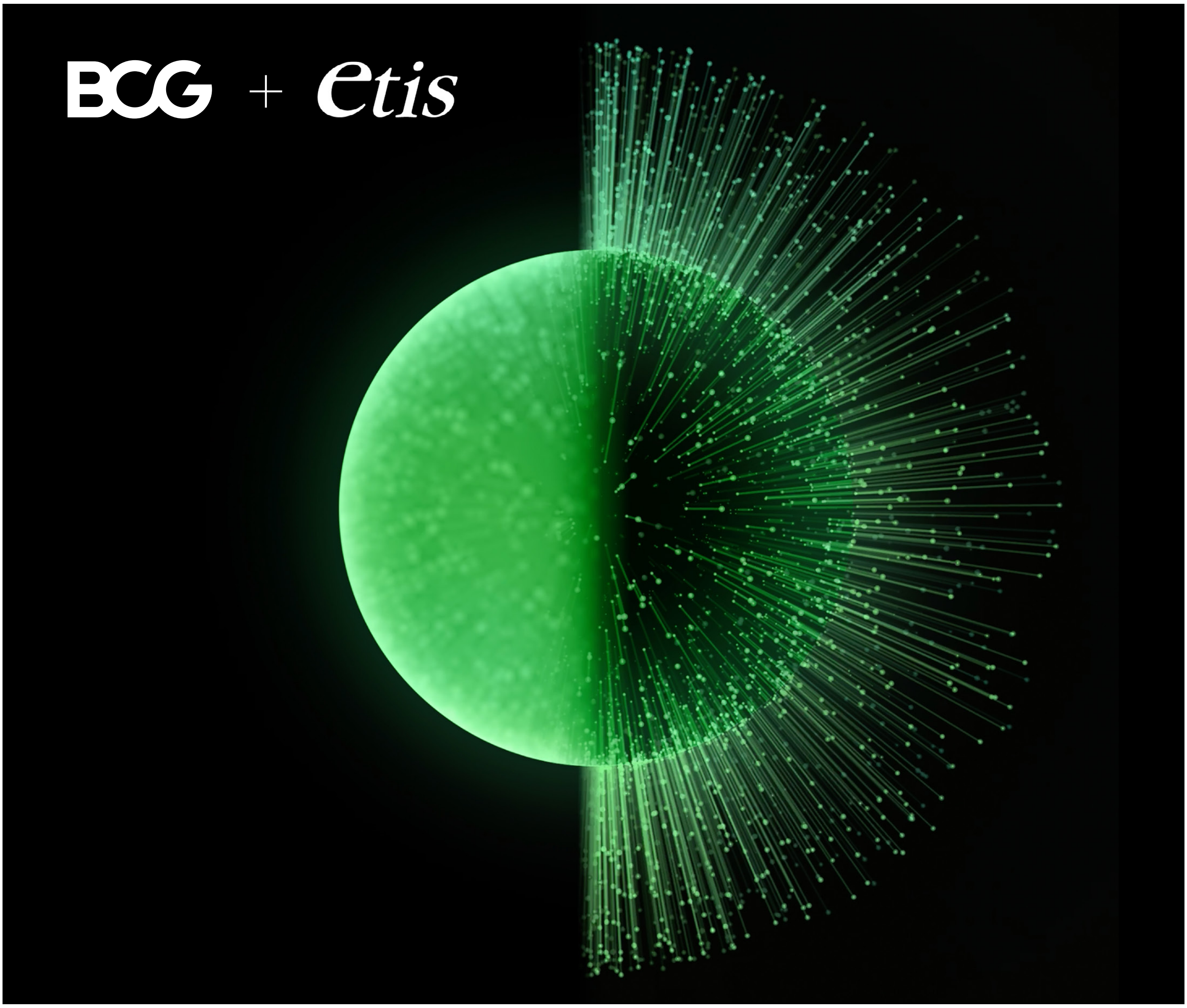

WHITE PAPER

TeBIT 2025
Closing the AI-Margin Gap

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Boston Consulting Group partners with leaders in business and society to tackle their most important challenges and capture their greatest opportunities. BCG was the pioneer in business strategy when it was founded in 1963. Today, we work closely with clients to embrace a transformational approach aimed at benefiting all stakeholders—empowering organizations to grow, build sustainable competitive advantage, and drive positive societal impact.

Our diverse, global teams bring deep industry and functional expertise and a range of perspectives that question the status quo and spark change. BCG delivers solutions through leading-edge management consulting, technology and design, and corporate and digital ventures. We work in a uniquely collaborative model across the firm and throughout all levels of the client organization, fueled by the goal of helping our clients thrive and enabling them to make the world a better place.

ETIS (etis.org) is the collaboration platform for the European telecom industry. Founded in 1991, ETIS is a non-profit organization that brings together leading telecommunications operators and supporting parties across Europe to exchange knowledge in a highly trusted environment, representing the telecom ecosystem in more than 20 countries.

ETIS enables its members to address strategic and operational challenges through peer-to-peer collaboration, focusing on real-world use cases, best practices, and lessons learned. Topics are defined by the members themselves and addressed through dedicated working groups and task forces managed by ETIS.

