

Is Your Company Ready for GenAI?

Custom Research by ISG, commissioned by Atos

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Introduction

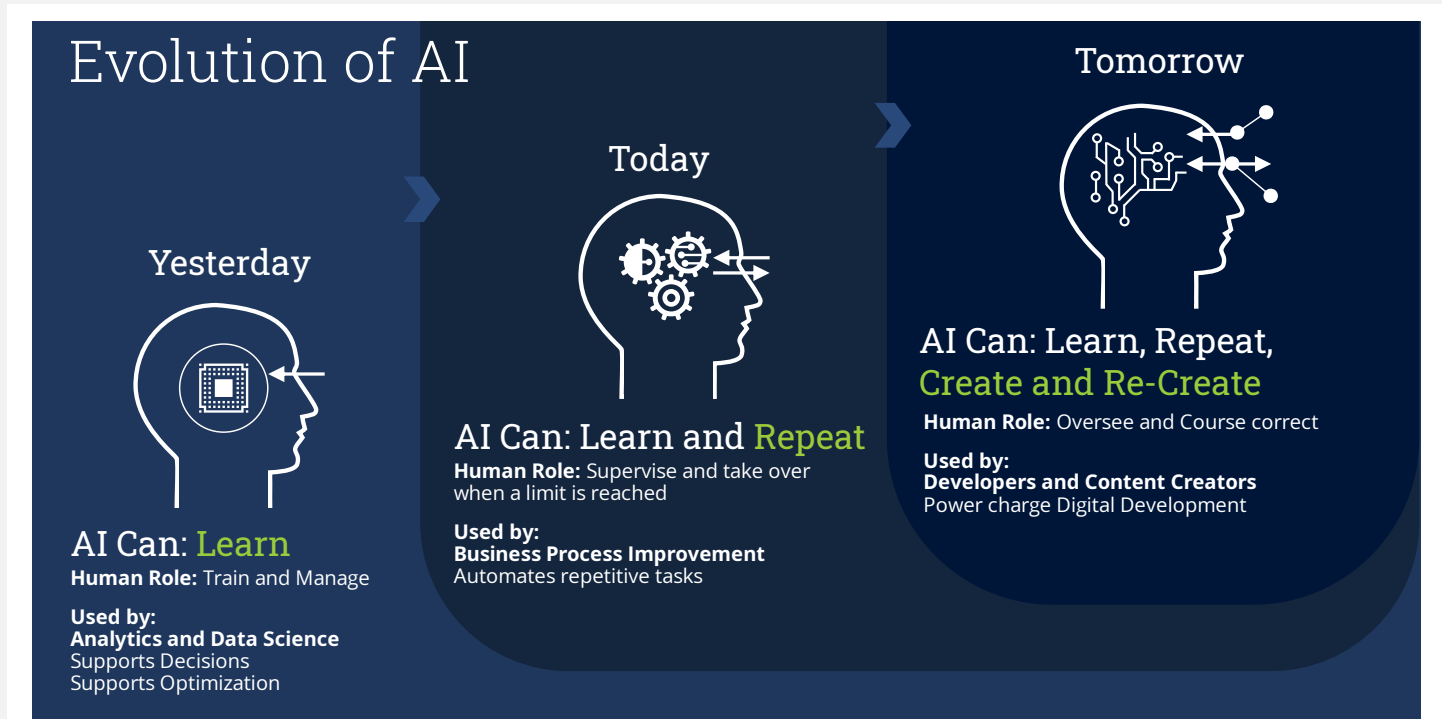
Generative AI (GenAI) offers new potential for companies to optimize their business and leverage their data in ways that go far beyond the simple chatbots or process automation of recent years. Enterprises are racing one another to become the leaders in use cases that include fraud prevention, process optimization, and recommendation engines.

For enterprises looking to adopt GenAI services, it is not always clear what options are available to them, or what best practices exist, nor where to start. This is partly owing to the early stages of the technology, coupled with the unprecedented industry hype.

Compound all this by the breadth of providers offering a myriad of platforms, technologies, and philosophies as well as some of the data and infrastructure demands necessary to deliver full capabilities from GenAI.

