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WORLD
ECONOMIC
FORUM

The Strategic Role
of Telecom Providers
Across the AI Value Chain

W H I T E   P A P E R

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The World Economic Forum's AI Transformation of Industries initiative seeks to catalyse responsible industry transformation across industries and society. It advances understanding of artificial intelligence's (AI) impact on business and society while actively accelerating practical implementation through leadership convening, ecosystem collaboration and the scaling of real-world solutions.

This white paper series examines the transformative role of AI across industries, combining cross-industry analysis with in-depth sectoral and regional perspectives.

Each paper offers a practical, executive-level view of what transformation looks like on the ground, drawing on real-world case studies, leading practices, emerging data from across industries and figures of impact achievable in selected contexts. While each paper is standalone, common themes emerge: new operating models, evolving roles of leadership, human-AI collaboration and the growing importance of AI governance and orchestration.

As AI adoption accelerates, this series aims to equip leaders with the insight, capabilities and decision frameworks required to build competitive, responsible and future-ready AI-enabled organizations.

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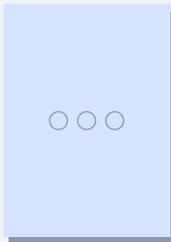
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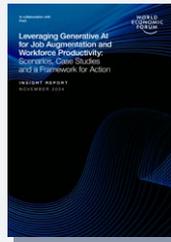
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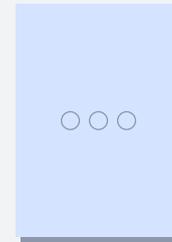
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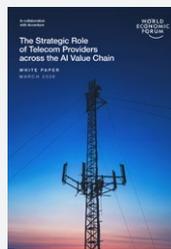
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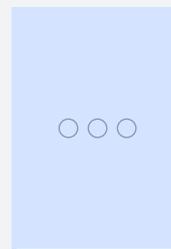
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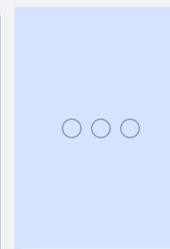
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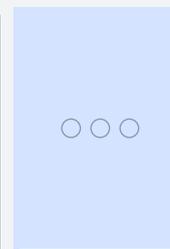
Upcoming

Foreword

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Three years after ChatGPT reshaped the global landscape, industries are racing to reinvent themselves for an AI-powered future. Being tech-native, telecommunications companies (telcos) are ahead of many other industries in adopting the technology across different functions, mainly to increase efficiencies. Our white paper, *Artificial Intelligence in Telecommunications*, launched in early 2025, describes how AI has become a central feature in telecommunications (telecom) operations.

This is just the beginning. Strategic investments in artificial intelligence (AI) infrastructure and governments' strategies towards digital sovereignty are propelling telcos towards becoming potential architects of tomorrow's AI services. Though dependent on market dynamics and national strategies across regions, the opportunity for telcos is clear – diversify offerings, capture new growth and redefine the industry's trajectory.

The World Economic Forum has again partnered with Accenture to develop this paper and help the industry frame these AI opportunities. We have worked closely with a community of telecoms across regions, original equipment manufacturers (OEMs) and other ecosystem partners and industry associations to highlight the various strategic plays and enablers needed to capture them.

Our findings are clear: to defend and expand their core business, telcos must invest in robust, AI-native connectivity. On this foundation, they can launch a new generation of AI-powered products and services – whether fuelled by digital sovereignty or not. In any case, success demands bold action: transforming technology, reimagining operating models and building future-ready teams.

Together with the first paper, this paper is positioned as a high-level overview of what a future telco could look like, both in terms of business models and how it operates. We invite you to dive in, challenge assumptions and take the conversation forward among industry leaders.

Executive summary

AI is transforming connectivity, infrastructure and sovereignty requirements, creating new strategic opportunities for telecom providers.

Telecommunications companies (telcos) stand at a structural inflection point. While enabling the digital economy, telcos have only captured a fraction of the value. Artificial intelligence (AI) and geopolitical forces now drive a reallocation of where data, compute and trust sit – and with that, a redefinition of telcos' relevance.

AI is transforming three layers at once. **Networks** evolve from best-effort to AI-first, experience-guaranteed, programmable connectivity. **Infrastructure and services** move from static capacity to AI-ready, consumption-based managed services. **National ecosystems** indicate the change from globalized cloud to sovereign, compliant AI stacks.

This paper highlights three high-level strategic pathways for telcos/communication service providers (CSPs): the **modern telco**, the **AI technology company (techco)** and the **national sovereign champion**. Within each pathway, the paper identifies a small number of **strategic plays** and assesses them for **value and feasibility**, with a common framework that reflects both commercial benefits and execution complexity.

Operators who harness AI to modernize the core connectivity business, strengthen economics and experience, and selectively build AI techco capabilities where they can differentiate, especially in business-to-business (B2B) contexts, will create the most value in the next decade. Furthermore, in markets with strong sovereign agendas, telcos can step up to co-shape national AI stacks in partnership with governments and hyperscalers.

The central question is no longer how AI can make telcos more efficient, but the roles telcos choose to play in the AI value chain and how quickly they can execute those.

1 Industry narrative and the AI opportunity

AI and geopolitics are reshaping the tech architecture, providing growth opportunities for telecom providers.

8%

post-tax ROIC, far below digital platforms' approximate 27% in 2025.

As artificial intelligence (AI) redefines the digital landscape, communication service providers (CSPs)/telecommunications companies (telcos) are exploring new strategies to invest in and harness AI infrastructure to remain competitive. AI is seen not just as a technological breakthrough, but also as an opportunity to redefine CSPs' relevance in the next era of the digital economy.

Over the past three decades, CSPs have enabled the infrastructure on which today's digital platforms, content ecosystems and cloud services run. Despite this foundational contribution, they have struggled to capture commensurate value. Digital platform players have built business models directly on top of telco networks, allowing them to generate massive value by monetizing customers more effectively and driving commerce. Their consumption-based pricing structures have enabled stronger pricing power and significantly higher returns. Meanwhile, many CSPs continue to operate with all-you-can-eat pricing models in their consumer businesses and with underdeveloped enterprise offerings, which has constrained value capture as digital ecosystems have evolved.

Today, these structural issues remain visible in the industry's performance. While regional differences exist, global communications revenue is forecast to grow just 2.3% through 2026 while margins remain flat, with global earnings before interest, taxes, depreciation and amortization (EBITDA) holding at approximately 33%. Post-tax return on invested capital (ROIC) sits at approximately 8%, far below digital platforms' approximate 27% in 2025, and continued capital intensity constrains investment capacity and innovation.[1]

AI offers a chance to reset the industry's trajectory

More than just the next wave of innovation, AI represents a structural realignment of the digital economy – and a fundamental shift in the role of connectivity.

As AI scales, connectivity becomes the critical bridge between users and edge devices on one side and centralized or distributed compute resources on the other. Many large language models (LLMs) remain too large to run fully on end devices, while AI workloads are increasingly distributed across devices, edge locations and data centres.[2] This shift is reshaping traffic patterns as networks move beyond interaction-based AI towards continuous exchanges between autonomous agents, platforms and enterprise systems. Demand for real-time inference, video- and sensor-based applications, and multimodal AI – AI that can operate across multiple types of data within a single model – further amplifies the need for secure, real-time, predictable performance. Enabling these workloads will require more than incremental network upgrades; as TM Forum highlights, operators will need a new networking core[3] built on autonomous operations and experience-based charging to meaningfully participate in – and monetize – the emerging AI value chain.

