



# The ROI of AI

## in telecommunications



How AI agents are helping design, build, and deliver great services and products.

# Methodology

This report is based on a survey conducted by Google Cloud and National Research Group.

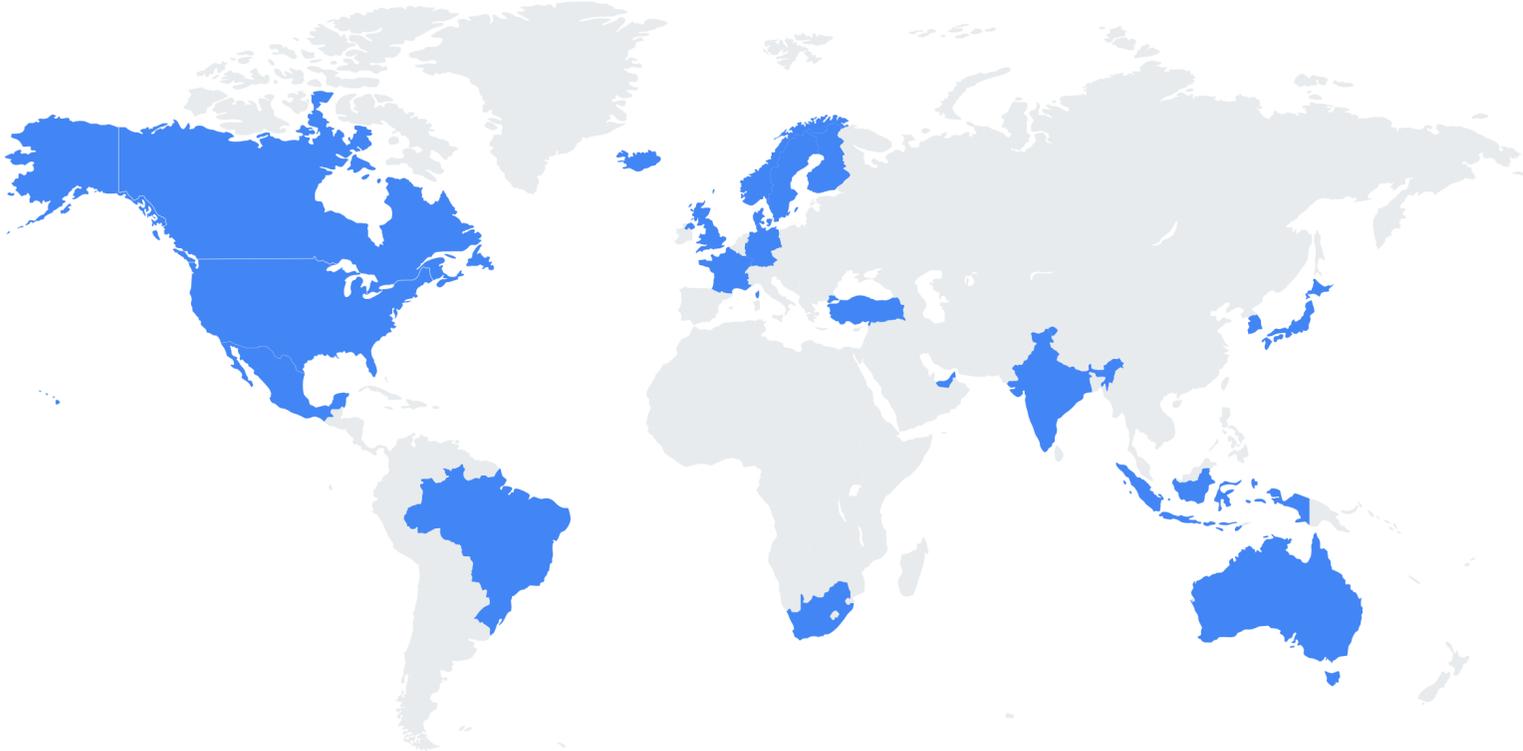
489 leaders of telecommunications companies:

- 122 CEO, CIO
- 190 CFO, CMO, CTO
- 87 CISO, CDO, CSO, COO, Director of Digital Strategy, VP of IT
- 90 IT Director, Head of Innovation, Director of Customer Experience/Service, Marketing Director

Over **100** full-time employees

Over **\$10M** annual revenue

Fieldwork conducted April 18–June 3, 2025



US	124	France	27	Australia	17	Brazil	56	UAE*	3
Canada	34	Nordics	30	South Korea	16	Indonesia	18		
UK	22	Japan	18	Taiwan	21	Turkey*	8		
Germany	23	India	16	Mexico	54	South Africa*	2		

\* Markets shown in aggregate as MEA region

# Executive summary

Our second annual survey of senior leaders in telecommunications reveals continued ROI from their gen AI initiatives, along with a new focus on agentic AI projects.

Historically, agentic systems have been difficult to implement, requiring laborious, rule-based programming or highly specific training of machine learning models. Gen AI changes that.

In fact, over half of telecommunications executives report their organizations are already leveraging AI agents.

The use cases span a spectrum of complexity—from single-task agents to multi-agent systems that can take actions on your behalf and under your control. And while this technology is already helping people get more done, many companies are still in the early phases of agentic maturity.

For the telecommunications industry this trend marks a clear acceleration from planning to action, and using AI to design, build, and deliver great services and products.



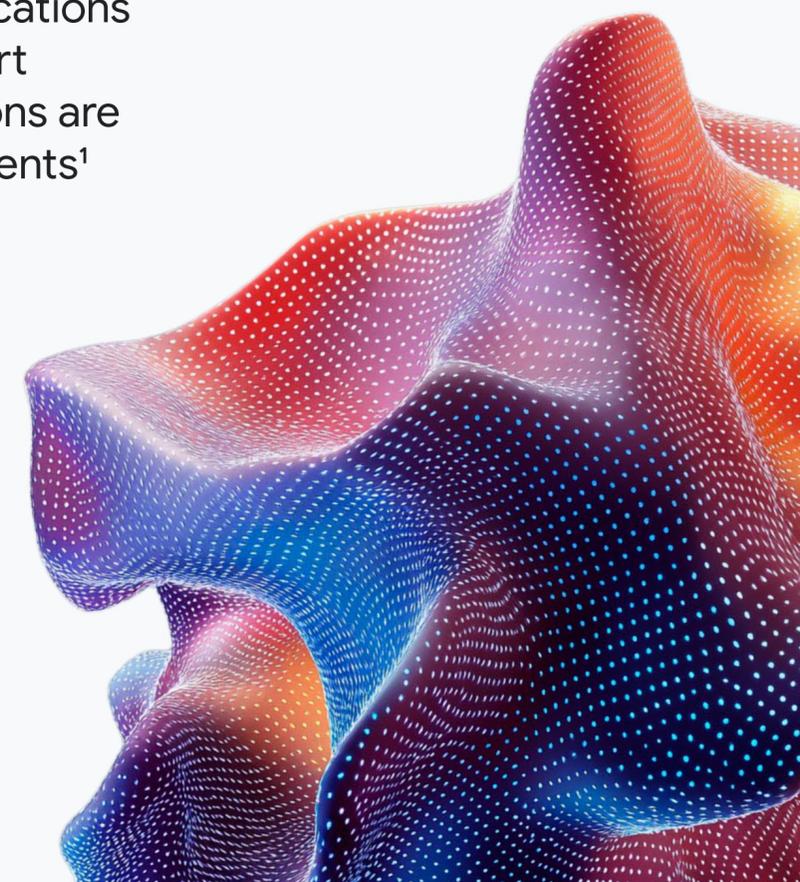
**Angelo Libertucci**

Global Head of Industry, Telecom, Google Cloud



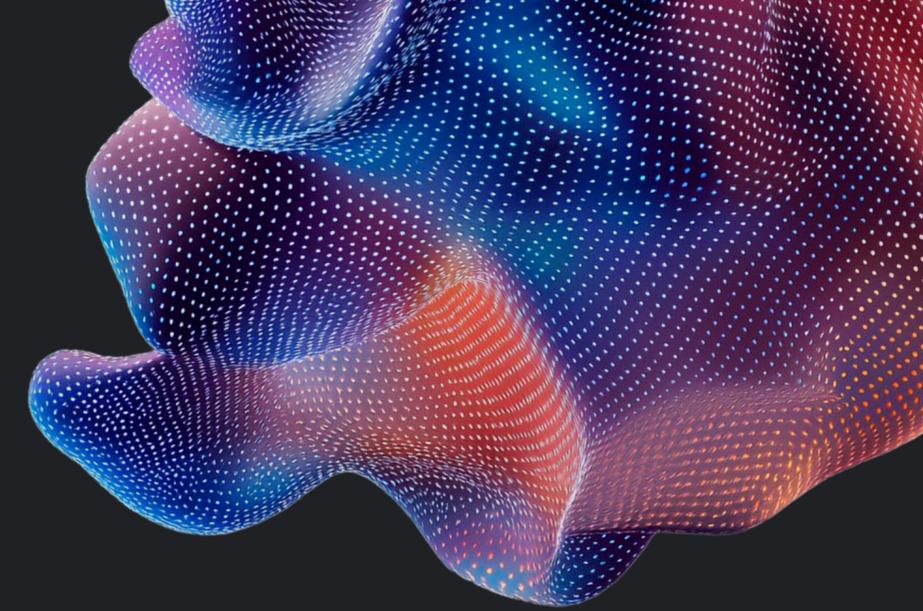
# 56%

of telecommunications executives report their organizations are leveraging AI agents<sup>1</sup>



\* Unless otherwise noted, all statistics in this report are derived from the telecommunications executive survey and only include those who are using gen AI in production.  
<sup>1</sup> Telco executives: n=489; Question: (1) How are AI agents leveraged across the enterprise? (2) How many AI agents does your company currently have deployed in production across your organization?

# Key insights in telecommunications



56%

of executives report their organization has adopted AI agents in production<sup>2</sup>

55%

of executives report their organization is allocating over 50% of their future AI budget to AI agents<sup>3</sup>

#1

concern for executives is data privacy and security when evaluating LLM providers<sup>4</sup>

<sup>2</sup> Telco executives: n=489; Question: (1) How are AI agents leveraged across the enterprise? (2) How many AI agents does your company currently have deployed in production across your organization?

<sup>3</sup> Telco executives: n=484; Question: What % of your future AI budget is being allocated to agents?

<sup>4</sup> Telco executives: n=489; Question: Which of the following factors are MOST important to your company when considering LLM providers?

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01

# The agentic shift

# AI agents have arrived

The breadth of agentic AI adoption in the telecommunications industry is striking.

Implementations range from gen AI-powered chatbots that answer questions, to single-task agents focused on a specific function like creative assistance, to sophisticated multi-agent systems that combine advanced AI models with access to tools so they can take actions on your behalf, under your control.



