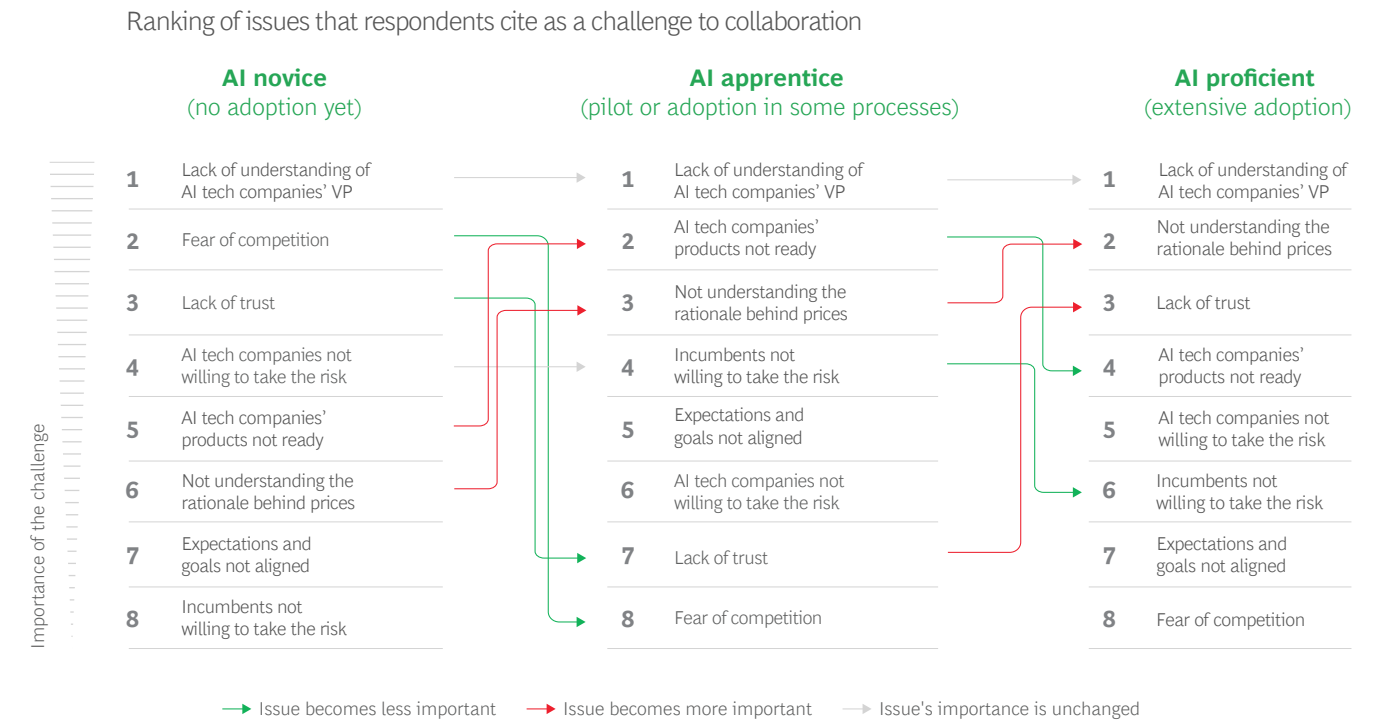
Incumbents that are in the process of adopting AI should seek a transformer that provides three critical ingredients to help them reinvent their operations with AI: tech, talent, and change management. However, the path to finding and engaging with transformers can include pitfalls. Our survey found that one challenge common to nearly every incumbent involves identifying partners in the AI marketplace. The survey also found that additional hurdles materialize at different stages of an incumbent’s AI adoption. At each stage, incumbents need to change organizational behaviors to overcome these challenges and foster meaningful collaborations. (See Exhibit 3.)