Telcos approach AI from a position of structural advantage: control of critical connectivity infrastructure, proximity to users and data flows, and a longstanding role as trusted, regulated operators of national-scale systems. These assets position telcos not only to support AI adoption, but to play differentiated roles in delivering and operating AI services.

The shift is not just architectural – it is also geopolitical. As the sensitivity around data sovereignty intensifies, governments are accelerating the move towards national AI infrastructure. Workloads are increasingly moving from centralized clouds to sovereign, in-country compute, driving localization for minimizing transport workloads, latency, compliance and security. Governments are channelling major capital into national AI infrastructure, from Europe's planned AI gigafactories[4] to large-scale sovereign investment vehicles in the Middle East.[5] International Data Corporation (IDC) expects spending on sovereign cloud worldwide to grow 27% on average from 2022 to 2027, reaching $258.5 billion[6] by the end of the forecast period. By then, localized data centres will contribute nearly a quarter of new computing capacity. The drivers are clear: economic self-interest, data protection and geopolitical resilience. Given their position as trusted, secure and local stewards, CSPs are well-positioned to anchor these emerging sovereign ecosystems, with 81% of enterprises[7] seeking telcos as partners for sovereign AI adoption. At the same time, realizing this opportunity will require navigation of significant constraints, including hyperscaler dominance at the edge, fragmented regulatory environments across regions and the capital intensity of building and operating sovereign AI infrastructure.

The previous paper primarily had an inward-looking focus and explored how telecom operators are adopting AI use cases across functions to increase efficiency and improve customer experience. While efficiency remains essential, this paper's focus shifts to a more challenging question: **What roles can CSPs play in the era of AI?** This text explores how their infrastructure, reach and trust – all factors that define the communications industry – can power the AI economy by enabling the connectivity, compute and data movement that make AI possible. The central question is no longer how AI can improve telcos, but how telcos can enable AI.

As AI scales, connectivity becomes the critical bridge between users and edge devices on one side and centralized or distributed compute resources on the other.

② Three strategic pathways for CSPs

Telecom providers can pursue distinct pathways to protect core connectivity, enable AI services and support sovereign AI ecosystems.

2.1 | Overview of the three strategic pathways

As a starting point, this paper organizes the growth opportunities for CSPs along three strategic pathways, each reflecting a distinct vector of value creation in the emerging AI economy. The first pathway is the **modern telco**, focused on strengthening and monetizing the network foundation for AI workloads. The second, the **AI techco**, reflects the move into AI-ready infrastructure and services that operate alongside connectivity. The third, **national sovereign champion**, centres on enabling compliant, trusted and sovereign AI ecosystems that align with rising geopolitical, regulatory and national security priorities.

Pathways are not all equally achievable and are heavily dependent on the **AI maturity** level (internal capabilities, external partnerships) and **market context** (regulatory environment and overall market readiness). Both are discussed later in the paper.

Pathway 1:
Modern telco

As AI adoption accelerates, it creates pressure to modernize infrastructure and unlocks an opportunity to monetize performance through value-based services. At the same time, protecting interoperability is critical; AI infrastructure must remain vendor-agnostic and standardized, not locked into a few dominant hyperscale platforms. The **modern telco** is emerging as an AI-enhanced connectivity provider delivering secure, predictable, high-performance networks. By using AI to improve operations and customer experience and enable differentiated network performance, telcos can **protect their core connectivity business** while boosting efficiency and productivity.

Pathway 2:
AI techco

AI's expansion is creating sustained demand for secured compute, capacity, storage and model management platforms closer to the user. As AI services increasingly support applications with real-time requirements – such as robotics, autonomous systems and physical AI – value creation depends on network infrastructure capable of delivering low latency, predictable performance and quality-of-experience (QoE) guarantees.

The **AI techco** can be an end-to-end connected capacity player with AI services delivered on top of hyperscale platforms, becoming a trusted orchestrator for enterprises and consumers. The services portfolio of the AI techco will evolve from current core connectivity services towards **AI-powered managed services** orchestrated and delivered in an individualized, on-demand way at guaranteed quality-of-service (QoS) (on top of secure and autonomous networks enabled by AI). Through the AI techco pathway, operators can outgrow their reliance on subscriber growth and loyalty beyond licensed services.

Pathway 3: National sovereign champion

AI adoption is reshaping national priorities as governments and enterprises race to build sovereign and secure digital ecosystems. In this environment, the ability to secure, govern and sustain AI operations within national borders has become a prerequisite for participation in the global AI economy. Telcos, as sovereign frontliners, are central to this transformation – regulated, trusted and uniquely capable of delivering the interconnected capabilities demanded by sovereignty. The **national sovereign champion** company is aligned with the national resilience strategy, delivering sovereign AI infrastructure, platform capabilities, sovereign policy controls, models, use cases and governance. Across Asia, the Middle East, Europe and Canada, governments are looking at national telco players to step up and play a significant role in nations' sovereign agendas. For telcos to fulfil this role, they must possess the capabilities of an AI-enabled techco, both in terms of infrastructure investments as well as AI skills and ecosystem orchestration roles.

To effectively pursue this pathway, telcos need to assess the specific context of their region and market. Countries like the United Arab Emirates, Indonesia, India and Thailand have committed to partnering with national telecom operators to advance national AI agendas. Other markets are starting to present these opportunities as well. Each operator will need to assess the regional appetite as well as their own financial position when evaluating this pursuit and timing investment towards this pathway.

Strategic plays aligned to each pathway and customer segment

Each pathway consists of a set of relevant strategic plays. The matrix below places each play against both a pathway and a customer segment: business-to-customer (B2C), business-to-business (B2B) and public-sector/regulated industry. In the section that follows, the paper evaluates each play based on **scope, demand drivers, telco differentiation and monetization model**.

FIGURE 1 | Strategic plays aligned to pathways and customer segments

	Modern telco — Protect the core connectivity business	AI techco — Grow through AI-powered managed services	National sovereign champion — Activate resilience through sovereignty and security
B2C	☑ Hyper-personalized content and customer journeys[1] ☑ AI-first connectivity	☑ B2C AI aggregator	☑ Sovereign AI use cases ☑ AI safety & security
B2B[2]	☑ AI-first connectivity ☑ Data center interconnect (DCI) ☑ Dedicated networks ☑ AI-optimized colocation	☑ Network-as-a-service (NaaS) ☑ Horizontal and vertical AI solutions ☑ GPU-as-a-service (GPUaaS)	
Public sector and regulated/ mission-critical B2B	☑ AI-first connectivity		☑ Sovereign AI infrastructure ☑ Sovereign AI platform and model services ☑ Sovereign AI use cases ☑ AI safety and security

☑ Primary buying center ☑ Second buying center

Notes: **1.** Hyper-personalized content and customer journeys were detailed in the 2025 *Artificial Intelligence in Telecommunications* paper; **2.** B2B includes enterprises across all industries while ecosystem partners represent hyperscalers, graphics processing unit (GPU) vendors, cloud software and integration partners who may act as buyers.

2.2 | Strategic plays for the modern telco to protect the core connectivity business

> **The modern telco pathway modernizes networks into cloud- and AI-native architectures, using AI to improve operational productivity and deliver predictable, experience-led performance.**

The modern telco pathway modernizes networks into cloud- and AI-native architectures, using AI to improve operational productivity and deliver predictable, experience-led performance. Anchored in standardized and vendor-agnostic designs, telcos can protect interoperability while monetizing differentiated, assured connectivity. This pathway is activated through four strategic plays: **AI-first connectivity, data centre interconnect (DCI), AI-optimized colocation and dedicated networks.**

AI-first connectivity

AI-first connectivity reflects a shift from core networks to immersive, experience-driven infrastructure for consumers, industries and enterprises. Foundational network performance – latency, uplink optimization and traffic optimization – facilitates advanced AI-native offerings, primarily through network slicing,[8] supported by programmable networks and standardized application programming interfaces (APIs). As immersive experiences scale, telcos must innovate across access, radio and core network layers and build cloud- and AI-native networks to have a seat at the table alongside hyperscalers, device manufacturers and agentic AI providers.

