ENTERPRISE-WIDE GENERATIVE AI: OPPORTUNITIES AND CHALLENGES:

Insights and Learnings from Belgian CIOs

Research Report   November 24

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INTRODUCTION

Generative AI (GenAI) has become a priority for enterprises seeking to enhance productivity, foster innovation, and optimise operational efficiency. However, the integration of GenAI into business processes presents unique challenges. A recent Deloitte survey on 'Trust in Generative AI', involving over 30,000 participants across Europe, indicates that Belgium lags behind in GenAI adoption. Notably, only a small percentage of Belgian companies actively encourage the use of GenAI tools in the workplace. Given the strong correlation between GenAI adoption and productivity gains, this could hinder the region's traditionally strong performance in this area.

This article, a collaboration between CIONET and Deloitte, draws upon a comprehensive international study by the Deloitte AI Institute on the 'State of Generative AI in the Enterprise'. This study, conducted between May and June 2024, involved 2,770 director- to C-suite-level respondents across six industries and 14 countries. This was complemented by a survey with sixty Belgian CIOs and ten in-depth interviews with chosen leaders about their strategies, use cases, and the hurdles they face in leveraging GenAI.

By combining survey results with practical insights from interviews, this article provides a comprehensive overview of the current state of GenAI in the enterprise. Key topics include the importance of a well-defined strategy, the challenges of talent acquisition and development, risk management, and effectively addressing data and technological considerations.
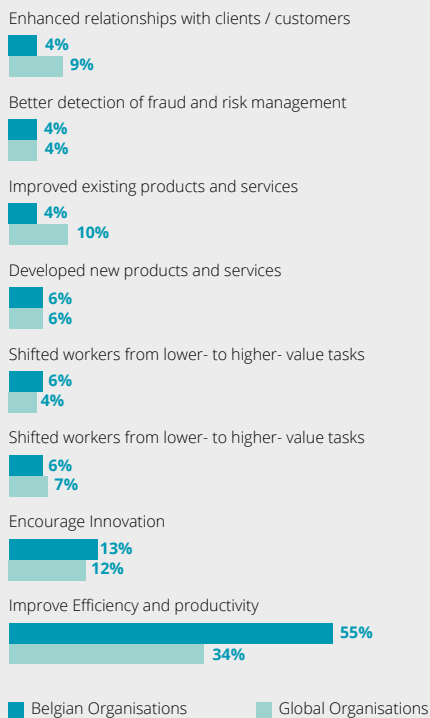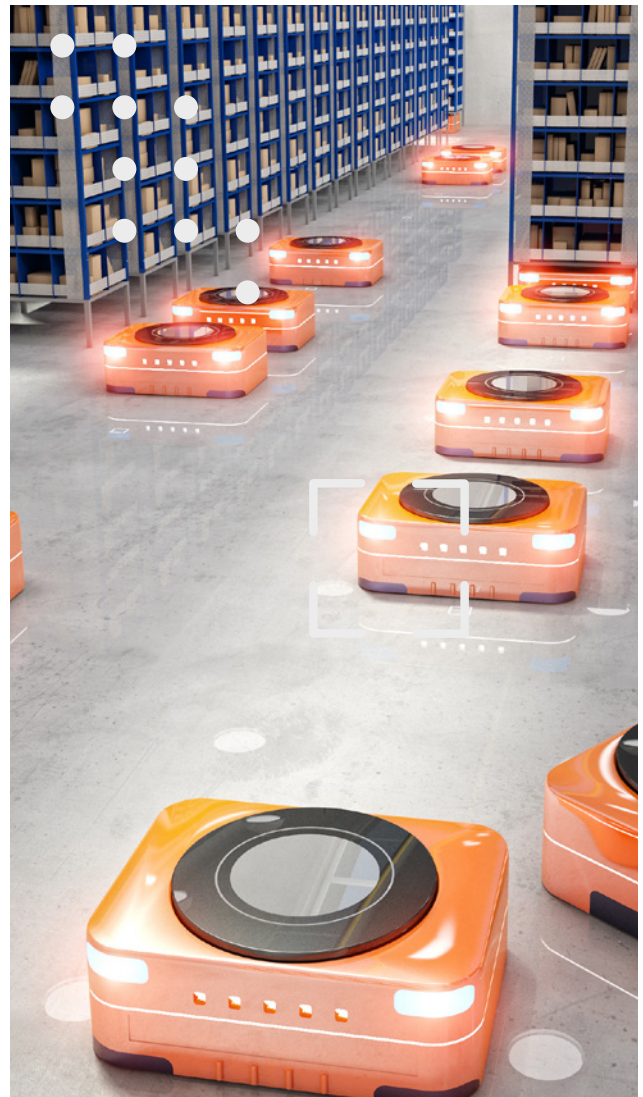
Strategy: Defining a Path to Value