With a clear strategy, understanding of the potential use cases, and vision for a solution it is possible to quickly extract value from GenAI. That need for clarity is one reason enterprises should consider engaging a service provider; their ability to guide an enterprise through the GenAI landscape is a productive way to eliminate layers of complexity.

Figure 1: Evolution of AI



Source: ISG "2023 State of Applied Generative AI" report

The Current State of GenAI

Enterprises are highly interested in GenAI and its promising use cases. But they must navigate a complex and diverse market: Tech giants like Microsoft, Google, and AWS are working to drive leadership in the space, while specialist providers are creating a wide, but still-developing, wave of compelling solutions, and few companies focus on helping their clients establish solutions that are grounded in effective GenAI architecture.

There is an urgency to experiment with and find applications for the technology driven by an understanding that early adopters will be able to claim an edge over their competitors, thanks to GenAI's new use-cases and differentiators. Like traditional AI, this technology offers new ways to make a business deploy more verbs in their ecosystem. They can go from "predict" and "recommend" to "summarize," "evaluate," "simulate," "judge," and "generate." Unlike traditional AI—which applied mostly to analytics and data science—GenAI's creative abilities lend that efficiency to cross-functional business applications. Using GenAI to leverage analytics with IT and DevOps may create fraud-detection solutions.

At its current state of development, GenAI use-cases tend to fall into one of two categories, knowledge management, or process optimization:

85%
of enterprises believe
investment in Generative AI
technology is critical within the next
24 months

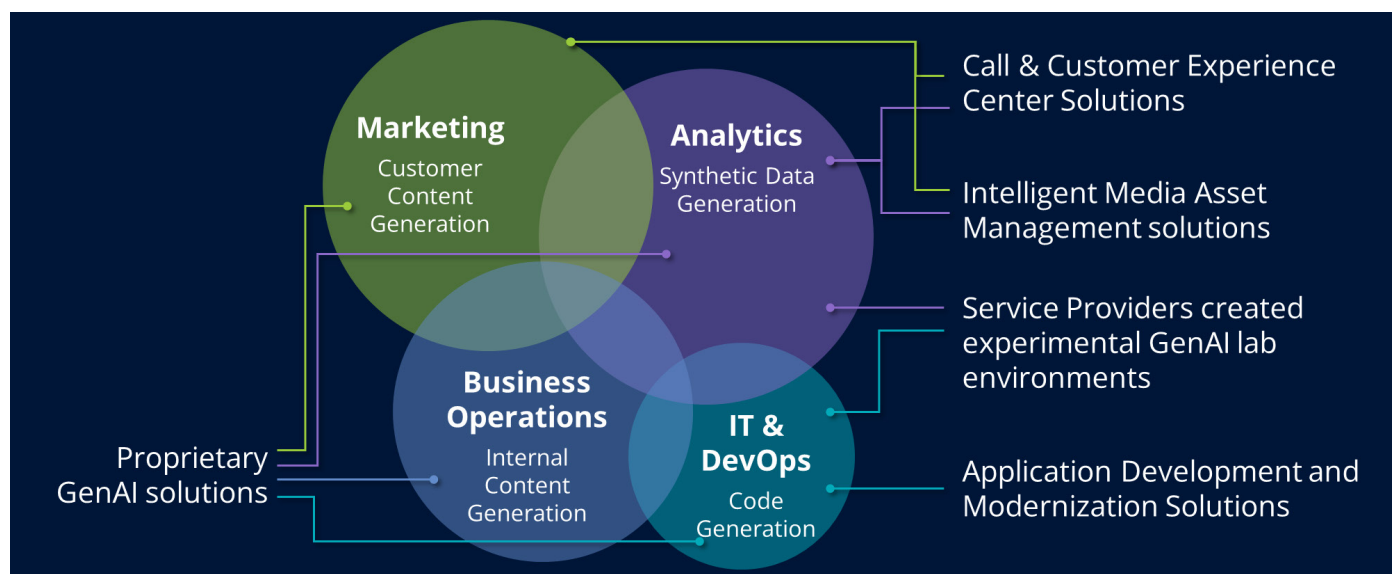


Source: ISG's 2023 Future Workplace Study

Knowledge Management: According to ISG's future workplace study, knowledge management tools are considered the most important investment for enterprises today. GenAI grows these tools in a few ways:

- In building data sets, it can perform **data extraction and indexing** more intelligently, tagging, or cataloguing information generatively. Some providers are even developing applications to generate synthetic data (data sets created by algorithm or computer simulation, which can be faster or more expansive than generating real-world data).
- Improved **contextual searching and virtual assistants** powered by GenAI make it easier

Figure 2: Most Successful Use Cases are Cross Functional



Source: ISG

to parse complex data sets. These tools are able to consider more complex queries in more intuitive language and deliver highly focused and useful results. This is helpful internally, and as a tool for customer support.