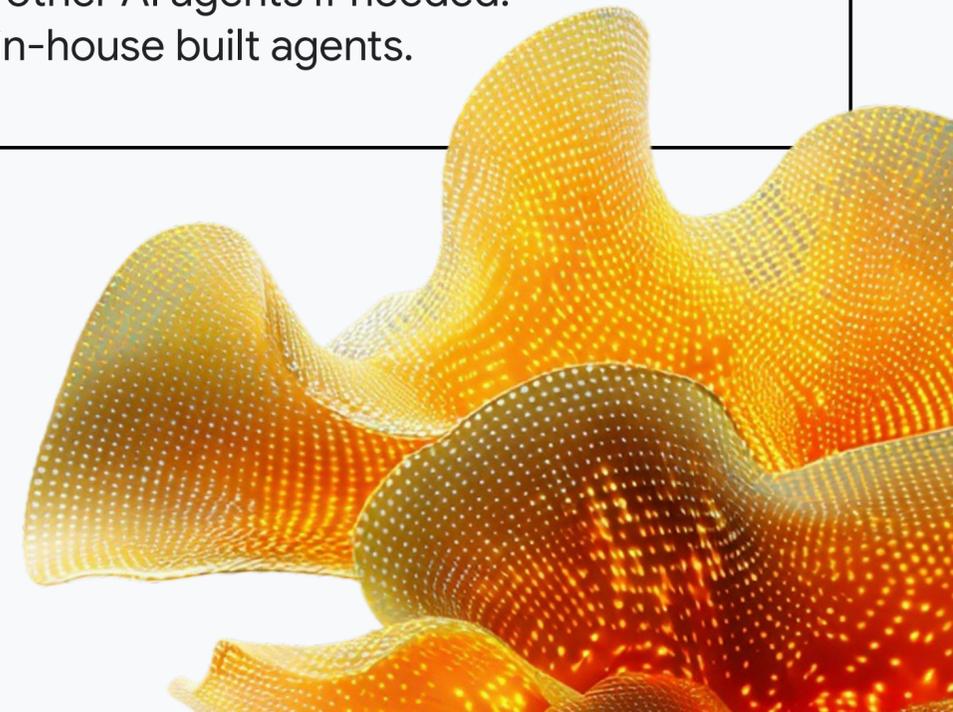
# 56%

of telecommunications executives whose organizations use gen AI also have adopted AI agents in production<sup>5</sup>

## Definition of AI agents used in the survey

**AI agents** are specialized LLMs that have specific roles, context, and objectives to independently plan, reason, and perform tasks with access to data function call APIs and can interact with other AI agents if needed. These can be pre-built or in-house built agents.

<sup>5</sup> Telco executives: n=489; Question: (1) How are AI agents leveraged across the enterprise? (2) How many AI agents does your company currently have deployed in production across your organization?



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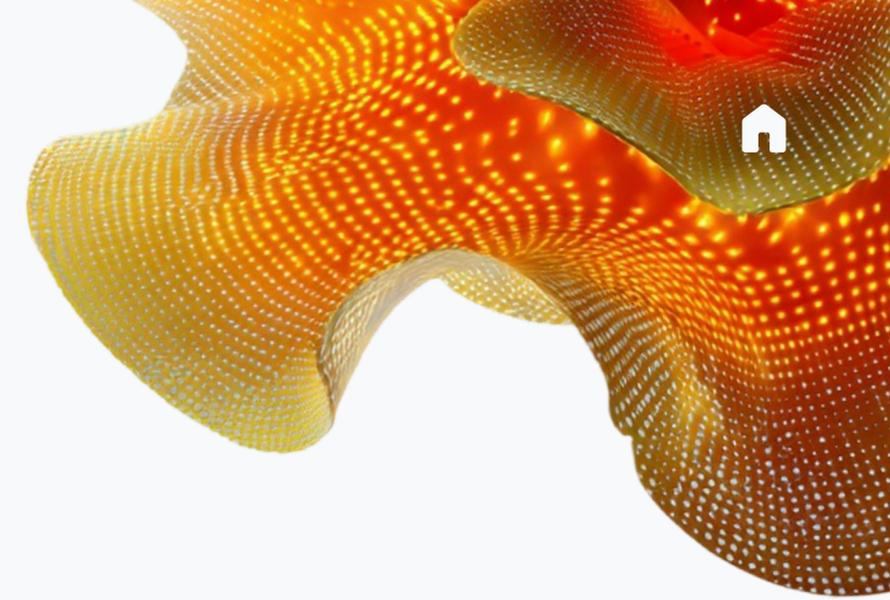


This surge in AI adoption reflects a fundamental mindset shift: from viewing AI as a mere tool to recognizing it as a collaborative partner available 24/7. At TELUS, we've seen this firsthand—over 57,000 team members regularly use AI and save 40 minutes per AI interaction.”



**Jaime Tatis**

Chief AI Officer, TELUS



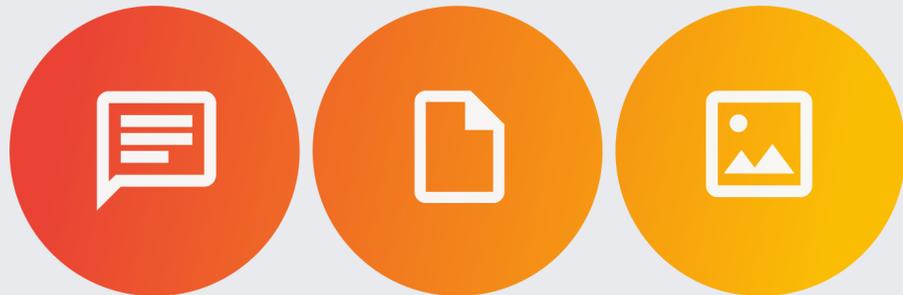
# Levels of AI agent maturity

## Level 1 Simple tasks

Chatbots

Information retrieval

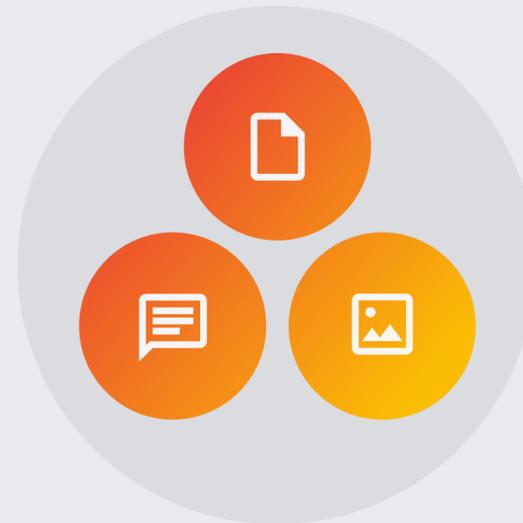
Image generation



## Level 2 AI agent applications

Customer service AI agents

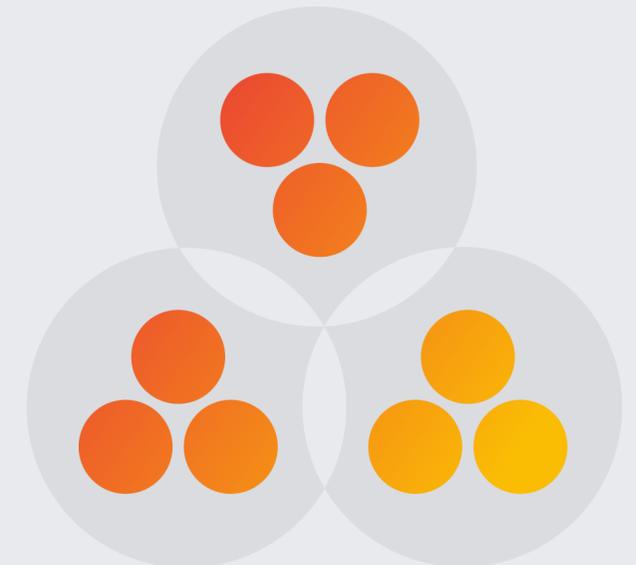
Creative agents



## Level 3 Multi-agent workflows

Agentic workflows

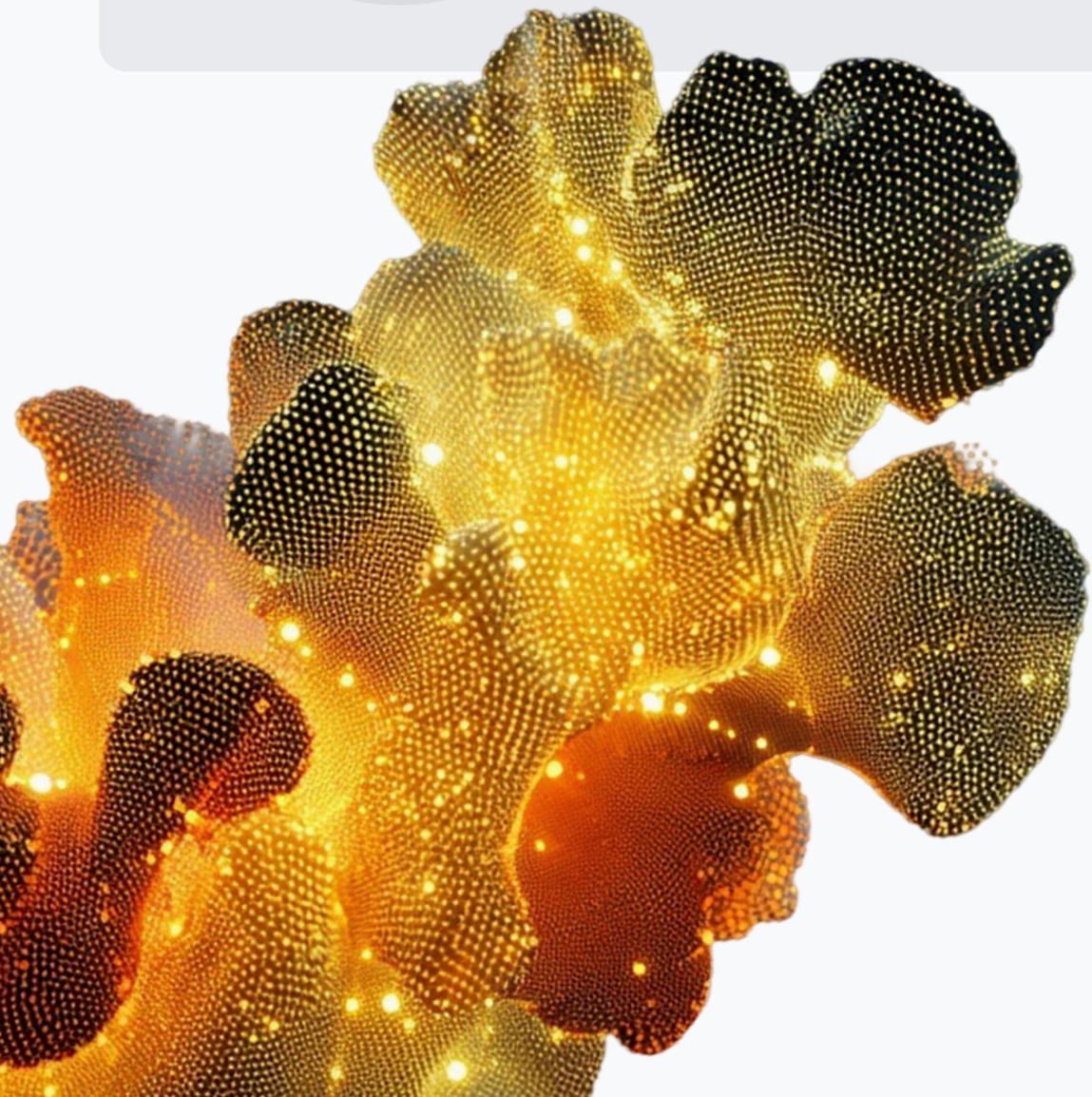
Agent orchestration



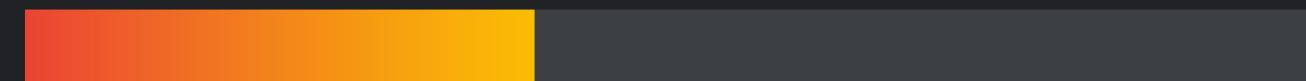


**43%**

of telecommunications executives say their organizations have launched more than 10 AI agents<sup>6</sup>

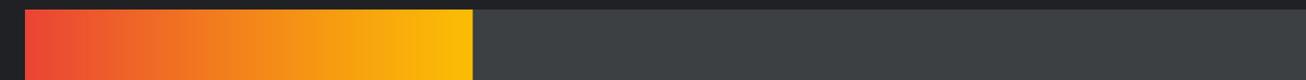


## How AI agents are being used<sup>7</sup>



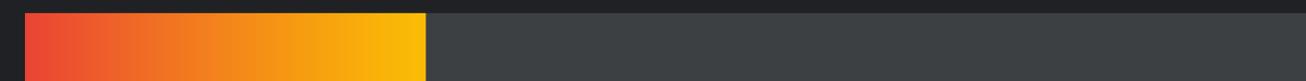
**39%**

use them for network or equipment configuration and automation



**34%**

use them for network remediation



**32%**

have deployed network agents

<sup>6</sup> Telco executives: n=489; Question: How many AI agents does your company currently have deployed in production across your organization?  
<sup>7</sup> Telco executives whose organization is leveraging agentic AI: n=274; Question: What use cases has your company deployed AI agents for?

