

High tech's Gen AI opportunity

Learn and lead at
the same time.

Even as high tech companies **adopt** Gen AI technologies to increase efficiency and fuel creativity within their own organizations, they must also—simultaneously—**enable** customers' Gen AI experiences and drive new revenue creation.

Accomplishing these goals won't be easy. Accenture's point of view offers a high-level guide for companies on this journey.



In March 2023, Accenture published a report called [“A new era of generative AI for everyone.”](#)¹ In it, we noted that ChatGPT, which reached 100 million monthly active users just two months after launch, was the fastest-growing consumer application in history.² Moreover, our research found that **40% of all working hours could be impacted by Large Language Models (LLMs).**³

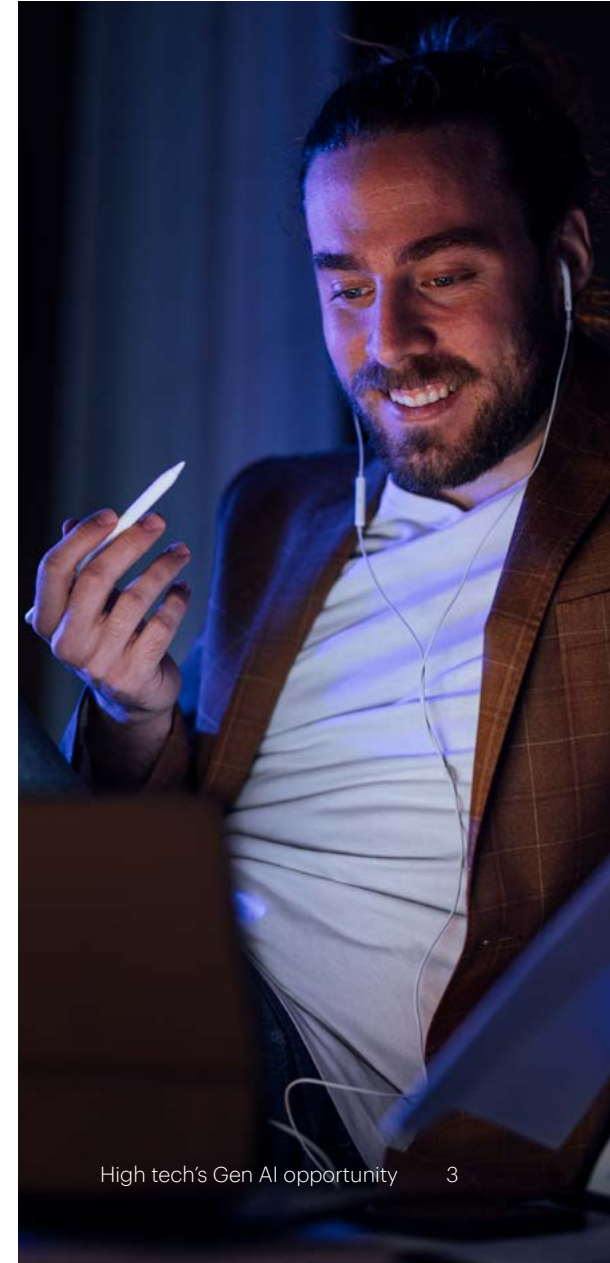
Since then, the pace at which businesses have started to explore Gen AI has surpassed even the most optimistic expectations.

For example, more recent Accenture research has found that **73% of high tech CxOs are interested in exploring the potential use of applications like ChatGPT for tasks such as natural language processing, text generation and customer service automation.**⁴ Most, if not all, business leaders are either investing in Gen AI or considering its potential to enhance or transform ways in which their companies work and innovate.

80%

of our largest 300 clients are applying Gen AI in some capacity. However, they understand that

scaling will be a problem that transcends the technology itself and requires upskilling people in order to apply it.