Services include prioritized uplink for real-time video, autonomous self-healing QoE for AI agents, and edge offloading to nearby compute nodes, although network and device readiness for these services may not be uniformly available in all environments today. Operators can expose these capabilities via developer portals or integrate them directly into enterprise connectivity bundles.

Customer demand for performance-assured AI-ready connectivity exists across all segments, with use cases in the public sector (for instance, digital-twin cities and emergency response), in B2B (for high uplink and QoS use cases like video inferencing), and increasingly in B2C, where users expect seamless real-time translation, immersive media and personal-assistant experiences. Omdia forecasts that AI-enriched interactions will expand at approximately 120% compound annual growth rate (CAGR) through 2030,[9] underscoring the rapid rise of AI workloads and their increasing impact on global connectivity demands.

Right to play is high, given telcos' unique control over licensed spectrum, network slicing and granular telemetry data from real-time radio access network (RAN) performance, giving them unmatched visibility of network performance. This allows them to guarantee performance for AI workloads in ways that colocation and hyperscale providers cannot.

Standards and industry bodies are converging on experience- and outcome-based charging as the logical **monetization strategy** for AI-first connectivity. TM Forum[10] and 3GPP[11] emphasize multi-dimensional, QoS-aware pricing, enabled by network slicing charging specifications and dynamic policy control (where customers pay for guaranteed performance or business outcomes rather than undifferentiated data volume). Today, many AI deployments in telecoms remain focused on internal efficiency and cost optimization, but GSMA analysis[12] shows a growing shift towards external-facing commercial use cases, with AI-first connectivity supporting these emerging growth strategies.

CASE STUDY 1

T-Mobile US Advanced Network Solutions delivering private network-like performance without the overhead

In October 2025, T-Mobile US launched Edge Control and T-Platform as part of its Advanced Network Solutions portfolio. Edge Control uses the operator's 5G advanced network with local breakout to deliver "private network-like performance without the overhead", routing traffic locally into enterprise edge compute. The commercial pitch is explicitly mission-critical, low-latency connectivity for AI/edge applications across media, sports, entertainment and the public sector.[13]

DCI

DCI provides the high-capacity, low-latency optical transport required to link hyperscale, regional and edge data centres supporting distributed AI training and inference.[14] As AI workloads drive sustained east-to-west traffic flows between compute locations, DCI becomes a foundational enabler of scale and performance.

Demand is driven by hyperscalers, graphics processing unit (GPU) vendors and enterprises running distributed AI models that require deterministic, high-throughput interconnects. This demand will intensify as AI becomes a more persistent, ambient and continuous exchange of tokens between compute nodes.[15] IDC projects that global DCI revenue will grow at a 10.9% CAGR, reaching $5.5 billion by 2029.[16]

For CSPs, the DCI opportunity is shaped less by service differentiation and more by infrastructure scarcity. Ownership of long-haul fibre routes and power-dense sites creates sustained pricing power as demand for AI-driven interconnect outpaces supply. **Monetization** is therefore anchored in multi-year capacity contracts and premium service level agreements (SLAs) for guaranteed latency and availability, with use-based and SLA-tiered models emerging as traffic patterns mature.

CASE STUDY 2

Verizon partnering with Amazon Web Services to provide fibre for AI

Verizon Business and Amazon Web Services (AWS) announced a significant new Verizon AI Connect agreement to build long-haul, high-capacity fibre pathways linking multiple AWS data centre locations. Under the deal, Verizon will construct resilient, low-latency fibre routes designed to support the performance and reliability demands of advanced AI workloads, especially generative AI and other data-intensive applications. The expanded fibre network strengthens Verizon's strategic relationship with AWS and reflects the growing need for dedicated high-performance infrastructure to scale cloud-AI services globally.

AI-optimized colocation

AI-optimized colocation adapts traditional data centre hosting to AI workloads' power, cooling and latency requirements. By retrofitting existing sites with higher-power density, cooling and low-latency interconnects, CSPs can enable enterprises to deploy GPU clusters and AI servers within telco-operated facilities, bringing operators into the AI infrastructure supply chain while monetizing underused real estate.

Demand is driven by enterprises seeking compliant, power-dense environments for AI training and inference without the cost, time and permitting complexity of building new facilities.

IDC projects the global colocation services market will grow from $56.4 billion in 2024 to $81.2 billion[17] by 2029 (7.2% CAGR), with AI-ready capacity becoming increasingly scarce in regions where power and permits are constrained.

CSPs' **right to play** is strongest in regional and edge colocation rather than hyperscale campuses. While global providers are likely to remain dominant, telcos' fibre-connected sites, local compliance positioning and enterprise relationships support a differentiated role. **Monetization** follows fixed-term colocation contracts with premium pricing for AI-specific capabilities such as cooling density and latency assurance, unlocking incremental value from existing property portfolios.

CASE STUDY 3

Cellnex: activating existing infrastructure for AI-optimized edge colocation

Cellnex is harnessing its extensive infrastructure footprint – including tower sites, fibre networks and existing data centre facilities – to deliver AI-optimized colocation at the edge. By repurposing carrier-neutral edge data centres[18] and modular sites, Cellnex enables low-latency, scalable compute closer to users. Partnerships, such as the one with Vapor IO, accelerate deployment of edge compute for real-time AI workloads, including vision systems, robotics and autonomous applications.

Dedicated networks

Dedicated networks provide secure, low-latency connectivity for enterprise and campus environments, delivered through private 5G or network slicing and paired with localized edge compute and integrated security. AI enhances these networks through **predictive and autonomous operations**[19,20] and dynamic resource optimization, enabling assured performance for mission-critical use cases such as industrial automation, energy management, public safety and real-time analytics, delivered as managed or hybrid on-premises/edge services.

Critical sectors requiring ultra-low latency and high reliability to support AI-driven automation and robotics drive demand, though market adoption is slower than initially forecast. While early deployments have demonstrated productivity gains,[21] updated projections reflect a more gradual scale-up of the dedicated network market.[22]

Telcos' **right to play** is anchored in control of licensed spectrum, network design and local edge infrastructure, capabilities that remain difficult for IT providers and hyperscalers to replicate. **Monetization** typically follows software-as-a-service (SaaS)-based models with tiered pricing aligned to enterprise performance and reliability requirements. Momentum depends on the pairing of AI-enabled operating models with next-generation network investment.

CASE STUDY 4

Deutsche Telekom: from campus SLAs to API-based "quality-on-demand"

Deutsche Telekom has deployed 5G campus networks with guaranteed service quality for hospitals, universities,[23] ports and industrial sites across Germany and Europe, combining public and private 5G to deliver logically separated traffic, prioritized machine-to-machine communications and low-latency local processing for use cases such as augmented reality (AR)-assisted maintenance, digital twins and autonomous systems.