# Agentic AI use cases in action

AI agents are now actively tackling a range of challenges in the telecommunications industry.

From enhanced security operations and cybersecurity (47%) to tech support (46%) and customer service and experience (45%),<sup>8</sup> these applications are helping people get more done.

However, agentic AI adoption for core business processes, such as network or equipment configuration and automation (39%), network remediation (34%), network agents (32%), and field operations assistants (31%)<sup>8</sup> have the potential for truly differentiating impact in the future.

These use cases directly support the most strategic business areas—enabling a shift toward self-optimizing and fully automated operations, and leading to significant efficiencies and improved user experiences. For instance, network agents can proactively detect anomalies and orchestrate configuration changes to automate fixes and minimize downtime.

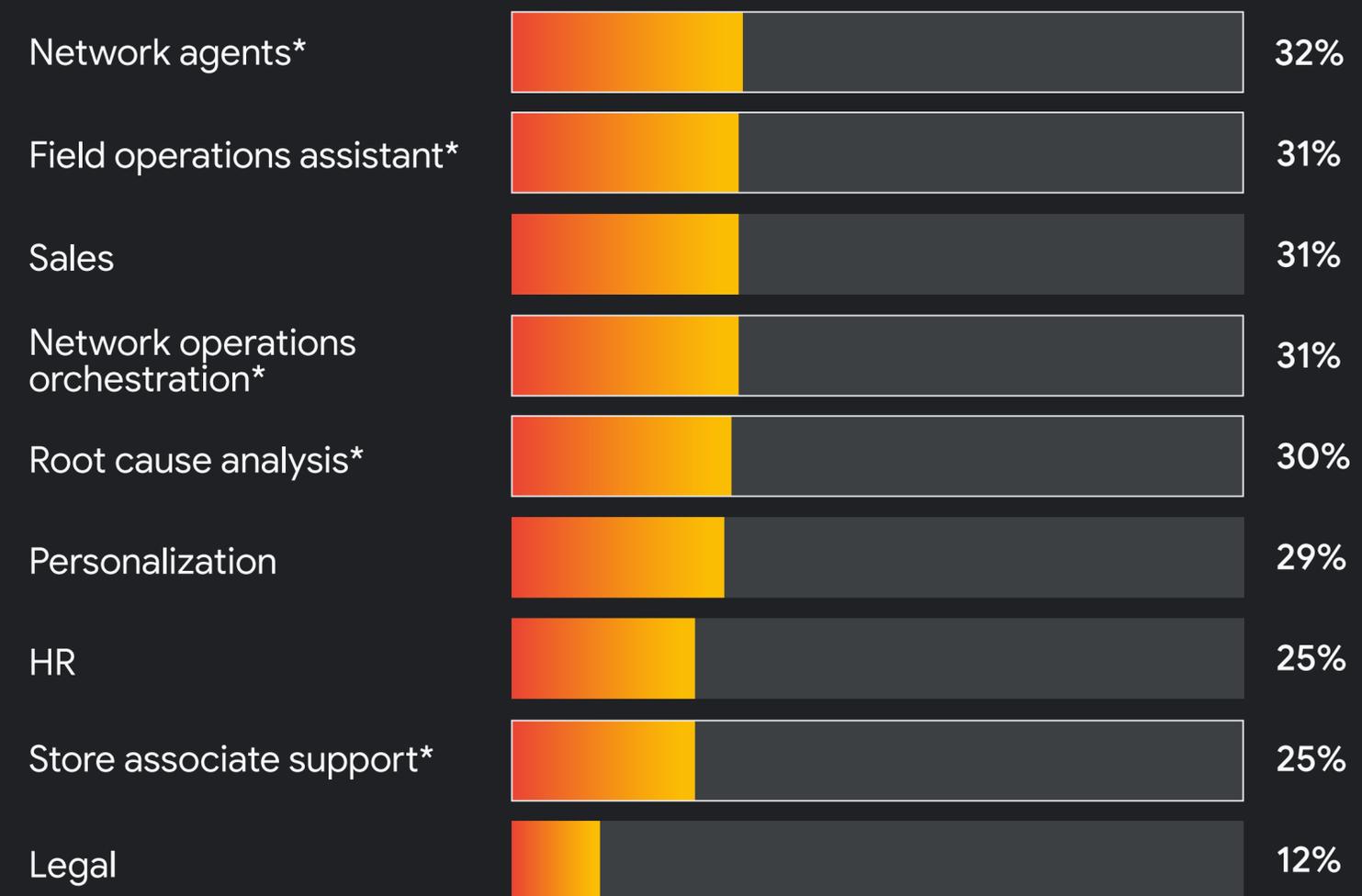
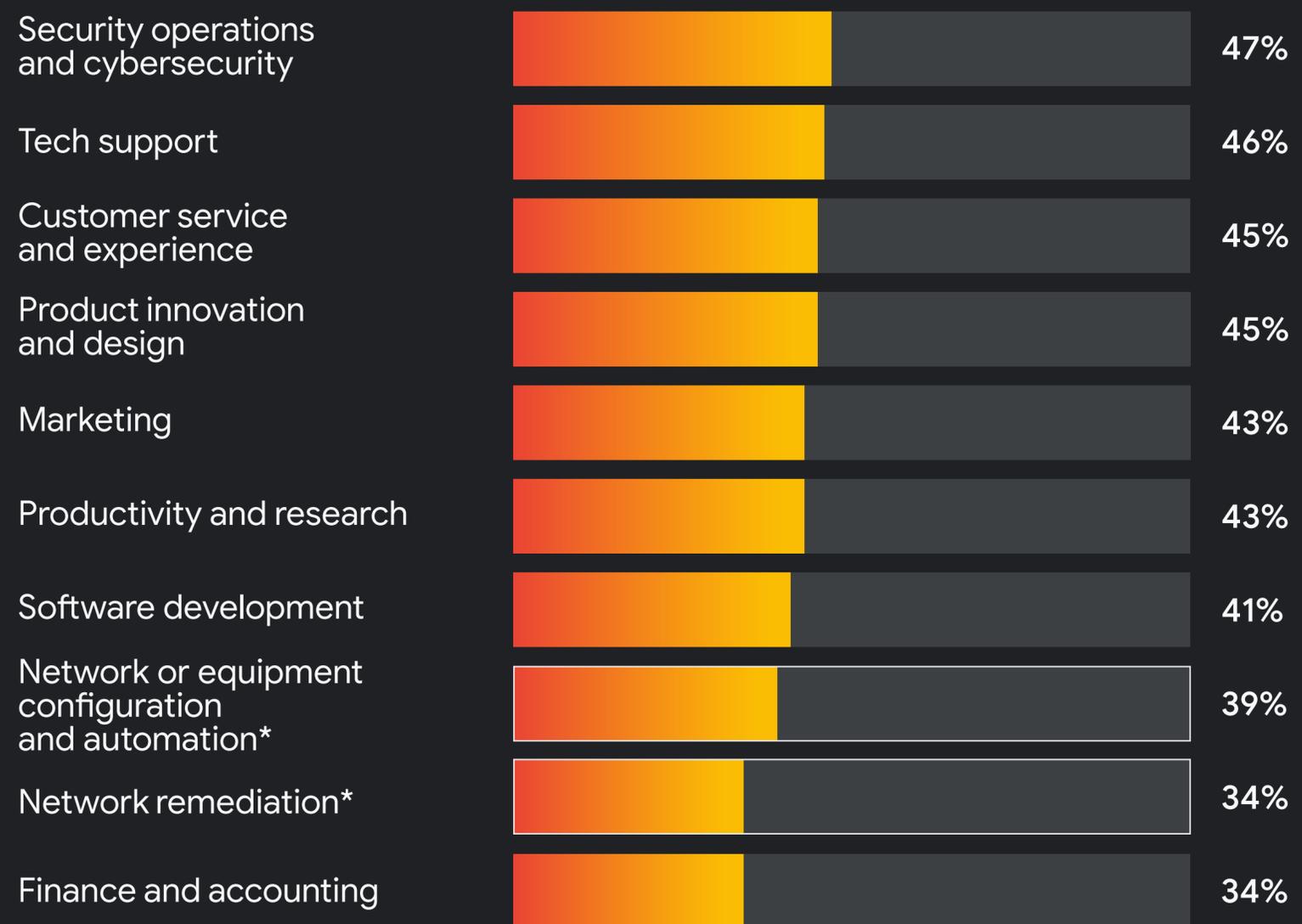
Ultimately, AI agent adoption in core business areas will lay the foundation for more complex use cases within the telecommunications industry.

<sup>8</sup> Telco executives whose organization is leveraging agentic AI: n=274; Question: What use cases has your company deployed AI agents for?



# Top AI agent use cases in telecommunications

\* Core industry use cases



Telco executives whose organization is leveraging agentic AI: n=274; Question: What use cases has your company deployed AI agents for?



“



Globe

I believe the explosive growth of AI agents comes down to a simple formula: the tech got good, cheap, and easy all at once.”



**Francis Pugeda**

Director, AI Product Development, Globe Telecom



# The ROI of AI agents

AI agent use cases already show ROI, with customer service and experience (36%) leading the way.<sup>9</sup>

However, the biggest ROI opportunities exist in core telecommunications use cases, such as network or equipment configuration and automation (27%), network remediation (22%), network agents (19%), and field operations assistants (19%).<sup>9</sup> The value of these core areas—even those with longer implementation horizons—stems from their direct impact on revenue generation, risk mitigation, efficiencies, and ability to compete.

For example, network agents, via agentic workflows, can proactively route traffic and adjust capacity to optimize network resource utilization in real time.

For field operations, agentic AI can automate field job assignments resulting from detected equipment failures, and predict and inform on necessary maintenance for increased efficiency.

These applications are transforming the industry by directly supporting the most differentiating business areas. This strategic focus on tangible outcomes, rather than experimentation, underscores the industry's pragmatic and risk-aware approach to AI investment.

