

The Telco Transformation Nexus: Synthesizing Achievements and Confronting Blockers from FutureNet Asia 2025



Tangible Progress on the Transformation Journey: Key Achievements and Success Stories

The telecommunications industry stands at a pivotal juncture, navigating a profound transformation driven by the convergence of 5G, cloud-native architectures, and artificial intelligence. The discussions convened at the FutureNet Asia 2025 conference provide a clear and compelling narrative of an industry in motion.

FutureNet (World, MENA, Asia) is a fantastic platform that support the industry where open and honest peer to peer discussions take place and speakers, largely the CSPs from across the region share practical insight on how they are actually applying automation and AI, and not theory.

While formidable challenges persist, the evidence of tangible progress is undeniable. Operators are moving beyond theoretical frameworks and proof-of-concept trials to deploy intelligent automation, generative AI, and modernized network foundations that are delivering measurable value. These early successes, ranging from significant operational cost reductions to the creation of entirely new revenue streams, are not merely isolated victories. They represent critical milestones that build organizational momentum, justify further investment, and illuminate a viable path toward the future vision of the AI-native "tech-co." This section provides a detailed, evidence-based account of these key achievements, showcasing where the industry is succeeding and using specific company examples and quantifiable outcomes to demonstrate real-world value creation.

A consistent pattern emerges from the analysis of these successes: operators are strategically pursuing high-impact, tangible "quick wins" in operational domains to build the necessary financial and political capital for more profound, long-term foundational changes. The immediate, measurable returns from initiatives like AI-driven energy savings or automated customer service act as the crucial enabler for undertaking the more arduous, multi-year projects of data harmonization and legacy system retirement. This pragmatic sequencing—where short-term value fuels long-term vision—appears to be a hallmark of the most successful transformation strategies observed.

Table 1: Quantifiable Achievements in Telco Transformation

<u>Domain</u>	<u>Initiative/Project</u>	<u>Company/Entity Mentioned</u>	<u>Reported Outcome / Quantifiable Metric</u>
Operational Efficiency	AI-Driven Energy Savings	Multiple Operators	18% energy savings achieved via AI automation; 6-7% realized in other projects.
	NOC & Field Automation	Rakuten Mobile	Network team maintained at 200-250 engineers despite significant site growth.
	Process Automation	Unspecified Operator	Tasks previously taking 4-8 hours completed in 4 minutes.
Customer Experience	GenAI for Customer Service	Rakuten Mobile	Over 70% of subscriber exchanges resolved internally by AI.
	Digital Channel Adoption	Unspecified Operator	Over 60% of customer contacts handled by digital channels.
	Proactive CX Analytics	XL Smart	Measurable uplift in Net Promoter Score (NPS) and Mean Opinion Score (MOS).
Network Modernization	5G Standalone (SA) Deployment	Singtel	Nationwide 5G SA coverage achieved 3 years ahead of schedule.
	Cloud-Native Network Build	Rakuten Mobile	World's first end-to-end cloud-native, virtualized mobile network.
	Voice over New Radio (VoNR)	Jio	Pan-India VoNR rollout on a homegrown 5G SA technology stack.
New Revenue & Monetization	Industry API Framework	GSMA Open Gateway	~80% of global mobile connections signed up; 66 CAMARA APIs published.
	B2B Data Monetization	Docomo	120% increase in visit rate and 67% new customer rate for Audi Japan campaign.
	Ecosystem Monetization	Rakuten Mobile	3x to 5x improvement in conversion rates for ecosystem partners.

1.1. Operational Excellence through Intelligent Automation

The most immediate and quantifiable returns on AI investment are being realized in the core domain of network operations. By applying AI and machine learning-collectively termed AIOps-to the complex and data-rich environment of network management, operators are achieving significant gains in efficiency, reliability, and cost reduction. These "quick wins" are proving instrumental in demonstrating the tangible value of AI to the broader organization.

Energy Optimization

Energy consumption represents one of the most significant operational expenditures for network operators, making it a prime target for AI-driven optimization. The core principle of these initiatives is to dynamically align network resource consumption with real-time traffic demand, thereby eliminating the substantial waste incurred by radiating at full capacity during lean periods. Algorithms are now being integrated as native features in vendor software to intelligently manage the "connected load". A prime example is Jio's initiative to adjust capacity during off-peak hours, such as between 2 AM and 4 AM when traffic can plummet to as low as 5% of peak levels. This approach converts what was previously unavoidable energy wastage into direct, tangible bottom-line savings without any discernible impact on the Quality of Service (QoS) or Quality of Experience (QoE) for the end user.

The financial impact of these projects is compelling. Across the conference, various operators reported concrete results, with one achieving **6-7% in energy savings** from initial projects, and another realizing a more substantial **18% reduction** by applying AI specifically to energy automation systems. These figures are further bolstered by vendor projections suggesting that a fully optimized network could potentially achieve savings of up to

40%. In one instance, an operator noted that combining energy-saving initiatives with agentic AI approaches yielded a "2% innovation" improvement, indicating that even incremental gains are being meticulously tracked and valued. This focus on energy optimization provides a clear, financially attractive entry point for AI adoption, delivering a straightforward ROI that resonates with C-level executives.

Predictive Maintenance and Fault Management

A fundamental shift is underway in network maintenance, moving from a reactive "break-fix" model to a proactive, predictive paradigm. AI is at the heart of this transition, enabling operators to anticipate and mitigate network issues before they impact customers. One of the most valuable applications is the detection of "silent failures"-hardware or software degradations that do not trigger standard alarms and have historically been identified only after a critical mass of customer complaints. Docomo, for instance, is using AI to identify device performance degradation that occurs only under very specific and rare combinations of device and spectrum conditions, issues that are nearly impossible for human-led analysis to detect in a timely manner.

This predictive capability extends to more common operational challenges. Specific use cases highlighted include the detection of "sleeping cells"-radio sites that are powered on but not correctly serving traffic-and the ability to dynamically adjust the coverage of adjacent sites when a primary site experiences an outage due to power or fiber issues. By automatically compensating for the coverage gap, the operator can mitigate the service disruption for affected customers, directly improving network resilience and customer satisfaction. The overarching strategic goal, articulated by multiple speakers, is to evolve towards a state of self-healing, "zero-outage" operations, where the network can autonomously detect, diagnose, and resolve a significant portion of its own faults.