Building on this foundation, Deutsche Telekom is scaling campus connectivity and monetizing network performance through standardized offerings and APIs. With Microsoft,

it launched Campus Network Smart,[24] a private 5G solution running on Azure Private MEC (Multi-access Edge Compute), which lowers adoption barriers for small and medium-sized enterprises (SMEs) through pay-as-you-grow models and integrated edge workloads. In parallel, the operator is exposing network capabilities via APIs under the GSMA Open Gateway initiative, including a quality-on-demand API that dynamically optimizes latency and performance. Together, these deployments demonstrate how operators can monetize AI-era connectivity as assured performance for specific, high-value use cases rather than undifferentiated bandwidth.

2.3 | Strategic plays for the AI techco to grow through AI-powered managed services

CSPs can unlock growth beyond connectivity by monetizing their edge and data centre footprint as AI-ready infrastructure and managed services. As AI adoption scales, demand is rising for secure, localized compute and model management platforms with consumption-based pricing and assured performance. The AI techco models position telcos as trusted orchestrators of on-demand, SLA-grade AI services, laying the foundation for future sovereign propositions. This pathway is activated through four strategic plays: **network-as-a-service (NaaS), horizontal and vertical AI solutions, GPU-as-a-service (GPUaaS) and the B2C AI aggregator**. Success depends on ecosystem partnerships with hyperscalers, hardware original equipment manufacturers (OEMs) and system integrators.

NaaS

Unlike AI-first connectivity, which strengthens network performance, **NaaS** is a commercialized service layer delivering flexible, secure and consumption-based connectivity through cloud-native networking, advanced automation and intent-driven APIs.[25] NaaS enables self-

service network delivery via a single-pane-of-glass experience, providing centralized control and holistic observability[26] across network domains. AI elevates NaaS by making connectivity predictive and autonomous, allowing networks to adapt in real time, optimize resources and resolve issues proactively.

Demand is accelerating. An Accenture 2025 survey shows that 86% of enterprise leaders expect NaaS to be significant to their business[27] within three years. Analysys Mason projects that global NaaS connectivity revenue will grow at a 42% CAGR[28] from 2024 to 2029, reaching $14.7 billion across retail and wholesale models.

Telcos have a strong **right to play** in AI-enabled NaaS, given their ownership of core enterprise connectivity domains – branch/wide area network (WAN), campus/local area network (LAN) and transport – combined with real-time telemetry and distributed edge footprints. This allows them to deliver assured, low-latency and secure services that AI can continuously optimize. **Monetization** typically follows flexible, use-based models such as on-demand and pay-as-you-go pricing, with NaaS being a catalyst for autonomous enterprise use cases, including sales and service reinvention.

CASE STUDY 5

Telefónica Global Solutions' Dynamic Network provides scalable on-demand NaaS

Telefónica Global Solutions' Dynamic Network is a NaaS offering that enables enterprises to provision, manage and scale global connectivity on demand through cloud-like, API-based interfaces, offering real-time provisioning, multi-cloud connectivity and automated management. This approach positions Telefónica as a trusted partner for enterprises seeking agile, secure and scalable connectivity.

GPUaaS

GPUaaS extends telco infrastructure into the compute layer. Operators host shared GPU clusters in regional or edge data centres and provide enterprises with virtualized GPU capacity accessible through APIs or the cloud. GPUaaS enables model training and inference close to users, reducing latency and driving performance and security. A growing cohort of operators has launched GPUaaS platforms to address growing demand.

Customer demand is bound to be significant, with AI model development and inferencing expected to outstrip the global supply of high-performance GPUs. Gartner projects a global AI-optimized infrastructure-as-a-service (IaaS) – of which GPUaaS is a segment – market size of $108 billion[29]

by 2029, driven by the attractiveness of on-demand AI computing without intensive capital expenditure.

Telcos' **right to play** is challenged. They have local infrastructure, fibre and regulatory trust, which hyperscalers cannot easily replicate. However, they need to differentiate on proximity, compliance and service integration rather than raw compute scale (which, today, is a race to the bottom). Additionally, markets with protectionist policies present an advantage to domestic suppliers, including CSPs. **Monetization** is driven by the fractionalization of GPU infrastructure through multi-tenancy, enabling operators that amortize capital investment across multiple customers, optimize operating costs through shared use and resell capacity as a service, often complemented by managed, orchestration or integration add-on services.

CASE STUDY 6

Global operators scale enterprise AI through distributed GPU infrastructure

A broad set of telcos – including Iliad (via Scaleway),[30] Indosat (Lintasarta),[31] Singtel,[32] SK Telecom,[33] Telenor[34] and Verizon[35] – have launched GPUaaS offerings to meet surging enterprise demand for AI compute. These platforms provide low-latency, local access to GPU clusters without large upfront investment, helping enterprises shorten provisioning cycles and improve data compliance.

Horizontal and vertical AI solutions

Vertical AI solutions are industry-optimized AI offerings, co-developed with partners, that combine telco infrastructure with telco/partner AI agents, software and data expertise. These include managed AI model hosting, specialized LLMs, pre-built analytics applications and hybrid edge-to-cloud environments, designed to address industry-specific challenges tied to industry key performance indicators (KPIs). CSPs are harnessing network intelligence, interoperable APIs, edge compute and industry expertise to co-develop AI applications tailored for industries such as manufacturing, finance and healthcare. **Horizontal solutions** provide AI agents that are valid across industries and business functions. Examples include content creation tools and contact centre experience for customer service. Most telcos have experimented with these capabilities[36] for internal use and can capitalize on their knowledge by productizing and

selling these use cases to their enterprise and public administration customers.

Customer demand is strong, with 94% of enterprises[37] expecting AI productized solutions to play a significant role in their business over the next three years. Sectors like manufacturing, healthcare and financial services require domain-specific models, low latency and industry compliance – needs that general-purpose cloud solutions often can't meet.

CSPs' **right to play** is driven by combined edge infrastructure, network data and industry partnerships to co-create AI products for manufacturing, finance and healthcare. Although many enterprise AI solutions exist, CSP advantage stems from the strong integration of use cases with network capabilities or emerges where telcos are already trusted technology providers, as for SMEs in certain regions. **Monetization methods** are built on use- and results-based pricing; vertical solutions are scalable across sectors after proof of concept.

B2C AI aggregator

The B2C AI aggregator positions telcos as trusted providers of consumer AI services by embedding intelligent assistants into the core app and extending into adjacent AI-powered services. CSPs can curate, deliver and orchestrate freemium and premium AI capabilities such as translation, content generation, spam protection, digital identity, digital shopping agents and personalized recommendations integrated across the consumer's daily digital life. Over time, operators can expand these services into AI-native devices, creating a seamless ecosystem that enhances engagement, loyalty and cross-sell.

Consumer adoption is accelerating at scale. Global consumer generative AI is predicted to reach 5 billion[38] users by 2026; IDC research predicts that, by 2027, consumers will spend $100 billion[39] via AI agents that run independently on their smartphones to programmatically shop for goods, services and considered purchases.

CSPs' **right to play** is anchored in ownership of the primary consumer interface and existing trust.[40,41] **Monetization** spans freemium-to-premium AI services, bundled connectivity and devices, reduced churn, commissions on AI-driven transactions and ecosystem partnerships as engagement scales.

CASE STUDY 7

Deutsche Telekom is leading consumer AI with its app-less AI phone concept

Deutsche Telekom is positioning itself as an innovation leader by exploring app-less mobile devices and AI-driven user experiences. It introduced an app-less AI phone concept and launched a proof of concept (POC) at Mobile World Congress (MWC) 2025, harnessing partnerships with Perplexity, Google Cloud and Qualcomm to drive this vision.