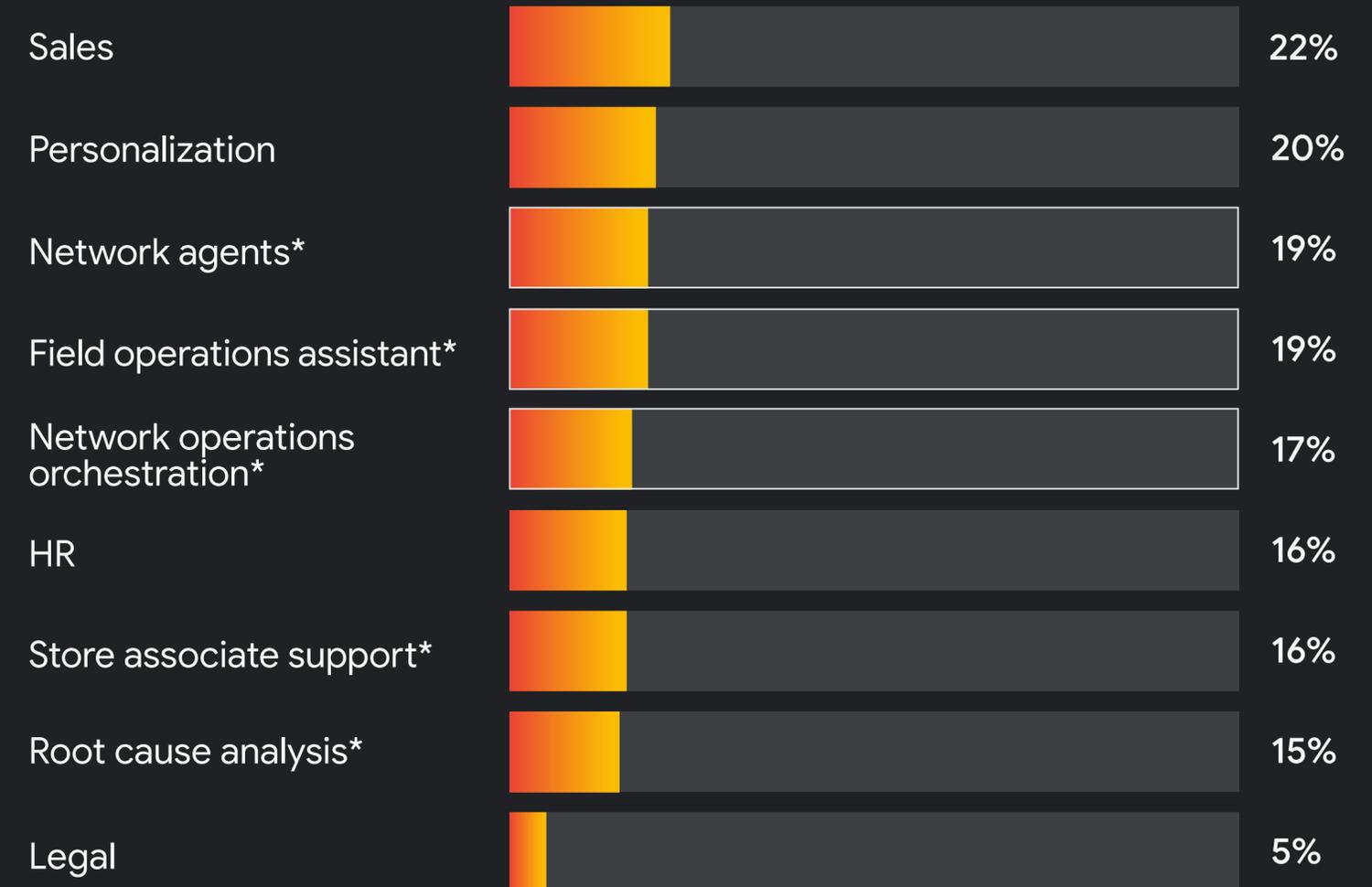


<sup>9</sup> Telco executives whose organization is leveraging agentic AI: n=272; Question: Which of the AI agent types that your company has deployed have seen ROI?



# Top AI agent use cases that have already shown ROI

\* Core industry use cases



Telco executives whose organization is leveraging agentic AI: n=272; Question: Which of the AI agent types that your company has deployed have seen ROI?



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We are embracing AI not merely for immediate returns, but with a conviction in its long-term, foundational impact.”



**Vishal Gupta**

Chief Procurement Officer, Indosat





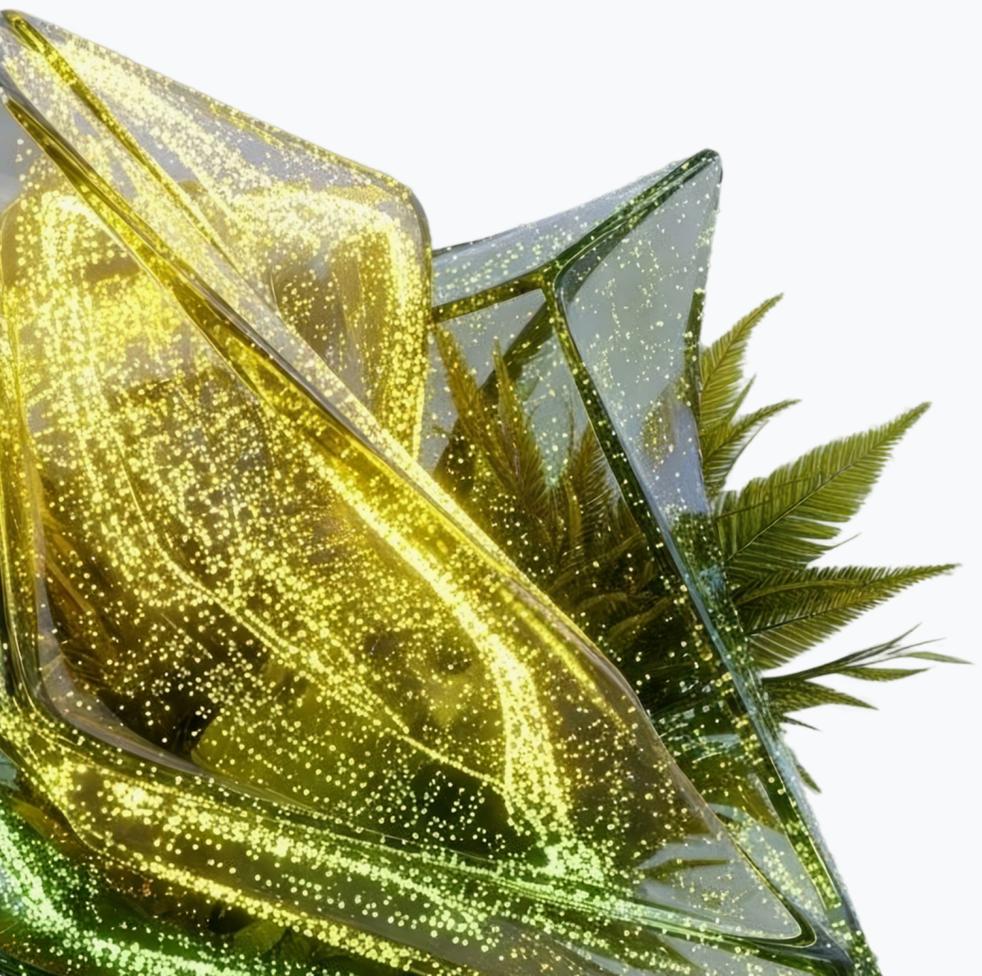
02

# 5 proven areas where AI is delivering ROI

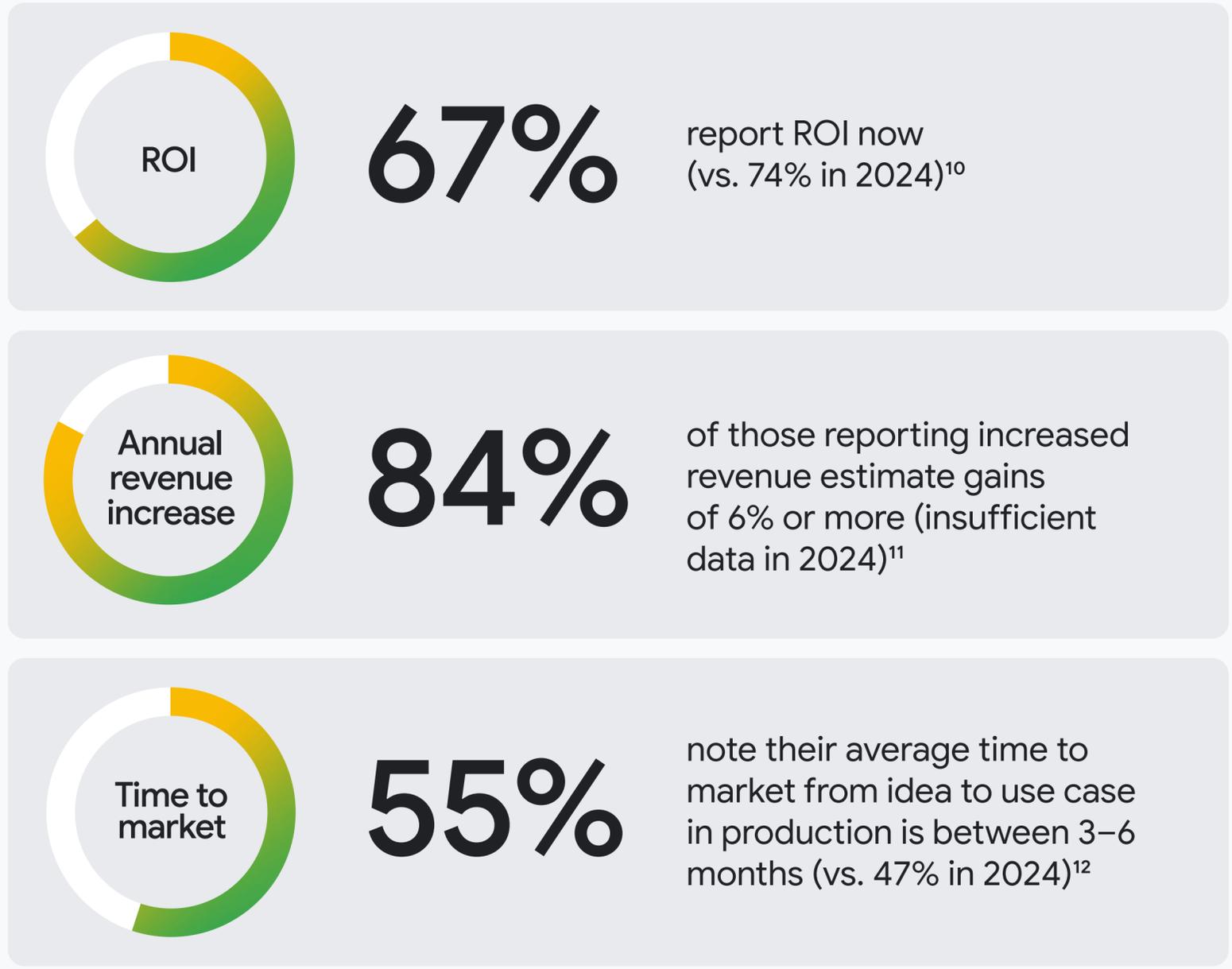


While AI agents represent the new frontier, the foundational value of gen AI continues to deliver compounding returns.

Our research shows five key areas where gen AI continues to drive significant impact for telecommunications organizations. After 2024 proved that gen AI really works, 2025 is all about building on that success.



Our survey assessed the direct value of gen AI across key areas using these 3 measures:



<sup>10</sup> Telco executives: 2024: n=193, 2025: n=489; Question: In what timeframe do you expect gen AI to deliver ROI to the following areas of your business?  
<sup>11</sup> Telco executives reporting increased revenue from gen AI solutions: 2024: Insufficient sample size, 2025: n=186; Question: (1) In what ways did your company experience business growth as a direct result of gen AI? (2) Based on your past/existing gen AI initiatives, how much did gen AI directly increase overall annual company revenue?  
<sup>12</sup> Telco executives: 2024: n=192, 2025: n=489; Question: What is the average time to market from idea to use case in production?