NOC and Field Workforce Automation

The benefits of intelligent automation are extending beyond the network infrastructure itself to the human teams responsible for its management. Generative AI is being deployed to create powerful tools for the field workforce, fundamentally changing their interaction with the Network Operations Center (NOC). Field staff at operators like Jio can now use a mobile application to query a central data repository for real-time information on network events and verification status. This self-service capability eliminates the need for time-consuming phone calls to the NOC, dramatically reducing the Mean Time to Detect and Resolve (MTDR) issues. By empowering field engineers with immediate access to data, operators are alleviating customer pain points more quickly and improving overall network reliability and availability.

This automation-first approach is yielding remarkable gains in operational leverage. Rakuten Mobile stands out as a key case study, having built its network on a cloud-native, highly automated foundation from its inception. This has allowed the company to maintain a lean and highly efficient network team of only **200-250 engineers**, a figure that has remained stable despite the continuous growth in the number of network sites. This operational model, which mirrors the scaling dynamics of software-centric IT companies rather than traditional telcos, is a testament to the power of deep automation. The productivity improvements can be profound; one anecdote shared during the conference highlighted a workflow where tasks that previously required 4 to 8 hours of manual effort can now be completed in just

4 minutes using AI-assisted tools. Such gains not only reduce costs but also free up highly skilled engineering talent to focus on more strategic activities like architecture improvement and innovation.

1.2. Redefining Customer Engagement with Generative AI

Beyond the operational efficiencies in the network core, Generative AI (GenAI) is making a significant and highly visible impact on customer-facing functions. The technology is enabling a fundamental reimagining of customer service, moving from a cost-centric, reactive model to a proactive, personalized, and value-creating one. Operators are leveraging GenAI not only to automate interactions but also to enable a level of hyper-personalization that was previously unattainable at scale.

Automated Customer Service

The most widespread and mature application of GenAI in the customer domain is in the automation of customer service interactions. AI-powered agents and chatbots are now capable of handling a significant volume of routine customer queries with a high degree of accuracy and consistency. One operator reported a transformative shift in its contact center operations, with digital channels now successfully handling over **60% of all customer contacts**. This

automation frees human agents to focus on more complex, high-empathy, or high-value interactions. Even in these more complex cases, AI is playing a crucial role as a "co-pilot," assisting human agents by reading and summarizing verbose customer complaints, extracting keywords, and formulating potential responses, thereby improving the speed and quality of human-led resolutions.

The efficiency gains from this approach are substantial. Rakuten Mobile reported that its AI systems now resolve over **70% of subscriber exchanges internally**, drastically reducing the need for and cost of external chat services or human intervention. Similarly, Telstra is deploying agentic AI with a specific focus on improving first-contact resolution rates. By equipping the initial agent with the information and capabilities to solve a customer's problem without escalation, Telstra is reducing the frustrating and inefficient process of transferring customers between different departments. These deployments demonstrate that GenAI is delivering clear, measurable improvements in both cost-efficiency and the quality of the customer service experience.

Hyper-Personalization and New Service Creation

The strategic ambition for GenAI extends far beyond automating existing processes. The ultimate goal is to enable "hyper-personalization," a paradigm where services are no longer defined by the operator but are dynamically co-created with and for the individual customer. This represents a fundamental shift away from the traditional model of forcing customers to choose from a limited menu of operator-defined packages (e.g., 1 GB, 10 GB, 100 GB tiers). Instead, AI can infer a customer's unique needs from their behavior—such as their content consumption patterns—and proactively propose a bespoke service mix tailored to them. This could include unique time spans (e.g., a 17-day plan) or bundles with non-telecom services, a level of customization that is impossible to manage at scale with human-led processes.

KDDI's third mobile brand, "Pogo," exemplifies this strategy. Built on a modern, cloud-native stack, Pogo is designed for the agility required to co-create unique offerings with partners in adjacent industries like entertainment, video streaming, and retail. This model allows the integration of distinct billing and service components via the cloud platform, enabling truly unique telco bundles. Rakuten provides an even more powerful example of this ecosystem-driven approach. The company has developed a "Universal Conscious" AI that delivers personalized recommendations not just for telecom services, but across its entire commercial ecosystem. For instance, it can suggest places to visit based on real-time weather, offer travel packages, or provide direct links to purchase recommended products, all within a single, integrated user experience. This strategy explicitly links network data to broader commercial outcomes, measuring success not just in telecom ARPU but in the overall lifetime value (LTV) of the customer across all of Rakuten's businesses.

Innovative In-Network Services

AI is also enabling the creation of entirely new services that are delivered natively within the network infrastructure. This approach offers significant advantages in performance, security,

and data sovereignty. One operator in the region has successfully embedded a real-time Thai language translation service directly into its network. By performing the translation within its own infrastructure, the operator avoids routing sensitive voice data to external cloud services, thereby ensuring lower latency, higher quality, and greater control over customer data.

Another innovative application involves using AI to create and manage premium service tiers that guarantee a specific quality of experience. An operator has introduced "boost mode," "live mode," and "game mode" subscriptions, which leverage AI to ensure that individual customers receive the guaranteed service quality (e.g., low latency for gaming) they have paid for. Crucially, this is coupled with a capacity-aware selling model. To protect the integrity of the premium promise, the system will stop selling these premium modes to new customers in a specific geographic area once certain network utilization thresholds are reached. This sophisticated, AI-managed approach ensures that the premium experience is not diluted, maintaining its value and justifying its price point.

1.3. Building the Foundation: Milestones in Network Modernization

The advanced capabilities of AI-driven operations and hyper-personalized services can only be realized on a modern, agile, and programmable network foundation. Recognizing this, leading operators are undertaking ambitious, multi-year strategic initiatives to modernize their core infrastructure, moving away from the rigid, monolithic architectures of the past. These foundational projects are a prerequisite for becoming an AI-native organization.

Cloud-Native and Virtualized Architectures

The adoption of cloud-native principles-such as the disaggregation of hardware and software, containerization, and the use of microservices-is central to network modernization. Rakuten Mobile is the industry's foremost case study in this domain, having made the strategic decision to build the world's first end-to-end cloud-native, virtualized mobile network from its inception. This greenfield approach, based on Open RAN principles, has allowed Rakuten to build a network that is inherently software-centric, automated, and agile. This architectural choice is the bedrock of the operational efficiency and lean staffing model that sets it apart from incumbent operators.