Learn and lead in the Gen AI transformation

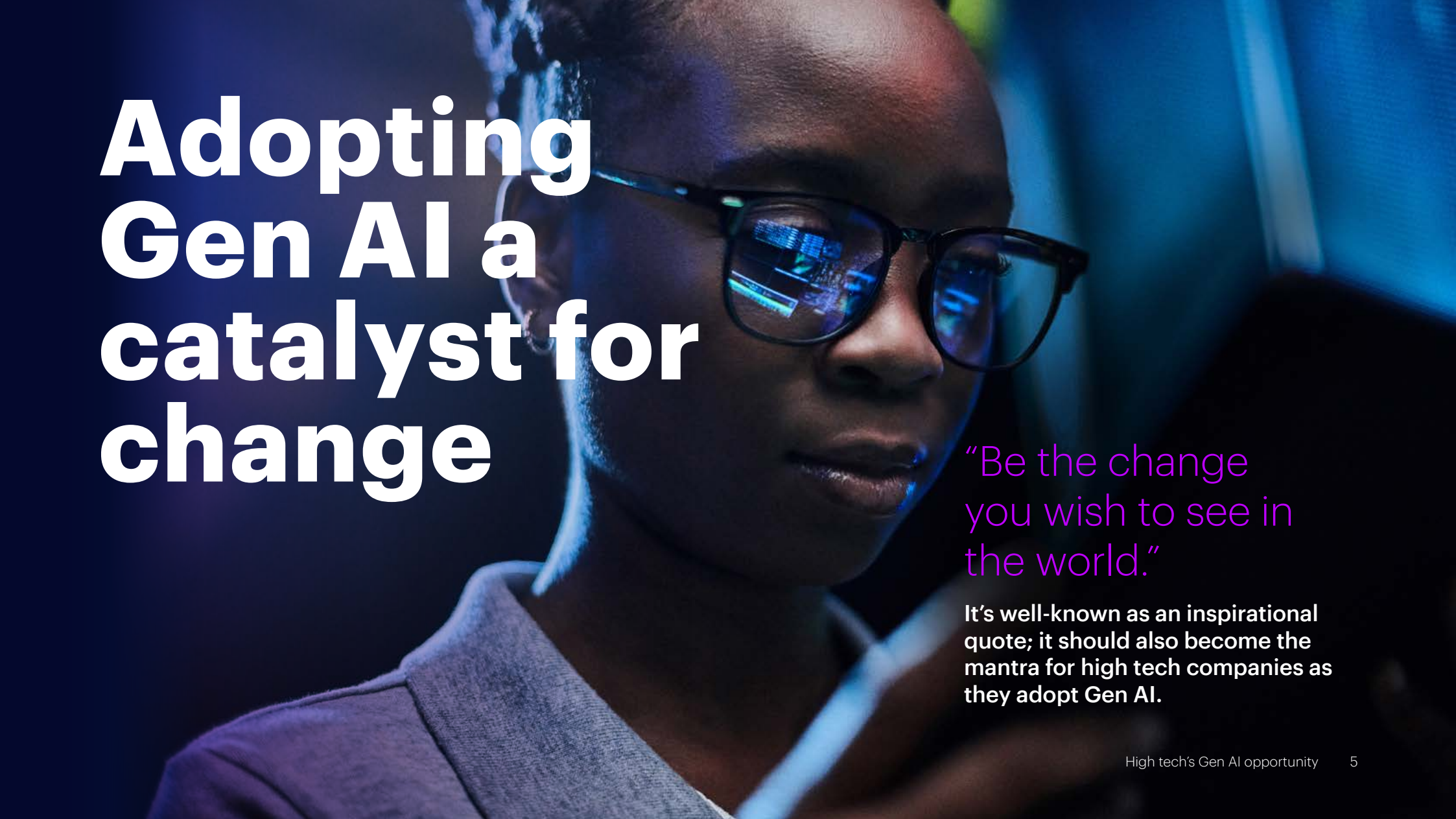
High tech companies have a unique role in this Gen AI transformation. They must, like all enterprises, **adopt** Gen AI within their own organizations to innovate and be more efficient. The technology will drive change across operations, including finances, supply chains, manufacturing, customer success and talent.

Yet, high tech companies will also supply the means to **enable** this technology. High tech offerings—in the form of semiconductors, smartphones, PCs, high-end medical equipment, servers or other enterprise products—are the foundation for customers across industries accessing the potential of this new technology. How high tech companies embed Gen AI in their products and solutions will direct how it is used by companies in other industries.

Ultimately, *high tech companies must learn and lead at the same time*. Each step they take as Gen AI adopters will increase their ability to enable Gen AI transformation across all industries through their products.

And vice versa. How well they fulfill the roles of **adopter** and **enabler** will have far-reaching effects—on their own employees, on their customers and, ultimately, on end-users.

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Adopting Gen AI a catalyst for change

“Be the change
you wish to see in
the world.”

It's well-known as an inspirational
quote; it should also become the
mantra for high tech companies as
they adopt Gen AI.

Leaders in high tech are already aware of market shifts pointing to a need to enhance their customers' experiences through as-a-Service (aaS) offerings.

These offerings lower the barrier to entry and deliver stable sources of recurring revenue. Their design also allows for more proactive and personalized customer engagement. *Building an organization to deliver on these offerings* is not easy, and many high tech companies have not yet made the organizational changes necessary to respond to these market shifts.