2.4 | Strategic plays for the national sovereign champion to activate resilience

> **Global spending on sovereign AI infrastructure is projected to reach $1.5 trillion by 2028.**

As sovereignty requirements expand from data residency to full-stack control, governments and regulated sectors need in-country compute, platforms, models and assurance. The national sovereign champion pathway positions telcos as trusted operators at the intersection of connectivity and compliance – harnessing national network and data centre footprints to deliver sovereign AI capabilities. Long-term sovereign infrastructure contracts, sovereign platform/model services and trust/assurance layers are key to capturing value. This pathway is activated through four strategic plays: **sovereign AI infrastructure, sovereign AI platform and model services, mission-driven sovereign use cases and AI security and safety**.

Sovereign AI infrastructure

Sovereign AI infrastructure enables telcos to deliver AI-ready colocation and GPUaaS campuses that guarantee full data residency within state jurisdictions. These facilities offer high-density power and cooling for LLM training, carrier-neutral low-latency connectivity across metro, edge footprints and even the many shelters in towers, and full compliance within national jurisdictions. Momentum is building in the EU as consortia bid to build AI gigafactories: massive compute facilities to advance digital sovereignty, national competitiveness and local innovation. One example is OpCore, which is developing over-100MW (megawatt) French and pan-European data centres[42] positioned as neutral hubs for "made-in-Europe" AI ecosystems.

Customer demand for sovereign AI is accelerating as organizations face stricter requirements around data-locality, compliance and security. In Europe, 62%[43] of organizations now seek sovereign solutions, particularly in banking, public services and utilities. Global spending on sovereign AI infrastructure is projected to reach $1.5 trillion[44] by 2028, with $145 billion[45] in Europe alone, growing nearly 30% annually and straining regional data centre capacity. Governments worldwide are prioritizing sovereign compute footprints, with at least 18 telcos[46] participating in state-funded AI infrastructure programmes. Demand spans the public sector (health, defence, critical infrastructure), regulated industries (finance, energy, pharmaceuticals) and latency-sensitive workloads that require in-country AI training and inference. Consumer demand is largely indirect, enabled through locally hosted AI applications and services.

Incumbent CSPs have a **right to play**, with their existing fibre backbones, edge points-of-presence (PoPs), site deployment and spectrum placing them at the intersection of compute, connectivity and compliance. Iliad, for example, harnesses its 62 million-subscriber network and eight-country fibre footprint to channel traffic into OpCore's sovereign AI sites.

Monetization strategies blend long-term hyperscale colocation contracts (15–20 years) with GPUaaS capacity for enterprise bursts, layered with premiums for sovereignty and low-carbon power purchase agreements (PPAs).

CASE STUDY 8

T-Systems, SAP and Nvidia build Europe's industrial AI cloud

T-Systems is partnering with Nvidia in a $1 billion initiative to renovate data centres and launch an industrial AI cloud in Germany using up to 10,000 Nvidia Blackwell chips, projected to boost AI compute by 50%. Positioned as part of a "sovereign Germany stack", the platform combines its infrastructure, SAP's enterprise platform and NVIDIA GPUs to keep industrial AI workloads in-country and ensure they're backed by renewable energy and German data protection law.

Sovereign AI platform and model services

Sovereign AI platform and model services provide the software, orchestration and governance layer above sovereign compute, enabling organizations to ingest data, build and deploy models and manage AI entirely within national boundaries.

The **sovereign AI platform services** layer, which delivers the controlled environment for sovereign AI development and operations, includes:

– **Agent builders**: low-code development tools and software development kits (SDKs) that help organizations build agentic applications within national boundaries

– **The LLM orchestrator**: a model hub to select and route workloads across approved local, open-source or commercial models, which can be customized for each use case

– **Sovereign regulatory controls**: monitoring and control tools that ensure data flows, model outputs and logs adhere to national AI policies and data remains within sovereign boundaries

– **Data layer/cognitive brain**: a data federation layer that unifies data products, applies sovereign data governance rules and enforces data policy adoption

Sovereign model services extend the platform with models and model governance for compliant deployments. They include industry-specific LLMs and small language models (SLMs) adapted to local compliance and performance requirements and sector-tailored model capabilities (such as healthcare models that embed national clinical standards and KPIs).

CASE STUDY 9

Telenor AI Factory, a sovereign AI platform anchored in national trust

Telenor AI factory shows how a telecom operator can deliver sovereign AI, harnessing its role as a trusted operator of national digital infrastructure. Fully Norwegian-owned and -operated, it combines in-country GPU infrastructure with developer tooling, low-latency networking and high-capacity/high-performance storage based on NVIDIA architecture.

A complete sovereign AI stack also requires a **responsible governance** layer to ensure transparency and safety. CSPs can embed regulated assurance into AI by providing the frameworks, transparency tools and audit mechanisms required for ethical, interoperable AI adoption. In doing so, they can assume a long-term role as stewards of digital trust across national and industry boundaries.

Customer demand is accelerating the push for full-stack AI sovereignty. Public agencies, financial institutions, energy providers and healthcare systems increasingly require platforms that can ingest sensitive data, manage model life cycles and enable cross-ecosystem collaboration – without exposing intellectual property or breaching compliance. While sovereign infrastructure provides physical control over data residency, only 22% of organizations currently enforce sovereignty at the model layer. This gap is currently a critical concern, as organizations seek integrity, traceability and governance of AI operating within national or sector-specific boundaries. In parallel, governments are pressuring major cloud providers to regionalize platforms through partnerships with local players to align with regulatory priorities and national interests.

Telcos have a clear **right to play** in sovereign AI. With nationwide networks, data centre footprints and longstanding relationships with public agencies and regulated enterprises, telcos occupy a trusted position to host and govern sovereign AI platforms and model services. Their ability to integrate connectivity, edge compute and secure data handling enables them to offer controlled, locally operated environments for model development and deployment.

What's needed is a standardized blueprint for scaling AI model services at scale – one that prevents agents and models from becoming isolated, one-off deployments (as proposed in the TM Forum MODaaS paper[47]). Sovereign AI platform services open **monetization opportunities** through subscription tiers, model life cycle management and use-based pricing for training and inference within regulated contexts. Additional value lies in ecosystem participation, where telcos facilitate collaboration and cross-sector data-sharing under unified policy controls. As adoption of the sovereign mandate expands across sectors, the business case for compliant shared platforms grows stronger.

Telia Cygate and Accenture join forces to drive for sovereign AI platform services

Telia Cygate has launched a sovereign AI platform initiative in Sweden in partnership with Accenture, combining Telia's secure national data centre footprint and network assets with Accenture's AI development and integration capabilities. The collaboration provides Swedish public- and private-sector organizations with a controlled environment for compliant, in-country AI development and deployment. The platform is designed to help enterprises move from pilot use cases to production-grade AI systems while maintaining full data sovereignty and operational security.[48]

Sovereign AI use cases

Where telcos manage to develop infrastructure and platform or model services, sovereign AI use cases can be among the highest-impact initiatives. Execution is strongest when aligned with the readiness of the sovereign stack (in-country infrastructure/platform/governance) and when designed for country-specific or federated regulatory frameworks. Potential use cases abound in defence/ "red" networks and public safety networks (like Tetra BOS, the secure, nationwide digital radio network in Germany), which are sensitive to universal information sharing.

e& provides agentic AI platform for autonomous enterprise workflows

The agentic AI platform enables enterprises to move beyond static AI models to goal-driven, autonomous AI agents that can plan, act and adapt across complex business processes. The platform orchestrates multiple agents – decision, tool-using and human-in-the-loop – to execute end-to-end workflows spanning customer relationship management (CRM), enterprise resource planning (ERP), data systems and communication channels. Built with enterprise-grade governance, observability and security, the platform supports use cases, including intelligent operations automation, proactive customer engagement, revenue assurance and IT service optimization. By combining agent reasoning with enterprise integrations and policy controls, the solution delivers measurable productivity gains while retaining enterprise oversight and trust.