What distinguishes ETIS is the trust, openness, and practitioner-led nature of the community: members engage directly—without intermediaries, media involvement, or sales pitches—and openly share both successes and failures.

Through this trusted setup, ETIS enables its members to collaboratively shape the evolution of the European telecom industry, supported by exclusive benchmarks, position papers, and surveys, including the TeBIT study.

Introduction

For many **telecom operators**, it can feel as though the accelerator is pressed but the speedometer barely moves. Years of investment in network modernization, efficiency programs, and **digital transformation** have delivered stability and resilience—but little change in revenue growth or EBITDA margins. This is not for lack of effort. Many operators already generate a meaningful share of revenues beyond the core and are **deploying AI** to drive new business models and efficiencies. Yet overall progress remains limited.

So, how to break the cycle? Findings from the 15th annual telco IT benchmark (TeBIT) study, jointly developed by ETIS—The Community for Telecom Professionals—and Boston Consulting Group, reveal that the real test is no longer whether telcos are pulling the right levers, but whether they can apply them with enough focus, conviction, and scale to finally move the needle. (See "About the TeBIT Benchmark.")

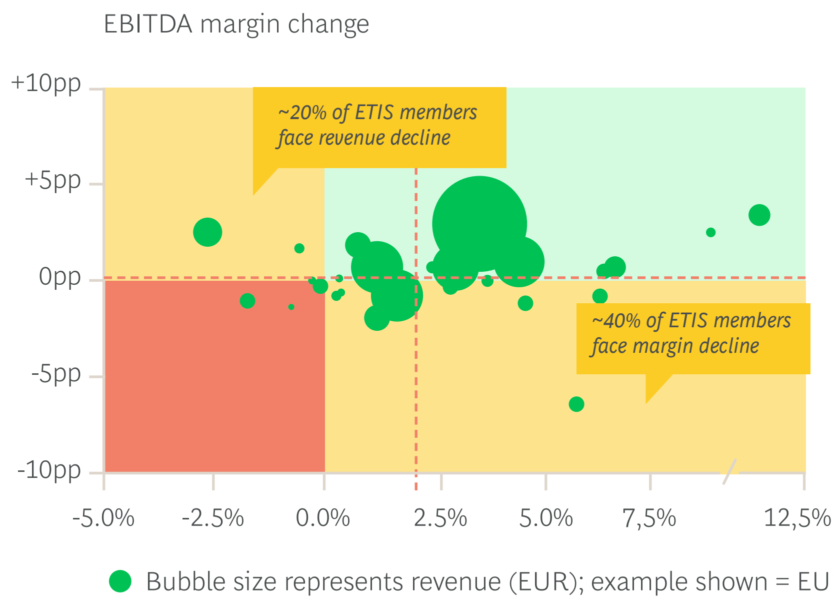
This year's TeBIT analysis focuses on three strategic drivers shaping telcos' future performance: adjacent businesses, **artificial intelligence** and **generative AI**, and the management of IT and network costs in an increasingly opex-heavy environment. The picture that emerges is clear: these levers can offer significant upside—provided they are applied with greater strategic intent.

The Case for Adjacencies

Across ETIS members, financial performance remained broadly stable. Median revenue growth was some 2% in 2024 and EBITDA margins showed limited year-on-year movement, falling short of the momentum many operators might have expected from sustained digital transformation and early AI adoption. Overall, the picture was one of incremental progress rather than step-change improvement—reinforcing the challenge of driving growth and profitability through core connectivity services alone.

This is hardly breaking news for telcos. Already, TeBIT participants on average generate close to one-third of their revenues from beyond the core, spanning near-core extensions such as wholesale and equipment, as well as adjacent ICT and digital services. What began as diversification is now critical to performance, raising the bar on how deliberately these activities are chosen, scaled, and managed.

Telcos' financial performance has been broadly stable, reflecting limited growth momentum



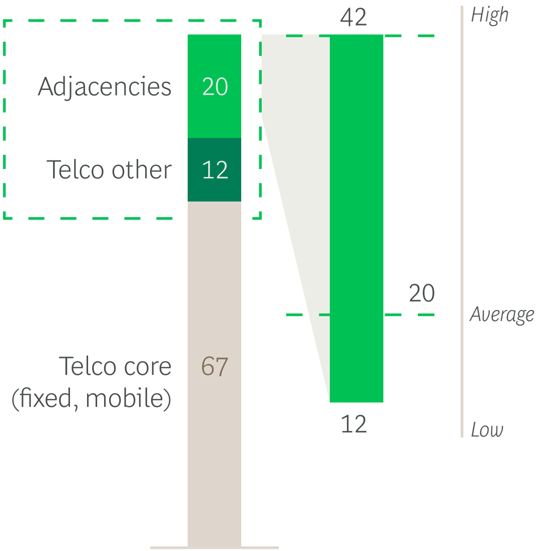
Less than half of ETIS members achieved both margin and revenue growth—demonstrating the need for

- **growth levers** (such as adjacent business models) and
- **efficiency levers** (such as automation and GenAI at scale)

Sources: ETIS members' annual reports; BCG analysis.