Identifying the right partners and navigating the AI marketplace are fundamental obstacles for incumbents, whether their maturity level is AI novice (yet to adopt the AI technology), AI apprentice (in early stages of AI adoption), or AI proficient (extensive AI adoption). That is because AI normally falls outside incumbents’ experience and expertise. According to our survey, 83% of incumbents found navigating the market of AI solutions at least moderately challenging in their AI adoption journey. And while 93% of incumbents sourced from AI-native startups or scale-ups, half (43% to 51%) said that their inability to recognize the AI natives’ value proposition hindered collaboration.

To find the right partner, incumbents must devise a clear AI partnership strategy to guide their approach to the marketplace. When grocery retailer Tesco set out in 2018 to identify AI partners to help create autonomous grocery stores in London, it assessed its own technology capabilities before charting a strategy to meet its customers’ desire for a frictionless checkout experience. Assessing and articulating its AI requirements at the outset enabled Tesco to effectively screen the marketplace, where it found a match in AI startup Trigo and its platform, which incorporates cashierless checkout technology, security and fraud prevention, and interaction analysis tools.

Tesco’s strategic approach to the AI marketplace is rare, however. In our survey, only 30% of incumbents said that they currently had “a clear partnership strategy on AI.” A comprehensive strategy entails identifying use cases and the problems they hope to solve, as well as evaluating tech debt and organizational attitudes toward AI. To deepen their understanding of the AI landscape, incumbents should build up their knowledge of suppliers along relevant tech stacks, assessing their degree of verticalization, the maturity of their solutions, and any adjacent support they provide beyond the tech itself.

Exhibit 3 - Incumbents’ Challenges to Collaboration with AI Startups, Across Different Stages of AI Adoption



Source: BCG and BCG Henderson Institute 2022 survey of 600 industry incumbents in six countries (China, France, Germany, India, UK, and US).  
Note: VP = value proposition.

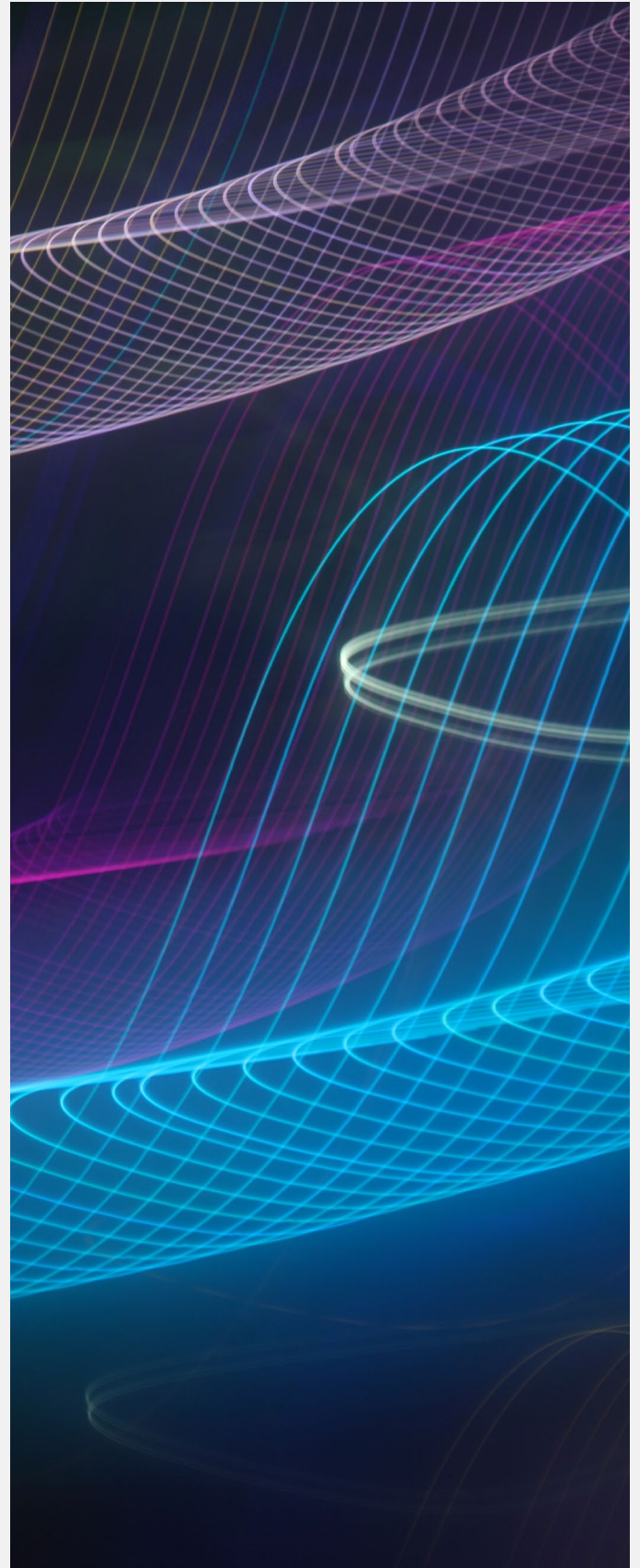
# The Need for Transformers in an Age of Generative AI

