Generative AI Challenges and Potential Unveiled:

How to Achieve a Competitive Advantage

Generative AI is transforming the workplace—and society—at a whirlwind pace, by introducing a new way humans and technology interact. Based on new research, this report reveals the challenges and opportunities that companies face as they implement this pioneering technology. It also shares generative AI best practices: the optimal way to use the technology while accelerating innovation across your business, protecting your data, and cultivating trust in changing times.

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Foreword

By Dr Iain Brown, Head of Data Science, SAS Northern Europe

The rapid adoption of generative AI is setting a transformative course for workplaces and broader societal structures in the UK and Ireland. This report draws from a recent survey targeting 200 decision-makers across diverse industry sectors within these regions, providing an insightful peek into the current and potential future states of generative AI applications.

The unique challenges and immense opportunities highlighted in this paper reflect the evolving landscape where technology and human interaction are being redefined through AI. From increasing productivity to enhancing customer engagement, generative AI is proving to be a pivotal force in the strategic operations of businesses. However, the journey is not without its hurdles. Companies are grappling with integration complexities, cost management, and the broader implications of ethical AI use.

Our analysis delves deep into these issues, offering a comprehensive view of the market pulse in the UK and Ireland. We examine the strategic investments being made, discuss the importance of creating robust AI governance frameworks, and explore the significant impact of generative AI on operational efficiency and customer retention.

In this report, you will learn:

- How businesses in the UK and Ireland are leveraging generative AI to enhance employee satisfaction and operational efficiency.
- Key strategies for overcoming the challenges of integrating generative AI into existing systems.
- The importance of developing a comprehensive governance framework to maximise the benefits of generative AI while ensuring compliance and ethical use.
- Practical insights on how to harness generative AI for sustainable competitive advantage.

As we navigate these exciting yet challenging times, this paper aims to equip leaders and practitioners with the knowledge to not only address the immediate challenges but also to strategically position their organisations for long-term success in the generative AI landscape.

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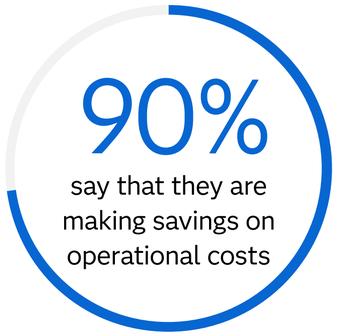
Executive Summary

Since the launch of ChatGPT in November 2022, generative AI has emerged as a technology with extraordinary potential. Decision-makers in the UK and Ireland recognise that generative AI can drive innovation, new conversational experiences, and operational efficiency.

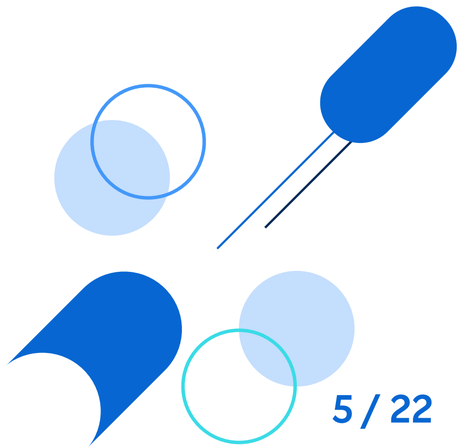
Our research shows that businesses in the UK and Ireland that embrace generative AI are seeing significant benefits.



However, with increased focus on, and investment in, generative AI, many firms in the UK and Ireland are encountering difficulties with implementation. These issues threaten to waste resources, dissuade customers, and even render companies legally non-compliant. One in four organisations using generative AI (44%) are finding it a challenge to integrate this technology into existing systems and a similar proportion (36%) are struggling with prohibitive costs. These issues are best resolved at an early stage, ideally before generative AI is deployed and significant resources are invested.

There are four steps to achieving success with your generative AI investment.

1. Strategic deployment
2. Comprehensive governance
3. Technological integration
4. Expert guidance



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A Pulse of the UK and Ireland Market

Businesses in the UK and Ireland are seeing significant benefits from generative AI. A large majority, 96%, report improved employee experience and satisfaction, 90% say that they are saving on operational costs, and 94% state that customer retention is higher.

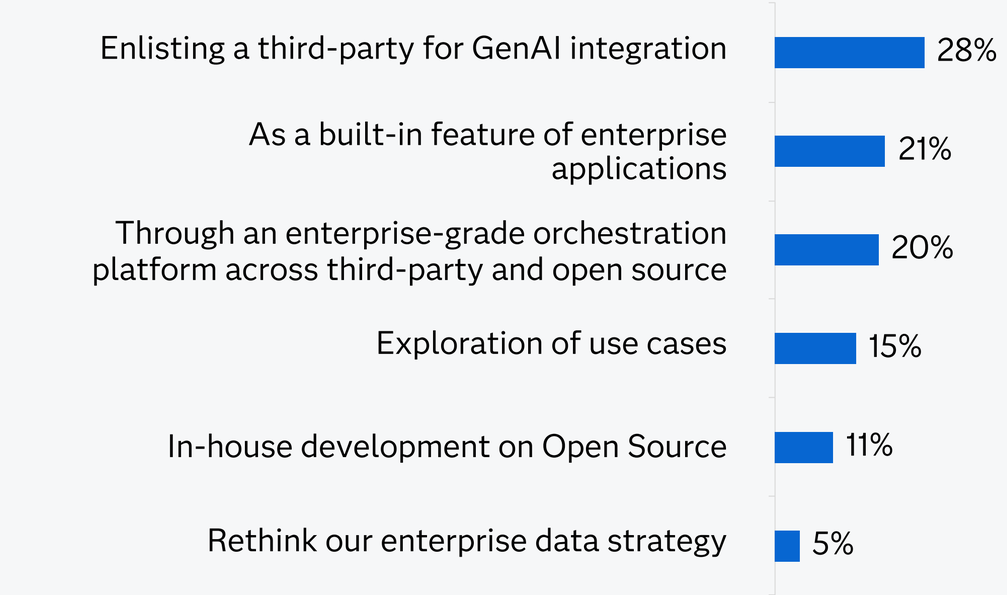
It is no surprise that the technology is being swiftly adopted by companies across the UK and Ireland. Our research reveals that 6 in 10 businesses (62%) have begun to implement generative AI, including 9% that have fully integrated the technology at an enterprise level. The vast majority (90%) of companies in the UK & Ireland are investing in generative AI for 2024/25. Almost one in five plan to roll out generative AI at enterprise level, and 84% are undertaking or planning to embark on projects to build their own large language models (LLMs) in-house.