Gen AI could be the game changer here. Intelligent adoption of Gen AI capabilities across the organization can supercharge the shift towards building for aaS offerings. It works at the nexus of hardware and software to build out capabilities at speed. It allows R&D teams, for example, to capture deep customer insights, quickly iterate prototypes and improve product quality. It delivers deeper

product usage insight and advice, enabling a customer success model for working with clients by proactively handling issues. It can connect across multiple data sets to mitigate supply chain risks and drive impactful and personalized marketing communications.

These create a conducive environment to offer higher risk/reward models and take complications of managing platforms away from their customers—all at a reasonable price, with greater reliability and higher margins.

Put another way, Gen AI technology is a spark that can set off powerful organizational change.

A high tech company's effective use of Gen AI today makes it a "poster child" for the vision of what its products can enable for other companies.

What might this look like in practice? It could be as straightforward as investing in Gen AI infrastructure inside of their organizations to accelerate the work they do today (say, improving their capacity to develop software). Data scientists and AI practitioners already spend over three-quarters (77%) of their time on data

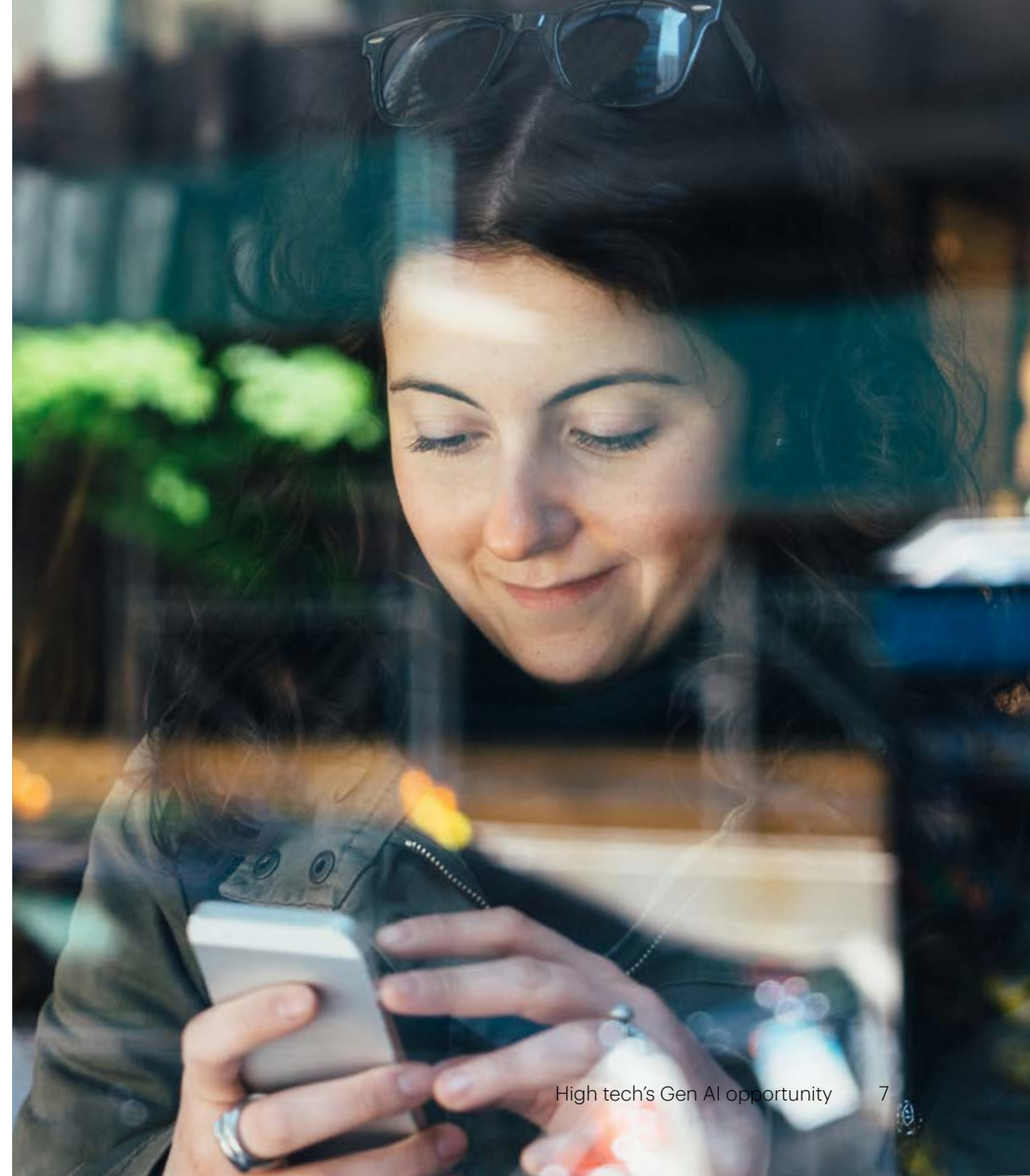
pre-prep, training, modeling and tuning, tasks that require huge amounts of GPUs, memory and power.⁵ An upfront investment in this essential infrastructure can deliver significant cost savings and revenue growth over time. The cash infusion companies could experience may be used as support for long-term strategies to get closer to customers. It could also be as interesting as using Gen AI-enabled services to aid in launching a new product or service, by bridging interconnected and cross-functional roles, people (R&D, sales, marketing, customers, service) and responsibilities.