On average, ETIS members generate one-third of revenue from “beyond-the-core” services

Revenue streams (% of total revenue)



Key revenue drivers

ICT and managed services
Enterprise IT, cybersecurity, digital transformation services

Cloud and data infrastructure
Data centers, edge computing, cloud resale and hosting

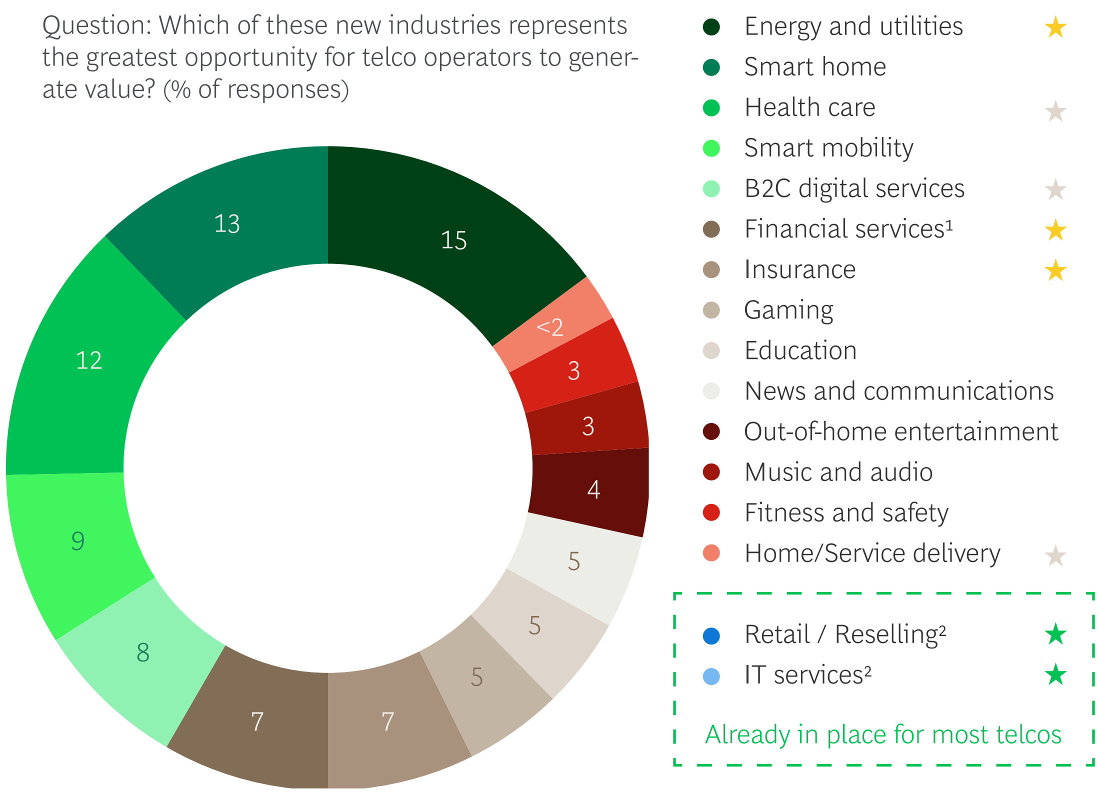
Media and digital content
TV, streaming, advertising ecosystems

Energy and IoT solutions
Smart city, mobility, energy management services

Fintech and digital platforms
Payments, digital identity, data-based services

Telcos show clear adjacency preferences, but adoption is still early and uneven

Question: Which of these new industries represents the greatest opportunity for telco operators to generate value? (% of responses)



★ In implementation/early stage ★ Realized at scale for some telcos ★ Realized at scale for most telcos

Sources: TeBIT 2025; ETIS members’ annual reports; BCG analysis.
Note: Data not available for all ETIS members and TeBIT participants; figures may not add to 100 due to rounding.
Sources: ETIS online workshop, May 2025; ETIS members’ annual reports; TeBIT 2025 | [1] Includes payment, billing, and wallet services | [2] This category was not part of the ETIS online workshop discussion.

With core and near-core revenues now firmly established, attention is increasingly turning to adjacent business areas as the next source of growth. But the adjacency landscape is vast, including financial services, smart homes, and even gaming, among other areas. Where should telcos focus to generate meaningful and sustainable results? TeBIT findings shed light on how operators are thinking about that question.

Right now, key revenue drivers include ICT and managed services, cloud and data infrastructure, energy and IoT services, and media and digital content (such as streaming video and advertising ecosystems). Looking beyond these spaces, telcos are also active in financial services and insurance and are ramping up—but not yet at scale—in health care and B2C digital services. Still other areas, including smart mobility, education, and fitness and safety, are emerging as topics of interest.