Organisations are using – or planning to use – generative AI across multiple departments. A massive 89% of respondents have either begun or are planning to deploy generative AI across IT departments. For marketing departments, that figure is 88%, for sales 87%, and for finance 77%. Even in those departments where generative AI adoption is least likely, the majority are still either using or planning to bring it on board; 63% in customer/field service, 62% in production, and 58% in legal departments. Almost a fifth of the workforce (15%) currently use generative AI tools to generate text, images or video, every day.

As companies adopt generative AI, they seek to understand how to use it safely and ethically. Over half (59%) have a generative AI usage policy in place for staff to adhere to, indicating that even where governance is patchy, leaders are making efforts to standardise generative AI usage. Four in 10 (44%) are planning to enlist third-party support to ensure that they make the most of generative AI's potential.

Many are enlisting third parties to support generative AI integration, including through orchestration platforms.

How do you envision scaling generative AI within your business processes?



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Strategies for Successful Adoption

Organisations are racing to invest in generative AI: our research shows that 90% of businesses in the UK and Ireland are committing financially to the powerful technology in 2024/25. But what does successful deployment look like?

Our research shows that while organisations aspire to attain this nirvana, they hit stumbling blocks in four key areas of implementation.

- **Unlocking value:** translating the implementation into measurable benefits
- **Increasing trust in data usage and achieving compliance:** embedding trust in your business outcomes
- **Orchestrating generative AI into existing systems and processes:** ensuring that your systems and tools do not limit generative AI's potential
- **Talent and Skills:** identifying the skilled talent who can support your generative AI strategy

So, what do these challenges look like in practice, and what are the solutions?

To maximise productivity, generative AI must be seamlessly embedded within business processes and systems. Performance should be reliable, transparent and ethical, accelerating productivity and improving customer experience, while adding measurable value to stakeholders.

Unlocking value: translating the implementation into measurable benefits

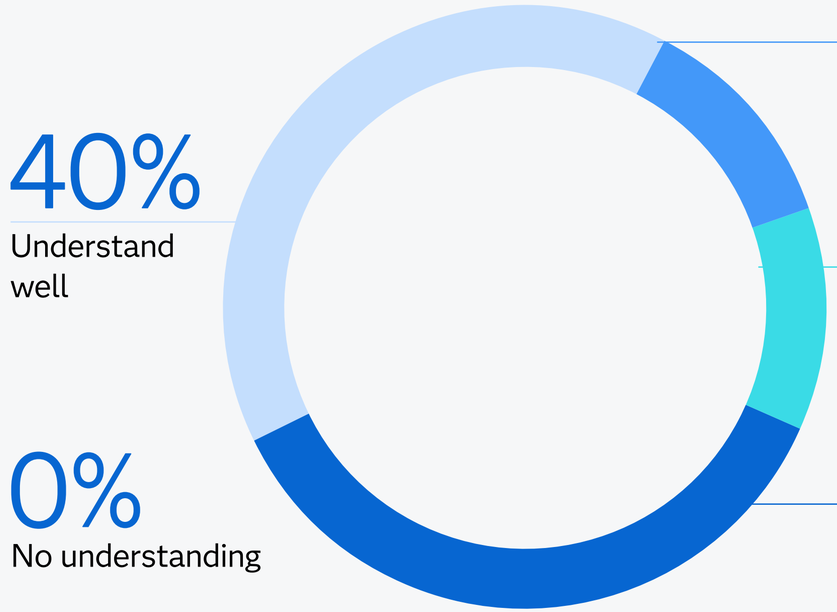
Achieving a strong return on investment for generative AI

The ideal generative AI investment offers clear opportunities for efficiency and a better customer experience, but many organisations report gaps in strategic thinking which are impacting successful rollout.

- The vast majority of senior tech decision-makers **(96%)** admit that they do not fully understand generative AI or its potential impact on business processes
- Almost half **(48%)** are encountering challenges in transitioning from concept to practical use of generative AI
- Over a third **(37%)** foresee difficulty proving that generative AI offers a strong ROI, or have found this hard to prove
- Four in 10 organisations **(41%)** do not have a generative AI usage policy in place for their staff to adhere to.

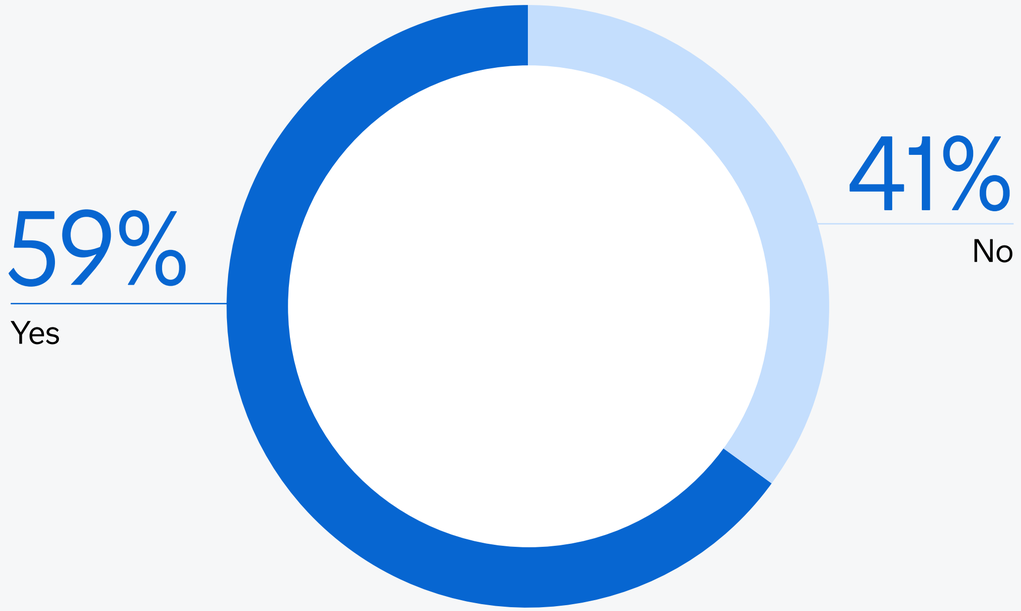
Almost all (96%) senior tech decision makers admit not fully understanding generative AI and its potential impacts on business processes

How would you rate your personal understanding of generative AI and its potential impacts on business processes?