Gen AI is a game changer that can supercharge the shift towards building for aaS offerings.

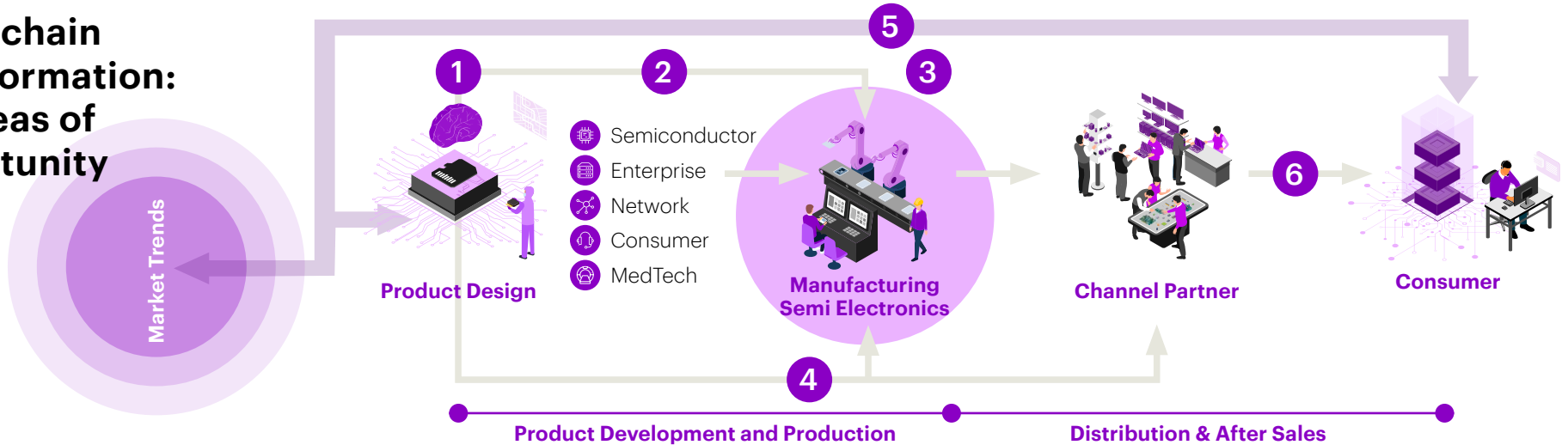
The accompanying graphic describes and maps **six use cases that offer high tech companies the chance to show how Gen AI can transform organizations from within.**⁶

The guiding principle for Gen AI *adoption* in high tech companies—as counter-intuitive as it may seem—is *putting the people first*. That means designing Gen AI solutions for the organization with continuous input from the people who will be using them, ensuring the technology reflects and enables people’s ingenuity while making space for mistakes and for learning. It means designing for accessibility to help all employees contribute to their full potential.⁷ And, finally, it means calibrating trust, so that everyone has the confidence to use Gen AI without fear. The combination of diverse users’ nuanced and creative perspectives will serve to improve the technology’s interface.

Bottom line: adopting Gen AI is modeling what high tech companies seek to enable. How the industry adopts this technology will shape how they enable it across industries.



Value chain transformation: six areas of opportunity



1 Utilizing scenario modeling to enhance financial resilience

- Generate real-time 'what-if' scenarios with cross-organizational collaboration
- Identify variances and reduce time to generate reports and narratives

2 Improving supply chain resiliency through Material Risk Management

- Infuse LLMs for due diligence and end-2-end contract management
- Improve visibility and accurate recommendations on sourcing pathway

3 Enhancing OEE from initial production through Visual Inspection

- Rapid prototyping and product design for new market segments
- Visual Inspection using synthetic data to improve delivered quality

4 Implementing personalized recommendations to boost low-touch sales

- Cross-sell and upsell with complex solution recommendations with virtual assistants
- Persona-based marketing material generated from existing documentation

5 Deliver deep insights to customer support, success and downstream organizations

- Improve CLV by guiding customer success managers on client discussions
- Deliver insights and guidance to SMB partners with impactful narratives

6 Providing field technicians with methods to expedite onboarding and reduce errors

- Context based information for tech to complete work fast and accurate
- Create self-service portals with Gen AI - assisted knowledge management

Enabling Gen AI: Collaborate more than ever

“The hottest new programming platform is the napkin.”