Efficiency is Not Optional

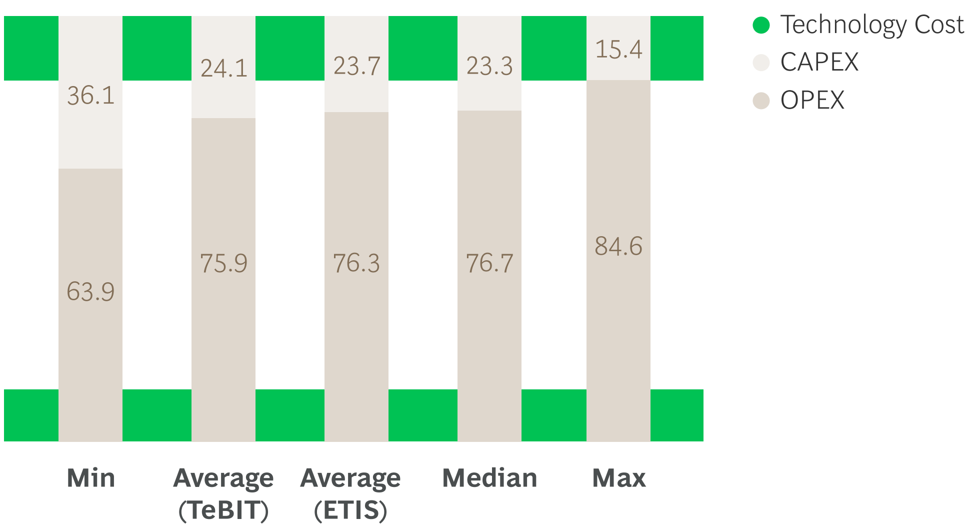
Growth through adjacencies is one part of the margin equation. The other dimension is efficiency. For telcos, lowering operating costs has only become more urgent as the economics of IT have shifted. While TeBIT results show that IT spending as a share of revenues has edged up slightly, the more significant trend is spending steadily moving from capex toward demand-based and recurring opex, driven in large part by cloud-based infrastructure and platforms. In an opex-heavy cost structure, inefficiencies hit the income statement immediately—just as operational improvements are realized right away—rather than emerging gradually, as they often do in capex-heavy models.

This is where AI and generative AI move from promise to necessity, becoming the common enabler of both adjacency-fueled growth and material efficiency improvements.

TeBIT results suggest that telcos are already beginning to realize efficiency gains from AI. On average, network spending as a share of revenues declined by 4.1% in 2024—reflecting not only the completion of major rollout cycles but also a shift toward more automated, software-driven operating models. For this second factor, AI is a key engine, enabling telcos to automate network monitoring and fault detection, predict and prevent outages, optimize traffic flows, and reduce energy consumption. By improving utilization and shortening resolution times, these applications help lower operating costs while also improving service quality.

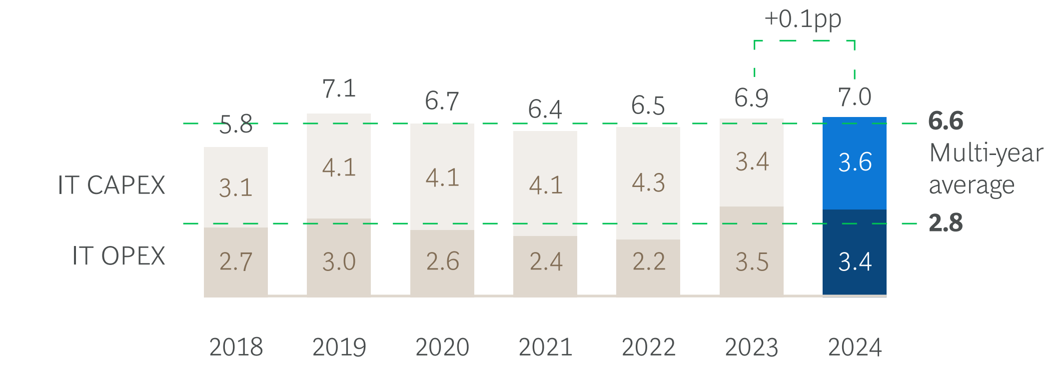
CAPEX/OPEX split highlights the need for AI and GenAI as an efficiency lever

Share of total expenditures (%)

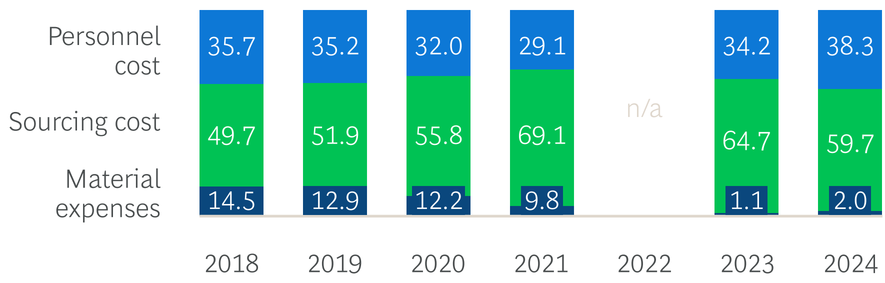


Sources: TeBIT 2025; ETIS members' annual reports; BCG analysis
Note: Not all ETIS members provided the relevant data in their annual reports.