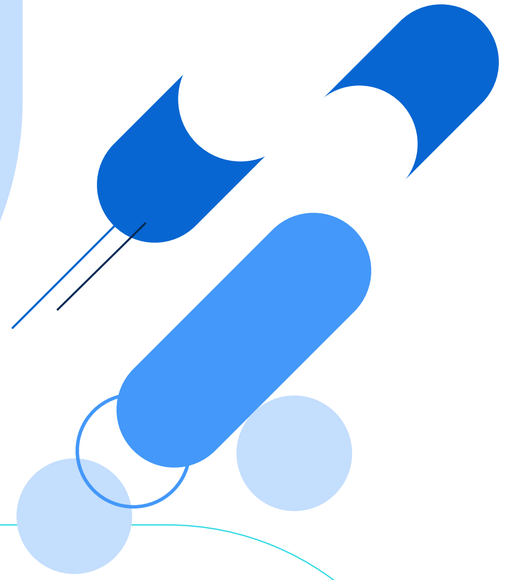
41% do not have a generative AI usage policy in place for their staff to follow

Does your organisation have a generative AI policy that dictates how your employees can and cannot use it for the business?



Insight 1:

Ensure that key decision makers are AI literate before they develop your comprehensive generative AI strategy. This requires time and will most often involve outside experts.



Insight 2:

Identify your best generative AI use case to deliver speedy return on investment.

For many companies that set out to deploy generative AI, the first item on their to-do list is to clean up the data they hold. However, a better approach is to identify high impact use cases for the technology, in order to deliver a measurable return on investment as quickly as possible.

Increasing trust in their data usage and achieving compliance

Embedding trust in your technological investment

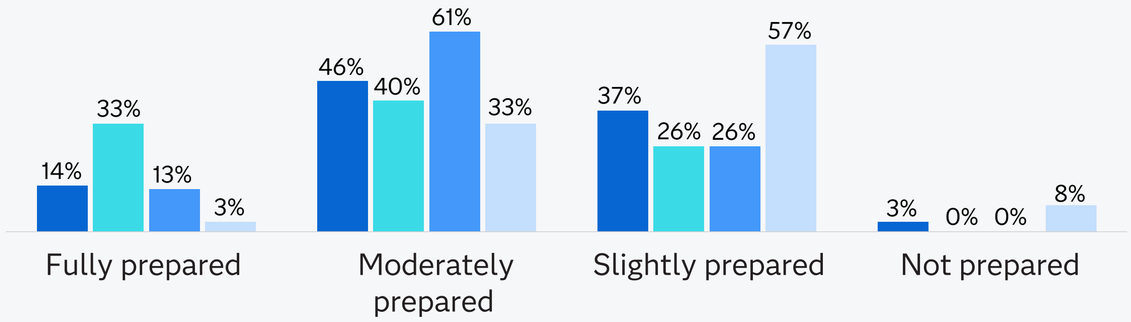
When their generative AI investment performs reliably, transparently, and ethically, businesses see the benefits. However, in reality, many lack full oversight of the technology, and the majority are at risk of non-compliance when it comes to regulation.

Our research finds that:

- Less than one in 10 organisations in the UK and Ireland **(8%)** has undergone the preparation needed to comply with generative AI regulations
- **95%** of businesses lack a comprehensive governance framework for generative AI
- Fewer than one in 20 organisations **(4%)** is providing a high level of training on generative AI governance and monitoring
- Three-quarters of respondents are concerned about data privacy **(75%)** and security **(72%)** when generative AI is used in their organisation
- Less than one in 20 organisations **(3%)** has a reliable system in place to measure bias and privacy risk in LLMs
- Almost eight in 10 organisations **(77%)** are not able to continuously monitor their generative AI systems.

Only one in 10 businesses has undergone the preparation needed to comply with current and upcoming regulations concerning generative AI

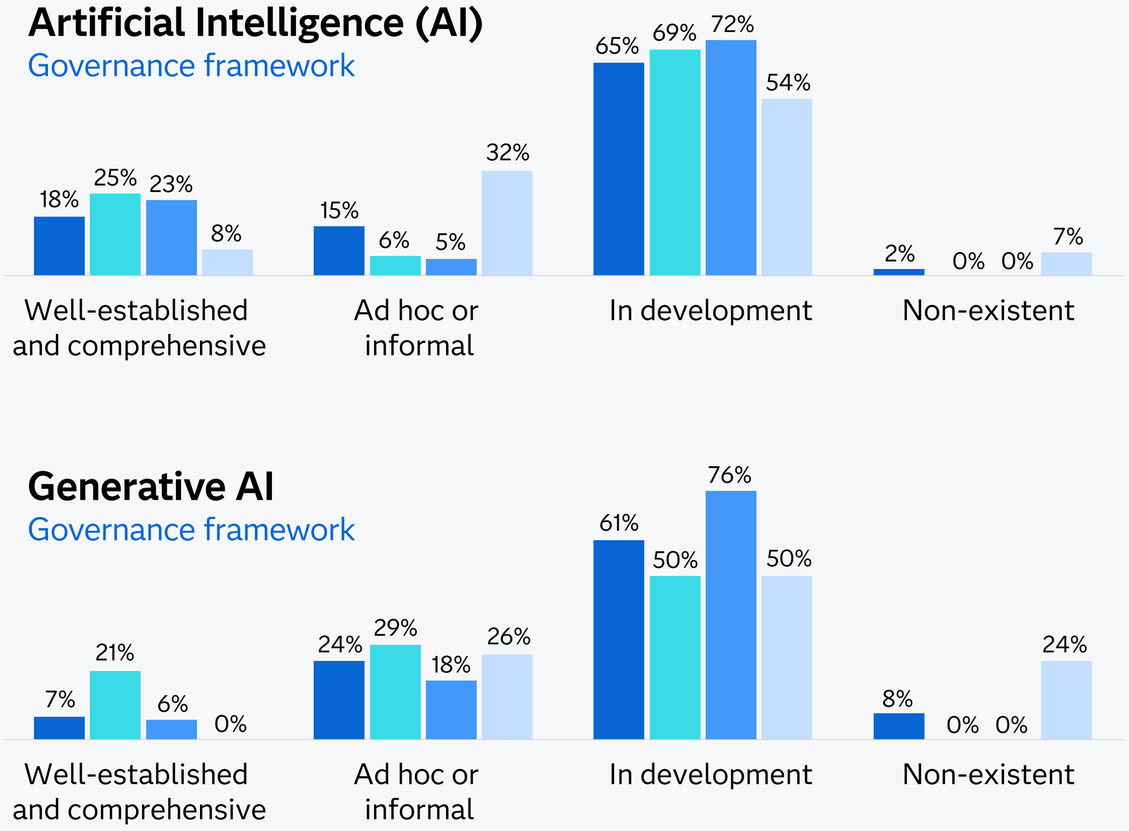
How prepared is your organisation to comply with current and upcoming regulations concerning generative AI?