Even for established operators with extensive legacy infrastructure, the move towards cloud-native is a strategic imperative. KDDI's creation of its Pogo brand was an explicit acknowledgment that its legacy systems were too rigid and slow to compete effectively in the digital services market. By building Pogo on a separate, fully cloud-native BSS/OSS stack, KDDI created an entity with the necessary flexibility and agility to innovate and partner at the speed the market demands. This "digital sub-brand" strategy provides a pathway for incumbents to experiment with and gain experience in cloud-native operations without the immediate need to transform their entire legacy core.

Strategic Legacy Retirement

For some operators, a more radical approach is necessary. British Telecom (BT) has embarked on a bold and comprehensive strategy of rebuilding its global network "from scratch" to make it inherently AI-ready. This initiative moves beyond incremental upgrades and involves a deliberate policy of sunsetting and retiring entire legacy portfolios that do not have a clear roadmap towards being programmable, API-integrated, and capable of supporting AI-driven operations. This represents a decisive break from what was described as a "20-year approach of sticking plasters"-the practice of continually adding layers of complexity to aging infrastructure. By making the difficult decision to decommission systems that cannot support the future vision, BT is aiming to create a more homogenous, simplified, and future-proof platform that can fully leverage the power of AI and automation.

Comprehensive 5G Standalone (SA) Deployments

The transition from 5G Non-Standalone (NSA), which relies on a 4G core, to 5G Standalone (SA) is a critical milestone in network modernization. 5G SA is the essential foundation for delivering on the full promise of 5G, including advanced capabilities like network slicing, ultra-reliable low-latency communication (URLLC), and Voice over New Radio (VoNR). The industry is now moving decisively in this direction. Jio, for instance, made the strategic choice to deploy a 5G SA network from the very beginning, aiming to provide a "true 5G experience" to its customers. This approach has enabled offerings like Fixed Wireless Access (FWA) and has been instrumental in offloading traffic from its congested 4G network. Recently, Jio achieved a landmark pan-India rollout of VoNR, delivering high-definition voice services natively on its homegrown 5G technology stack.

Singtel has also been a global leader in this transition, achieving nationwide 5G SA coverage in Singapore, a world first, a full three years ahead of the regulatory schedule. This early and comprehensive deployment provides a robust platform for developing and monetizing advanced 5G enterprise and consumer services. These deployments by major operators signal a clear industry consensus that 5G SA is not an optional upgrade but a non-negotiable step in building a network capable of supporting the next generation of digital services.

Foundational Transformations for AI Readiness

The journey to becoming AI-native requires more than just network upgrades; it demands a holistic transformation of the entire technology and data stack. M1's four-year transformation program provides a clear blueprint for this foundational work. The program was built on three essential pillars. First, migrating all workloads to a modern digital stack, moving them out of legacy environments and closer to partners and cloud ecosystems. Second, consolidating all organizational data into a unified data lake, creating a single, accessible source of truth for AI and machine learning models. Third, transforming customer interactions by moving to a digital-first engagement model, a shift that was accelerated by changing consumer behaviors during the COVID-19 pandemic. This type of comprehensive, multi-year foundational work is explicitly positioned as a prerequisite for any attempt to deploy and scale AI effectively across the organization.

1.4. Unlocking New Value Streams: Early Wins in Data and API Monetization

A core objective of the telco transformation is to evolve the business model from simply providing connectivity to becoming a platform for digital innovation. This involves exposing network capabilities and data assets through APIs to create new value for enterprises, developers, and the broader ecosystem. While this journey is still in its early stages, tangible progress and successful monetization models are beginning to emerge.

The success of these new monetization strategies hinges on a fundamental change in perspective. The most advanced operators are demonstrating that the greatest value is unlocked not by selling raw network assets, but by integrating network-derived insights into a broader ecosystem of digital services. Companies like Rakuten and Docomo are leading this charge, using their unique positions to link telecom data with commercial outcomes in finance, retail, and media. Their success is measured not in traditional telecom metrics like ARPU, but in the ability to enhance the overall digital life of the customer and drive value across the entire ecosystem. This shift from a telco-centric to a customer-centric value proposition, where the network becomes an enabler of other digital experiences, represents the most promising path to sustainable growth.

GSMA Open Gateway and CAMARA APIs

A critical enabler for the "telco as a platform" model is the standardization of how network capabilities are exposed. The GSMA Open Gateway initiative, built on the CAMARA open-source project, is providing this crucial framework. The initiative has achieved significant global traction, with operators representing approximately **80% of global mobile connections** having signed up. As of the conference,

66 CAMARA APIs have been officially published, with another 37 in active development, covering a range of functionalities from device location and quality on demand to security and identity verification. This industry-wide alignment is essential for creating a scalable and attractive platform for developers and enterprises, who require a consistent, interoperable way to access network services across different operators and geographies.

Emerging B2B Use Cases

With a standardized framework in place, operators are beginning to see success with specific, high-value B2B use cases. The most prominent early wins are concentrated in the security and financial services sectors, where the unique data and identity verification capabilities of the mobile network can solve critical business problems. Fraud-related APIs, such as number verification, SIM swap detection, and device location, are being deployed to help financial institutions combat online fraud and meet Know Your Customer (KYC) requirements. The interest from central banks in these capabilities underscores their importance and market potential.

Telstra has emerged as a leader in this domain, reporting that it has successfully blocked a significant volume of scams, quantified as "plus 100 and 200 business a year". Critically, Telstra is not just using this capability for internal protection but is actively commercializing

it as a service to other enterprises, creating a new revenue stream from its security expertise. Beyond security, other B2B use cases are gaining traction, including Quality on Demand (QoD) for applications like high-definition video streaming and APIs for services like fleet management.

Innovative Data Monetization Models

The most sophisticated monetization strategies go beyond simple API access to leverage the rich data assets of the telco in new and innovative ways. Rakuten provides a powerful model for this, capitalizing on its unique position as both a network operator and a major e-commerce and financial services player. Instead of pursuing traditional data monetization strategies like targeted advertising, Rakuten uses its vast data to create detailed customer segments. These segments are then used to upsell and cross-sell services from across its diverse ecosystem, such as offering a free roaming package to a customer who has just booked a flight through Rakuten Travel. This approach directly links network activity to commercial outcomes in other business units, with prototypes demonstrating remarkable conversion rate improvements of

3x to 5x, depending on the industry.

Docomo has demonstrated similar success through its "DocomoSense" customer understanding platform. In a notable case study, Docomo provided anonymized customer profile data to Audi Japan for a marketing campaign targeting potential electric vehicle (EV) buyers. The campaign, powered by these deep insights, resulted in a **120% increase in the visit rate** to dealerships and a **67% new customer rate**, a clear and quantifiable business outcome for its enterprise partner. These examples show that the most lucrative data monetization opportunities often lie in providing high-value, aggregated insights that solve specific business problems for other industries.