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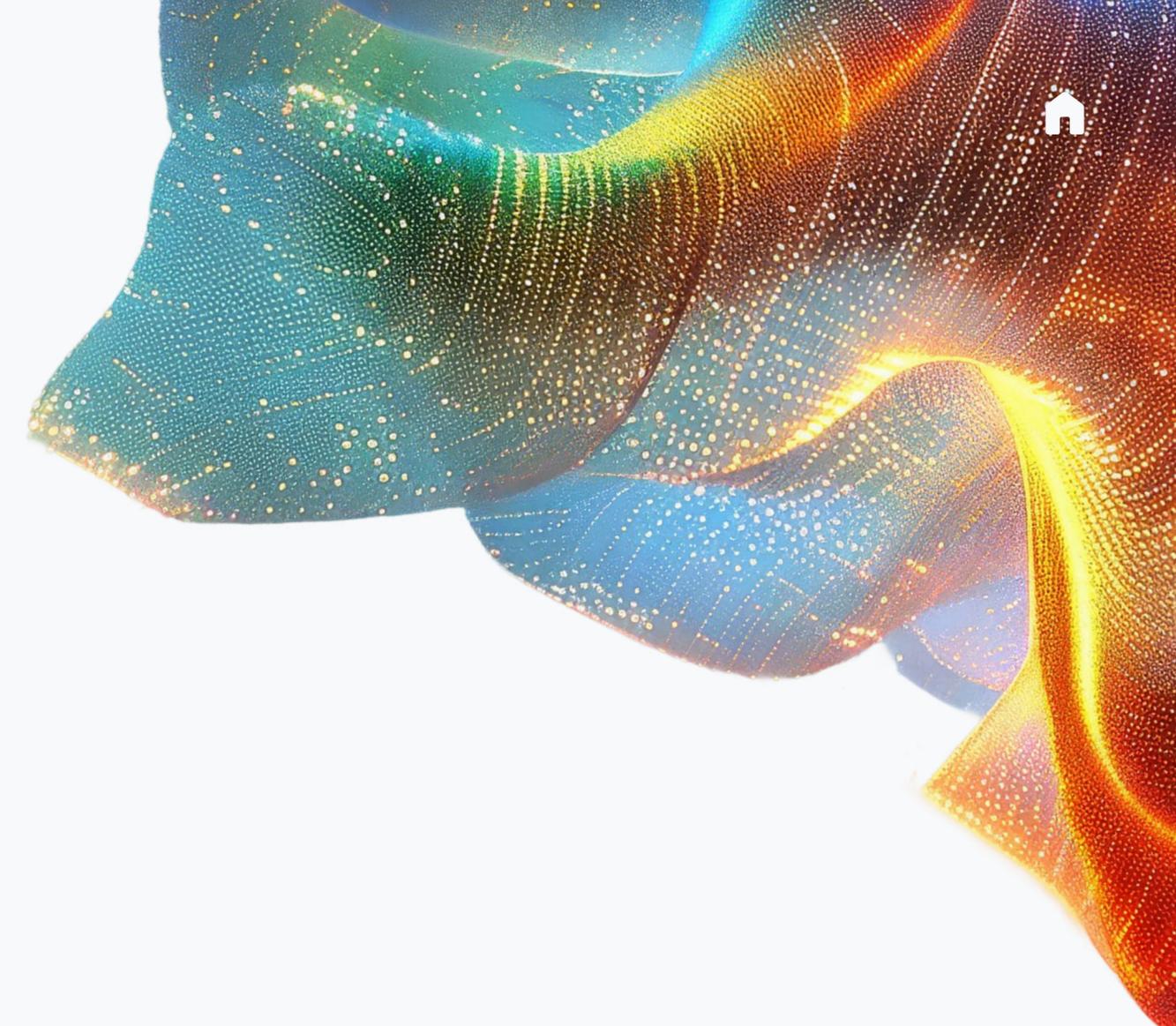


With new low-code tools, our experts in marketing, finance, or operations can build their own simple AI helpers to solve their problems.”



**Francis Pugeda**

Director, AI Product Development, Globe Telecom





# Top gen AI impacts across business areas

Business benefits are used to measure the health of technology transformation initiatives and serve as leading indicators of financial performance.



Telco executives: 2024: n=193, 2025: n=489; Question: In which of the following areas have your gen AI solutions created meaningful impact?



# Productivity

Gen AI's impact on productivity has begun to slow down in the telecommunications industry.

However, the underlying metrics reveal that its value remains strong. Among those reporting increased productivity, IT process and staff productivity jumped from 59% in 2024 to 72% in 2025.<sup>13</sup> The productivity increase is less about automating entire roles and more about reducing the “digital busywork,” allowing engineers to reallocate time toward innovation.

Crucially, significantly more executives report that gen AI is helping their organizations get insights faster (from 45% in 2024 to 58% in 2025).<sup>13</sup> Gen AI's strength lies in collapsing the “data-to-question” barrier and making sense of unstructured data such as ticket logs, network configuration files, and customer service transcripts.

Adoption across different functions and departments can reduce the dependency on specialized data science teams.

Despite gen AI's impact on productivity falling slightly, more executives report that productivity has more than doubled (11% in 2024 vs. 21% in 2025).<sup>14</sup> This may suggest that a small cohort of telecommunications providers are achieving truly transformative gains, far outpacing the rest.

# 61%

report gen AI has improved productivity (vs. 64% in 2024)<sup>15</sup>

# 21%

indicate their employee productivity has more than doubled as a result of gen AI (of those reporting increased organizational productivity) (vs. 11% in 2024)<sup>14</sup>

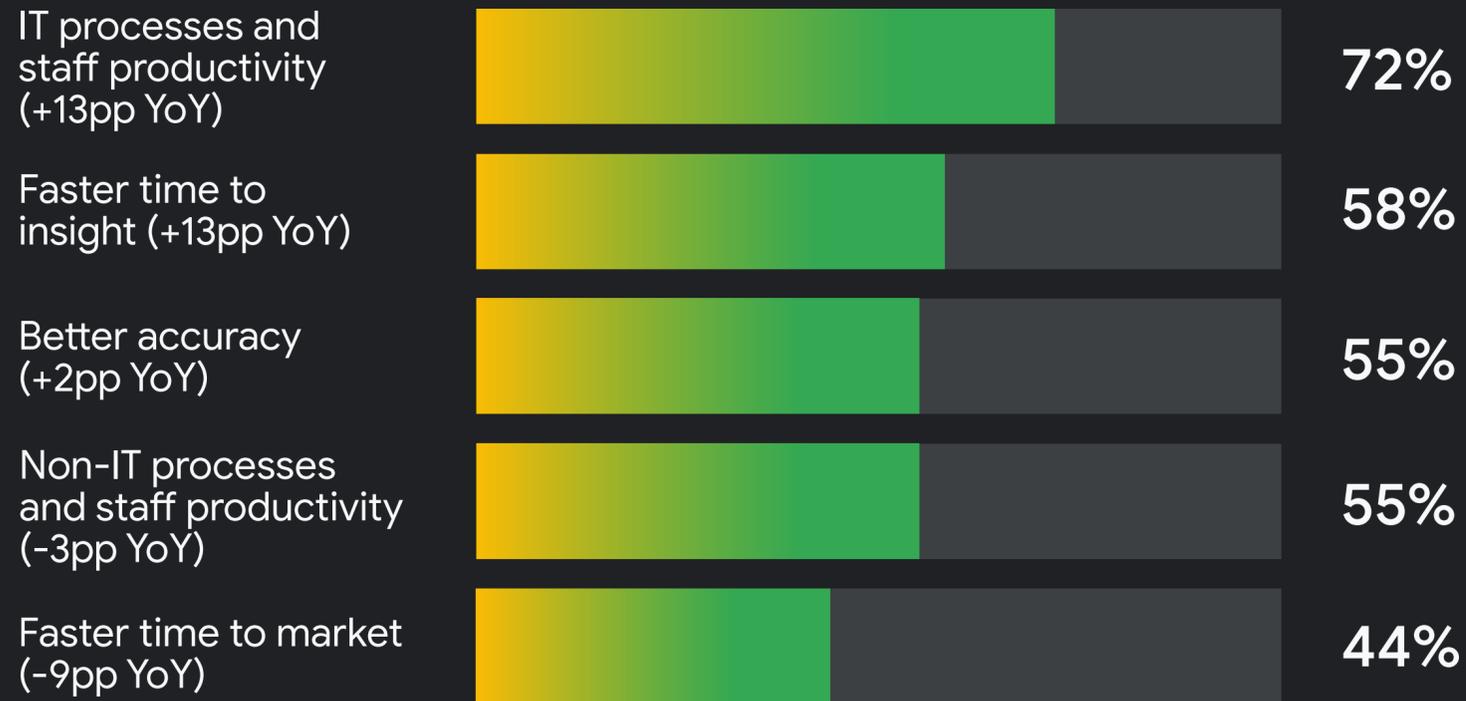
<sup>13</sup> Telco executives reporting improved productivity from gen AI solutions: 2024: n=120, 2025: n=297; Question: (1) When gen AI helped your employees increase productivity, what was the approximate average % increase in their productivity over a sustained period of time (e.g., several months)? (2) In what ways did gen AI directly increase productivity for your company?

<sup>14</sup> Telco executives reporting improved productivity from gen AI solutions: 2024: n=123, 2025: n=300; Question: When gen AI helped your employees increase productivity, what was the approximate average % increase in their productivity over a sustained period of time (e.g., several months)?

<sup>15</sup> Telco executives: 2024: n=193, 2025: n=489; Question: In which of the following areas have your gen AI solutions created meaningful impact?



## Improved employee productivity resulting from gen AI solutions



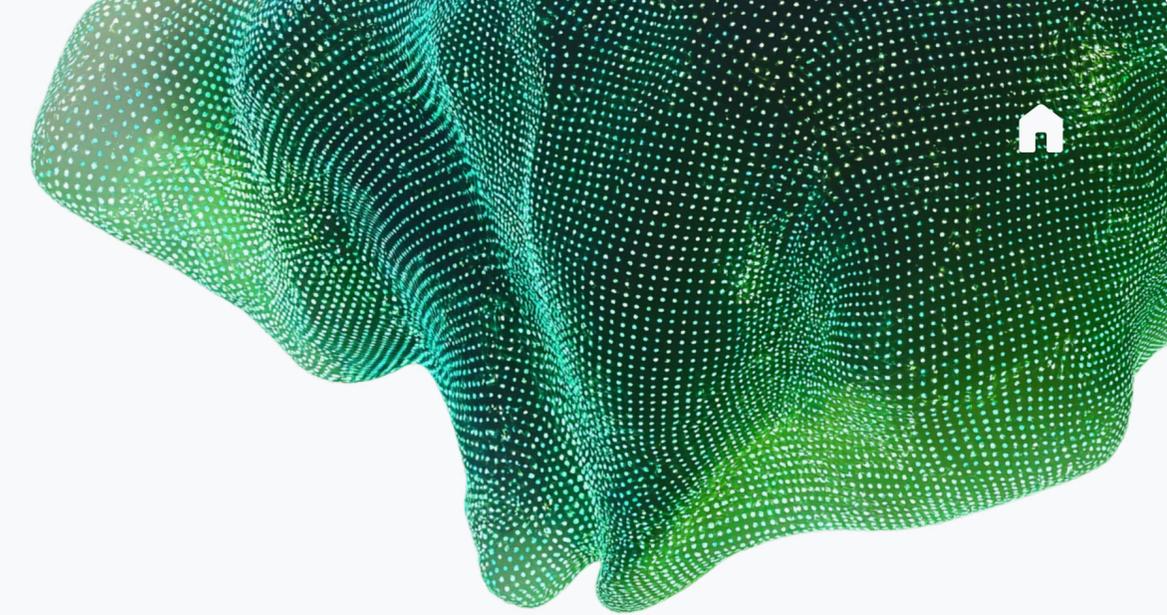
Telco executives reporting improved productivity from gen AI solutions: 2024: n=120, 2025: n=297; Question: In what ways did gen AI directly increase productivity for your company?

## Key area where AI is driving ROI

# 31%

saw ROI on gen AI use cases for individual productivity (emails, documents, presentations, meetings, chat) (vs. 23% in 2024)<sup>16</sup>

<sup>16</sup> Telco executives whose organization is currently using or planning to use gen AI for individual productivity: 2024: n=181, 2025: n=450; Question: In what timeframe do you expect gen AI to deliver ROI to the following areas of your business?



“



We see all employees at Indosat having a personal agent to amplify our capabilities and improve our overall impact.”