AI security and safety

With their end-to-end visibility of network traffic and data flows, CSPs are uniquely positioned to address the issue of fragmented security across the value chain. Rather than competing with cybersecurity vendors, they can serve as the integration and assurance layer, embedding AI-driven threat detection, compliance monitoring and analytics directly into the network. While traditional security protects the integrity of data and traffic pipes, AI safety ensures models operate as expected. Although the viability of centralized, transparent data oversight remains debated, telcos are well-equipped to provide sovereign controls and compliance layers (such as audit compliance for the public sector and regulated businesses).

Customer demand for AI security is accelerating as organizations face rising pressure to secure both data flows and model behaviour. Governments are embedding trust, compliance and sovereignty into policy frameworks, such as the EU's Gaia-X, the US Clarifying Lawful Overseas Use of Data (CLOUD) Act and privacy regulations such as the General Data Protection Regulation (GDPR), the California Consumer Privacy Act (CCPA) and India's Digital Personal Data Protection Act. As enterprises deploy increasingly autonomous AI systems, ensuring that models and agents act transparently and within regulatory bounds has become vital. Demand is accelerating, with spending on AI-powered network and cybersecurity systems projected to double[49] over the next five years.

As agentic infrastructure and use cases expand and AI autonomy increases, CSPs have a **clear right to play**, harnessing their position of trust to provide AI safety. Their ability to verify model reliability across complex, multi-agent environments is particularly valuable when multiple systems begin interacting across protocols developed by Cisco, Microsoft and Google.

AI security and safety functions primarily as an ecosystem enabler, reinforcing telcos' natural role as trusted intermediaries rather than driving direct return on investment (ROI). The **monetization strategy** centres on indirect value: strengthening retention, cross-selling adjacent services and positioning telcos as key partners in secure AI deployments.

CASE STUDY 12

Cisco's Digital Resilience with AI and Automation

Cisco's Digital Resilience with AI and Automation initiative uses predictive analytics and automated recovery to protect critical infrastructure. By embedding security controls directly into network hardware, Cisco provides a model for AI-aware network security that telcos can adapt for large-scale operational assurance.[50]
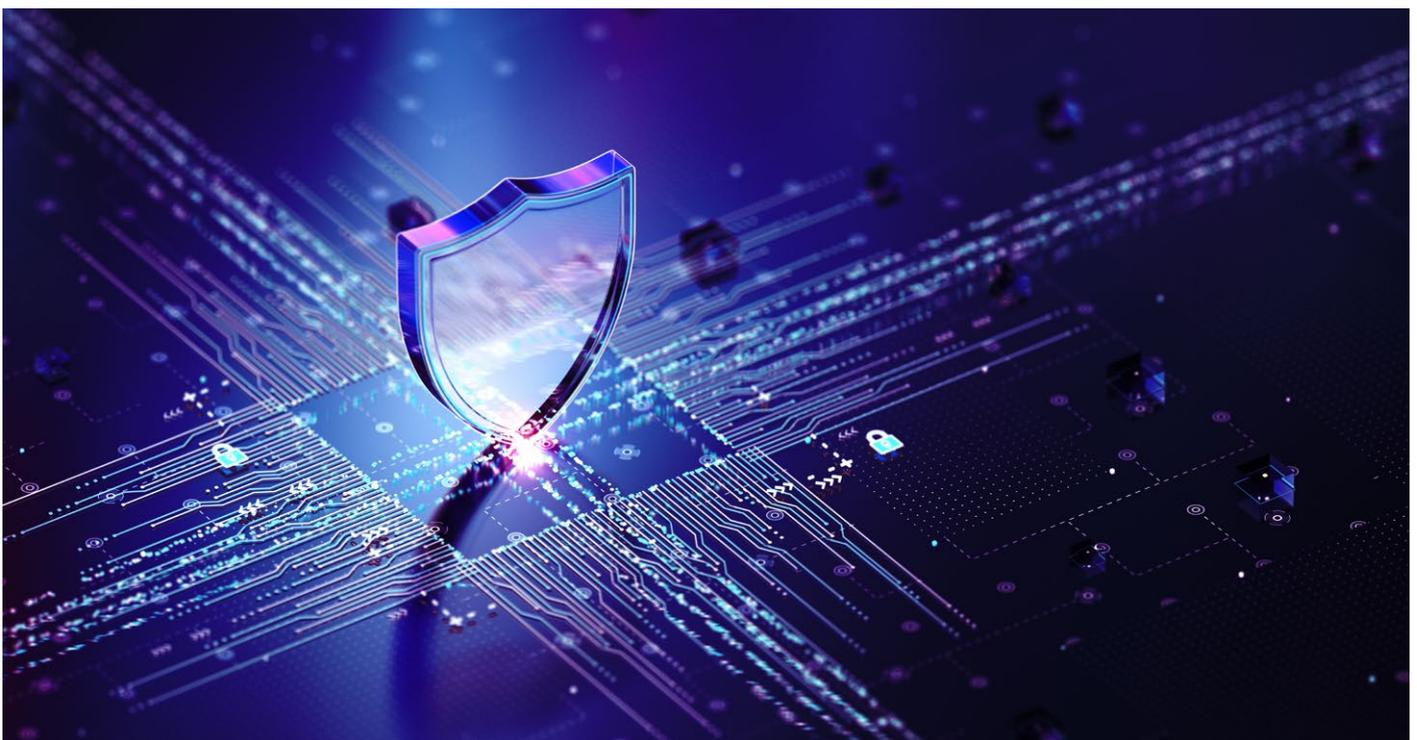
(3) Pathway enablers

Scaling AI-led strategies requires foundational and pathway-specific capabilities spanning technology, operations, governance and ecosystems.

> " **Successful execution in any AI-led transformation depends on the right enablers – capabilities that allow telcos to participate in and scale each strategic pathway.**

Successful execution in any AI-led transformation depends on the right enablers – capabilities that allow telcos to participate in and scale each strategic pathway. They allow telcos to develop specific capabilities to build, scale and commercialize offerings along the value chain. Each strategic pathway requires a distinct set of enablers to participate and scale. For example, offering AI-optimized IaaS requires the ability to build, test and operate the underlying technology reliably; commercializing specialized vertical solutions requires talent, tooling and sales motions.

We have grouped enablers into two layers:

–   **Foundational enablers** spanning AI strategy and value realization, data and AI foundation, and trust, security and compliance are essential for scaling AI across all pathways. They address common barriers like fragmented data, inconsistent governance and operational complexity that trap AI in pilots. These enablers ensure AI delivers measurable outcomes. A disciplined approach to AI value generation governs use case selection and value tracking across network, customer and enterprise domains. Meanwhile, an AI fabric establishes a unified data/AI backbone with governed data products, shared model/

tooling standards and reusable components, and change management and responsible AI embed clear accountability, guardrails and AI-enabled workflows to facilitate safe adoption. Operators must also apply a clear decision lens to what they should build, buy or deliver through partners, balancing trade-offs such as investment capacity, legacy technology debt, regulatory constraints, talent availability and the need for differentiation.