Accenture’s Chief Technology and Innovation Officer, Paul Daugherty, as he was referring to the use of OpenAI to generate a working website from a single scrap-paper drawing. And that sums up the potential of Gen AI enablement: empowering great ideas by facilitating their execution.

To become a successful enabler of Gen AI technology, high tech companies cannot do it alone: they need an ecosystem-based approach.

Reliably developing Gen AI offerings is a challenge. Difficulties in finding funding, accessing raw material, building infrastructure and more make it difficult—and risky—for any one company to move on its own. **By building out an intentional ecosystem, companies can leverage their strengths and hedge against risks, while still bringing tailored solutions to customers faster and at scale.**

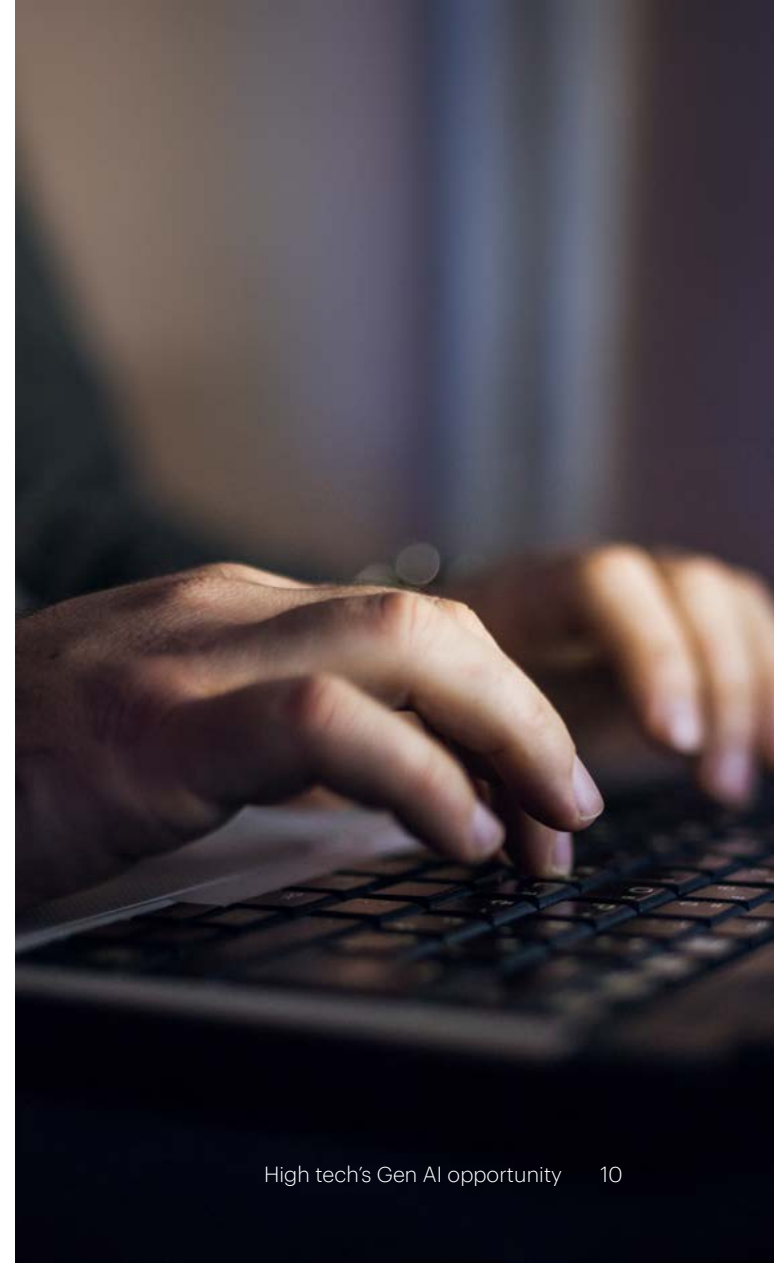
The ecosystem solution facilitates and accelerates collaboration among partners, including chip makers, fabs, server/network providers and co-location centers.

Consider what a developer community might need to build solutions that are hardware agnostic and offer cost-effectiveness from the outset.

The UXL Foundation (Intel, Qualcomm, Google and others) has addressed that need with an open ecosystem assembled to accelerate AI workloads with an abstraction layer that enables developers to build transferable solutions across hardware architectures.⁸

By contrast, the risks of going alone can be enormous. Think back to the telcos that spent more than \$500 billion building broadband networks from 1996 to 2002.⁹ With the internet still in its infancy, demand grew slowly and they had no way to recoup their investments. The result was \$2 trillion in losses to shareholders, thousands of workers laid off and several major bankruptcies.¹⁰ Roll on a few years and many software and platforms companies took advantage of that excess and unused capacity, reaping profits in the process.