**Vishal Gupta**

Chief Procurement Officer, Indosat



# Customer experience

Gen AI continues to help improve customer experience in the telecommunications industry.

For those already seeing results, gen AI is proving to be a primary engine for customer engagement and satisfaction, positively impacting net promoter score (NPS). On top of that, 84% of executives reporting improved customer experience from gen AI cite improvement of 6% or more.<sup>17</sup>

These improvements reflect gen AI's ability to tackle a key customer service challenge: providing personalized and timely support. A service disruption, particularly when combined with nuanced questions that aren't being answered effectively, can lead to customer frustration.

Gen AI can assist customers with conversational support for complex issues, or by helping call center representatives deliver faster, more accurate responses. Organizations are capitalizing on these capabilities, transforming what was once a source of customer resentment into a driver of satisfaction and loyalty.

60%

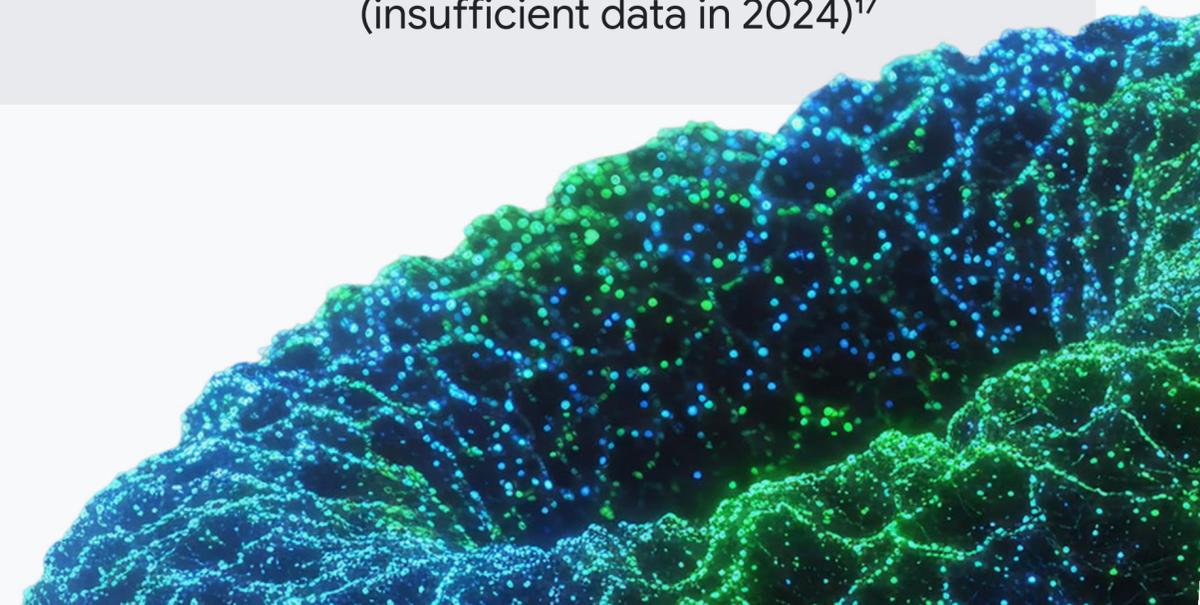
report gen AI has improved customer experience (vs. 51% in 2024)<sup>18</sup>

84%

indicate improvement in customer experience of 6% or more (of those reporting improved customer experience) (insufficient data in 2024)<sup>17</sup>

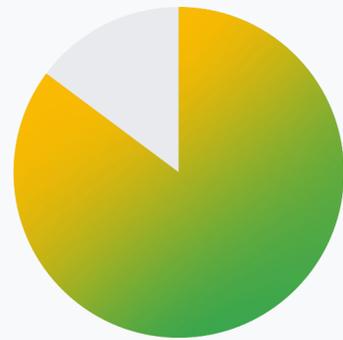
<sup>17</sup> Telco executives reporting improved customer experience from gen AI solutions: n=290; Question: (1) In what ways did your company experience improved user experience as a direct result of gen AI? (2) Based on your past/existing gen AI initiatives, how much did gen AI directly improve user experience?

<sup>18</sup> Telco executives: 2024: n=193, 2025: n=489; Question: In which of the following areas have your gen AI solutions created meaningful impact?



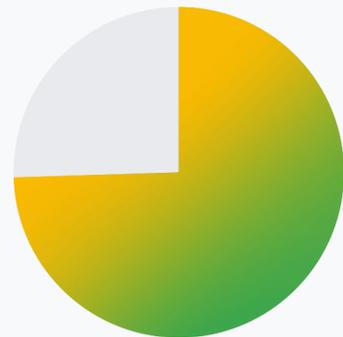


## Impact on customer experience resulting from gen AI solutions



# 86%

increased user engagement (i.e., engagement score, traffic or click through rate (CTR), time on site)



# 74%

improved patient satisfaction/ Net Promoter Score

Telco executives reporting improved customer experience from gen AI solutions: n=291; Question: In what ways did your company experience improved user experience as a direct result of gen AI?

## Key area where AI is driving ROI

# 29%

saw ROI on gen AI use cases for customer experience and field service (including chat, call centers, and in-field technician support) (vs. 22% in 2024)<sup>19</sup>

“



**Globe**

We’re automating the ‘work before the work’—the grunt work like pulling data for weekly reports, summarizing long meeting transcripts, or answering repetitive support questions. This frees us all to focus on what truly requires a human mind: interpreting what that data means for the business, solving a complex client problem, or innovating our next product.”



**Francis Pugeda**

Director, AI Product Development, Globe Telecom

<sup>19</sup> Telco executives whose organization is currently using or planning to use gen AI for customer experience & field service: 2024: n=180, 2025: n=465; Question: In what timeframe do you expect gen AI to deliver ROI to the following areas of your business?

# Business growth

Gen AI's impact on business growth is more subdued this year.

Slightly fewer executives reported business growth due to gen AI.<sup>20</sup> This trend suggests a maturing landscape where initial, broad-stroke gains are more challenging to achieve. Organizations are now moving from readily achievable improvements to more complex integrations of gen AI for core process optimizations involving network and equipment configuration, remediation, and automation. These may take longer to translate into widespread business growth.

Among those reporting that gen AI has resulted in increased revenue, 84% of them report an increase in overall annual revenue of 6% or more.<sup>21</sup> This indicates that getting value from gen AI depends on moving past pilots into scaled, integrated deployments that are aligned with the business growth strategy.

<sup>20</sup> Telco executives: 2024: n=193, 2025: n=489; Question: In which of the following areas have your gen AI solutions created meaningful impact?

<sup>21</sup> Telco executives reporting increased revenue from gen AI solutions: n=186; Question: (1) In what ways did your company experience business growth as a direct result of gen AI? (2) Based on your past/existing gen AI initiatives, how much did gen AI directly increase overall annual company revenue?

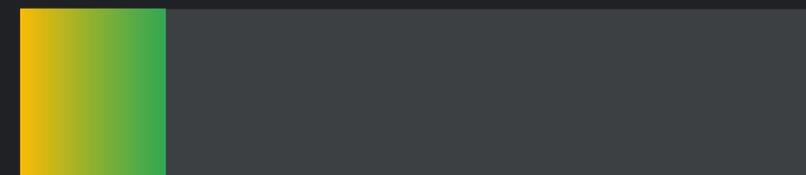


## 53%

report gen AI has resulted in business growth (vs. 64% in 2024)<sup>20</sup>

## Revenue growth resulting from gen AI solutions

Increased overall annual revenue between 1–5%



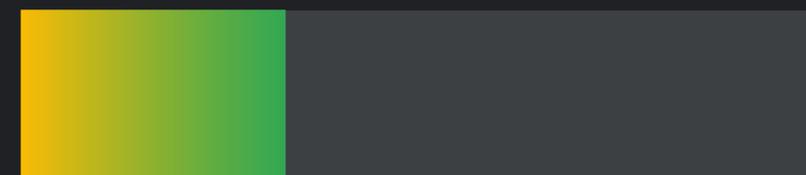
16%

Increased overall annual revenue between 6–10%



51%

Increased overall annual revenue more than 10%



33%

Telco executives reporting increased revenue from gen AI solutions: n=186; Question: (1) In what ways did your company experience business growth as a direct result of gen AI? (2) Based on your past/existing gen AI initiatives, how much did gen AI directly increase overall annual company revenue?

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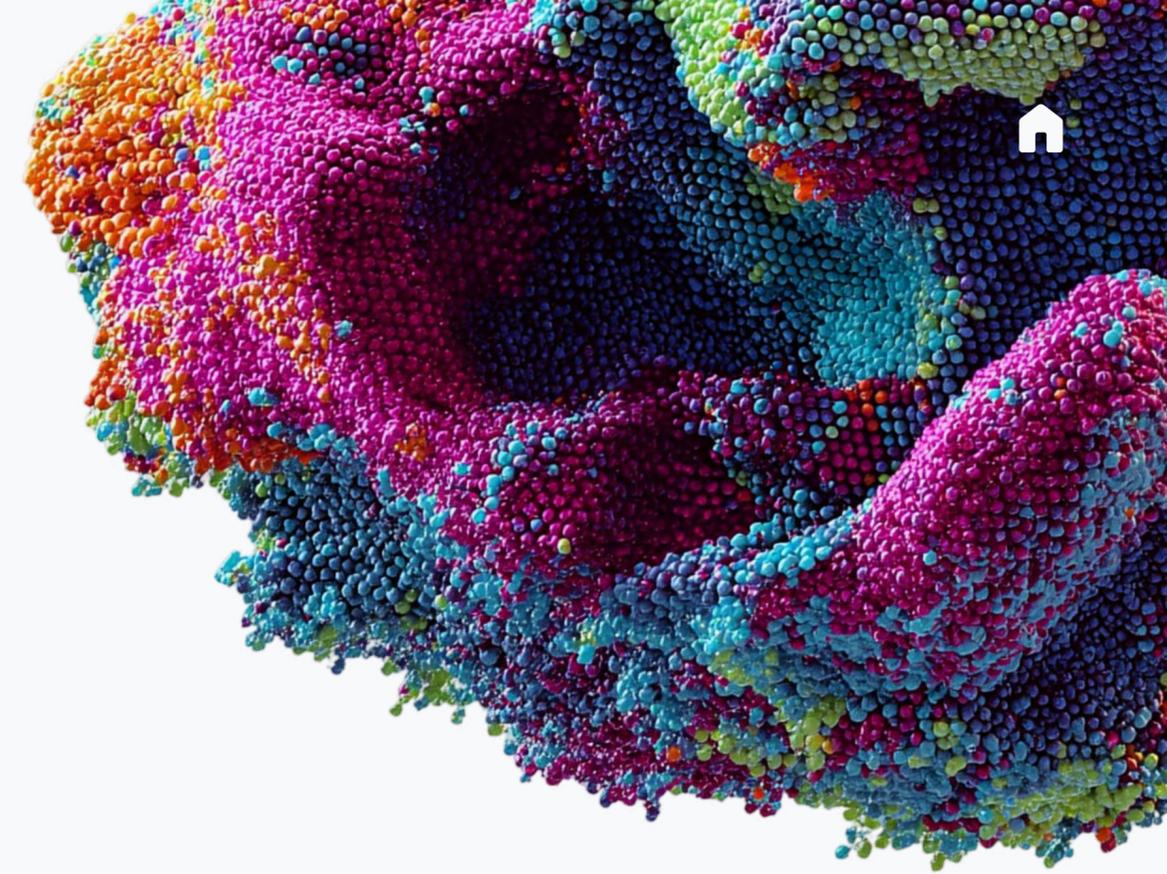


Gen AI solutions have already driven over \$90 million in benefits to date, in addition to our AI and machine learning solutions that have generated over \$200 million in benefits since 2023.”