- Total
- We are using generative AI and have fully implemented it
- We are using generative AI but haven't yet fully implemented it
- We are not yet using GenAI but intend to within the next 2 years (Net)

The majority of organisations lack a comprehensive governance framework for both AI and generative AI (6 in 10 adopters admit to this).

How would you describe your current generative AI/ AI governance framework?

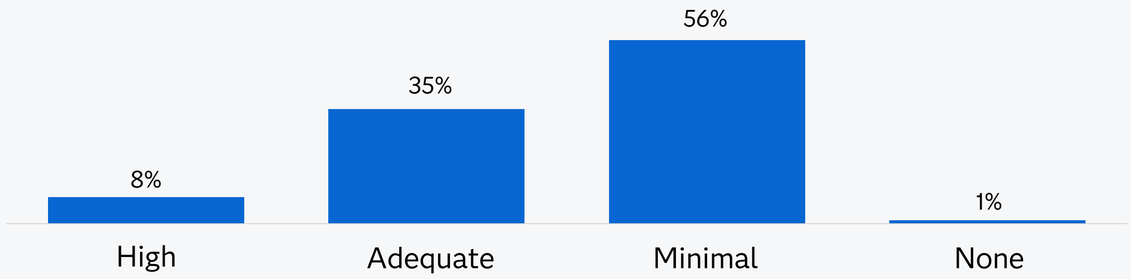


Fewer than one in 20 organisations provide a high level of training on generative AI governance and monitoring

What level of training does your organisation currently have regarding generative AI/AI governance and monitoring?

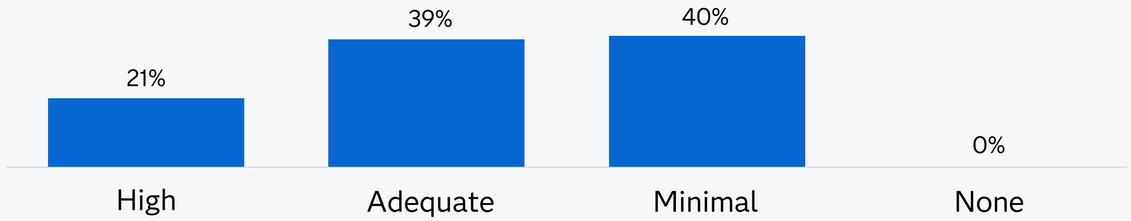
Generative AI

Governance and monitoring training



Artificial Intelligence (AI)

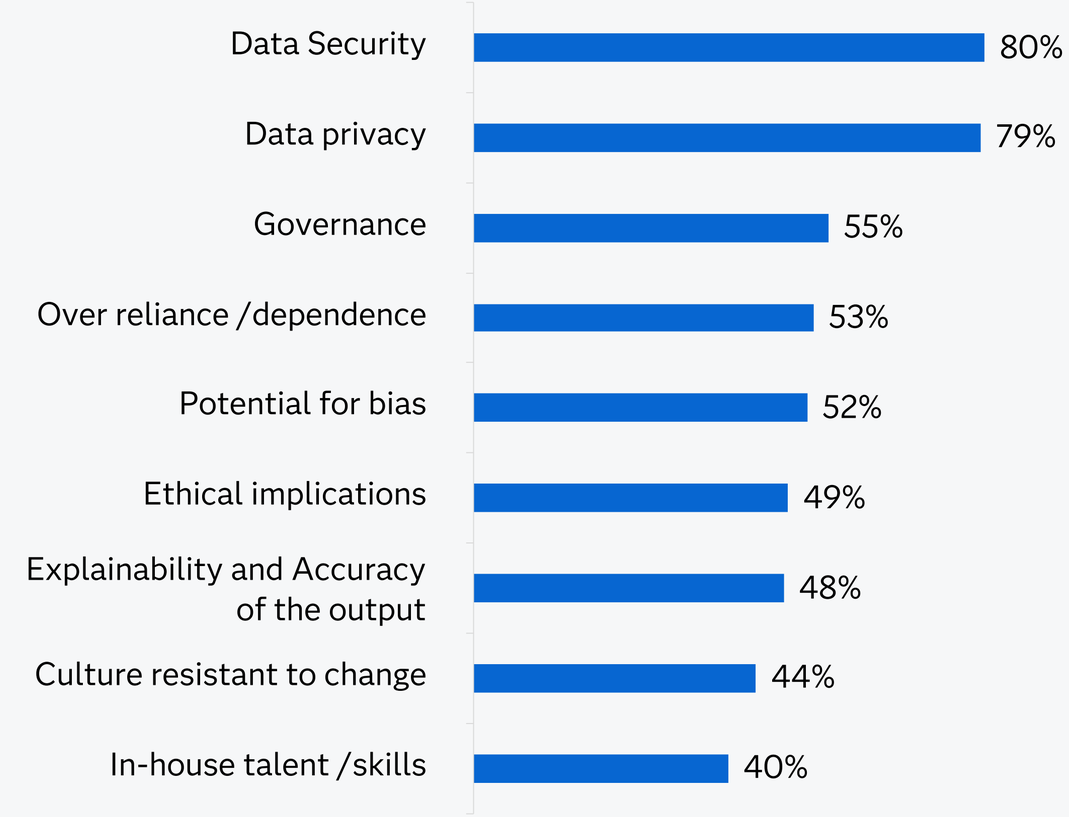
Governance and monitoring training



Three-quarters of respondents are concerned about data privacy (75%) and security (72%) when generative AI is used in their organisation