The rise of generative AI shows great potential to lower the technological barriers to AI entry, making it a potentially transformational development in the democratization of AI. The democratization may not extend to customizing generative AI applications, however; instead, it may be limited to use cases made available by the model providers. For this reason, incumbents should still view transformers as critical allies in AI adoption. Many of the challenges underlying AI transformation—from customizing tech to talent to change management—remain, despite the surge in foundation models.

**Customizing Technology.** With generative AI—an environment in which customization of solutions or products will be the norm and foundation models will be available off-the-shelf—an incumbent's competitive advantage will come from mastering customization. Transformers can use their unique expertise and their vertical/functional technology capabilities to help incumbents maximize their tech competitive advantage, leveraging their own proprietary data to improve performance.

**Talent.** The popular expectation is that generative AI will minimize specialized tech skills, such as coding, as a barrier to entry. But in reality, these tech challenges are more likely to change than to disappear altogether. Transformers will be essential in navigating this shifting landscape. Studies have shown that using generative AI creates overconfident programmers, so tech talent will need training in how to approach the technology critically. Nontech talent will need to be educated to maintain a healthy mistrust of generative AI output and to continue to supervise and watch for errors.

**Change Management.** Generative AI may simplify the tech process, but it does not eliminate the need for organizational change to maximize the benefits of the technology. Incumbents will require transformers to assist in reinventing their business/operations models and driving mindset changes across the organization.





Beyond the universal challenge of deciphering the marketplace, we have identified significant differences in the types of roadblocks that confront AI novices, apprentices, and proficient. An incumbents' experience level has a deep influence on its mindset toward AI engagement.

### **AI NOVICE: SEEING TRANSFORMERS AS ALLIES RATHER THAN AS ADVERSARIES**

Many incumbents that are AI novices have an intrinsic apprehension about working with AI startups or scale-ups that manifests itself in various ways that inhibit collaboration. Often, instead of viewing AI startups and scale-ups as providing an opportunity to solve a problem that their operation faces, AI novice incumbents see them as existential threats. Fear of competition is at its peak during this early stage of engagement, as half of incumbents surveyed said that it held them back from collaboration.

For these established companies, fear of competition is grounded in concern that AI startups with a deep expertise in their field will penetrate their market, gain access to their IP, and elbow them out. Distrust of AI companies typically lessens over time, but many incumbents still expressed a lack of mutual trust in sharing data and knowledge, which hinders transformers' efforts to customize the AI solution and maximize its impact.

Nearly half of novice incumbents reported that reluctance to share their resources hampered their attempts to collaborate, and the same proportion (45%) also perceived AI startups or scale-ups as being unwilling to share the risk of the partnership by sharing the initial investment or IP credits. An executive at a leading European car manufacturer whom we interviewed summed it up this way: "In our market, companies have a natural fear of cooperating with others. We must get rid of this fear to start cooperation."