63% of respondents believe that their organization is not ready for GenAI rollout when it comes to having a clear strategy. Interviews echo this sentiment. While some companies are at the forefront, possessing both a vision and quantified goals for GenAI implementation, others are in the nascent stages, exploring the technology before establishing concrete objectives. Some others advocate a bottom-up approach, starting from concrete use cases assessed purely on business value is the best way to go. Companies that are furthest in their (Gen)AI journey, however, strongly believe in the combination of a clear strategy and a value-driven approach.

Figure 1 – Top benefit achieved through Generative AI initiatives

Enhanced relationships with clients / customers
- 4%
- 9%

Better detection of fraud and risk management
- 4%
- 4%

Improved existing products and services
- 4%
- 10%

Developed new products and services
- 6%
- 6%

Shifted workers from lower- to higher- value tasks
- 6%
- 4%

Shifted workers from lower- to higher- value tasks
- 6%
- 7%

Encourage Innovation
- 13%
- 12%

Improve Efficiency and productivity
- 55%
- 34%

■ Belgian Organisations   ■ Global Organisations

63%
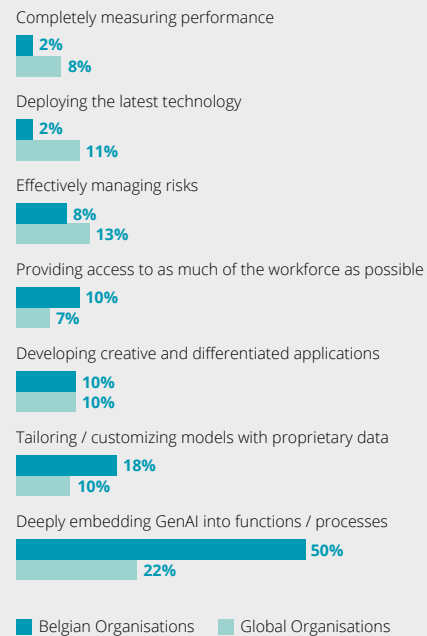of respondents believe that their organization is not ready for GenAI rollout.

Identifying Use Cases and Making the Business Case

Two-thirds (67%) of organizations report that they are increasing investments in generative AI due to significant observed value. Top benefits perceived are efficiency and productivity (34%), innovation (12%) and improved products and services (10%).

One of the primary steps in rolling out GenAI is identifying viable use cases that promise the highest returns on investment (ROI). The areas of operation chosen typically depend on the industry and specific company challenges. For instance, Port of Antwerp focuses on specific HR applications such as onboarding new workers and generating interview questions for recruitment, while Eurocontrol is exploring GenAI for operational innovations in flight management, focusing on tasks like generating system requirements and test cases.

The business case for GenAI often centres around its potential to enhance productivity and operational efficiency. For example, Telenet is leveraging GenAI to improve customer service through Agents Assistants. By automating routine tasks and providing instant support, these solutions aim to achieve a so-called triple win: improved customer service, employee satisfaction and operational efficiency.