High tech companies cannot go it alone: they need an ecosystem-based approach.





Building a strong ecosystem around Gen AI offerings is about developing a long-term vision for this technology.

To lead an ecosystem solution requires thinking about who needs to come with you—and about who will come along after you. Strong, equitable ecosystem management and governance from the start, led by high tech players, is essential, bearing in mind that the winning solution may even require ecosystem players to disaggregate their products and services to work effectively with partners.

The accompanying chart shows the key elements of an ecosystem along the development of a Gen AI capability, showing why going alone isn't a financially or commercially viable option. As the figure shows, there are still relatively high barriers to entry if a company wants to go at it alone. Some entry points are still too costly or scarce. Others demand huge amounts of capital—assuming the pieces are produced—in terms of dollars and time. An ecosystem approach offsets both barriers and costs.

The ecosystem advantage: key elements

Funding	Silicon	Servers	Foundation Models	Applications
There are high barriers to entry if a company is going at it alone.				
VC Gen AI deals declined 29% q/q but ended higher at \$6.1B due to Amazon's almost \$4B deal with Anthropic. ¹¹	Microsoft has committed to invest \$13B in OpenAI. ¹²	Server shipments are falling while cloud demand is rising as AI costs are delaying server refresh cycles. ¹³	AH estimates for a GPT-3 single run training cost ranges from \$500K to \$4.6M depending on hardware assumptions. ¹⁴	The infrastructure costs for Gen AI chat bots can be billions of dollars for hyperscalers.
Some entry points are still costly or scarce.				
Big tech companies committed to invest in AI. ¹⁵	Chip shortages are producing winners and losers in the AI gold rush ("Magnificent 7" vs academia).	Forecasts for data-center server growth far exceed any that occurred during the rise of the internet – but cannibalization may occur. ¹⁶	GPT-4 is the new space race. The "real" AI brick wall is inference. The goal is to decouple training compute from inference compute. ¹⁷	The margins for AI applications are significantly smaller than other SaaS solutions . ¹⁸
An ecosystem approach offsets both barriers and costs.				
Gen AI continues to see investment as VC and PE dry powder is worth trillions of dollars in the aggregate (there's money on the table).	To offset the chip shortage, semiconductor companies can focus on innovative packaging while promoting accessibility.	The massive power outlay creates an opportunity to explore new ways to power data centers; renewables and ESG is a win-win for all parties.	Infrastructure challenges creates an opening to invest in research with smaller partners (academia, startups) to make outcomes practical.	To explore new applications, high tech companies should develop consortiums that can help lower the barriers to entry for enterprises.

Source: Accenture Research

High tech ecosystems are already forming

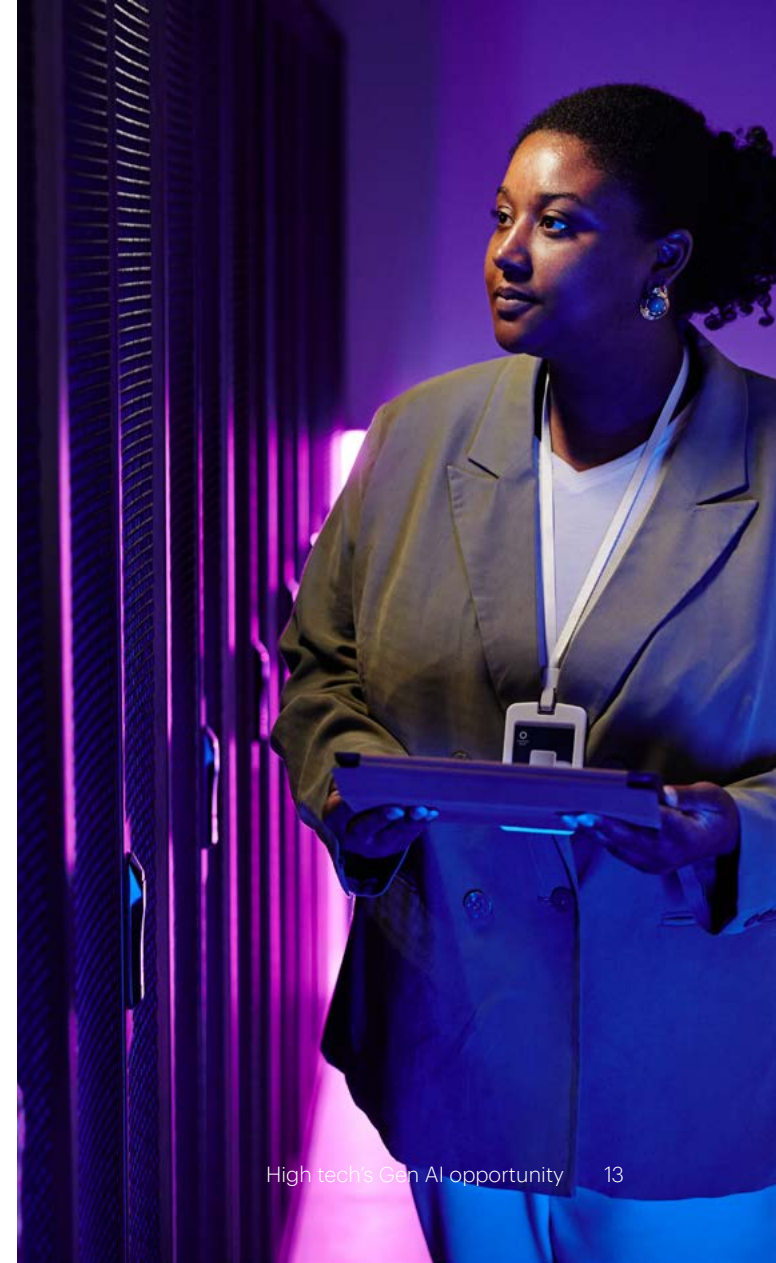
We're already seeing high tech companies bringing together the type of ecosystems that will be vital in a Gen AI world.