- It informs enhanced analytics. A GenAI-powered **recommendation engine** can take **predictive or performance analytics** to the next level by generating direct insights in a consumable manner, acting almost like a copilot. These could include helping a doctor pick a treatment for a patient, or helping an underwriter design an insurance solution.

Use cases are not uniformly adopted by industry. The most frequent users were:

1. Financial Services
2. Manufacturing
3. Healthcare
4. Business Services



Functional Process Optimization: Many applications for GenAI are used around helping enterprises function more efficiently, eliminating friction in areas that are too complex for traditional automation solutions, and lowering the technical skill needed for certain tasks.

- Some of the more mature use cases with a direct bearing on ROI involved **code generation and application development**. These were especially useful in areas like system migrations, where GenAI can quickly recode processes into a new language.
- **Content generation** is one of the more visible applications of GenAI, saving significant time and productivity in creating marketing materials, product metadata, and other forms of media.
- Another content area where GenAI excels is in **labor-intensive forms or reports**. Human Resources, for example, generate a high number of schedules, job descriptions, and planning tools which can be automated. It can fill a similar purpose in areas like finance and accounting, to streamline compliance-related reports and filings or investor-focused content.

While these use-cases are beneficial, leveraging them is not always a simple matter. GenAI requires a robust architecture to support deeper capabilities, and few providers have done the work to establish that foundation at this early stage of evolution. Instead, the market tends to be full of an immature, but diverse market of solutions driven by co-creation with enterprises.

However, there is strong leadership developing from major technology players. Microsoft claimed an early advantage with their investment in OpenAI and launching Copilot assistant service. But Google and Amazon have responded quickly with comprehensive platforms of their own, through Google Cloud and AWS Bedrock respectively.

Case Studies: Quick Analysis of Complex Legal Documents

Atos shared a case study highlighting an example of how GenAI can be applied to overhaul a complex knowledge management process.

Legal documents are notorious for their complexity. A great deal of time and cost goes into establishing them, and fortunes have been lost to an overlooked detail. Atos explored how GenAI could be applied to improve the process.

They developed a contextual search tool using GenAI. This is capable of parsing huge volumes of complicated legal documents to deliver focused search results through a conversational tool. A single search request using simple language can deliver results about contract details and deadlines, compare text to past revisions, or more.

Atos says this tool could be trained on any kind of data set to enable an enterprise to quickly gain insights across any number of metrics. That could save a great deal of time and effort, allowing users to compare say, pricing information against demand forecasts, through an intuitive, language-based interface.



The ISG Future Workplace Study found that **Knowledge Management use cases**—like this one—are the most important investment for enterprises today.

Getting Started with GenAI

The breadth of services and the evolving state of technology may be overwhelming for an enterprise looking to take its first steps introducing GenAI into their business. For that reason, a service provider's expertise and established tools can be a valuable resource, especially in helping to experiment quickly,

address high return opportunities or even to build a strategy or vision of what's possible in the future. All of this can be acquired easily from a service provider, like Atos, who were early adopters of the technology. And this would be done at a fraction of the time, cost and complexity of an in-house solution.

Building a strategy

When an exciting new technology hits the scene, hype can be a distraction. With so many headlines and potential pitches, it is easy to lose focus on the specific applications of GenAI needed to deliver value to your business. The first step is building a vision of how GenAI can help.



Effective Benchmarking: Where possible, explore real-world use-cases of GenAI to understand what a success story might look like. These tangible examples of ROI will help develop informed benchmarks for an enterprise's success.