Figure 2 – Behaviors driving the most value from GenAI initiatives

Completely measuring performance
- 2%
- 8%

Deploying the latest technology
- 2%
- 11%

Effectively managing risks
- 8%
- 13%

Providing access to as much of the workforce as possible
- 10%
- 7%

Developing creative and differentiated applications
- 10%
- 10%

Tailoring / customizing models with proprietary data
- 18%
- 10%

Deeply embedding GenAI into functions / processes
- 50%
- 22%

■ Belgian Organisations   ■ Global Organisations

Sponsorship and Leadership

Successful GenAI initiatives require strong sponsorship and leadership. At Randstad, the strategic direction for AI is driven by a global governance framework, ensuring alignment with business goals and compliance requirements. Similarly, Proximus operates under a top-down strategy with CEO endorsement, focusing on efficiency, productivity, and innovation.

Leadership is instrumental in driving enterprise transformation. At Bridgestone, early adoption by leadership and iterative learning have been key. By integrating Microsoft's Copilot into various functions, significant improvements in self-reported productivity and work-life balance were realized. Reported benefits include enhanced productivity and better operational efficiency, especially as employees learned to use AI tools effectively over time with the strongest gains displayed after six months. The leadership's commitment to embedding AI deeply into business processes has been crucial in achieving these outcomes.

> **❝ One of the primary steps in rolling out Gen AI is identifying viable use cases that promise the highest return on investment (ROI). ❞**
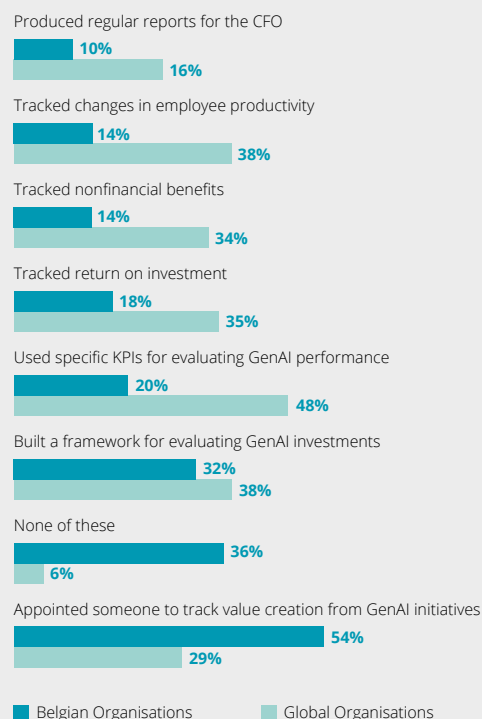
Governance and Compliance

51% of companies report having established a governance framework for the use of GenAI tools and applications. 'Effectively managing risks' is the second most important aspect of driving value for GenAI initiatives after 'deeply embedding GenAI into processes.' Governance is a critical aspect of any GenAI strategy. Organizations must therefore establish clear guidelines and policies to manage risks related to ethics, compliance, and data security.

At Fluvius, the emphasis on governance is evident in their approach to data management and compliance. By creating an AI factory and centralizing AI skills, they are working on several proof-of-concept projects while navigating regulatory requirements. The focus on governance ensures that AI initiatives are aligned with strategic goals and comply with industry regulations.

At Port of Antwerp, the implementation of a trustworthy GPT environment for internal use highlights the importance of governance. By ensuring data security and preventing misuse, the organization aims to leverage AI as a tool rather than a strategic goal. The focus on governance and compliance ensures that AI initiatives are aligned with regulatory requirements and ethical standards.

Figure 3 – Actions taken to communicate and measure value

Produced regular reports for the CFO
- 10%
- 16%

Tracked changes in employee productivity
- 14%
- 38%

Tracked nonfinancial benefits
- 14%
- 34%

Tracked return on investment
- 18%
- 35%

Used specific KPIs for evaluating GenAI performance
- 20%
- 48%

Built a framework for evaluating GenAI investments
- 32%
- 38%

None of these
- 36%
- 6%

Appointed someone to track value creation from GenAI initiatives
- 54%
- 29%

■ Belgian Organisations ■ Global Organisations

PEOPLE: TALENT AND OPERATING MODELS

In the Deloitte global survey, only 20% of the respondents rated their organisation's level of preparedness to tackle the talent challenges linked to broadly adopting Gen AI tools/applications as high. Like their global C-suite peers, Belgian CIOs indicated that one of the biggest challenges to move from experimenting towards scaling of AI is talent.
Talent has two angles which we will elaborate on in the next paragraphs:

- Finding the right people with the right skills to drive the AI transformation.
- Increasing employee adoption of AI: making sure the workforce is able and willing to use the corporate AI tools and applications.
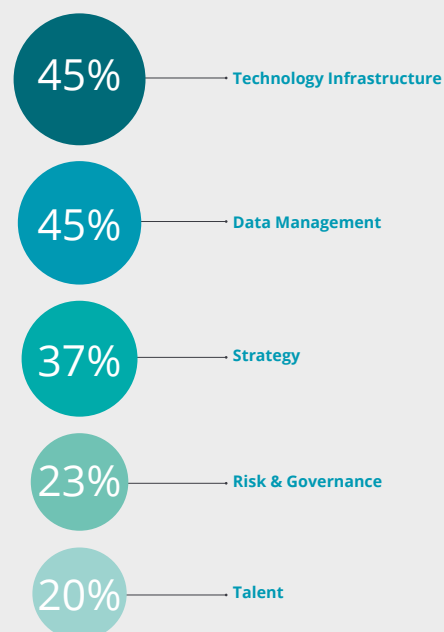
Only

22%

have used GenAI for work activities.

36% have never actually used them.

Figure 4 – Do organisations think they are ready?
Percentage of organisations that are highly prepared for GenAI across the following areas

45%	Technology Infrastructure
45%	Data Management
37%	Strategy
23%	Risk & Governance
20%	Talent

Finding and Supporting Talent

The success of GenAI initiatives depends heavily on the availability of skilled talent. However, finding the right expertise can be challenging. Organisations are focusing on acquiring the necessary skills, upskilling existing employees, and ensuring that they have the right people in place to drive AI transformation. Partnerships with external experts and continuous training are also emphasised as critical components to support talent in the AI space.

The CIOs interviewed emphasised that a successful AI transformation requires a blend of IT, data, and business skills, which are often expensive in the market. Organisations are increasingly investing in workforce development and creating new roles to support GenAI projects. This holistic approach to talent management is essential for scaling AI initiatives and achieving sustained value.

Defining the Right Operating Model

A well-defined operating model is essential for integrating GenAI into business processes. This includes establishing clear roles and responsibilities, setting up governance structures, and ensuring alignment with business objectives. At Randstad, the AI initiatives are coordinated through a global steering committee, ensuring a structured approach to implementation and scaling.

At Fluvius, the creation of an AI factory has been a key step in defining the operating model for AI initiatives. By centralizing AI skills and creating a dedicated team, Fluvius has been able to drive AI projects more effectively and ensure alignment with strategic goals. The focus on a structured operating model helps in managing the complexities of AI implementation and scaling.

> **" We are cautious with AI, especially in critical areas like HR, to ensure it doesn't 'freewheel' and causes issues. "**

Change Management and Adoption

Deloitte's recent survey on Trust in GenAI reveals a gap in awareness and adoption in GenAI in Belgium. Almost two thirds of the respondents are aware of GenAI tools but 36% have never actually used them. Only 22% have used GenAI for work activities.

The interviews conducted with the CIOs show a similar pattern. Multiple of them consider adoption and change management as a critical success factor for the successful implementation of GenAI.

Organisations are focusing on ensuring that employees are well-equipped to use AI tools effectively. The emphasis is on iterative learning, early adoption, and the strategic alignment of AI initiatives with business goals. Accelerating adoption goes beyond training employees on how to use AI tools.

The interviews reveal that fostering an AI mindset and culture is crucial for the successful implementation and adoption of AI technologies within organisations. This involves creating awareness, encouraging experimentation, and ensuring that employees understand the value and potential of AI. Organisations are focusing on change management, training, and continuous learning to embed AI into their culture. The emphasis is on aligning AI initiatives with business goals, addressing concerns related to data security, and managing the cultural shift required for AI adoption.

At Eurocontrol, for example, training in prompt engineering and demystifying AI are key components of their change management strategy. Similarly, Telenet emphasizes the importance of change management and training to ensure successful adoption of AI tools like GitHub Copilot and Microsoft 365 Copilot.