–   **Pathway-specific enablers** shape how far a telco can extend beyond the connectivity core into AI-powered managed services and, ultimately, sovereign roles. They encompass the internal (infrastructure, product and sales, operating model, talent) and external (partnerships and ecosystems) capabilities needed to execute on the strategic pathways in this paper. Each pathway builds on the last – **modern telco** capabilities create the cloud- and AI-native network and operating base required for assured performance, **AI techco** capabilities add the product, platform and delivery discipline to run SLA-grade services at scale, and the **national sovereign champion** layers on sovereign infrastructure, governance and ecosystem orchestration aligned to government and regulated-sector requirements.

Enablers →	Pathway 1: Modern telco	Pathway 2: AI techo	Pathway 3: National sovereign champion
Pathway specific — Infrastructure	☑ Unified AI-coded IT architecture supporting autonomous operations ☑ Interoperable, API-driven RAN/core, secure edge, and transport fabric (DCI, AI-optimized colocation)	☑ Advanced automation of network and data centre operations with cloud-native, GPU-ready architectures and automated provisioning	☑ Sovereign, automated AI infrastructure including regional data centres, GPU clusters and in-country deployment models
Product and go-to-market	☑ AI-powered sales, customer care and product support ☑ Assured connectivity productized into tiered stock keeping units (SKUs) with use- and SLA-based pricing	☑ Product factory to design, demo and run AI solutions with repeatable product lifecycles to scale ☑ AI-powered managed services delivered end-to-end with SLAs (NaaS, vertical/horizontal AI, GPUaaS)	☑ Mission-critical sovereign AI use cases for defence, energy, public safety and emergency response ☑ Sovereign IaaS, sovereign AI platform, sector-specific LLM/SLM services
Operating model and talent	☑ Autonomous, AI-first operating model across network, customer and corporate functions, enabled by reskilled teams operating and supervising agentic AI ☑ Programmable network capabilities exposed via APIs and enterprise bundles	☑ AI-enabled operating model delivering SLA-grade services, predictive operations and self-service-first journeys ☑ Talent reskilling to support verticalized solutions, technical advisory and high-value managed services	☑ National-grade operating model to run a complete sovereign AI stack with transparent controls, audit mechanisms and regulated assurance
Ecosystem and partnerships	☑ Partner with hyperscalers, device/AI ecosystems and industry players to scale immersive and mission-critical connectivity	☑ Co-innovation with hyperscalers, AI model providers, integrators, software partners; MODaaS consumption model to telco	☑ Collaboration with AI companies, cloud and hardware providers, governments ☑ Participation in sovereign AI programmes, including AI gigafactories, national AI centers of excellence, and population and workforce reskilling initiatives
Foundational — AI strategy and value realization	☑ Disciplined AI portfolio governance with prioritization and funding based on ROI and strategic fit, supported by organizational reskilling to operationalize agentic AI, with clear value metrics and benefits tracking		
Data and AI foundation	☑ Shared data and AI layer with governed data products, standardized models/tooling, reusable platforms and agentic automation		
Trust, security and compliance	☑ Responsible AI, security, identity, compliance and model risk management embedded by design		

Note: Pathways are cumulative; each pathway builds on the enablers of the previous one.

Prioritization: assessing value and feasibility

AI strategic plays vary significantly in value potential and execution feasibility, highlighting the tradeoffs involved for telecom providers.

Based on the previous sections, expected benefits can be assessed against the investment and ongoing run rate costs required to scale. Viewed together, the value and feasibility frameworks serve as a practical proxy for ROI, helping operators prioritize their strategic growth opportunities.

The value dimension reflects the relative commercial, customer and operational impact each opportunity can create. Feasibility captures the cost and complexity required to execute at scale. Taken together, the two dimensions provide

a directional view of which opportunities offer strong near-term potential, which require further capability development or ecosystem alignment, and those that may be longer-term strategic bets. See Appendix A for a detailed assessment of each strategic play.

The resulting matrix does not prescribe a single path. Rather, it highlights the trade-offs that each operator will need to evaluate in the context of its market, assets, partnerships and strategic ambition.

FIGURE 3 | **Value feasibility matrix for AI strategic plays**

ROI of top initiatives
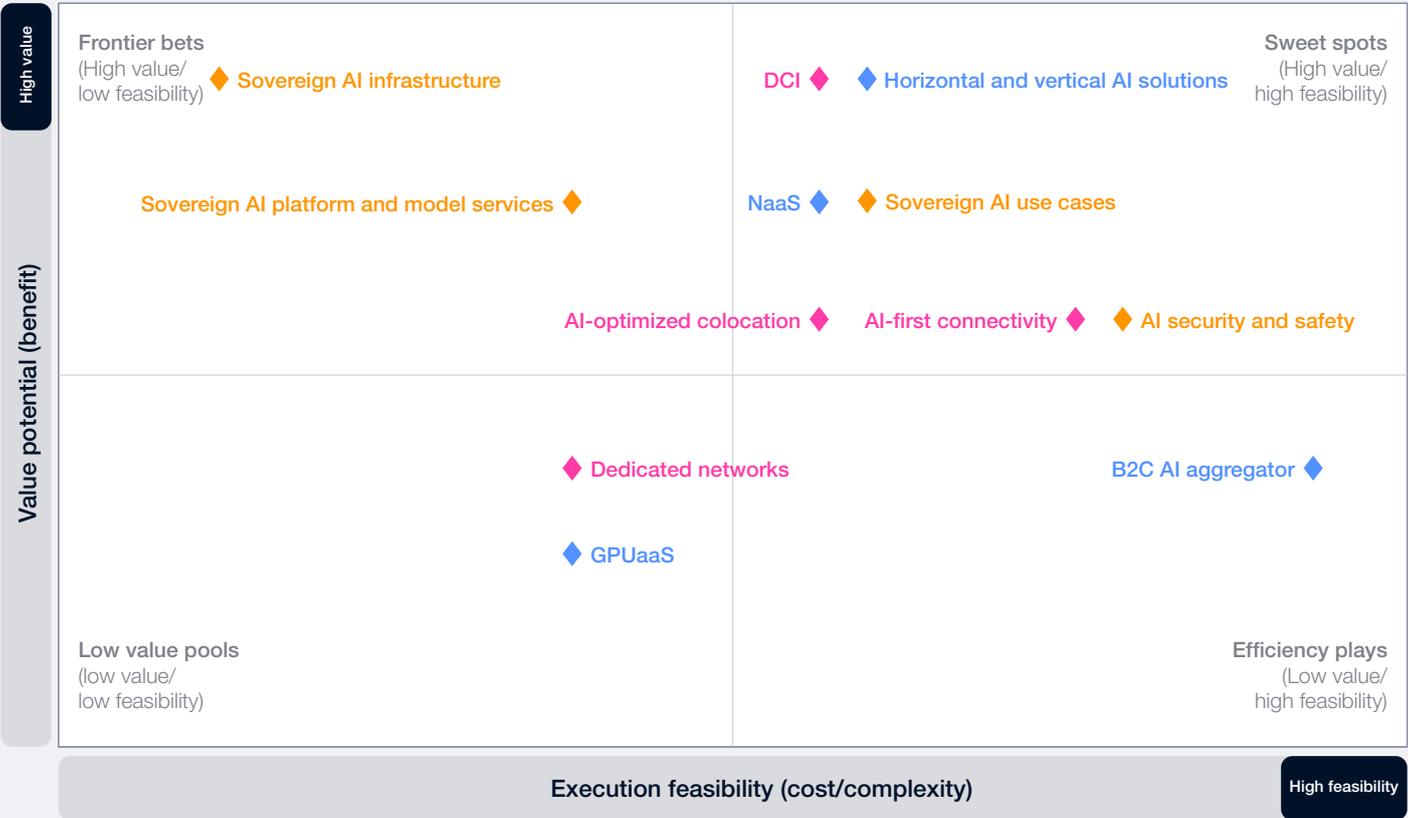
Legend: Modern telco · AI techco · National sovereign champion

Conclusion

The AI era fundamentally redefines the role of telcos. Beyond delivering advanced connectivity, telcos are increasingly positioned to power intelligent and sovereign systems – and, in some contexts, to assume a central role in orchestrating the national AI value chain. This evolution places telcos at the heart of building resilience, sovereignty and security across economies and critical sectors.