Resource planning: With the many services at hand and complicated technical demands, it is easy to lose focus and misjudge capabilities. A good early step is in allocating resources for swift engineering support.



Set early goals: Separate priorities into short-term easy-win investments, and longer-term priorities. It's important not to let an immature architecture be a roadblock to quick victories. Realizing short term goals also helps an enterprise understand its capabilities with AI better, giving more insight into which use-cases they will need outside help.



Building a long-term roadmap: Setting long-term goals should include taking inventory of all potential use-cases and evaluating them on their benefits as well as their costs and risks. Also, consider the visibility of any projects, which may be beneficial for getting the broader organization on board. With a fuller accounting of the options, it should be easier to start developing plans.



Selecting collaborative partners: In the face of a broad market and complicated technical demands associated with GenAI, leaning on the expertise of a technology partner can free an enterprise up to focus on their business objectives.

Provider Partnership

Given that GenAI is a new and emerging technology, the benefits of a service provider cannot be overstated in helping to elide the difficult task of developing,

integrating, or optimizing an AI. Where building a GenAI infrastructure can be a complex task, a service provider's established offerings can reduce the complexity of adoption. That helps to give an enterprise a leg up on things like hosting, scaling, and future-proofing—better allowing them to focus on their business needs.

This is helpful if a service provider can cater to multiple needs, ensuring a continuity of service. For example, in addition to providing GenAI services, Atos provides a full stack of cloud services. In integrating a GenAI application to the cloud, they can then bring it under the cover of other necessary services, like data modernization and cloud security—two factors which are crucial for AI.

Given the urgency in the GenAI space, accelerators are another component service providers can provide to get applications up and running ahead of competitors. Atos offered an example of some of the accelerators they currently offer:

- **Industry Accelerators:** Offering a library of pre-packaged use-cases and templates to cut development time for applications in specific industries.
- **Builder Accelerators:** Advanced development and Machine Learning solutions to embed GenAI more quickly in an enterprise existing applications and infrastructure.
- **Model Accelerators:** Allowing users to quickly industrialize and scale GenAI applications through tailor-made GenAI models.
- **Performance Accelerators:** Enabling low-latency, dedicated infrastructures to enable high-performance.
- **Security Accelerators:** End-to-end security consulting, integration, and operations, leveraging the provider's experience in cybersecurity and managed security services.

Another advantage in working with a service provider is the potential to avoid tech debt and IT drift. Engaging managed services, like AWS Bedrock which offers support for new vendors and AI models, makes it easier for an enterprise to continue to develop and grow their GenAI capabilities.

Creating a Strong Foundation

Beyond developing an architecture and application for GenAI, enterprises require the proper infrastructure to run this technology. For example, a GenAI application is useless without a robust data system to train on or draw from. Starting from zero means there may be high costs or effort associated with establishing the data models needed for an AI to work.

Similarly, an enterprise that lacks a mainframe powerful enough to drive these technologies faces a challenge with transformation before they can arrive at building and training their desired AI. (Especially if such transformation demands heavy procurement, during the ongoing semiconductor shortage).

The biggest gap ISG identified in the GenAI market was a lack of direction in terms of architecture.



For enterprises looking for a more out-of-the-box solution they may consider a full managed services arrangement to quickly customize GenAI to their needs and easily integrate into existing services, either avoiding, or guiding them through necessary transformations. It also makes it easier to avoid tech debt by making it simpler to integrate new vendors and models, maximizing a customers' access to new use cases.

As an example, AWS is one of the bigger technology companies offering such a service, through AWS Bedrock and their partnership with Atos. As an early GenAI adopter, they have created a service that functions as a "launch point" for customers allowing them to access powerful GenAI through a simple API.

One way they do this is through a wide offering of GenAI foundation models—machine learning models trained

on data at scale to help prepare AI for downstream tasks. These models can be customized to a business' specific needs and data, reducing the time to value for a GenAI project. Bedrock includes not only the AWS Titan model but also models from leading AI companies like:

- AI21 Labs
- Anthropic
- Cohere
- Meta
- Stability AI

This kind of service offers a few distinct advantages worth considering:

- A serverless structure means not having to manage infrastructure. The API-based service opens up access to GenAI for even legacy architectures.
- Continuity with other AWS services providing access to data sourcing, security, and compliance.
- A structure that makes it easy to integrate new vendors and models, maximizing access to emergent use cases.
- Easy GenAI customization with retrieval augmented generation techniques—a method to securely connect foundation models with enterprise data.
- A completely secure environment where a company's data stays within the walls of their AWS software defined datacenter.