At Bridgestone, the adoption of AI tools has been supported by a structured approach to training and user engagement. By involving employees in the early stages of AI projects and providing ongoing support, they have been able to foster a culture of innovation and continuous improvement. The focus on change management ensures that employees are equipped to leverage AI tools effectively. Port of Antwerp has implemented a network of digital guides who are spread throughout the organisation. These guides help make employees more digitally savvy and support the rollout of new technologies. The digital guides form a community that regularly meets to exchange useful tips and tricks and to support each other.

PROCESS: IMPLEMENTING THE RIGHT GOVERNANCE MECHANISMS TO SUPPORT ETHICAL GENAI

Survey results show that organizations are struggling with regulatory uncertainty as they worry about interpretation and enforcement of rules. Companies are preparing for regulatory changes with respect to Generative AI by making regulatory forecasts and assessments as part of the corporate strategy (50%), by formally monitoring by a counsel team (48%) and by consultation with external partners (46%).

Ethics and Compliance concerns

Effectively managing risks related to ethics and compliance is a major concern for organizations adopting GenAI. This involves ensuring that AI solutions are used responsibly and do not introduce biases or ethical issues.

Compliance with recent regulations, such as the AI Act, which came into force in August 2024, adds another layer of responsibility. This creates regulatory pressure for companies to embed ethics and compliance into their AI strategies, to build trust, and to ensure the responsible deployment of AI technologies. At Bridgestone, the focus on governance and compliance is evident in their approach to AI projects. By creating a structured framework for use case selection and scaling, Bridgestone ensures that AI initiatives are aligned with regulatory requirements and ethical standards. This strong emphasis on ethics and compliance not only builds trust and credibility in AI solutions but also drives greater adoption and engagement among end-users.
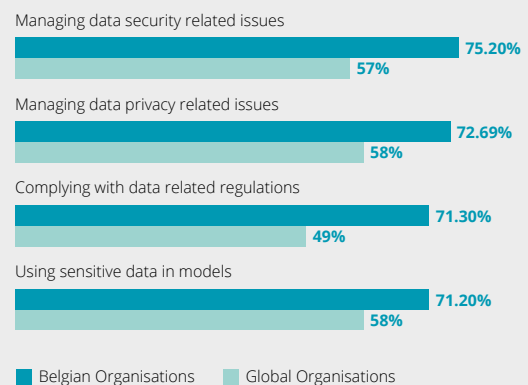
Data Security and Privacy

Data security and privacy are essential when implementing GenAI. Organizations must ensure that sensitive data is protected and that AI solutions comply with data protection regulations. At Port of Antwerp, for instance, there is a strong emphasis on data security and governance to prevent misuse and ensure compliance with GDPR.
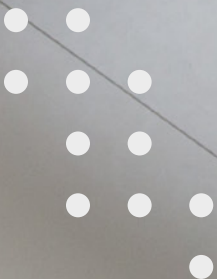
At Eurocontrol, data security is a key consideration in AI initiatives. By developing a secure and compliant infrastructure for AI projects, they ensure that sensitive data is protected and that AI solutions are aligned with regulatory requirements. Eurocontrol has experience with working within regulatory frameworks, given the aviation industry's strict oversight by the European Agency for Safety in Aviation (EASA). They have a dedicated team which is actively reviewing the different versions of the AI Act and proactively anticipating regulations around their AI products to ensure they remain compliant. This forward-looking approach underscores Eurocontrol's dedication to rigorous governance, whereby data security and privacy are seen as essential for building trust and ensuring the responsible use of AI.

Figure 5 – How is your organization preparing for regulatory changes?