IT cost as % of revenues

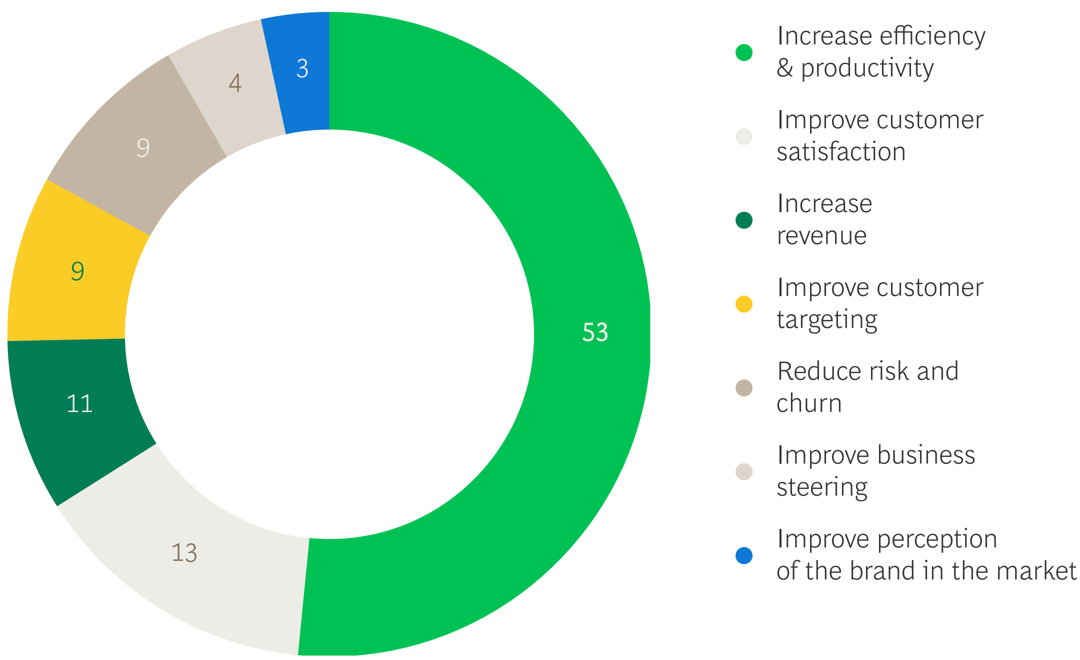


Cost categories as % of total IT cost



TeBIT participants view efficiency gains and customer satisfaction as the primary goals for AI and GenAI

Business objectives of AI and GenAI
(% of responses)



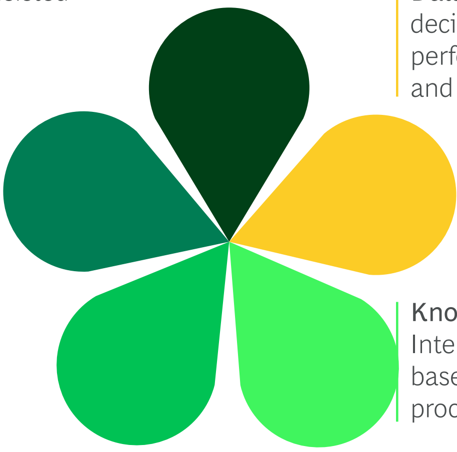
Sources: TeBIT 2019 through TeBIT 2025; BCG analysis / Note: Sourcing cost includes IT services as well as IT outsourcing.
Sources: TeBIT 2025; BCG analysis / Note: Figures may not add to 100 due to rounding.

Current AI and GenAI use cases span five core areas

Customer interaction automation
Chatbots, voice bots, AI-assisted sales and service tools

Contact center and process efficiency
Call analysis, complaint management, automated email routing

Network and service optimization
Predictive network maintenance, AI-driven issue resolution



Advanced analytics:
Data-driven models for decision support, performance improvement, and risk management

Knowledge and content
Intelligent knowledge bases and document processing

It's not surprising, then, that across participants, the number one business objective for AI is efficiency and productivity (followed by customer satisfaction and sales and revenue). Current use cases span customer interaction (chatbots, voicebots, and AI-assisted sales and service tools), contact center productivity (call analysis and automated case handling), knowledge and content management (knowledge bases and document processing), and advanced analytics for decision support. These applications target high-volume, process-heavy areas where even incremental automation can translate into meaningful cost savings.

Yet while AI adoption is broad, scale and consistency vary. Many telcos continue to wrestle with familiar challenges, including fragmented data and legacy systems, immature toolchains, skills gaps, and limited organizational focus. These constraints raise a critical question as operators look ahead: are they positioned to move beyond pockets of success and fully capture the productivity potential of AI and generative AI?

Making AI Scale: Maturity, Investment, Execution

A promising sign: AI maturity is improving steadily. Most TeBIT participants have now moved beyond the experimentation stage, with the highest performing already in full-implementation mode. This progress is also visible in resourcing. On average telcos dedicate around 1% of their workforce to AI-related roles, including data scientists, machine learning engineers, prompt engineers, and AI-focused software developers.