Consider the way Lenovo has expanded the availability of its AI-ready smart devices and edge-to-cloud infrastructure to include new platforms purpose-built for enabling AI workloads.¹⁹ Or NVIDIA's AI Workbench, which allows developers to quickly create, test and customize pretrained Gen AI models in just a few clicks and then scale them to virtually any data center, public cloud or NVIDIA DGX™ Cloud.²⁰

In another example, [Intel collaborated with Accenture](#) to build downloadable AI reference kits to the open source community.²¹ The goal is to help enterprises accelerate their AI deployments in areas like image and voice generation and natural language semantic search—while potentially reducing running costs.

Or HPE, which is broadening its GreenLake portfolio, partnering with the German AI company Aleph Alpha to offer GreenLake for large language models. Customers can build their own AI models using their own data, without paying for or renting the supercomputers needed because the offering runs on HPE's own Cray XD supercomputers, which have an AI-native architecture.²²

According to [Accenture's Tech Vision 2023 report](#), 97% of global executives agree that AI foundational models will enable connections across data types, revolutionizing where and how AI is used, and 98% agree that AI foundation models will play an important role in their organizations' strategies in the next three to five years.²³



Five fundamentals of Generative AI

As our clients embark on their generative AI reinvention, there are five key imperatives that they need to invest in. These are key to driving success.

Reinvent talent and ways of working

- Adapt operating models for new ways of working. Cultivate a corporate culture that places talent development at the forefront.
- Commit to continuous learning and skilling to maximize the potential of AI—especially because of the changes that happen rapidly with the technology.

Close the gap on responsible AI

- Develop and integrate a strategy for responsible AI that brings intentional actions to design, deploy, and use AI to drive value while protecting from the risks of AI.
- This includes the strategy and development of responsible AI monitoring and compliance, as well as employing AI security into their entire value chain.

Understand and develop an AI-enabled secure digital core

- Data is for AI, therefore enabling a modern data platform is very important.
- Re-architecting applications to be AI-ready is also critical, with a flexible architecture that allows you to access to a range of models in partnership with the ecosystem. We build this with security as a foundational element.

Drive continuous reinvention

- Embrace a modular, step-by-step approach to innovation that spans multiple years.
- Cultivate a corporate culture that views continuous reinvention not just as a strategy, but as a core competency.
- Gen AI led reinvention journeys are complex and multi-year in nature. Companies need to be prepared to allocate the capital, time and talent for the journey.

Lead with value

- Shift the focus from siloed use-cases to prioritizing business capabilities across the entire value chain based on return on investment. Clients need to be value-led in every business capability that they choose to reinvent with Gen AI.
- We recommend companies pursue investments in two categories: Table stakes investments that offer radical efficiency (but will also soon become the new industry standard way of operating) and strategic bets that offer truly novel advantage.



Leading the Gen AI revolution

By embracing Gen AI as adopters and enablers with thoughtfulness and intention, **high tech companies will have the power to revolutionize not only their own operations but also the lives of their customers and the consumers they serve.** They will become the driving force behind the future of AI and the global compute infrastructure that supports it. In doing so, they will position themselves as indispensable players in the most significant technological revolution since the advent of the Internet. Gartner® found by 2026, more than 80% of enterprises will have used generative artificial intelligence (GenAI) application programming interfaces (APIs) or models, and/or deployed GenAI-enabled applications in production environments, up from less than 5% in 2023.²⁴

Intel's CEO, Pat Gelsinger, has called the converged world of smart connected devices and human experience in which we live and work today the "siliconomy."²⁵ Now, with the incredible advances we're seeing in LLMs and in Gen AI more generally the siliconomy is entering a new era. It's set to power an exponential leap forward in growth and productivity.