For the European car manufacturer—and for any industry incumbent with novice-level AI experience—the first step toward launching a meaningful collaboration and unlocking AI's full potential is to implement the behavioral changes that enable collaboration.

### **From Fearing Competition to Finding Collaboration.**

Incumbents must undergo a radical shift in mindset from anticipating competition to embracing collaboration, recasting transformers as strategic allies instead of adversaries. To do this, incumbents must accept transformers as a means to improve their own performance and collectively enhance value pools—not as competitors looking to covertly tap into their market base. For novice incumbents, this step is essential to forging meaningful collaboration and unlocking the full potential of AI.

"We viewed tech companies as owners of product solutions, not as true collaborators," the European car executive said of the company's evolution from resisting change to embracing AI collaboration. "We changed and decided to set up partnerships. The tech company invested a lot into the partnership—headcounts, trainings, discounts, a lot of manpower. After two years, it became a win-win partnership. We used it not only for product consumption, but also for building up a product."

**From Firewalls to Open Doors.** Shifting to a collaborative mindset frees the incumbent to be transparent with its data and its accrued industry intelligence, which, in turn, enables the transformer to better customize AI technology to maximize its impact on the incumbent's business.

The more data an incumbent gives its AI partners, the greater the potential returns from the tech advances will be. A good example involves MHWirth—now HMM—a leading Norwegian drilling equipment and service provider, which needed to conduct data-driven maintenance on its offshore drilling rigs equipment. The company had the ability to capture the data, but it didn't have a data platform and predictive algorithms to translate that data into action. The company partnered with Cognite to create predictive models for a Prognostics & Health Management (PHM) solution to integrate insights and provide holistic asset management for its clients. HMM gave Cognite full access to its data via an API key, so the AI company had free rein to deploy its solution along its cloud infrastructure. Trusting Cognite with critical data from its internal database helped HMM keep costs in check, extend the lifespan of equipment, and decrease downtime. In addition, the PHM solution captures HMM's unique OEM expertise and domain knowledge.

Embracing a collaborative mindset, as HMM did, requires incumbents to acknowledge and accept tradeoffs that will ultimately define their AI transformation. HMM relinquished a degree of control over its data to Cognite in return for a better AI product that could be created and implemented more quickly.

**AI Quality vs. Data Control.** An incumbent that resists granting wider access to its data and instead confines data access to specific silos that it believes are necessary for training AI could fetter the transformer's creativity in contextualizing its data outputs and narrow the insights it can make. And worse for the incumbent, these constraints limit the transformer's ability to find valuable uses for its insights.

To address this, the incumbent must work with the transformer from the outset to assess and classify its data. This enables the incumbent to identify which data is mandatory to build AI, which is useful to improve the solution's accuracy, and which could help the transformer contextualize its findings to generate valuable insights. The incumbent must arbitrate, gauging what it can share and what is too strategic, while bearing in mind the implications of its decisions on AI quality.

**Speed vs. Tech IP Control.** In the early stages of forging a collaboration, tradeoffs occur, including those related to the incumbent's level of control over the tech IP that results from the partnership. Some incumbents may push to control or at least share the IP that arises from the AI solution or, at a minimum, request exclusive rights to it for several years. The downside of taking this approach is it could slow the AI adoption process by complicating the search for an AI collaborator. Most top AI firms are unlikely to accept terms that deprive them of ownership of the IP behind the technology they build. In addition, by keeping the solution for themselves, incumbents can't reap the benefits that arise when AI firms improve their solutions while working with other industry incumbents.

One option for incumbents is to opt out of IP control, which allows them to develop and deploy the AI more quickly, but also means the solution could someday be available to a competitor. Before engaging with transformers, incumbents should assess the costs and benefits of swift AI adoption in comparison to the potential IP value—particularly its uniqueness and value to the market—underlying the AI they hope to build.