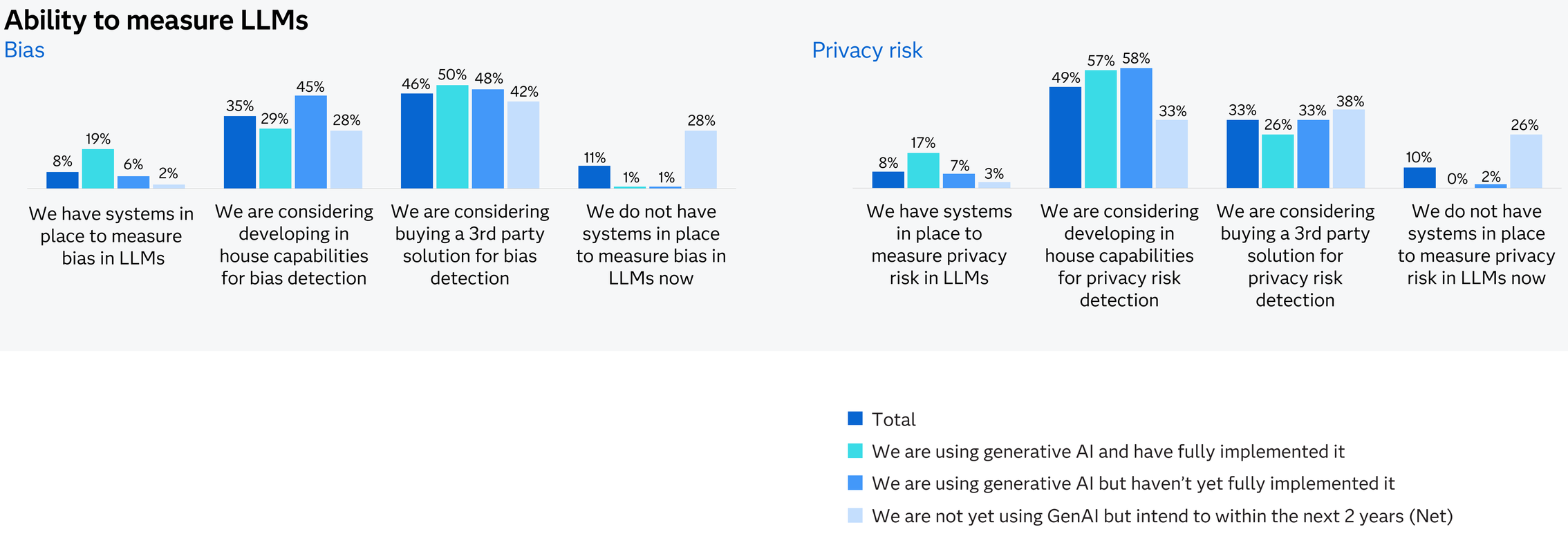
What are your concerns regarding the usage of generative AI in your organisation?

Rank 1/2/3/4/5 Summary

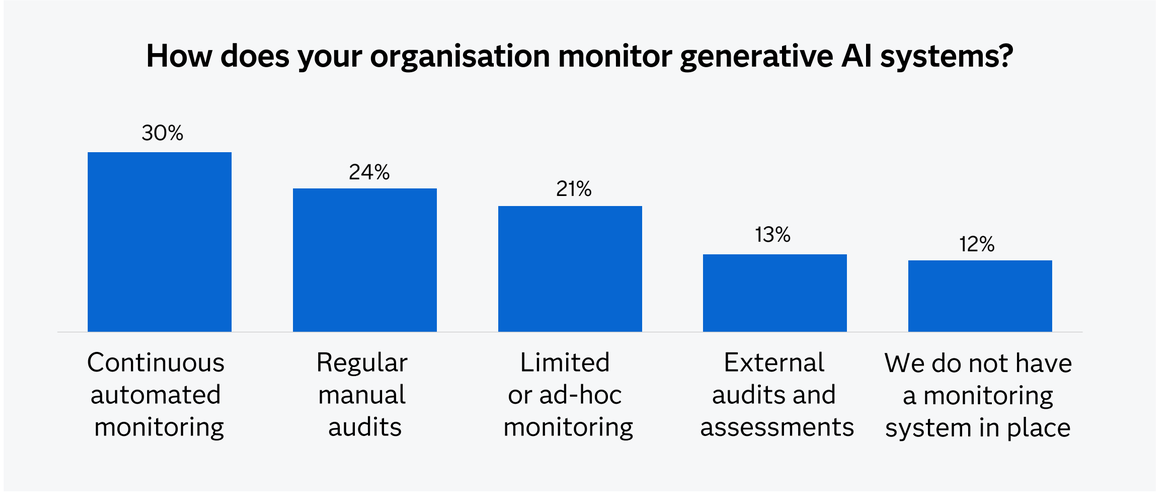


Less than one in 20 organisations has a reliable system in place to measure bias and privacy risk in large language models (LLMs)

How would you assess your ability to measure large language models (LLMs) bias/privacy risk in your organisation?



Almost eight in 10 organisations (77%) are not able to continuously monitor their generative AI systems



Across businesses in the UK and Ireland, generative AI usage opens anxieties about data privacy, security, lack of governance, dependence on the technology, and its potential for amplifying bias. Nevertheless, many have not fully prepared themselves to comply with regulations, and do not have generative AI governance in place, or even any ways to monitor the technology. Our research shows that businesses are rushing into generative AI before establishing adequate systems of governance, which could result in serious issues with quality and compliance later.