The extent to which telcos can pursue and succeed in these roles will be shaped by the policy environment and the ambition of local governments' sovereign agendas. In certain geographies, regulatory constraints and market dynamics may force telcos to focus on a modern, AI-enabled core connectivity play. In others, telcos may be well-positioned to emerge as national sovereign champions, co-owning and executing a country's agenda to strengthen digital resilience and strategic autonomy.

Over the next decade, telcos that deliberately align their core operations, growth initiatives and sovereignty ambitions within their specific national and market contexts will see increases in value creation. Those able to integrate these plays coherently will be best positioned to capture the opportunities outlined across the pathways described in this paper.

Appendix

A1 | Value and feasibility assumptions

Lever definitions

Value criteria ❶ ❷ ❸ ❹ ❺

(1–5; higher is better)

– **Revenue potential:** ability to generate direct revenue at scale, not proxy or indirect monetization

– **Customer satisfaction impact:** impact on end-customer experience

– **Operational efficiency impact:** impact on the telco's internal cost structure

Feasibility criteria ❶ ❷ ❸ ❹ ❺

(1–5; higher is better)

– **Cost to execute:** scale of investment required – including capital expenditure, platform build, integration costs, and operational transformation needed to bring the opportunity to market

– **Complexity to execute:** level of organizational, technical, regulatory and ecosystem challenges associated with delivering and scaling the opportunity

Assumptions

AI-first connectivity

– **Revenue:** ❸

Tiered performance pricing exists but is constrained by competition and regulatory symmetry

– **Customer satisfaction:** ❺

Deterministic QoS and uplink performance materially improve AI-era service expectations

– **Cost:** ❹

Primarily software and intelligence upgrades; incremental to existing assets

– **Complexity:** ❹

Moderate; depends on 5G standalone readiness but avoids large-scale rebuilds

– **Value rationale:** Foundational for AI but limited in direct monetization, with value mainly indirect

DCI

– **Revenue:** ❺

AI factories and inter-cloud synchronization create multi-year, high-margin transport demand

– **Customer satisfaction:** ❹

Enables stable performance across distributed compute workloads

– **Cost:** ❸

Requires optical backbone upgrades but harnesses existing fibre routes

– **Complexity:** ❸

Moderate integration requirements with hyperscalers and core transport systems

– **Value rationale:** Strongest commercial upside due to sustained growth in AI-era data exchange

Dedicated networks

– **Revenue:** ❷

Demand limited by enterprise readiness and high cost of retrofitting operations

– **Customer satisfaction:** ❺

Offers guarantees needed for robotics, automation and real-time analytics

– **Cost:** ❷

Enterprise deployments and on-premise infrastructure make it cost-intensive

– **Complexity:** ❷

High due to heterogeneous enterprise environments and vertical-specific workflows

– **Value rationale:** While overall adoption may be slow and niche, specific segments, such as government and defence, energy and utilities and industrial and critical infrastructure, may be higher-value

AI-optimized colocation

– **Revenue:** ❹

Power-dense, liquid-cooled space is scarce and commands premium hosting rates

– **Operational efficiency:** ❷

Limited direct internal efficiency benefits

- **Cost:** 3

  Retrofitting for power and cooling drives moderate investment

- **Complexity:** 3

  Requires facility engineering but follows predictable processes

- **Value rationale:** Attractive in AI-intensive regions but not transformational in most markets

NaaS

- **Revenue:** 3

  Programmable connectivity and APIs provide new enterprise revenue, though demand remains early-stage

- **Operational efficiency:** 4

  Automation reduces bespoke engineering and simplifies enterprise provisioning

- **Cost:** 3

  Requires automation, slicing and operations support system (OSS)/business support systems (BSS) integration

- **Complexity:** 3

  Moderate technical and operational transformation required

- **Value rationale:** Emerging monetization upside but not yet proven at scale in most markets

Horizontal and vertical AI solutions

- **Revenue:** 5

  Vertical AI represents one of the largest adjacency revenue pools for telcos

- **Customer satisfaction:** 4

  Industry-aligned solutions deliver measurable operational outcomes

- **Cost:** 3

  Requires investment in productization and domain expertise

- **Complexity:** 2

  High due to vertical integration and regulated customer environments

- **Value rationale:** Major long-term growth adjacency with multi-industry relevance

GPUaaS

- **Revenue:** 1

  Strong demand, but hyperscaler competition limits upside in non-sovereign markets

- **Customer satisfaction:** 3

  Local compute reduces latency and simplifies enterprise procurement

- **Cost:** 1

  GPUs, cooling and infrastructure orchestration make this extremely capital-intensive

- **Complexity:** 2

  Requires integration with AI workflows, orchestration and SLAs

- **Value rationale:** Demand is evident, but telcos' competitive position is weak, limiting revenue

B2C AI aggregator

- **Revenue:** 2

  Average revenue per user (ARPU) uplift limited to bundles and churn-reduction effects

- **Customer satisfaction:** 4

  AI assistants and personalization improve perceived service quality

- **Cost:** 5

  Low-cost, software-driven offering with minimal infrastructure needs

- **Complexity:** 4

  Moderate integrations but overall low implementation complexity

- **Value rationale:** Enhances experience but offers limited commercial upside in consumer markets

Sovereign AI infrastructure

- **Revenue:** 5

  National AI programmes and sovereign AI factories offer multi-year, high-value contracts

- **Customer satisfaction:** 4

  Supports mandatory compliance for regulated and public-sector workloads

- **Cost:** 1

  Highest capital burden due to data centres, power systems and graphics processing unit (GPU) clusters

- **Complexity:** 1

  Requires heavy regulatory alignment, multi-year builds and ecosystem coordination

- **Value rationale:** One of the strongest long-term revenue pools where national investment exists

Sovereign AI platform and model services

– **Revenue:** 4

High subscription and platform revenues, especially in regulated sectors

– **Customer satisfaction:** 5

Critical for ensuring policy compliance, governance and aligned model behaviour

– **Cost:** 2

Requires substantial investment in ModelOps and platform capabilities

– **Complexity:** 2

High due to multi-tenant, regulated and compliance-driven deployment requirements

– **Value rationale:** High recurring value where sovereign AI programmes are active

Sovereign AI use cases

– **Revenue:** 4

High-value vertical applications in national health, energy and public safety

– **Customer satisfaction:** 5

Trusted, high-impact solutions aligned with public-sector and national priorities

– **Cost:** 3

Moderate to high investment depending on depth of vertical integration

– **Complexity:** 2

Requires deep regulatory compliance and industry integration

– **Value rationale:** Attractive where governments prioritize local AI solutions in critical sectors

AI safety and security

– **Revenue:** 3

Monetized primarily through bundling into sovereign and enterprise AI solutions

– **Customer satisfaction:** 5

Trust, assurance and safe operation are essential for AI adoption in regulated sectors

– **Cost:** 4

Primarily software and policy frameworks with relatively low incremental cost

– **Complexity:** 3

Requires governance and monitoring processes but manageable relative to other AI services

– **Value rationale:** Essential capability, but limited as a standalone commercial engine

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