Shift to New Commercial Models

Underpinning these new services is a necessary evolution in commercial thinking. The discussions highlighted a strategic shift away from traditional, connectivity-based metrics like Average Revenue Per User (ARPU). In their place, new models are emerging, such as focusing on the overall "augmented revenue per user" across an ecosystem, or developing activity-based pricing, captured by the metric Average Revenue Per Activity (ARPA). The overarching goal is to transform the telco business model to monetize a broader portfolio of assets, including the network, IT platforms, data, and software, by offering them as services (Network-as-a-Service, SaaS, Data-as-a-Service) to the enterprise market. This platform-centric approach is seen as essential for unlocking future growth and moving beyond the stagnant revenues of the traditional connectivity business.

Section 2: Systemic Roadblocks and Critical Pain Points: The Breakers Stalling Scaled Transformation

While the progress in telco transformation is tangible and encouraging, the path forward is impeded by a series of profound and deeply interconnected challenges. The discussions at FutureNet Asia 2025 painted a sober picture of the systemic roadblocks that are slowing down, and in some cases completely stalling, the industry's ability to scale its innovations. These pain points are not isolated technical or organizational issues; they form a complex web of dependencies where a lack of progress in one domain creates a cascading effect of limitations in others. From the foundational crisis in data management to the pervasive weight of legacy systems, the unresolved puzzle of monetization, a growing crisis of trust in AI, and the persistent human elements of culture and skills, these blockers represent the critical battlegrounds where the future of the industry will be decided. This section dissects these core challenges, analyzing their root causes and their far-reaching, cross-functional impacts.

2.1. The Data Dilemma: Fragmentation, Quality, and Governance as the Primary Blocker

Across virtually every panel and presentation, the state of data management was identified as the single most significant and urgent impediment to telco transformation. It is the foundational roadblock upon which nearly all other ambitions—from scalable AI and autonomous networks to hyper-personalization and new monetization models—depend. The industry is rich in data but poor in its ability to effectively harness it, a dilemma that manifests in three critical areas: pervasive fragmentation, poor quality, and immature governance.

Pervasive Silos and Fragmentation

The description of data as being "everything, everywhere" captures the scale of the opportunity, but the reality is that this data is trapped in disconnected silos, rendering it largely unusable for advanced, cross-domain analytics. This is not a new problem, but it has been significantly exacerbated by the very technologies intended to drive transformation. The rollout of 5G, edge computing, and cloud services has introduced a host of new, isolated data sources for critical information like network inventory, alarms, and performance events, adding to the complexity. Data remains fragmented across a heterogeneous landscape of legacy OSS/NMS systems and multiple vendor and partner platforms, each with its own incompatible schemas and data models.

This fragmentation is not merely a technical challenge; it is deeply embedded in the organizational structure of most operators. Different departments—such as the Service Operations Center (SOC), network planning, engineering, and customer care—have historically operated in functional silos, each with their own systems, processes, and ways of interacting with data. This organizational structure is mirrored in the IT architecture, making it exceedingly difficult to create the holistic, end-to-end view of the network and the customer that is the absolute prerequisite for intelligent automation and personalization.

Poor Data Quality and the "Garbage In, Garbage Out" Risk

The problem of data silos is compounded by a fundamental lack of data quality and hygiene. The absence of a "single source of truth" for key data entities creates a severe risk of a "garbage in, garbage out" scenario, which threatens to undermine the credibility and effectiveness of any AI initiative built upon it. AI models are only as good as the data they are trained on, and when that data is inconsistent, incomplete, or inaccurate, the models will produce unreliable and potentially harmful outputs.

The practical consequences of poor data quality can be stark. One particularly telling example shared at the conference involved an advanced AI project that was brought to a complete halt by a seemingly trivial issue: the RAN team and the core network team used different naming conventions for the same cell sites. This inability to reconcile a fundamental data entity made it impossible for the AI model to correlate data across the two domains. The fact that a multi-million-dollar AI initiative could be derailed by such a basic data hygiene problem illustrates the depth of the challenge. Before operators can succeed with advanced AI, they must first master the "boring engineering detail" of data cleansing, standardization, and management.

Lack of Mature Governance

Underpinning the issues of fragmentation and quality is a widespread lack of mature, enforceable data governance. Most operators lack a unified, structured architecture and a clear set of policies for managing the vast and growing volumes of both structured and unstructured data at scale. This governance vacuum leads to a state of "system sprawl," where data is duplicated across multiple systems, driving up storage and computation costs without a clear business justification. It also prevents operators from making strategic, enterprise-wide decisions on critical issues like data retention policies, data access controls, and the optimal processing frequency for different data types (e.g., real-time streaming vs. nightly batch processing).

There is a clear and urgent call for a concrete, time-bound data harmonization plan, complete with named, accountable owners, target canonical schemas, and defined metadata standards. Without such a disciplined and centrally-governed approach, integration efforts will continue to stall, and the outputs of AI models will remain unreliable. Industry bodies like the TM Forum are providing resources such as the Data Governance Framework to guide operators in this critical effort, but the responsibility for implementation lies within each organization.

2.2. The Weight of the Past: Legacy Systems and Pervasive Technical Debt

The data dilemma is inextricably linked to another fundamental blocker: the immense weight of legacy infrastructure and the associated technical debt that has accumulated over decades. These aging systems act as a significant anchor, perpetuating data silos, stifling agility, and consuming a disproportionate share of resources that could otherwise be directed toward innovation.

Inflexibility and "Black Box" Architectures

Legacy BSS/OSS and network management systems are frequently described as rigid, monolithic, and brittle, hindering any attempt at rapid change or adaptation to new market trends. British Telecom's characterization of its older infrastructure as "black box architectures" is particularly apt. These systems are often proprietary and closed, with limited or poorly documented APIs, making it exceedingly difficult to extract data or integrate them with modern, cloud-native platforms. This inherent inflexibility is a direct barrier to the "telco as a platform" vision, which depends on the ability to easily expose network functions and data through modern, standardized APIs.