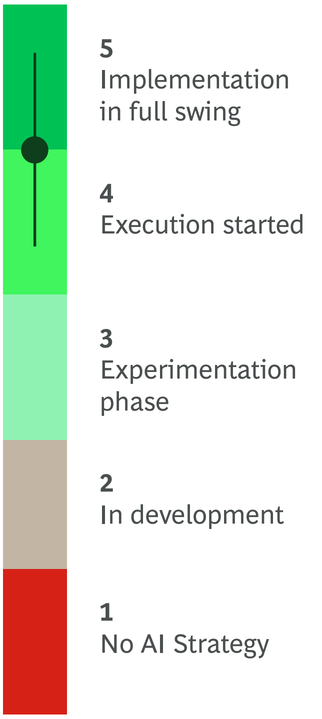
An expanding commitment is further reflected in how participants are investing in AI. Over the three-year period from 2024 through 2026, telcos expect two-thirds of AI investment to sit within their IT budgets, directed towards data platforms, cloud and compute infrastructure, and core AI tooling. This pattern suggests that operators are prioritizing long-term capability building—putting shared foundations in place to support the AI journey.

Yet even with this focused investment, telcos are facing hurdles in scaling AI, underscoring how much work remains to turn ambition into enterprise-wide impact. Some barriers stem from older tech and data silos. But just as important, many telcos struggle with the organizational demands of scaling AI: clarity on ownership, alignment between IT and the business, and the capacity to embed AI into day-to-day operations. Together, these obstacles highlight a central reality: building AI foundations is necessary, but not sufficient, to translate potential into sustained, organization-wide results.

Sources: TeBIT 2025; BCG analysis.

AI maturity is improving, but scaling challenges remain

AI strategy maturity level



● TeBIT participants' average and spread

AI strategy maturity level

Data and systems
Unstructured data and complex IT landscapes that hinder AI integration

Tools and infrastructure
Immature toolsets and infrastructure, with readiness a work in progress

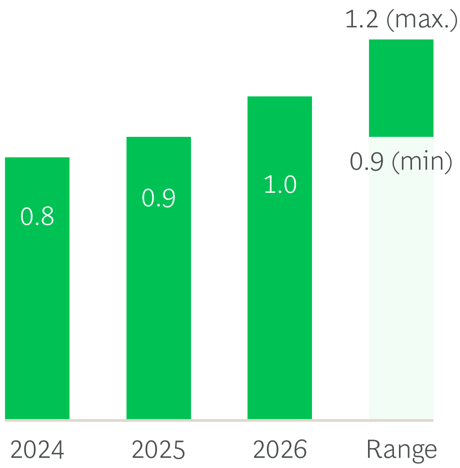
Hard and soft skills
Lack of expertise and limited awareness of AI's business value

Culture and adoption
Low engagement levels and limited time to experiment with AI in daily work

Organizational focus
Competing priorities, unclear roles, and slow alignment on AI initiatives

Telcos dedicate similar workforces to AI and GenAI via centers of excellence

Employees dedicated to AI and GenAI (% of total workforce)



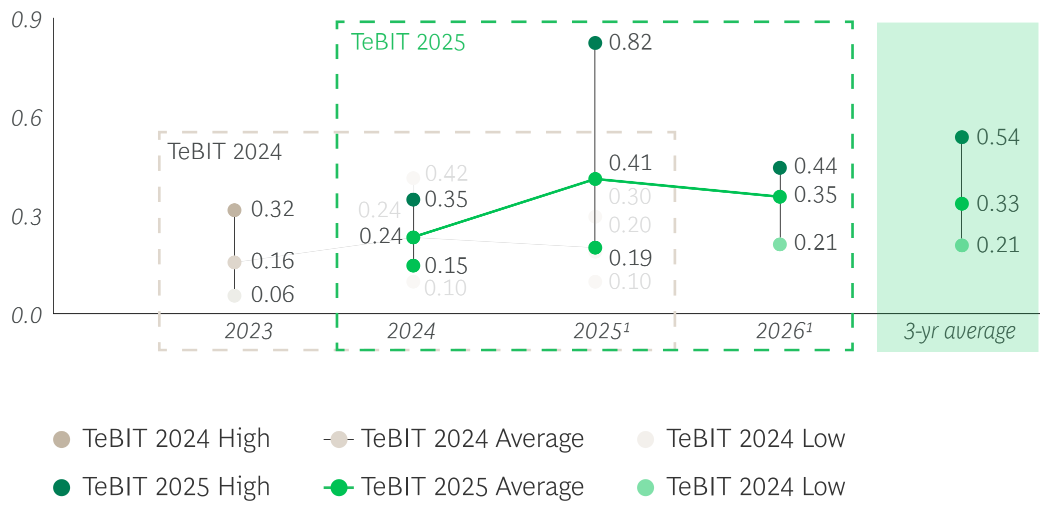
Key revenue drivers

- All TeBIT 2025 participants have established a center of excellence (CoE) staffed with data scientists, engineers, and developers
- The CoE manages the telco's AI vision and AI governance
- The data platform is partially managed within the CoE
- The key focus of the CoE is the enablement of business units

Sources: TeBIT 2025; BCG analysis.