#### **AI APPRENTICE: PRIORITIZING TAILORED SOLUTIONS OVER MATURE PRODUCTS**

Apprentice incumbents—companies that are in the pilot and early adoption phase—tend to face challenges with product readiness. Although these challenges may reflect a fundamental reality in markets where AI products are not yet mature, in many instances they indicate that incumbents may not be taking the right approach to adopting the technology. “Before we jump out and say let's go, we want to know if the solution is delivering short-term results,” a leading European insurance company executive told us.

Instead of welcoming AI partners to collaborate on and develop original solutions, and seeing experimentation as a valuable part of the development process, many incumbents search for more mature products, which might not exist in the market. As a result, 43% of AI apprentices cite lack of product readiness as a roadblock to engaging with AI partners. Trying to retrofit a mature AI product to a problem that is unique to a particular incumbent, however, can be cumbersome and can leave substantial gaps in the solution's coverage, making it not the best route to

maximize AI value. Recognizing those shortcomings of the product retrofit approach might be revelatory to the 40% of incumbents that said they don't recognize the rationale behind the AI products' prices.

Overcoming an overreliance on mature products requires overhauling the incumbent mindset. Cryptosense, a startup working on cryptographic solutions that has since been acquired by Sandbox AQ, encountered this incumbent tendency toward short-term thinking while working with several traditional banks. The incumbent banks resisted forming a long-term collaboration with the transformer startup because they wanted ready-to-use solutions with very short-term benefits. But there are no mature solutions to ease migration from current public-key cryptography algorithms to more secure replacement algorithms capable of effectively countering quantum computer-based attacks. Why? Because the risk hasn't even materialized yet, and for banks the transition from one cryptographic standard to another can take 10 to 20 years. Incumbent banks need to shift their thinking—and their timeline for returns—to invest immediately in building solutions for risks that are still on the horizon. If they don't, the banks will be playing an endless game of catch-up as new challenges arise.

Beyond concerns about product readiness, AI apprentices showed a marked level of concern about the makeup of the startup partner. In our survey, 37% said that the size and longevity of AI startups or scale-ups posed unacceptable risks for the collaboration. Instead of seeing potential, these incumbents see risks and overly focus on startups and scale-ups' limited track record and on potential funding challenges or strategic shifts as new investors come aboard. “We want to know if it is going to be risky for our company,” the insurance company executive said.

To foster meaningful relationships with transformers, incumbents need to change their approach to the risk and experimentation that comes with the territory of AI customization and the value it creates.

**From “Ready-Made Products Only” to Welcomed Experimentation.** Instead of expecting to use only off-the-shelf solutions, incumbents should embrace experimentation, particularly in industries or use cases where easily adopted mature products don't exist or wouldn't bring a competitive advantage. They should instead place their bets on transformers to provide customization, which takes time and requires process and cultural changes.

That was the thinking of Brazilian aircraft manufacturer Embraer when it partnered with tech companies to develop autonomous flight technologies. There weren't any mature AI products that met its needs for autonomous flight, so Embraer sought a specialized player to develop new products, such as electric vertical landing and takeoff



A person wearing large black headphones is seen from the side, sitting at a desk in a modern office. They are typing on a black keyboard. In front of them is a large computer monitor displaying a code editor with a dark theme. The code appears to be JavaScript or a similar language. To the right of the main monitor, there is a smaller vertical monitor showing a file explorer or a similar interface. In the background, another person is visible, also working at a desk with multiple monitors. A green plant is on the left side of the frame. The overall atmosphere is professional and tech-oriented.

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aircraft. That led the company to Daedalean, a company that possessed a wealth of knowledge and experience in autonomous flight, as well as flexible software for visual traffic detection and camera-based navigation.

**From Traditional Pricing Models to Novel Distribution of Value.** Incumbents must also understand that experimentation and innovation may confound traditional pricing models, which apply more readily to established products, some of which follow SaaS-like pricing models. To obtain a bespoke AI solution that creates a potentially novel distribution of value, however, incumbents must work closely with transformers to establish coherent pricing vis-à-vis the value generated by AI.