Complexity of Automation

The complexity of these legacy environments makes them notoriously difficult to automate. It is often far more challenging, costly, and risky to develop and deploy automation for a legacy system than it is to design automation for a greenfield, cloud-native architecture from the outset. This creates a two-speed reality within many incumbent operators. While they may launch new, agile digital sub-brands on modern platforms, their core business-and the vast majority of their revenue and customers-remains tethered to slow, manually-intensive processes dictated by the limitations of their legacy core. This internal friction between the "old" and the "new" is a major source of operational inefficiency and a significant barrier to enterprise-wide transformation.

Cost and Resource Drain

Beyond their technical limitations, legacy systems represent a significant and ongoing financial burden. A large percentage of telco IT budgets is consumed simply by the maintenance and support of these aging platforms, a phenomenon often referred to as "keeping the lights on". This technical debt creates a vicious cycle: the resources spent on maintaining the old systems are unavailable for investing in the new systems that would ultimately replace them. The cost of inaction grows over time, as the legacy systems become more fragile, the pool of talent with the skills to maintain them shrinks, and the opportunity cost of not innovating increases. This constant drain on financial and human capital is one of the most significant, albeit often hidden, barriers to transformation.

2.3. The Monetization Puzzle: Justifying ROI in an Evolving Market

Despite the significant technological advancements and the tangible progress in operational efficiency, the industry continues to grapple with the fundamental challenge of building compelling, near-term business cases for its largest strategic investments, namely 5G and AI. This monetization puzzle is a critical blocker, as the inability to demonstrate a clear and convincing return on investment (ROI) makes it difficult to secure the sustained, large-scale funding required for a full transformation.

The rapid, almost weekly, evolution of AI technology introduces a strategic dilemma that can lead to organizational paralysis. On one hand, the constant emergence of newer, more powerful models creates a strong temptation to delay adoption and wait for the "next best thing" to mature. This cautious approach seems prudent, avoiding investment in technology that might quickly become obsolete. However, this perspective overlooks a critical reality: the foundational work required to be "AI-ready"-solving the data dilemma, modernizing legacy systems, and upskilling the workforce-is a multi-year endeavor. Operators who wait for the technology to stabilize risk finding themselves years behind on these non-negotiable prerequisites. This creates a "pacing paradox": the technology is moving at sprint speed, while organizational readiness progresses at a marathon pace. The most successful operators will be those who can decouple their long-term foundational strategy from the short-term AI hype cycle. They must begin the slow, hard work on data and skills now, creating a state of perpetual readiness that allows them to adopt the best-of-breed AI models whenever they choose, rather than being forced to wait because their organizational house is not in order.

The 5G Monetization Challenge

The massive capital expenditure required for nationwide 5G rollouts has yet to be matched by a corresponding surge in new revenue. A persistent and unresolved question hangs over the industry: are enterprise customers truly willing to pay a significant premium for 5G services?. The emergence of powerful and cost-effective alternatives, most notably Wi-Fi 7, has intensified this challenge, forcing operators to articulate a much clearer value proposition for 5G beyond simple speed and latency improvements. The lack of a clear, proven strategy for achieving payback on these multi-billion-dollar investments is identified as a major financial risk for the industry.

The AI ROI Justification Gap

A similar challenge exists in the realm of artificial intelligence. While the long-term potential of AI is widely acknowledged, there is a distinct lack of disciplined, value-based prioritization for AI projects. Initiatives often lack a ranked backlog with clearly quantified Key Performance Indicators (KPIs), accountable owners, and realistic timelines. To instill greater discipline, a clear and measurable target was proposed: any AI initiative that cannot demonstrate a path to a

20% efficiency improvement should be reconsidered or discontinued.

Furthermore, the operational costs associated with agentic AI are a growing concern. The token-based inference costs for large, general-purpose Large Language Models (LLMs) can be substantial and unpredictable, making it difficult to model the total cost of ownership. This economic reality is driving a strategic shift towards the use of smaller, domain-specific Small Language Models (SLMs). By training these smaller models on their own proprietary data, operators can gain greater control over costs, improve the accuracy and relevance of the outputs, and significantly reduce the risk of model "hallucinations".

Leadership's Short-Term Focus

Compounding these technical and commercial challenges is a cultural one within telco leadership. The industry is historically accustomed to business models with relatively short payback periods and predictable returns. The new platform-based business models, however, often require patient, long-term investment, with ROIs that may seem "far-fetched" by traditional telco standards. This prevailing leadership focus on short-term financial results and a general aversion to risk creates a significant cultural resistance to the kind of bold, strategic investments that are necessary to fund a comprehensive transformation. Overcoming this mindset is a critical, non-technical barrier to progress.

2.4. The Crisis of Confidence: Overcoming Trust, Security, and Explainability Hurdles

As artificial intelligence evolves from a purely analytical tool to an agentic and autonomous actor within the network, a profound crisis of trust is emerging as a primary blocker to its deployment in mission-critical domains. The prospect of handing over control of a national mobile network to an AI system is a high-stakes proposition, and operators are rightly demanding a much higher standard of reliability, security, and transparency before they are willing to make that leap.

A noticeable maturation in the industry's thinking around automation is taking place. The initial, somewhat dogmatic pursuit of "zero-touch" operations is being replaced by a more nuanced and pragmatic discussion. The debate now centers on the relative merits of "one-touch" versus "zero-touch" automation, and there is a growing recognition that this binary choice may be the "wrong approach" altogether. Instead, a strong consensus is forming around the concept of AI as a "co-pilot" or "companion" that augments, rather than replaces, human expertise. This is driven by the acknowledgment that the sheer volume of data and complexity of modern networks is "humanly impossible" to manage alone. The strategic goal is being reframed: it is not about eliminating human operators, but about elevating them from repetitive manual tasks to higher-level roles involving strategic thinking, context analysis, and oversight of the intelligent systems. This shift in philosophy represents a move away from a simplistic view of automation-as-replacement and toward a more sophisticated and sustainable model of human-AI collaboration. This pragmatic approach is far more likely to succeed because it directly addresses the critical issues of trust, accountability, and the irreplaceable value of human domain expertise.

The "Black Box" Problem and Explainability

A major source of this trust deficit is the "black box" nature of many advanced AI models. The inability to understand the reasoning behind an AI's decision or recommendation is a fundamental barrier to adoption. While human operators remain ultimately accountable for network performance and stability, they are being asked to trust a system whose internal logic they cannot interrogate. This is an untenable position for any engineer responsible for a

critical system. A single misfire from an autonomous agent in the RAN or core network could potentially trigger a catastrophic, nationwide outage.