Insight 3:

Data management tools are essential to ensure that LLMs are fed the highest quality data and prompts —data that is both auditable and traceable.

These tools can provide user privacy and security, with robust data protection measures, including data minimisation, anonymisation, and encryption, ensuring that sensitive information remains safeguarded. Furthermore, workflows can be automated, for the shortest, most direct route to building or tuning an LLM.

Insight 4:

Data management and analytics tools can help minimise potential bias in raw data used to feed LLMs.

Data management and analytics tools can detect outliers and sources of bias in the raw data used to train LLMs.

Technological Integration

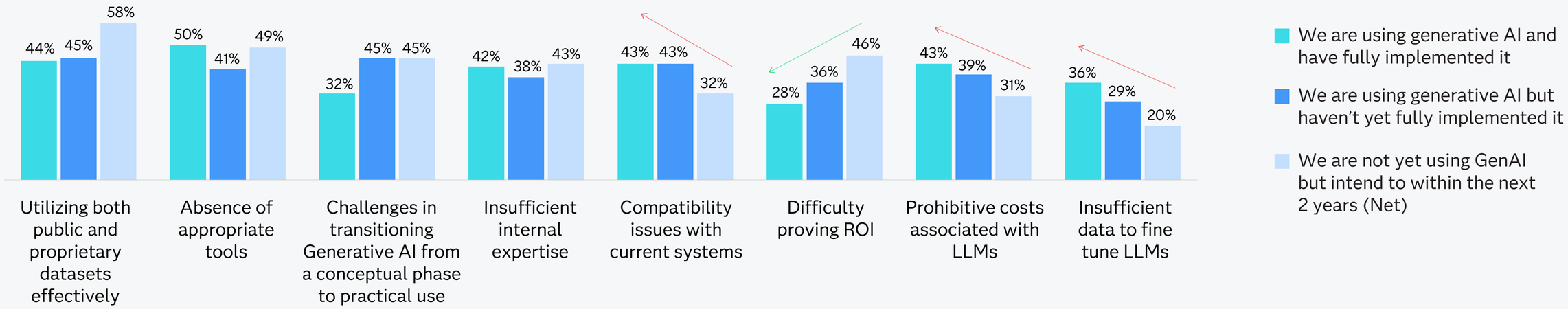
Ensuring that your systems and tools do not limit generative AI's potential

At best, generative AI is seamlessly embedded within a business's processes and systems. But many companies struggle to integrate the technology with the tasks and tools they already have.

Our research finds that:

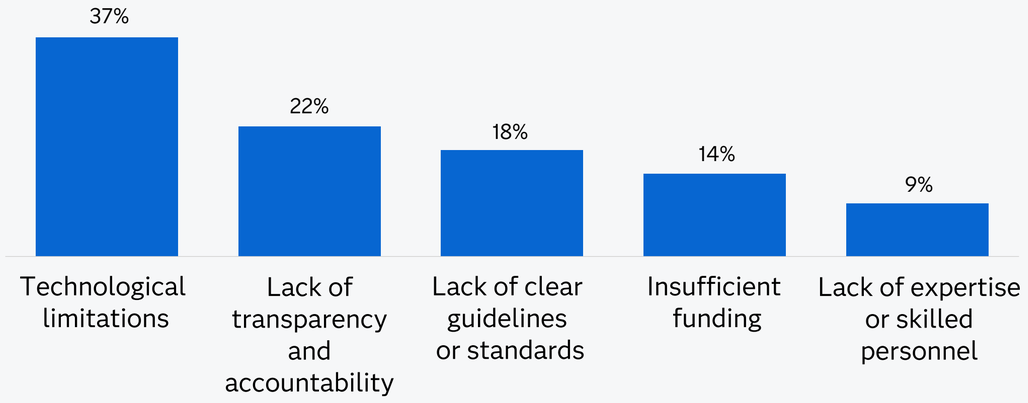
- Almost half **(47%)** of decision-makers in the UK and Ireland report that they do not have appropriate tools to implement generative AI
- Four in 10 **(43%)** are experiencing compatibility issues when they try to combine generative AI with their current systems
- Almost half of decision-makers **(48%)** are encountering obstacles in using public and proprietary data sets effectively
- Around a third **(32%)** say that the biggest challenge to monitoring generative AI is technological limitations

Decision-makers in the UK and Ireland report that they do not have appropriate tools, are experiencing compatibility issues, and encounter obstacles in using public and proprietary data sets effectively



Around a third of businesses in the UK and Ireland face technological challenges when they set out to implement and utilise generative AI

What would you say is your biggest challenge in implementing effective governance and monitoring for generative AI?



Insight 5:

Make sure that your generative AI software vendors can work with existing workflow and decisioning platforms.

Generative AI is an ideal contributor to hyper-automation—facilitating automation of all feasible tasks within an organisation. It excels in summarising vast amounts of data to support decisioning workflows, enabling real-time interactions aligned with your preferred business processes.

Insight 6:

Leveraging decisioning workflow systems to infuse generative AI into existing business processes facilitates measurable outcomes.

LLMs can only execute a few tasks of a use case; organisations still need an end-to-end process that orchestrates the AI lifecycle while enhancing transparency and governance of LLMs.

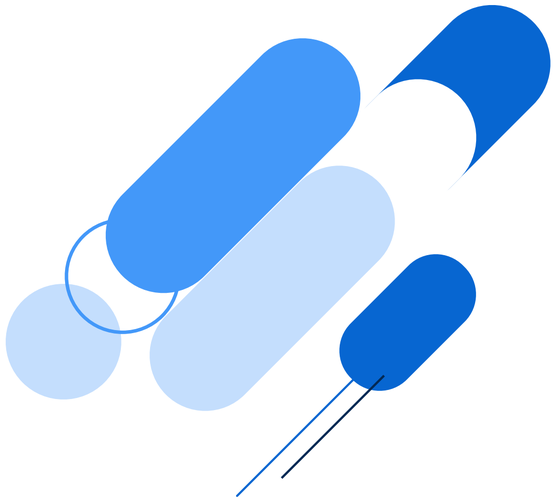
Talent and Skills

Identifying the skilled talent who can support your generative AI strategy

For many companies, it really comes down to this: in-house generative AI expertise is lacking. As HR departments encounter a scarcity of suitable hires, organisations worry that they do not have access to the necessary skills to make the most of their generative AI investment.