AI tech company Bluecore, for example, set up a new monetization model when pitching its Multi-Channel Marketing Platform. The company scored and analyzed consumer behavior and used predictive intelligence to trigger, prioritize, and personalize retail marketing. The company established a pricing model based not on volume, but on success—in this case, in the form of customer conversion rate or repeat purchases. Incumbent retailers Footlocker, Sephora, and Tommy Hilfiger shifted their mindset and partnered with Bluecore, embracing innovative pricing that supported and rewarded experimentation.

Although shifts in mindset at the AI apprentice stage to embrace experimentation may maximize long-term AI value, they entail short-term tradeoffs with regard to certainty and tailoring.

**Tech Giants vs. AI Startups/Scale-ups.** Tech giants can be appealing to apprentice AI incumbents because their brand recognition, potential synergies with the incumbents' existing IT infrastructure, and ability to share the costs of AI development. That sense of familiarity may appeal to a hesitant incumbent, but verticalization and functional specialization are not areas where tech giants excel. Instead, tech giants' offerings tend to be more broadly applicable, which enables them to be more quickly adopted; the downside is that these giants have limited insight into industry-specific challenges.

In contrast, AI startups offer incumbents deep industrial and functional understanding, which has the potential to create more value. But these companies come with a higher degree of uncertainty with regard to everything from how effectively they can scale to what company might own them in the future.

Consequently, incumbents may need to make a strategic choice between certainty and specialization. Those that favor AI startups can counter the uncertainty by committing to helping the startup grow by sharing industry knowledge, leads on use case opportunities, access to suppliers and

customers, or bargaining power support when the company sources AI tools to tech giants.

**Mature Product vs. Tailored Process.** Incumbents in industries where mature products exist must ask themselves whether to purchase the existing products or develop tailored solutions with a tech partner. Mature products may offer the convenience of quicker adoption, but they have significant drawbacks. In the first place, they may not fully solve the business problem that the incumbent is trying to address, meaning that they can't maximize the value of the solution. As established products mature, they become less tailored to the needs of the incumbent that adopts it. Similarly, when the technology is standardized, adjacent support for talent and change management tends to fade.

Enlisting the support of a transformer to build a tailor-made solution from the ground up is time and resource intensive, but it enables the incumbent to maximize support for talent and change management. This level of engagement may not always be necessary, especially to address straightforward problems such as deriving consumer insights from online data—a task that existing marketing data processing platforms can perform. It is therefore critical for incumbents to assess the nature and complexity of the problems they want to solve in order to determine the level of tailoring required.

#### **AI PROFICIENT: PUSHING BEYOND PRODUCT SCALING TO ORGANIZATIONAL REINVENTION**

For AI proficient incumbents, which have already extensively adopted AI, concerns shift to the issue of how to design efficient, mutually beneficial partnerships. At this stage, an incumbent should work with its AI partner to structure AI scaling, but perceived imbalances in the partnership can be a significant stumbling block. Although fears of competition appear to have faded by this point (to 19% among surveyed AI proficient incumbents), a third (34%) still expressed concerns about the pricing of AI products. These worries underscore persistent incumbent concern over how value is distributed in the partnership, which is also likely linked to the reappearance of data sharing as an issue (33%). Incumbents' continued concern over product readiness (30%) is, at this stage, most likely linked to the scaling process of the product in the organization.

To overcome these late-stage challenges to a partnership that fully advances AI adoption, incumbents must embrace the possibilities of organizational reinvention and be open to redefining how value is balanced.

**From Product Scaling to Organizational Change.** Incumbents at advanced stages of AI adoption should shift their attention to structuring collaborations directed toward scaling AI. That shift means involving transformers in identifying and prioritizing use cases to spread across the



business and setting up appropriate IT infrastructure to deploy these use case, as part of defining AI strategy at the organizational level. At this stage, change management is very important, as cross-functional complexity increases. Incumbents should encourage transformers to take a cross-functional approach to training and change management.