To address this, there is a strong push for the adoption of Explainable AI (XAI) techniques. The demand is for AI agents to be able to justify their actions in human-understandable terms. For example, if an agent decides to shut down a network port, it must be able to explain that the action was taken because utilization had reached 95%, rather than it being an opaque, unexplained command. This level of transparency is considered a non-negotiable requirement for deploying closed-loop automation in sensitive network domains.

Hallucinations and Unpredictability

The risk of AI models, particularly LLMs, "hallucinating"-producing outputs that are fluent and plausible but factually incorrect-is another top-tier concern for operators. The potential for an AI agent to act on such a hallucination in a live network environment is a significant and unacceptable risk. This concern is a key driver behind the strategic preference for smaller, in-house-trained SLMs. By grounding these models in a controlled, curated corpus of the operator's own enterprise-specific data (such as technical manuals, historical trouble tickets, and network diagrams), the risk of generating unpredictable or non-compliant outputs can be significantly mitigated.

Escalating Security Threats

The operational landscape is rapidly evolving into an "AI versus AI" dynamic in the realm of cybersecurity. As operators use AI to defend their networks, malicious actors are using AI to craft more sophisticated and evasive attacks. This new reality requires a fundamental rethinking of security architectures. Furthermore, a specific and urgent warning was raised during the conference about the emerging threat of quantum computing. The concern is that a sufficiently powerful quantum computer, which could become a reality within the next two years, would be capable of breaking the encryption algorithms that currently protect critical telecommunications infrastructure. This looming threat makes the principle of "secure by design"-embedding robust, future-proof security into every layer of the network from the outset-a paramount and non-negotiable strategic imperative.

2.5. The Human Element: Navigating Cultural, Organizational, and Talent Gaps

The transformation of the telecommunications industry is not solely a technological challenge. The discussions at FutureNet Asia made it clear that the non-technical barriers-those related to people, culture, and organizational structure-are proving to be just as formidable, and in many cases, more difficult to overcome than the technical hurdles.

Critical Skills Gap

A recurring theme throughout the conference was the severe scarcity of talent with the requisite skills to lead and execute a successful transformation. The ideal candidate possesses a rare and valuable blend of expertise: deep knowledge of AI and machine learning engineering, proficiency in modern data engineering and cloud-native platforms, and, crucially, a profound understanding of the unique complexities of the telecommunications domain. The need for "bilingual" talent-individuals who can bridge the gap between legacy systems and modern architectures-was also highlighted as a critical need. This talent gap is not a minor inconvenience; it is identified as a primary execution risk that could stall or completely derail even the best-laid transformation plans.

Cultural Inertia and Resistance

Beyond the skills gap, there is a deep-seated cultural inertia within many traditional telecom operators that is resistant to change. A fundamental mindset shift is required to evolve from a classic, network-centric "carrier" to a more agile, software-focused, "non-carrier" technology company. A significant part of this cultural challenge is the fear among the existing workforce that AI and automation will lead to job displacement. To counter this, a proactive change management strategy is essential. Leadership must champion a narrative that frames AI as an augmentation tool that empowers employees, not as a replacement for them. Fostering a culture of safe experimentation, where employees are encouraged to learn from mistakes within clearly defined guardrails, is crucial for building confidence and driving adoption. This must be backed by concrete investments in reskilling and upskilling programs to provide clear career paths for employees in the new, AI-enabled organization.

Fragmented Operating Models

The traditional, siloed organizational structure of many telcos is ill-suited for the demands of an AI-native future. The need to completely rebuild team structures was evocatively compared to assembling a sports roster to "win championships"-a process that requires a strategic mix of different skills and a high degree of collaboration. Without a clear and deliberate plan for designing new operating models, defining new role taxonomies (such as ML Engineer, AI Product Owner, and Data Steward), and implementing a comprehensive change management program, transformation initiatives are at high risk of stalling. The technology can be ready, but without the right people organized in the right way to build, deploy, and manage it, the full value of the transformation will never be realized.

Section 3: Strategic Synthesis and Forward-Looking Recommendations

The comprehensive discussions at FutureNet Asia 2025 reveal an industry at a critical inflection point, characterized by a duality of remarkable progress and formidable, systemic challenges. To navigate this complex landscape, a strategic synthesis is required—one that moves beyond analyzing individual issues in isolation and instead focuses on their deep interdependencies. The path forward demands a holistic approach that recognizes the interconnected nature of the industry's blockers and prioritizes actions that create the greatest leverage for unlocking progress across the entire transformation agenda. This final section connects the disparate themes of the conference into a cohesive strategic narrative, illustrating the pervasive dependencies between challenges and providing a set of actionable, multi-layered recommendations for telecommunications leaders.

3.1. The Interconnected Challenge: A Synthesis of Pervasive Dependencies

The pain points stalling telco transformation are not a simple checklist of independent problems; they are a tightly interwoven system of challenges that create a self-reinforcing cycle of inertia. Failure or inaction in one domain inevitably creates cascading roadblocks in others, making a siloed, function-by-function approach to problem-solving ineffective. Understanding this web of dependencies is the first step toward developing a strategy that can break the cycle.

A clear and damaging feedback loop can be mapped from the conference discussions. The journey begins with the **Weight of the Past: Legacy Systems** (Pain Point 2.2), whose rigid, closed architectures are a primary cause and perpetuator of the **Data Dilemma** (2.1), creating and reinforcing the data silos that prevent a holistic view of the business. This fragmented and poor-quality data is then fed into AI initiatives, leading to unreliable models and a lack of transparency, which in turn fuels the **Crisis of Confidence** in AI's trust, security, and explainability (2.4). The resulting unreliable and untrustworthy AI makes it impossible to build a strong, credible business case for new services, directly exacerbating the **Monetization and ROI Puzzle** (2.3). This lack of a clear, quantifiable return on investment reinforces the **Human Element** challenge (2.5), specifically leadership's cultural reluctance to approve the large-scale, long-term capital expenditure required to modernize and replace the very legacy systems that started the cycle. This creates a vicious cycle of inaction, where the problems that prevent investment are the same problems that require investment to solve.

This analysis reveals that breaking this cycle requires a disproportionate and urgent focus on solving the data problem first. A robust, well-governed, and unified data foundation is the central prerequisite that unlocks progress in all other areas. It is the essential fuel for reliable AI, the basis for trustworthy automation, the raw material for new monetizable services, and the justification for legacy modernization. Without a concerted, CEO-sponsored effort to fix

the data foundation, any investments made in advanced AI models, new digital platforms, or cultural change initiatives will be built on sand, destined to yield suboptimal returns and perpetuate the cycle of frustration.