Consultation with external partners
- 46% (Belgian Organisations)
- 46% (Global Organisations)

Not making any specific plans at this time
- 28% (Belgian Organisations)
- 14% (Global Organisations)

Business lines prepare regulatory forecasts and assessments
- 24% (Belgian Organisations)
- 40% (Global Organisations)

Formal monitoring from general counsel team
- 24% (Belgian Organisations)
- 48% (Global Organisations)

Corporate Strategy prepares regulatory forecasts and assessments
- 18% (Belgian Organisations)
- 50% (Global Organisations)

■ Belgian Organisations   ■ Global Organisations

Figure 6 – Average levels of concern around data management for GenAI implementations

Managing data security related issues
- 75.20% (Belgian Organisations)
- 57% (Global Organisations)

Managing data privacy related issues
- 72.69% (Belgian Organisations)
- 58% (Global Organisations)

Complying with data related regulations
- 71.30% (Belgian Organisations)
- 49% (Global Organisations)

Using sensitive data in models
- 71.20% (Belgian Organisations)
- 58% (Global Organisations)

■ Belgian Organisations   ■ Global Organisations

Enterprise-wide generative AI: opportunities and challenges

DATA: OVERCOMING CHALLENGES AND ENSURING QUALITY

55% of international organizations report having avoided certain GenAI use cases because of data-related issues. There are high levels of concern particularly regarding using sensitive data in models (58%), privacy (58%) and data security-related issues. This has steered significant investment into improving data related capabilities, especially to enhance data security (54%), data quality (48%) and updated governance frameworks (45%).

Data Integration and Scalability

Integrating GenAI solutions with existing data infrastructure can be challenging, especially in organizations with legacy systems. Ensuring scalability and performance of AI solutions is also critical. For example, Telenet utilizes its recent migration to a fully cloud-based data platform architecture to achieve the elasticity and scalability needed for GenAI In addition, Telenet is exploring modular approaches to integrate GenAI with their customer service systems. This modular approach enables incremental integration, allowing for flexible replacement of AI modules in this rapidly evolving field and ensuring smoother transitions as new AI capabilities are introduced.
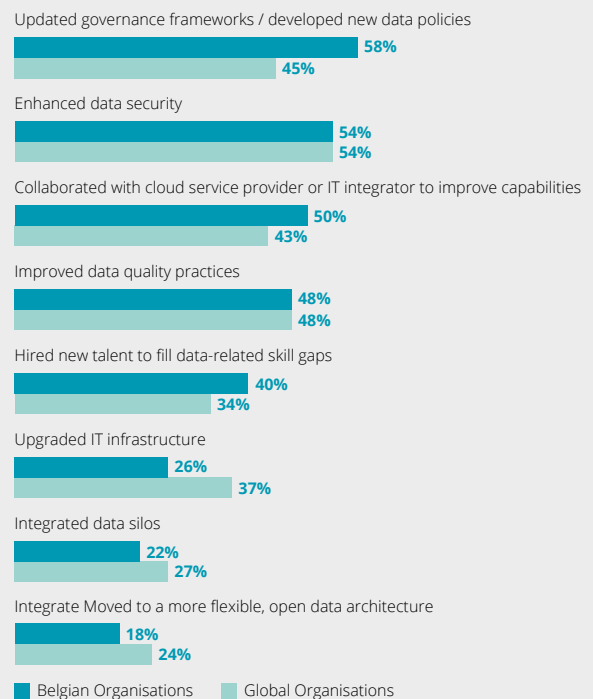
At Bridgestone, the focus on data quality and governance helps in overcoming challenges related to data management and integration. By establishing a strong data management framework and leveraging partnerships with vendors, Bridgestone ensures that AI initiatives are supported by high-quality data. By prioritising data quality, employing advanced integration technologies, and fostering collaboration between IT and business units, these organisations can navigate the complexities of data management. Furthermore, adopting scalable data architectures and cloud-based solutions can provide the necessary flexibility to handle growing data volumes and evolving business needs.

Data Management and Quality

Effective data management and quality is crucial for the success of GenAI initiatives. Ensuring data accuracy, consistency and completeness is paramount, as GenAI relies heavily on the data it ingests. Enterprises must manage data flows and implement robust data governance practices.
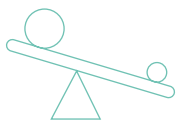
Figure 7 – What data-related capabilities have you improved to support GenAI in your organization?