Last year TeBIT participants were hesitating on AI investment. Now that uncertainty is easing.

AI and GenAI investments (% of revenues)



Growth and efficiency require targeted operating-model adjustments

Keep investing in the foundation
Develop the architecture and data platforms for AI and GenAI functionality

Take a disciplined approach to sourcing
Know where to invest internally versus where to leverage the investments of BSS and OSS vendors

Optimize workforce, skills, and organization
Build AI literacy and identify where AI can fundamentally reshape work

Evolve ways of working
Ensure AI tools are used effectively to improve workflows, development, delivery

View AI as goal and enabler of transformation
See AI as both an end state and a catalyst for the digital journey

Sources: TeBIT 2025; TeBIT 2024; BCG analysis.
[1]For TeBIT 2025, figures for 2025 and 2026 are estimates provided by participants. For TeBIT 2024, figures for 2024 and 2025 were estimates provided by participants.
Sources: BCG analysis.

To solve the scaling challenges, telcos must adapt their operating models. The following steps are key. First, operators should continue to invest in architecture, creating the foundation for data-based AI and GenAI functionality. Second, they should take a disciplined approach to sourcing and partnerships. Winning with AI means knowing where to invest internally, but it also means leveraging the investments and product roadmaps of global BSS and OSS vendors. Third, telcos need to develop the right workforce and skills: building AI literacy, creating new roles, and identifying where AI can fundamentally reshape work. Finally, they must evolve ways of working, so the right AI tools are used in the right ways to improve workflows, development, and delivery.

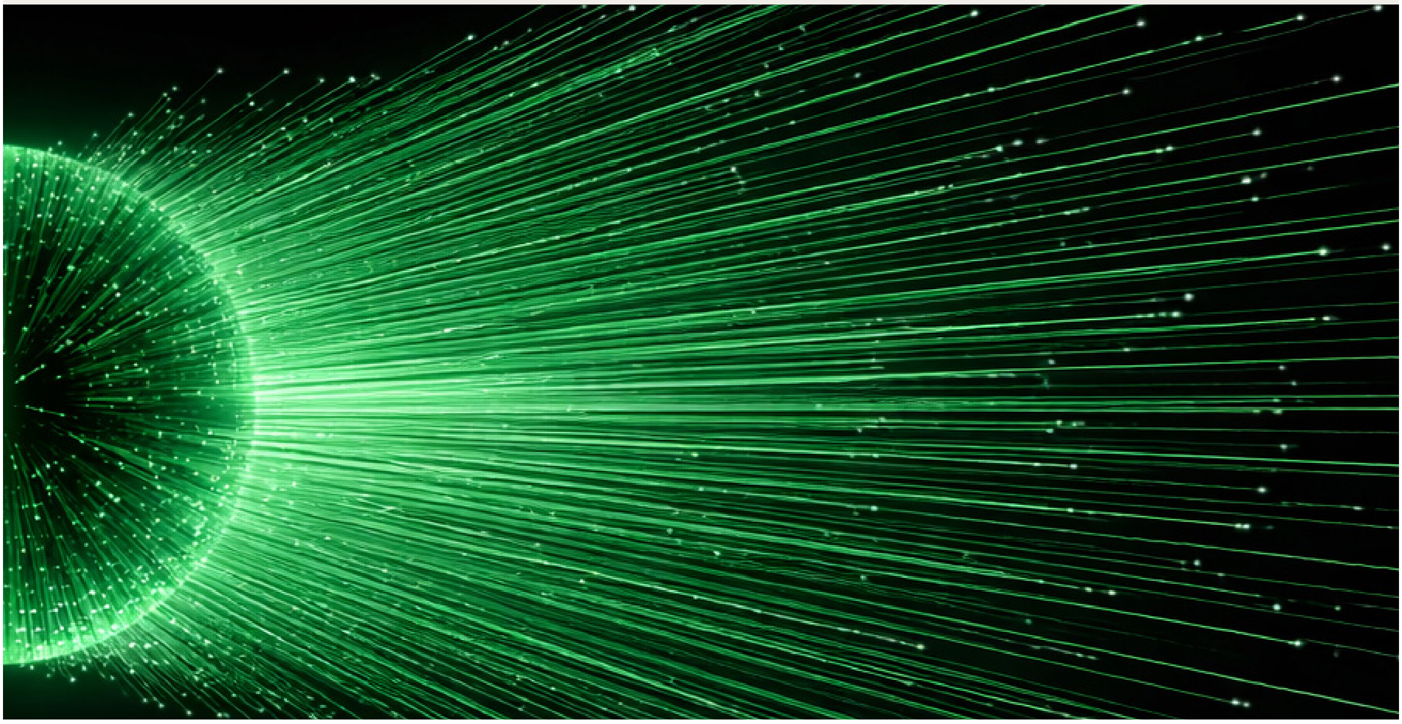
Telcos should also view AI as both a goal and an enabler of digital transformation. AI is part of the target state, but it also accelerates the journey—supporting customer migrations, optimizing product portfolios, and more.