Table 2: Matrix of Core Pain Points and Their Cross-Functional Impact

<u>Core Pain Point</u>	<u>Network Operations</u>	<u>IT/Architecture</u>	<u>Customer Experience/Marketing</u>	<u>Finance/Strategy</u>	<u>HR/Culture</u>
The Data Dilemma	Inability to perform cross-domain root cause analysis. "Garbage in, garbage out" for AIOps, leading to unreliable automation.	Prevents creation of a unified data lake/fabric. Incompatible schemas block integration and scalable AI.	Inability to create a 360-degree customer view, leading to failed personalization and fragmented service interactions.	Lack of trusted data undermines business case modeling and forecasting accuracy.	Data literacy gaps become a major training challenge; data ownership conflicts arise between departments.
The Weight of the Past	Manual, inefficient processes are locked in. Inability to deploy modern, closed-loop automation.	Technical debt consumes a majority of the IT budget. "Black box" systems prevent API exposure and modernization.	Slow time-to-market for new products and services. Inconsistent customer experience across legacy and modern channels.	High TCO of legacy systems drains capital from innovation. Modernization projects are perceived as high-risk, high-cost.	Talent with legacy skills becomes scarce and expensive. Resistance to change is reinforced by familiar but inefficient systems.
The Monetization Puzzle	Lack of clear ROI prevents funding for necessary network upgrades and automation tools.	Architecture decisions are driven by short-term cost-cutting rather than long-term value creation.	Inability to justify investment in advanced personalization and CX platforms. Pressure to launch services without a clear path to profitability.	Leadership's focus on short payback periods stalls foundational, long-term platform investments.	Difficulty in attracting top talent without a clear and compelling growth story. Innovation culture is stifled by a risk-averse financial mindset.
The Crisis of Confidence	Reluctance to deploy closed-loop automation in mission-critical domains (e.g., RAN, Core) due to trust and safety concerns.	Security and explainability become complex, non-functional requirements that slow development.	Customer privacy concerns limit the use of data for hyper-personalization. Negative perception if AI-driven interactions fail.	Regulatory and reputational risks from AI misfires or data breaches create financial liabilities.	Workforce fears AI as a job replacement rather than an augmentation tool, leading to resistance and low adoption.
The Human Element	Lack of domain experts with AI skills slows AIOps deployment. Cultural resistance to new, automated ways of working.	Scarcity of "bilingual" talent (legacy + cloud) stalls migration projects. Siloed teams perpetuate siloed architectures.	Disconnect between technical teams and marketing on translating network capabilities into customer value.	Transformation is viewed as a cost to be managed, not a strategic investment in people and capabilities.	Inability to attract, retain, and reskill talent at the required pace and scale becomes the ultimate bottleneck.

3.2. A Blueprint for Progress: Actionable Recommendations for Telco Leaders

The insights gathered from FutureNet Asia 2025 do not just illuminate the challenges; they also point toward a pragmatic and actionable path forward. The following recommendations, synthesized from the collective wisdom of the conference participants, are tailored for the key leadership functions responsible for driving the transformation agenda.

For the CTO/CIO (Technology & Data)

1. **Declare a Data Emergency:** The pervasive and foundational nature of the data dilemma requires an extraordinary response. Data harmonization, quality improvement, and governance must be elevated from a background IT task to a top-tier, CEO-sponsored strategic priority. This involves appointing a Chief Data Officer or Chief AI Officer with genuine executive authority and the political capital to break down organizational silos and enforce enterprise-wide data standards. The immediate goal is to create a concrete, time-bound harmonization plan with accountable owners and clear metrics for success, moving the organization from a state of data chaos to one of data control.
2. **Adopt a Pragmatic Modernization Strategy:** The weight of legacy systems must be addressed head-on. A definitive strategic choice must be made between a "greenfield" rebuild of core platforms, as pursued by BT, or an "abstraction layer" approach that wraps legacy systems in modern APIs to expose their data and functionality. The specific path may vary, but the strategic objective is the same: to create programmable, API-driven interfaces for all core network and IT functions. This is the non-negotiable technical foundation for becoming a platform-based business. Indecision is no longer a viable strategy.
3. **Prioritize SLMs and a "Trust but Verify" AI Framework:** For mission-critical network operations, a cautious and controlled approach to AI adoption is paramount. The industry consensus is shifting towards prioritizing smaller, in-house trained, domain-specific language models (SLMs) over larger, general-purpose LLMs. This strategy provides greater control over the training data, reduces operational costs, and minimizes the risk of unpredictable "hallucinations". Furthermore, a "human-in-the-loop" architecture should be the default for any AI-driven action in critical network domains. A formal framework with clearly defined gates, performance thresholds, and safety protocols must be established to govern the progression from human-assisted to more advanced levels of autonomy.

For the CCO/CMO (Commercial & Customer)

1. **Shift from Monetizing Connectivity to Monetizing Outcomes:** The persistent struggle to monetize 5G connectivity is a clear signal that the value proposition needs to be reframed. The focus must shift from selling network features (e.g., speed, latency) to selling solutions that solve specific, high-value enterprise problems, such as fraud reduction, identity verification (KYC), or supply chain optimization. The most successful model for this is co-creation: partnering with anchor clients who have a recognized problem and a committed budget to build a solution together.

2. **Embrace "Co-opetition":** The enterprise market, particularly for global corporations, demands a single, unified integration point for network APIs, not a fragmented, operator-by-operator landscape. This means that collaboration among competing telcos is not optional; it is a strategic necessity. By actively pursuing regional and global collaboration on standardized APIs through initiatives like the GSMA Open Gateway, operators can build a larger, more attractive market together. This collective scale is the only viable way to compete with the unified platforms offered by global hyperscalers.
3. **Balance Personalization with Privacy:** The pursuit of hyper-personalization is a powerful tool for enhancing customer experience and creating new value, but it carries significant risks if not managed carefully. As operators leverage AI to gain deeper insights into customer behavior, they must concurrently establish a robust and transparent data ethics and privacy framework. The guiding principle should be to provide helpful, contextual guidance to customers, not to engage in invasive tracking. Maintaining customer trust is a long-term asset that, once lost, is nearly impossible to regain.