The partnership between the company C3 AI and Shell demonstrates how incumbents can embrace a new way of thinking in their collaboration with transformers to deal with complex problems. Shell enlisted C3 AI to set up predictive maintenance programs for 10,000 pieces of its gas equipment. The energy incumbent empowered C3 AI not just to scale its insights across its business units, but also to go further and promote organizational change. Recently, the AI company reupped its strategic agreement with Shell for five more years to deepen deployment of the C3 AI suite across the energy incumbent. In one of the largest AI scaling projects in the energy industry, C3 AI is exploring additional use cases in production optimization, system optimization, and safety, as well as expanding into new business units such as Shell's renewables vertical, which includes wind farms and solar parks.

**From Legacy Distribution of Value to Continuous Redefinition.** When an incumbent deploys AI at scale with a transformer, the breadth of data and knowledge required increases—as do the potential benefits generated by AI. This new state of play can create data asymmetries and generate uneven financial benefits across AI use cases for both the incumbent and the transformer that can spark conflicts in the partnership. One solution is for the incumbent and its transformer partner to redefine ways of sharing and trying to monetize the value generated by AI at scale. C3 AI and Shell, for instance, commercialized products that they had originally collaborated on for internal use, launching an open AI platform, Open Energy AI Initiative, that allowed other energy players to buy the same predictive AI.

These shifts in thinking require incumbents to assess the tradeoffs involved in taking the next steps to maximize the AI's value while ensuring that the organization is positioned to pursue further innovation.

**AI at Scale vs. AI improvements.** In dealing with successful use cases, incumbents must make a value assessment, choosing between investing time and resources to improve AI performance and scaling it across the organization. Incumbents should consider the value differential between refining a more accurate AI product with more effective process changes and disseminating what they have already developed across the organization. Among the elements to consider in these calculations are the time required to scale AI and the internal resistance created by less accurate AI.

### Open Transformation vs. Selected Transformers.

As incumbents deploy AI across use cases and business units, they may face an additional dilemma: whether to continue to leverage the transformers they know or source new ones, choosing between consolidating existing partnerships and pursuing open innovation. For some incumbents, the best option might be to set up an open innovation model to foster co-creation.

Agricultural machinery incumbent John Deere opted for the open innovation approach to achieve fair value distribution, allowing its tech partners within its ecosystem to own and use the intellectual property and products they develop there. The outcome is mutually beneficial: John Deere can sell its AI platform to agricultural manufacturers and farmers, and its AI technology partners benefit from their IP rights with respect to the tools that John Deere customers use.

As with John Deere and its AI transformers, the nature of competition has changed in a growing number of sectors—from company versus company to ecosystem versus ecosystem. This shift has created a competitive landscape for incumbents in which some competitive advantages are accessible only within an AI ecosystem. We've observed a rise in alliances between industry incumbents and technology players to deploy AI-powered products or services that compete collectively in certain markets. These forms of collaboration open new paths of competitive advantage for incumbents and ultimately help consolidate their position and build resilience in times of uncertainty.

Our survey of the top incumbent decision makers shows the enormous opportunity that exists for incumbent industries that can leverage the power of AI technology to transform their organizations. The survey results indicate that some incumbents have been more successful than others in navigating this continually evolving environment brought on by advances in AI and that seizing the opportunity hasn't always been straightforward. But while the challenges may change as incumbents advance through each stage of adoption, the need to embrace customized AI support to maximize its value remains constant.

That means leaning in to experimentation, changing organizational mindsets, overcoming cultural resistance, and opening up to the uncertainty and potential of creating tailored solutions. Such solutions require true collaboration, and transformers are in a unique position not just to provide those solutions, but also to spark organizational change. The hurdles are surmountable. The payoff in value is clear. And for industry incumbents still dangling a toe in the water of the AI marketplace, the time to take the plunge is now.

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