**Jaime Tatis**

Chief AI Officer, TELUS





# Security

Given the high value of customer data and network operations, gen AI's ability to improve the security posture for telecommunications organizations is critical.

More executives reported a meaningful impact on security posture compared to 2024.<sup>22</sup> Among them, 82% indicated that gen AI solutions have improved their ability to identify threats and 72% report improved intelligence and response integration,<sup>23</sup> suggesting that gen AI continues to deliver foundational benefits.

# 51%

report gen AI has resulted in meaningful impact to security posture (vs. 46% in 2024)<sup>22</sup>

<sup>22</sup> Telco executives: 2024: n=193, 2025: n=489; Question: In which of the following areas have your gen AI solutions created meaningful impact?

<sup>23</sup> Telco executives reporting improved security posture from gen AI solutions: 2024: Insufficient sample size, 2025: n=250; Question: Based on your past/existing gen AI initiatives, how did gen AI directly improve your company's security posture?

## Improved security resulting from gen AI solutions



# 82%

improved ability to identify threats



# 72%

improved intelligence and response integration



# 58%

reduction in time to resolution



# 50%

reduction in number of security tickets

Telco executives reporting improved security posture from gen AI solutions: n=250; Question: Based on your past/existing gen AI initiatives, how did gen AI directly improve your company's security posture?

# Marketing

The telecommunications landscape is characterized by a proliferation of products, services, sales channels, and advertising formats all vying for consumers' limited attention.

Gen AI is already driving marketing outcomes in a meaningful way. However, fewer executives reported ROI on gen AI in sales and marketing this year, suggesting that the initial boost is running into diminishing returns. Achieving higher ROI will require deeper integrations and strategic data access to support more sophisticated use cases, such as creating hyper-personalized, multi-channel campaigns or automating complex sales qualification.

Getting it right will pay off down the track, helping maximize engagement, build trust, and increase conversions down the funnel, resulting in new customer acquisition.

<sup>24</sup> Telco executives: n=489; Question: In which of the following areas have your gen AI solutions created meaningful impact?

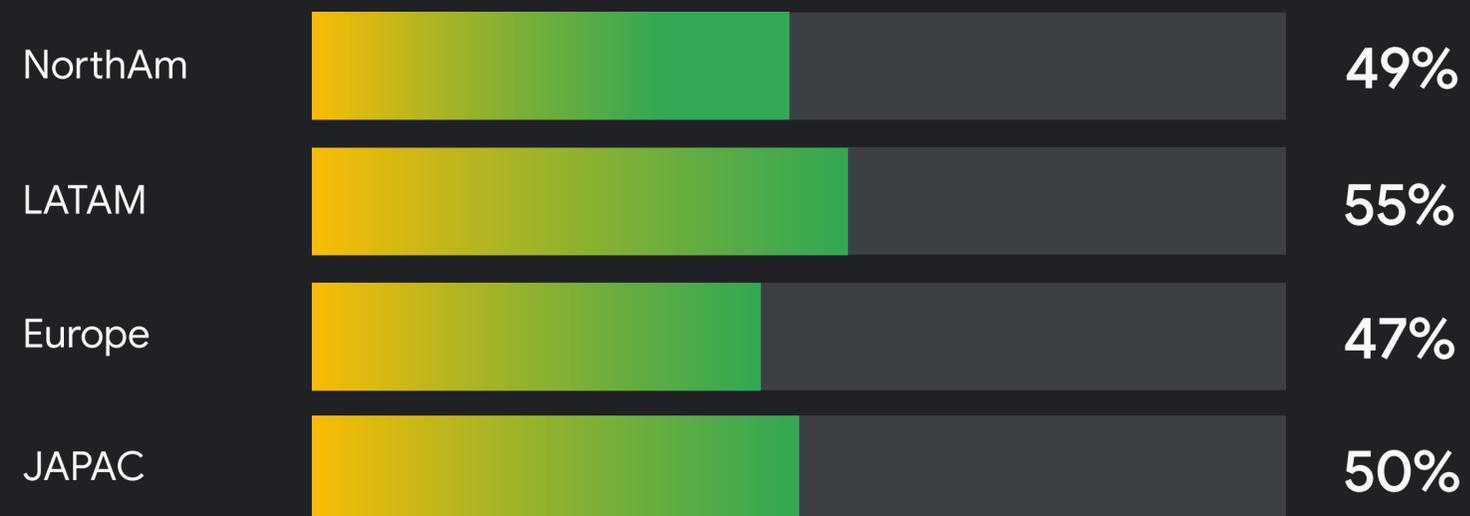
<sup>25</sup> Telco executives whose organization is currently using or planning to use gen AI for sales and marketing: 2024: n=185, 2025: n=457; Question: In what timeframe do you expect gen AI to deliver ROI to the following areas of your business?



## 49%

report gen AI has resulted in meaningful impact to marketing outcomes (new to 2025)<sup>24</sup>

### Improved marketing resulting from gen AI solutions across regions



Telco executives: NorthAm: n=158, LATAM: n=110, Europe: n=102, JAPAC: n=106; Question: In which of the following areas have your gen AI solutions created meaningful impact?

### Key area where AI is driving ROI

## 24%

saw ROI now on gen AI use cases for sales and marketing (field sales activities, marketing operations, and content creation) (vs. 30% in 2024)<sup>25</sup>

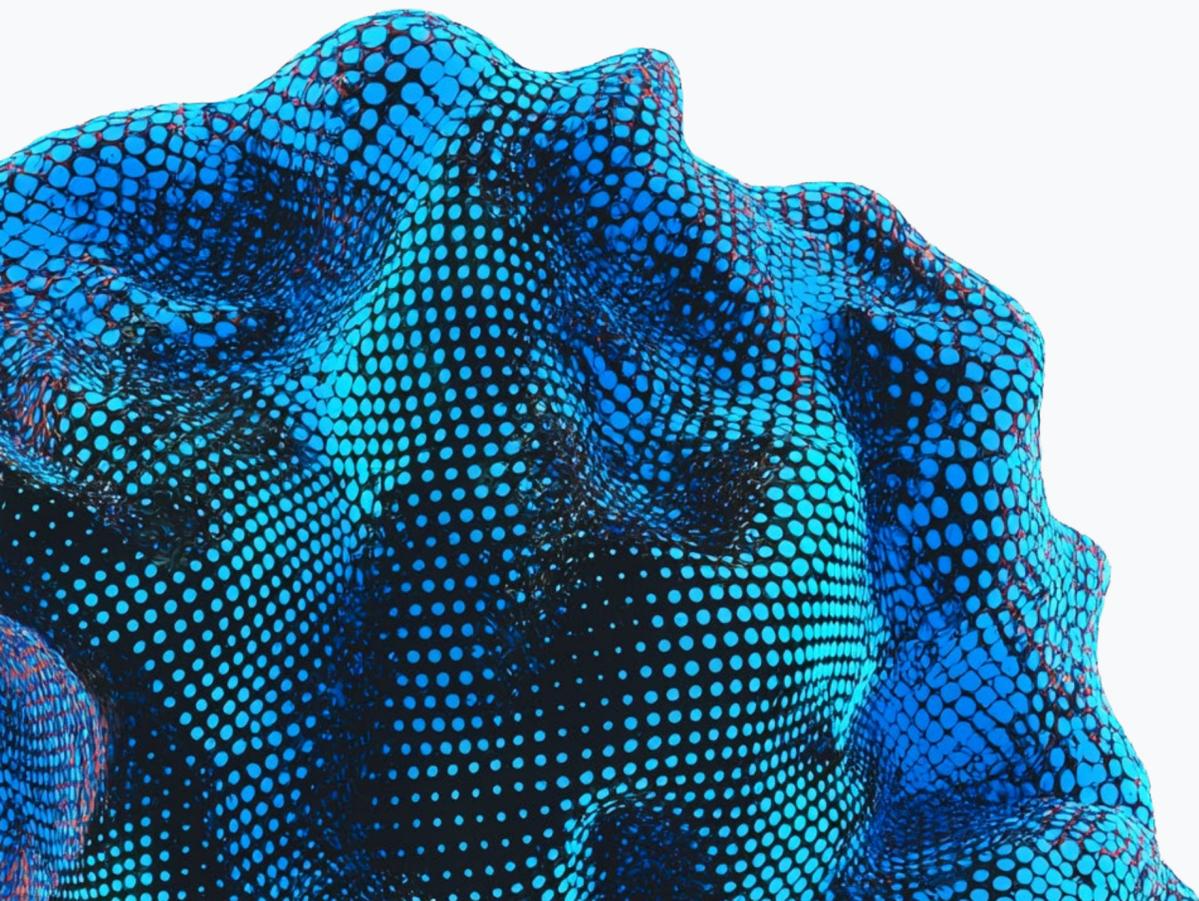


03

# Invest in the AI-ready future

# The maturation of AI signals a shift in business priorities.

As telecommunications providers make progress on foundational goals like increased operational efficiency and improved employee productivity, business objectives are shifting. The focus is now moving toward the next wave of innovation, with AI agents emerging as a new strategic objective.