Our research finds that:

- More than half of organisations **(54%)** are concerned that they do not have the skills in-house to utilise the technology effectively.
- Three in 10 respondents **(30%)** say they have found insufficient internal expertise to be an obstacle to implementing generative AI.



30% have found that insufficient internal expertise is an obstacle in generative AI implementation

What obstacles do you foresee, or have you encountered, in the implementation of generative AI?

05
Blueprint for Gaining Competitive Advantage

It is key that generative AI projects are built in a way that not only meet current needs but is also poised for future growth and innovation.

LLMs alone do not solve business tasks. The key is to integrate them into a decisioning process, layered with orchestration and governance while using tools that accelerate business tasks and address data privacy challenges.

Specifically:

- **Accelerated innovation:** Seamlessly integrate generative AI models into decisioning workflows, AI/ML applications and existing business processes, by leveraging decisioning flow tools, like Intelligent Decisioning as part of SAS Viya.
- **Data protection:** Ensure user privacy and security with robust data quality measures, including synthetic data generation, data minimisation, anonymisation and encryption, ensuring that sensitive information remains safeguarded.
- **Trustworthy and Explainable results:** Data experts can apply natural language processing techniques to preprocess data, and explain the generated output, minimising hallucinations and token costs.
- **Enhanced governance:** Use built-in workflows that validate the entire life cycle of LLMs, from regulatory compliance to model risk management.

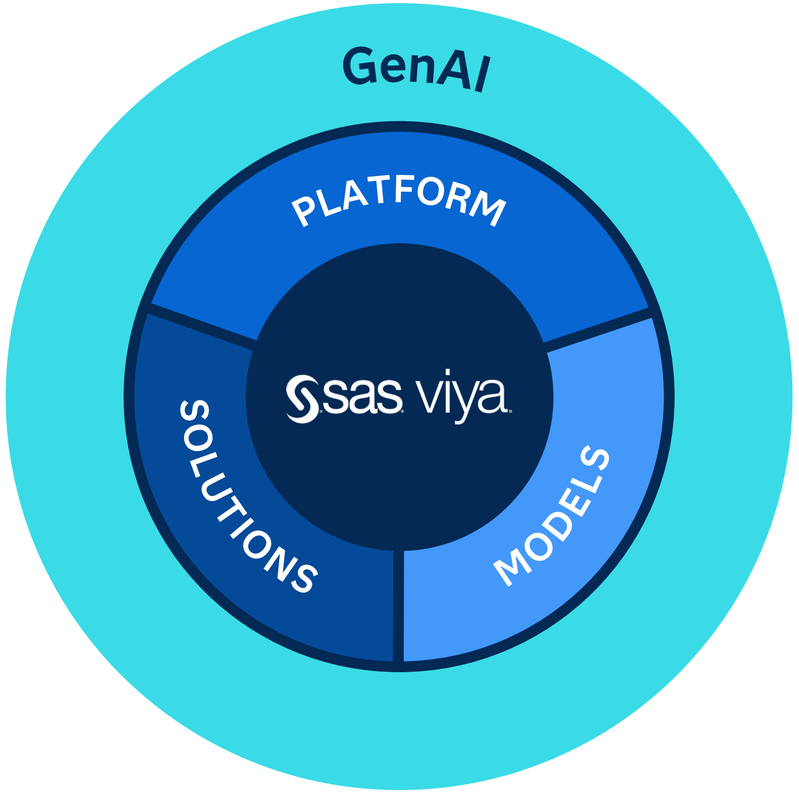
As organisations continue to experiment with generative AI, we recognise that real business value will come down to identifying real-world use cases that deliver trusted and scalable value.

As one of the AI and analytics companies with the longest experience in the field, SAS is equipped to be the trusted partner to help organisations confidently succeed in the generative AI journey across different industries, regulatory scenarios and applications areas.

As organisations explore generative AI, SAS prioritises identifying high-ROI, ethically applied use cases. We aim to enable secure adoption, fostering accelerated productivity, trusted results and faster innovation across diverse industries and regulatory landscapes.

We provide software and services, including:

- **Generative AI orchestration:** SAS Viya integrates external generative AI models, orchestrating large language models (LLMs) for end-to-end enterprise use cases.
- **SAS Viya Copilot productivity tools:** Facilitate conversational data querying throughout the AI life cycle, spanning data exploration, model development, deployment and monitoring. SAS Viya Copilots offer diverse tools for tasks like data cleaning, exploration, model execution and dashboard generation. In addition, using generative AI for tailored industry specialised tasks, enhances productivity for business users.
- **Synthetic data generation:** addresses limited real data challenges by generating synthetic tabular data that is statistically representative of the original training data without compromising sensitive information, enabling organisations to address data privacy, security and veracity challenges.