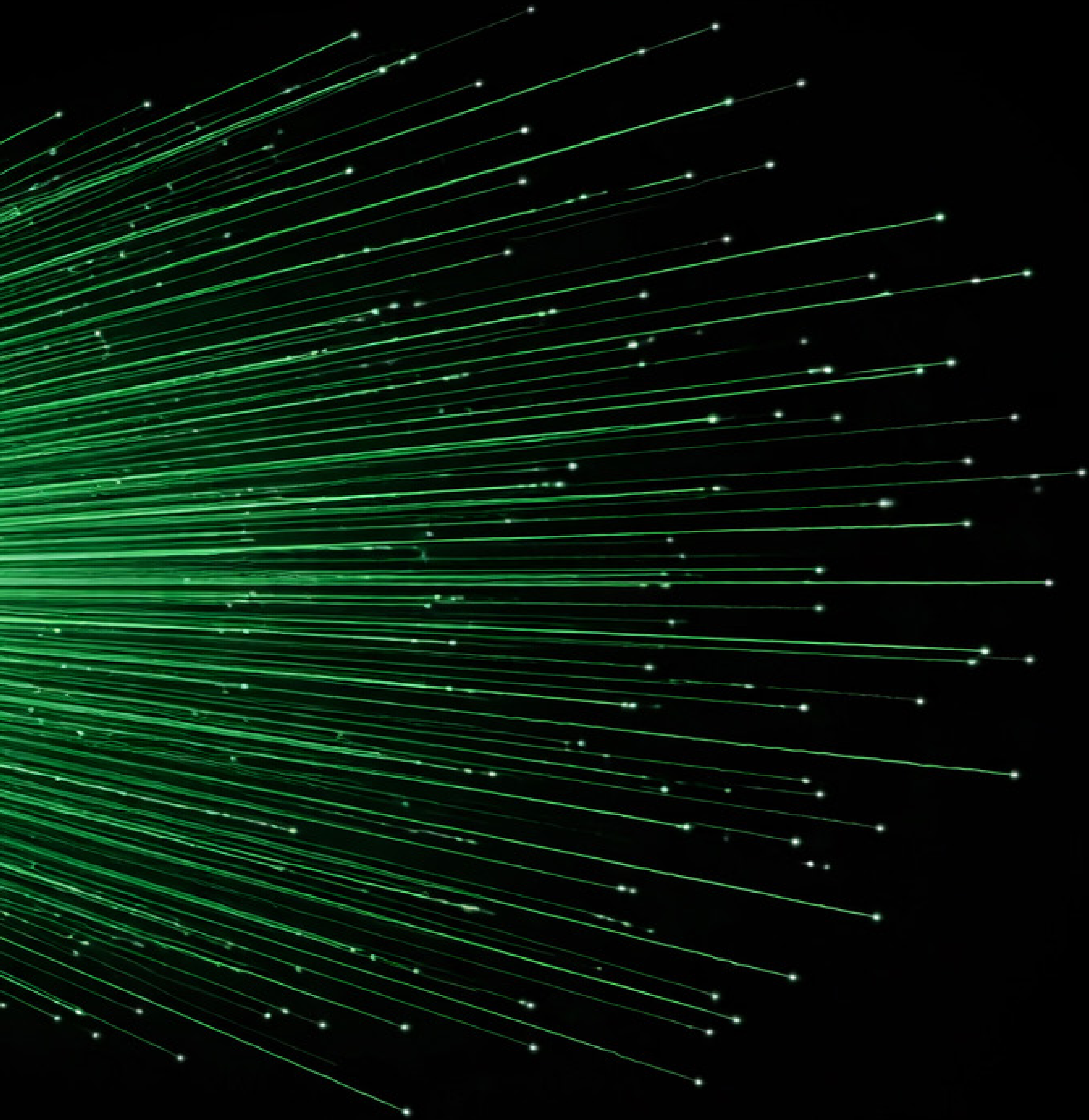
Through years of market pressure, disruption, and even a pandemic, telcos have proven resilient. By pursuing adjacencies and efficiency with greater focus and rigor, they have an opportunity to do so again. But this time, resilience can mean more than absorbing shocks: it can reignite growth—and momentum.

About the TeBIT Benchmark

TeBIT, a survey of European operators' IT spending and performance, was completed in the fall of 2025 and reflects their 2024 financials and operations. The study sheds light on how participants are adapting to new trends and challenges—and zeroes in on where telcos may want to focus their efforts. Each year, TeBIT takes a deep dive into a topic of particular interest to telcos. In previous reports, we've looked at **artificial intelligence**, **sustainability and process efficiency**, and the role of **cloud services**, among other areas.

Collaboration is a key component of TeBIT. The survey's goal—like that of ETIS working groups and community gatherings—is to identify, and even shape, the best practices that can help telcos better serve customers in a rapidly changing world. In return for allowing their organizations to be compared with other telcos, TeBIT participants can access a full set of benchmark results along with further trend analysis.





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