Updated governance frameworks / developed new data policies
- 58%
- 45%

Enhanced data security
- 54%
- 54%

Collaborated with cloud service provider or IT integrator to improve capabilities
- 50%
- 43%

Improved data quality practices
- 48%
- 48%

Hired new talent to fill data-related skill gaps
- 40%
- 34%

Upgraded IT infrastructure
- 26%
- 37%

Integrated data silos
- 22%
- 27%

Integrate Moved to a more flexible, open data architecture
- 18%
- 24%

■ Belgian Organisations   ■ Global Organisations

TECHNOLOGY: LEVERAGING THE RIGHT TOOLS AND APPROACHES

Companies are struggling to scale GenAI solutions beyond the proof-of-concept phase with internationally only about 30% of experiments having moved into production and locally only 15%. 55% of organizations report not being ready in terms of technological infrastructure for rolling out GenAI applications across their enterprise.
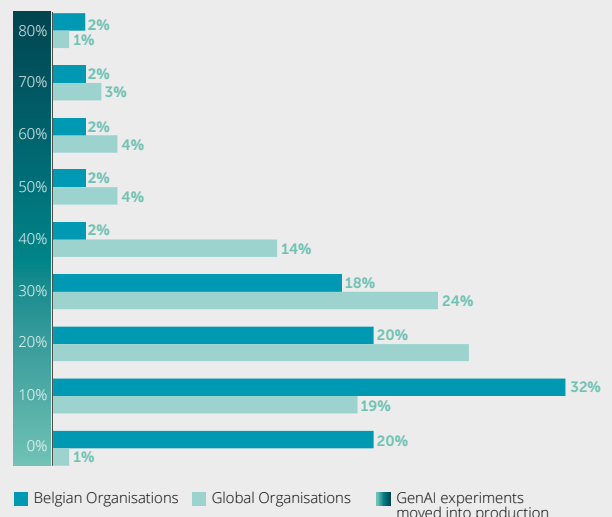
At the same time, selecting the appropriate technologies and platforms is essential for successful GenAI implementation. It involves evaluating and selecting AI frameworks, platforms, and tools that best align with the organisation's specific needs and objectives. Factors such as ease of integration with existing systems, scalability, support for various data types, and the ability to handle complex computations should be considered. When choosing the right technologies, organizations must evaluate whether to build custom solutions or leverage existing tools.

Figure 8 – A large majority of organisations have deployed less than a third of their GenAI experiments into production

Legend: ■ Belgian Organisations ■ Global Organisations ■ GenAI experiments moved into production

Balancing Innovation with Risk Management

While GenAI offers significant opportunities for innovation, it also introduces risks that need to be managed. Organizations must strike a balance between leveraging cutting-edge technology and ensuring robust risk management practices. This involves implementing comprehensive risk assessment frameworks to identify potential vulnerabilities and mitigate them effectively. In fact, when asked about what is holding companies back when it comes to adopting GenAI, issues with risk and governance (together with lack of talent) are scored higher than technology per se. Generally, the heritage of existing processes and approaches with their associated risks when they are combined with

GenAI are seen as the most pressing current problems. Additionally, Belgian compliance requirements are perceived as stricter in several areas than international ones which may explain the even slower industrialisation of local use cases.

The emphasis on balancing innovation with risk management is crucial for building trust and ensuring the responsible use of AI. By proactively addressing potential risks, organisations can foster a sense of security and confidence among stakeholders, including customers, employees, and partners.

LESSONS FROM THE FIELD

Leveraging Gen AI for Enhanced Productivity

Barco, a technology company, has been leveraging GenAI to enhance productivity and streamline operations. By integrating AI tools like GitHub Copilot, Barco has been able to improve the productivity of their software engineers significantly. This commitment to harnessing AI for operational efficiency is evident in their strategic approach to AI adoption, as explained by Philippe Verlinde the CDIO at Barco. *"Generative AI, for me, quickly proved its value. With an annual investment of around 130,000€ [in Github Copilot], we can significantly enhance the productivity of all our software engineers by at least 40-50%. This makes it a no-brainer. In fact, we are so confident in its benefits that we now require every software engineer to use tools like GitHub Copilot. We know these tools substantially boost productivity."bstantially boost productivity."*

Experimenting with Microsoft Copilot for Operational efficiencies

Eurocontrol, an aviation organization, is actively exploring and testing Gen AI tools available on the market, most notably Microsoft Copilot. As part of this initiative, they have been experimenting with the tool by providing licenses to various cohorts who can access the full suite of Gen AI productivity tools. One key challenge they have encountered, is the significant investment needed in internal trainings to ensure stakeholders can appropriately utilize Copilot's capabilities These concerns highlight the need to balance innovation with practical considerations when adopting Generative AI solutions, while also ensuring proper oversight. Eurocontrol, for example, addresses this challenge through Microsoft's monitoring services, which help track and manage the use of AI tools, ensuring their responsible deployment and ongoing effectiveness.