## Top business objectives to pursue with gen AI within the following 2–3 years

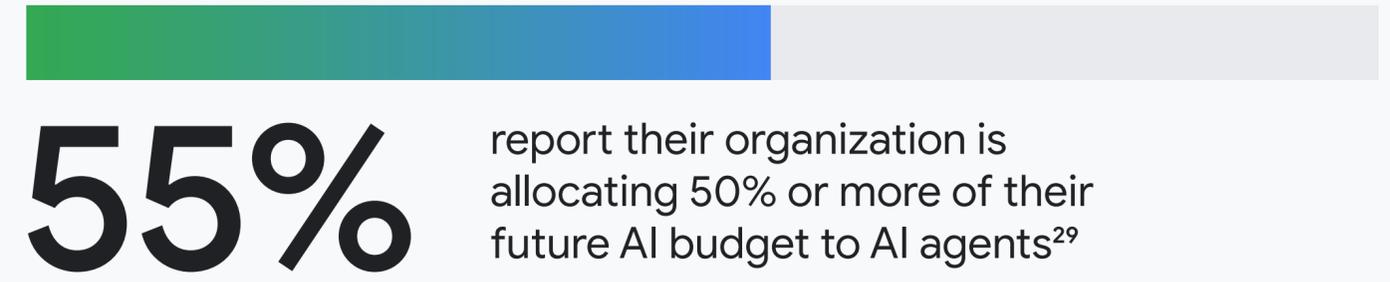
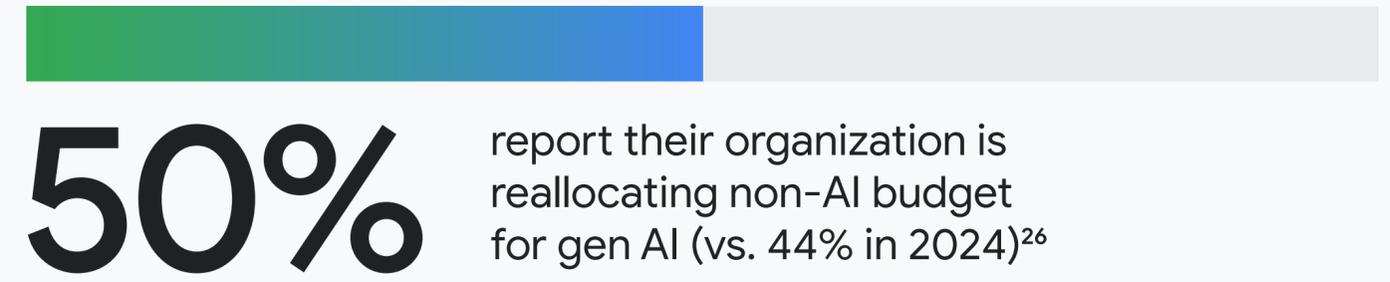
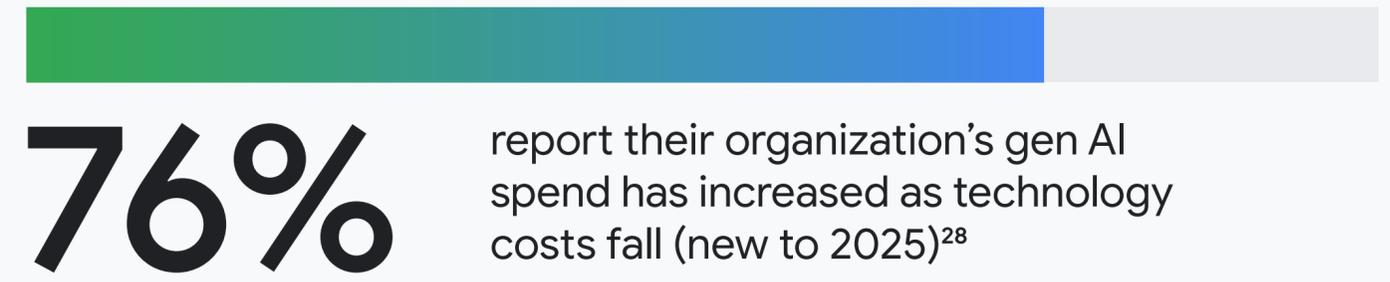
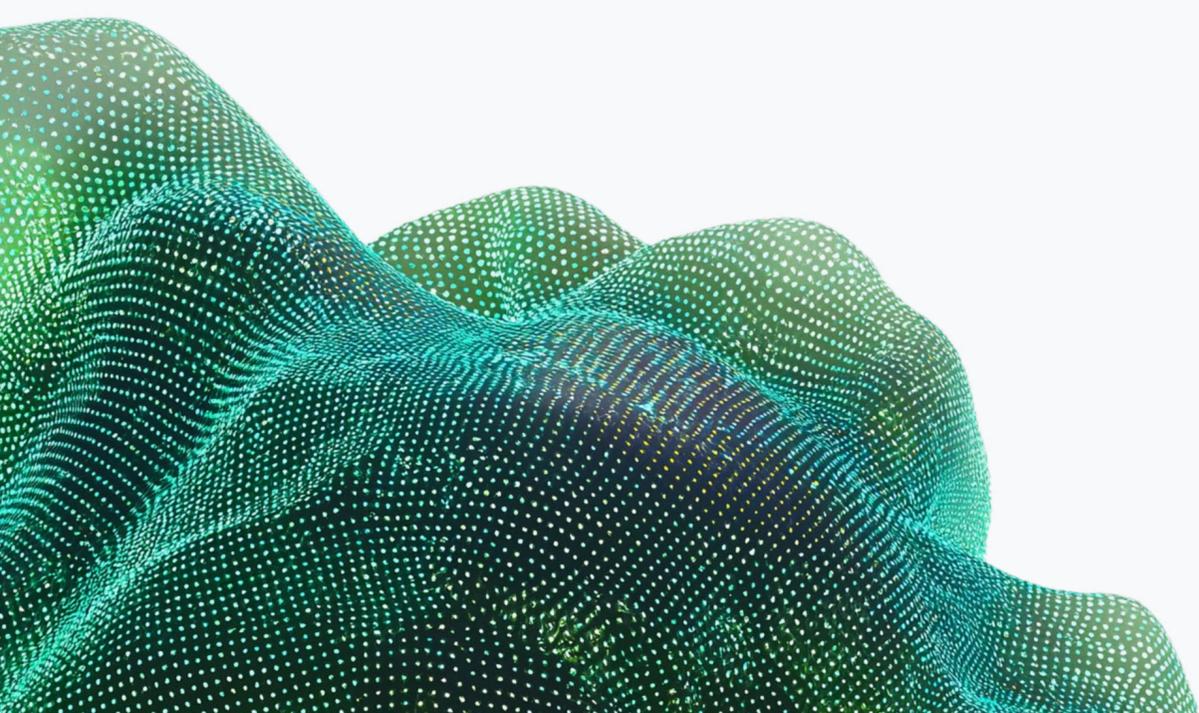


Telco executives: 2024: n=193, 2025: n=489; Question: In light of recently completed gen AI initiatives, which of the following business objectives are you planning to pursue with gen AI within the next 2–3 years?

# AI budgets are following suit

AI is now a mission-critical enterprise investment—evidenced by two clear trends.

Overall spending on AI is rising, even as technology costs fall. These investments are increasingly funded by reallocating capital from non-AI budgets,<sup>26</sup> in addition to 25% mean percent of total annual IT spend already allocated for AI.<sup>27</sup>



<sup>26</sup> Telco executives: 2024: n=193, 2025: n=489; Question: What is your approach to funding gen AI?  
<sup>27</sup> Telco executives: n=465; Question: What % of your total annual IT spend is allocated for AI? AI expenses would include talent, AI software licenses, AI hardware and infrastructure, AI application development. Please exclude data and BI analytics that are not directly using AI or ML.  
<sup>28</sup> Telco executives: n=489; Question: Did the decreasing costs of AI technology (model training and operating) change your spending on gen AI?  
<sup>29</sup> Telco executives: n=484; Question: What % of your future AI budget is being allocated to agents?

“

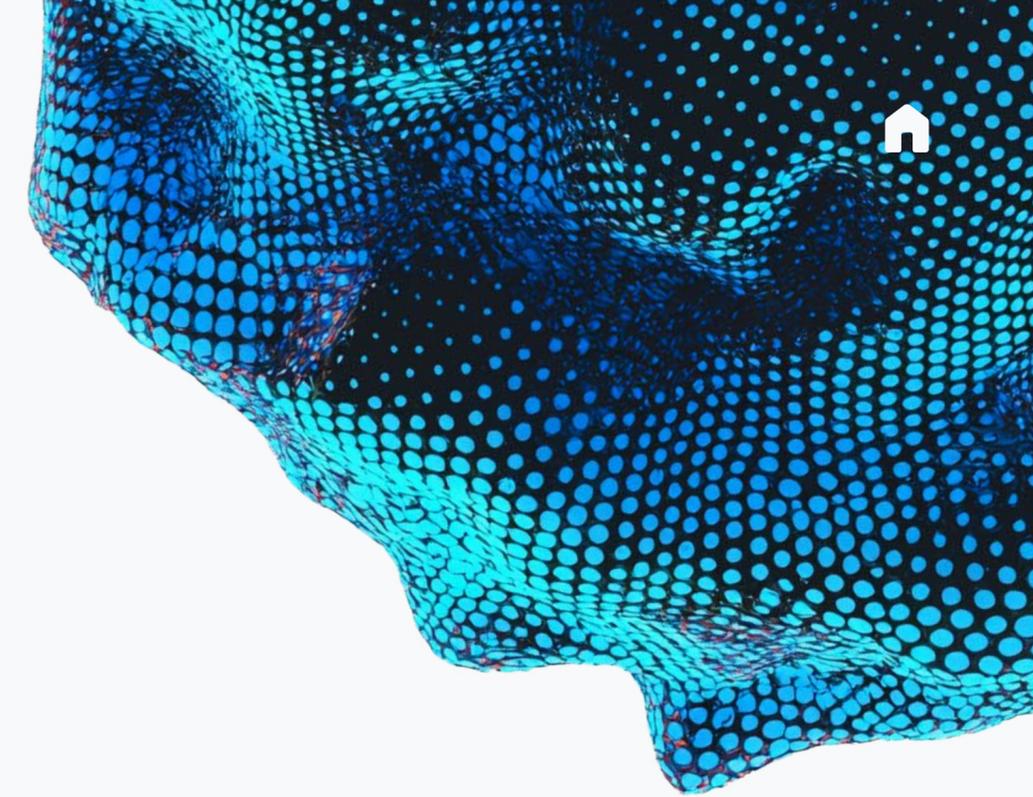


It shows organizations aren't just spending extra money on AI, they're choosing AI over other investments. This means AI has proven valuable enough that businesses are willing to cut spending elsewhere to fund it. We're seeing the classic shift from 'nice to have' to 'must have'.”



**Jaime Tatis**

Chief AI Officer, TELUS





# ROI needs C-suite sponsorship

AI initiatives in the telecommunications industry require deep cross-functional collaboration between technical, commercial, and operations teams.

To enable this, C-suite sponsorship is critical. This top-level support aligns AI adoption with business goals, and helps organizations navigate technology decisions to address the pressures they are currently under.

## C-level sponsorship remains more strongly correlated with seeing ROI on gen AI



Telco executives who report their organization has comprehensive C-level sponsorship and clear corporate vision for gen AI objectives: n=187; Telco executives who do not report comprehensive C-level sponsorship and clear corporate vision for gen AI objectives: n=302; Question: In what timeframe do you expect gen AI to deliver ROI to the following areas of your business?





# Key challenges to consider

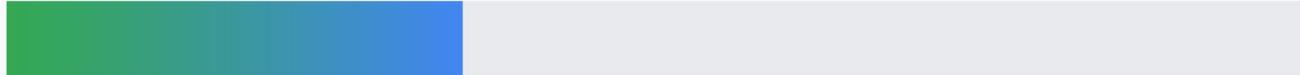
For many organizations, the top challenges with AI are rooted in the foundational work required to support them.

In the telecommunications industry, meeting the high standards for customer data privacy and network operations' security is paramount, given the critical need to protect invaluable IP across every touchpoint.

The solution lies in adopting a modern, integrated data strategy that prioritizes secure grounding, strong governance, and security protocols from the start. This approach ensures that data is both accessible for innovation and secure throughout the entire AI lifecycle.

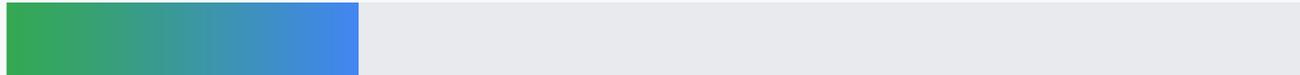
## Top 3 considerations for LLM providers

Data privacy and security



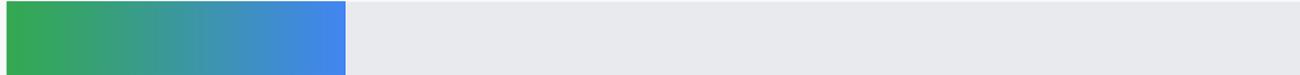
35%

Scalability and performance



27%

Integration with existing systems



26%

Telco executives: n=489; Question: Which of the following factors are MOST important to your company when considering LLM providers?



04

# Your next steps

# The AI agent ROI checklist

- ✓ **Find your executive champions.**  
Cultivate C-suite sponsorship and work with an internal AI governance committee to advocate for AI initiatives, clear roadblocks, and align to results.
- ✓ **Demonstrate value to secure AI budget.**  
Build a compelling business case for why AI deserves its own investment.
- ✓ **Create your AI rulebook now, not later.**  
As AI use grows, so do the risks. Establish clear, enterprise-wide guidelines to address security, safety, and evolving regulatory requirements.
- ✓ **Start with the biggest wins.**  
Not all AI projects are created equal. Focus your energy on building AI agents that can automate repeatable tasks to deliver clear ROI.

- ✓ **Build trust in AI from day one.**  
First, get your data house in order with a robust data governance and enterprise security framework. Second, always keep a human-in-the-loop.
- ✓ **Give your AI agents the tools to be useful.**  
For an AI agent to do the work, it needs access to your internal enterprise systems. Grant it secure, governed access.
- ✓ **Invest in your talent and internal AI education programs** to build and manage the AI agents so they can handle sensitive proprietary data and processes. The most successful companies don't just buy technology, they build skills.

Google Cloud

# See where your business could realize ROI from AI.

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