One differentiator that helps put AWS and Atos ahead of other providers in this area is their level of experience with AI. As early adopters of the technology, co-working on their GenAI offering, they open up access to experts in a field where many providers are still establishing their offerings.

Maximizing GenAI Capabilities

With a foundation established, enterprises should consider the many ways to scale and mature their GenAI solutions. This is one stage where you might be served by embracing the hype to some degree; the reason so many people are excited by GenAI is because it promises new ways for companies to perform routine tasks. Rather than approaching it as a new version of robotic process automation, look to innovate and imagine new possibilities within your processes.

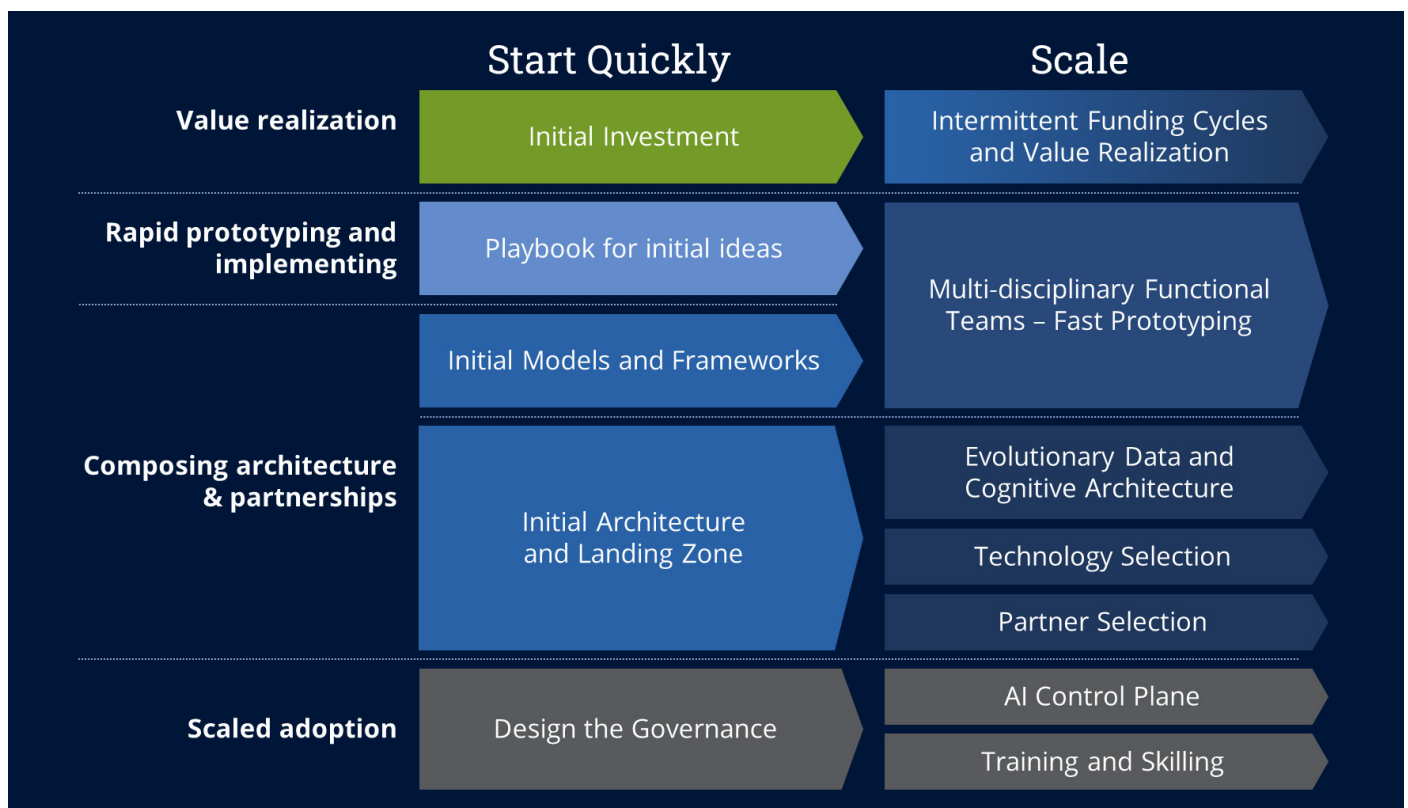
The work of developing the GenAI solution directly may take a few different forms:

- Taking advantage of the cross-functional potential of the technology. GenAI's ability to generate meaningful insights from complicated data sources means that it has strong potential to gain value out of varied, perhaps not intuitively linked, sets of data.

- Deepen the links between AI and enterprise data. The more information an AI has to train on, the better and more focused the results it will be able to deliver. Data is the foundation of all AI, so continuing to expand a foundation helps to expand its functions.
- Develop new capabilities in GenAI applications. This is another avenue where a service provider can help to co-create or develop deeper abilities. Atos, for example, runs a center of excellence geared towards growing AI applications.

Scaling up a GenAI solution is another area where early strategizing will pay dividends. A prototype solution will be designed to create a technology base to grow from, but it should also include a foundation for governance and maturation. A strategic realization office may be a useful resource for navigating this growth and acting as a guarantor for value creation and delivery.

Figure 3: Optimal path to transformation



Source: ISG "2023 State of Applied Generative AI" report

Conclusion

The GenAI market is still relatively new, but it has very much arrived. Questions that used to center around the potential of the technology have moved to questions about maturity as have moved past speculation into reality. Given the high level of interest in these solutions, and their continual growth, enterprises must be ready to take the initiative to join the current wave of adopters or risk being overtaken by their competitors. It also creates an opportunity to help drive the direction of the technology.

As GenAI leaders get more comfortable with the generative aspects of the technology, users can expect to see more innovative and deeper cases of usage, most likely starting with the development of truly

The ISG State of Generative AI report shows **a sense of urgency in the market:** the time to turn generative AI into a competitive edge is now.



AI-first products. As solutions continue to develop, it may be possible to see whole businesses with GenAI-centric operating models, similar to how new businesses were born in the cloud ten years ago.

About the Contributors



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Atos

Brooks Borcharding leads the Global AWS Practice the new Atos. Brooks joined Atos following his 3+ years as the Chief Executive Officer of Cloudreach, a global multi-cloud consulting and managed services company acquired by Atos in January, 2022. Brooks brings to Atos extensive go-to-market experience and a distinguished record building, operating and leading high growth technology companies. He is a highly regarded “cloud” industry entrepreneur credited with three successful transactions including the sale of NaviSite to Time Warner Cable in 2011, Datto to Vista Equity Partners in 2017 and Cloudreach to Atos in 2022. Beyond cloud, Brooks has extensive global experience in the IT Services industry spanning enterprise software, data protection, networking, communications, collaboration, and managed application and infrastructure services. Brooks holds a Bachelor of Science degree in Industrial Engineering from Virginia Tech and has worked at leading technology firms including Accenture, Avaya, Cisco, NaviSite, Datto amongst others.



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Olga leads ISG’s generative AI practice, driving research and thought leadership in that space. She also supports ISG’s advisory capability in developing digital solutions with special focus on data, analytics and AI. Olga’s extensive knowledge of analytics and data engineering framework combined with hands on experience in complex transformational projects results in unique insights invaluable for effectively assessing the data analytics solutions for ISG’s clients.

Olga developed her expertise in data and analytics during her 15-year tenure at Caesars Entertainment, a recognized industry leader in applying analytics and data engineering to solve business problems. In addition to Analytics, Olga has worked extensively in B2C marketing and strategy functions, supporting both regional and national campaigns.



About Atos

Atos is a global leader in digital transformation with 105,000 employees and annual revenue of c. € 11 Billion. European number one in cybersecurity, cloud and high-performance computing, the Group provides tailored end-to-end solutions for all industries in 69 countries. A pioneer in decarbonization services and products, Atos is committed to a secure and decarbonized digital for its clients. Atos is a SE (Societas Europaea) and listed on Euronext Paris.

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