## A Strategic and Cautious Approach to designing a proprietary GPT

When Randstad witnessed many employees starting to use ChatGPT for professional use, they became concerned about the potential risks of sharing sensitive company data on the platform. This concern led to the recognition of a need for an internal chatbot that would not pose any compliance issues. Consequently, Randstad developed and deployed their own proprietary GPT environment to ensure data security and compliance.

Randstad underscores the importance of integrating technology with human oversight, rigorous governance, and training programs. Günther explained, *"When you first access the GPT environment, you're presented with guidelines. Each time, you see the dos and don'ts you need to follow and are asked to confirm that you comply with the AI rules we've put in place. This way, we're creating a lot of awareness among users. It's not just about giving everyone full freedom—there's a comprehensive awareness program tied to the use of the GPT environment."*

Enterprise-wide generative AI: opportunities and challenges
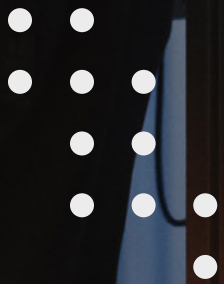
CONCLUSION

The journey to integrating GenAI into enterprise operations is complex, requiring a strategic approach that balances innovation with robust risk management. Organisations can unlock the full potential of GenAI by identifying high-value use cases, investing in talent acquisition and development, and implementing comprehensive governance and compliance frameworks. The experiences of Belgian CIOs underscore the significance of a structured approach, continuous learning, and a steadfast focus on delivering tangible business value.

As GenAI technology continues to evolve at a rapid pace, enterprises must remain agile and adaptable, ready to embrace new opportunities and overcome emerging challenges. The lessons learned from organizations like Telenet, Barco, Bridgestone, Fluvius, Randstad, Proximus, Eurocontrol, and the Port of Antwerp provide valuable insights into the successful adoption of GenAI. By adopting a clear strategy with associated, measurable goals, leveraging the right technologies, diligently managing risks, and fostering a culture of innovation, enterprises can drive significant improvements in productivity, efficiency, and customer satisfaction.

Key Takeaways

1 Strategic Alignment: Ensure that AI initiatives are aligned with business objectives and supported by senior leadership. Develop a comprehensive roadmap for AI adoption, engage stakeholders, and build consensus across the organization.

2 Talent and Change Management: Invest in training and development to build internal capabilities and support user adoption. Foster a culture of innovation by encouraging employees to experiment with AI tools and explore new ways of working.

3 Governance and Risk Management: Implement robust governance frameworks to manage risks and ensure compliance with regulations. Develop ethical guidelines for AI use, establish a risk management framework, and ensure transparency and accountability in AI initiatives.

4 Data Management: Address data quality, security, and privacy challenges by implementing data governance frameworks. Break down data silos to ensure that data is accessible and usable across the organization, and leverage data analytics for insights.

5 Technology and Integration: Choose the right technologies for AI initiatives, balancing custom solutions with existing tools. Ensure that AI systems are scalable, flexible, and integrated with existing IT infrastructure to maximize their impact.

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This article was prepared by a team of experts from Deloitte, specializing in AI and digital transformation. The team includes members of the Deloitte AI Institute, which conducts research and provides insights into the latest developments in AI technology. The Deloitte AI Institute collaborates with organizations worldwide to help them navigate the complexities of AI adoption and achieve success in their AI initiatives.

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At an organizational level, Tim leads the GenAI Service Delivery Transformation, utilizing generative AI to revolutionize service delivery, enhance operational efficiency, and foster new business models. His expertise in complex service systems drives significant improvements in efficiency and customer satisfaction.

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