GenAI Orchestration Platform

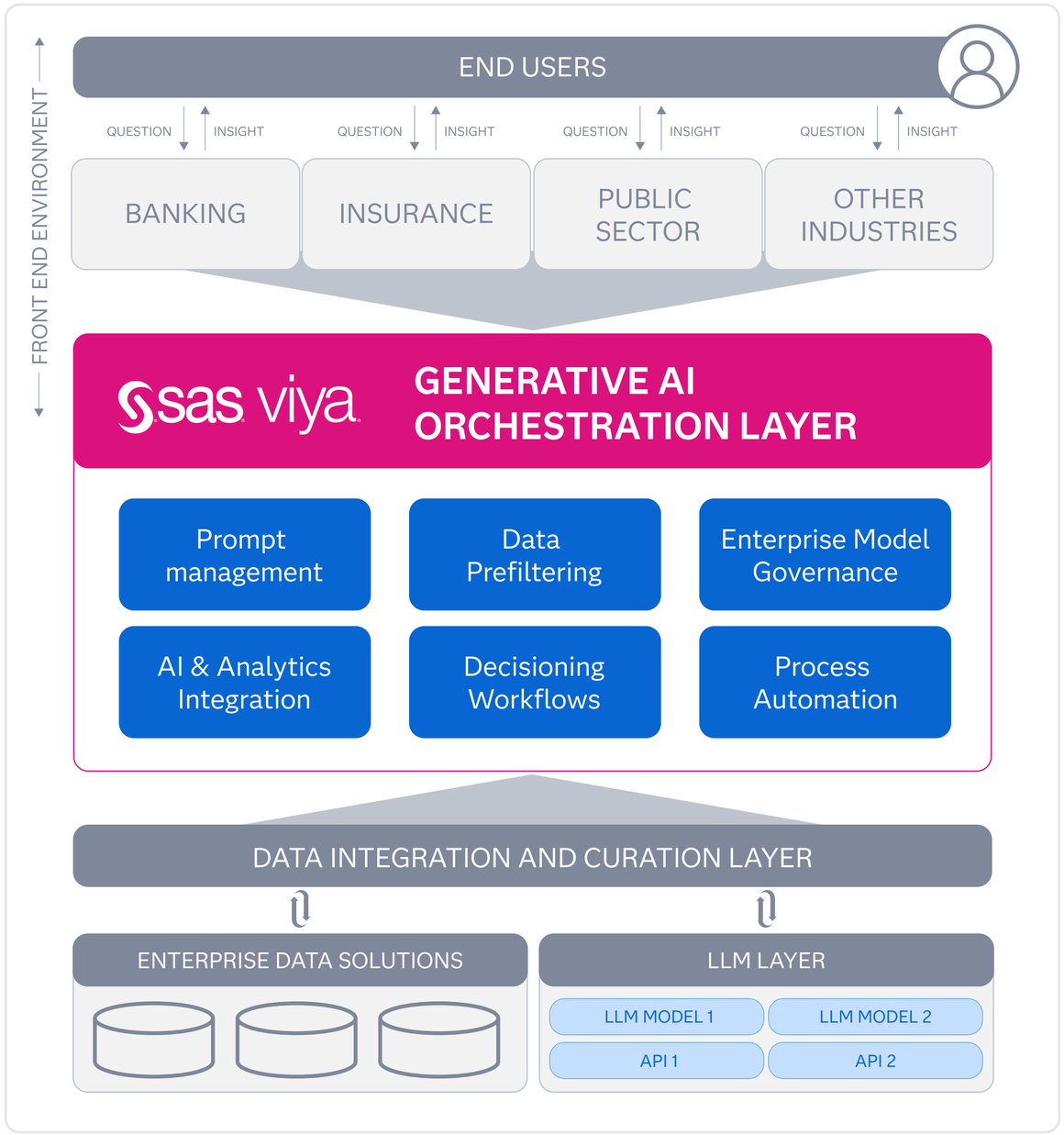
Explain, Govern, Orchestrate LLMs

SAS Viya Copilots

Accelerate AI/Business Tasks

Synthetic Data Generation

Mitigate Data Quality and Scarcity



The benefits vary across many industries and use cases

- **Financial institutions** can integrate SAS Viya and LLMs to analyse and augment financial documents that are part of complex credit review processes, reducing time to approval without impacting their credit risk or regulatory obligations.
- **A plant worker** in a manufacturing company can leverage a generative AI powered interface to create a conversational style narrative outlining the optimal level of raw materials to maximise profits while maintaining high production quality.
- **A pharmaceutical company** can generate synthetic data to simulate clinical trials by generating patient data based on an existing dataset, accelerating the trial design process while addressing data privacy or bias concerns.
- **A bank** can enable faster innovation with generative AI by leveraging the prompt management and LLM governance capabilities enabled by SAS Viya.

sas viya

To learn more about SAS Viya visit:
https://www.sas.com/en_gb/software/viya.html

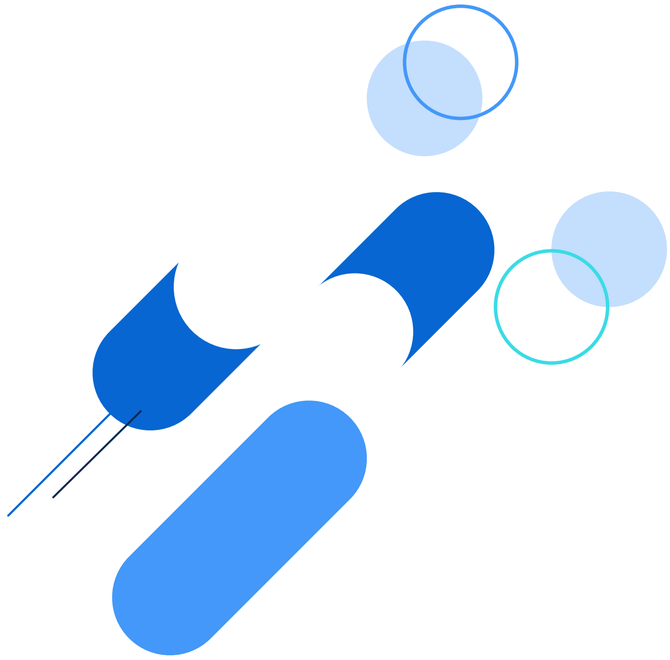
06
About this research

The survey was conducted by Coleman Parkes from 14 February to 12 April 2024, and targeted 200 decision-makers in generative AI strategy or data analytics in organisations across key sectors in the United Kingdom and Ireland. Survey respondents work across a range of sectors: banking, insurance, the public sector, life science, health, telco, manufacturing, retail, energy and utilities, and professional services. Their job titles include Data Manager, IT Director, and Chief Information Officer. The smallest organisations we surveyed employed a workforce of 1,000-1,999 people and the largest had more than 10,000 employees.

This research conforms to the British Market Research Society's Quality Standards, including ISO 20252.

About Coleman Parkes

Coleman Parkes is a full-service B2B market research agency specialising in IT/technology studies, targeting senior decision makers in SMB to large enterprises across multiple sectors globally. For more information, contact Stephen@coleman-parkes.co.uk



To learn more, please visit sas.com/en_gb/solutions/ai/generative-ai.html

To contact your local SAS office, please visit: **sas.com/contact**