High tech companies have an unprecedented opportunity—and an existential responsibility—as part of this Gen AI revolution. Leading in Gen AI means walking joyfully into an unknown future. Success will require a deliberate and dedicated strategy, built on this continual process of adoption and enablement, to come out ahead.

We believe that high tech industry is ready to take those steps. After all, they're the very foundation of Gen AI. And the siliconomy itself.

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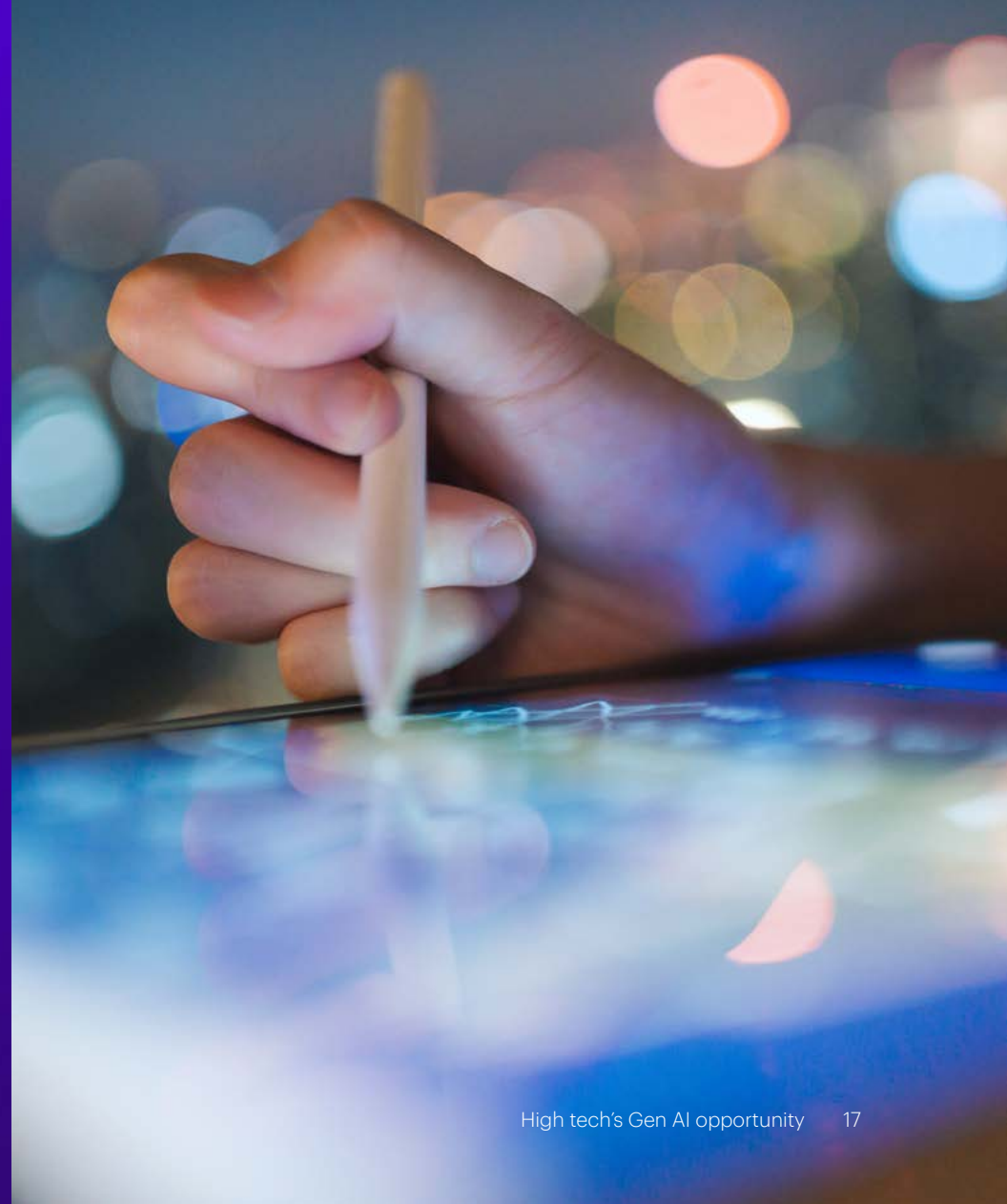
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