For the CEO/CHRO (Strategy & Culture)

1. **Lead the Cultural Transformation:** The CEO must be the chief champion of a new culture that embraces AI as an augmentation tool that empowers employees, not as a threat that replaces them. This requires more than just rhetoric; it demands visible, symbolic actions. Launching high-profile, cross-functional initiatives to build AI fluency across the organization—such as Telstra's program to provide 1,000 Microsoft AI tool licenses to its staff—can be a powerful catalyst for change. Publicly celebrating the "quick wins" achieved through AI in areas like energy savings or customer service helps to build positive momentum and demonstrate the tangible benefits of the new approach to the entire workforce.
2. **Re-architect the Talent Strategy:** The talent gap is the ultimate constraint on the pace of transformation. The organization's talent strategy must be re-architected to aggressively build and acquire the necessary skills. This means creating "bilingual" teams that deliberately combine software and AI engineering talent with deep telecom domain expertise. It also requires a long-term commitment to building a sustainable talent pipeline through strategic partnerships with universities and massive internal investment in reskilling and upskilling programs.
3. **Adjust the Financial Mindset:** The CEO and CFO must lead the charge in shifting the company's financial mindset. The transformation to an AI-native platform business requires a greater appetite for calculated risk and a tolerance for longer ROI horizons on foundational investments. The narrative presented to the board and investors must frame this transformation not as a short-term cost-cutting exercise, but as a comprehensive, long-term growth plan that is essential for the future relevance and profitability of the company.

3.3. A quick regional major operator snapshot

We tried to focus on 3 of the major operators in the region, to see how they are facing all the “evolutions” of the domain and react. They show different postures and ambitions ...

- **Telenor Asia:** A pragmatic transformer prioritizing secure, scalable, API-exposed network capabilities and AI-powered automation over “full autonomy.” Telenor Asia is actively productizing security and network APIs via Open API gateways, an arc “from telco to trust-tech platform” where network, data, and AI are monetized with trust at the core.
- **Singtel:** The archetype of a mature operator reinventing through convergence: blending AI, nationwide 5G leadership, and enterprise/edge services while staying anchored in trust, stability, and reliability. The emphasis is on responsible modernization (customer-centric AI, ecosystem partnerships) rather than high-risk experiments.
- **Axiata:** Building a multidisciplinary, data-driven enterprise with AI embedded across operations and IT. An “AI Factory” (+/-50 use cases) sits on a governed data foundation aimed at agentic AI and digital twins to boost efficiency, unlock new revenues, and maintain accountability and regulatory compliance-a structured, pragmatic approach with human oversight and data integrity as non-negotiables.

Conclusion: The Path to the AI-Native Telco

The synthesis of discussions from FutureNet Asia 2025 presents a clear and consistent picture of the telecommunications industry's transformation journey. It is a narrative defined by a compelling duality: on one hand, there is undeniable evidence of tangible progress, with operators achieving measurable successes in operational automation, customer experience enhancement, and the initial stages of data monetization. On the other hand, the industry is confronting a set of formidable and deeply interconnected blockers-rooted in data fragmentation, legacy systems, and cultural inertia-that are impeding the ability to scale these innovations and realize their full potential.

The journey to becoming an "AI-native telco" is proving to be less about the adoption of any single, revolutionary technology and more about a holistic and arduous transformation of foundational capabilities. The ultimate success of this transformation will not be determined by the sophistication of an operator's AI models, but by the maturity of its data governance, the agility of its operating model, and the foresight of its commercial strategy.

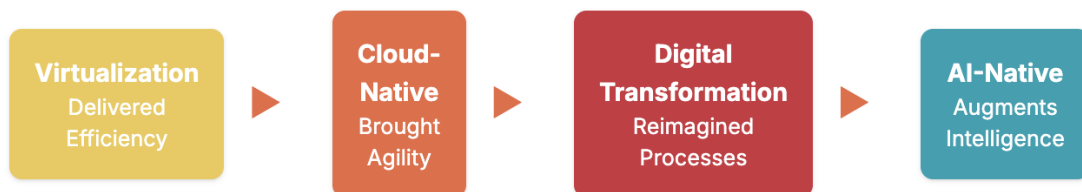
The strategic imperatives for the coming 24 to 36 months are therefore unambiguous. The foremost priority must be to resolve the foundational blockers with a sense of urgency and executive commitment. The data dilemma stands out as the central constraint on all other ambitions. A disciplined, enterprise-wide effort to create a unified, high-quality, and well-governed data foundation is the critical-path activity that will unlock the value of all subsequent investments in AI and automation. Concurrently, leaders must champion the difficult but necessary cultural and organizational shifts, fostering a mindset of pragmatic innovation and investing in the talent that will build the future. The operators who successfully navigate this complex nexus of technology, data, and culture will be the ones who not only survive but thrive in the next era of digital connectivity.

The Telco Transformation Journey

Key Achievements & Pain Points from FutureNet Asia

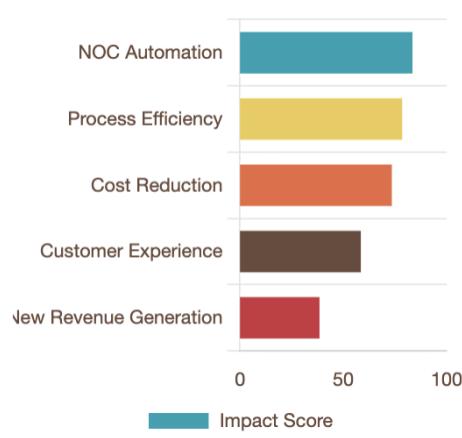
The Vision: Defining the AI-Native Telco

The ultimate goal is not to replace existing systems but to build upon them. An AI-Native Telco layers intelligence over established network foundations to drive efficiency, reduce costs, and unlock new revenue streams. It represents the next logical step in a multi-stage evolution.



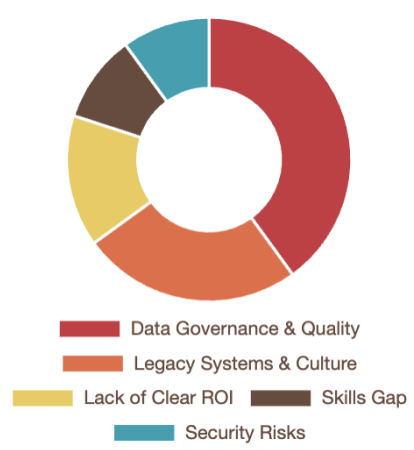
Good Achievements on the Path

Operators are reporting tangible successes, particularly in automating internal processes and enhancing network operations. These wins, often driven by clear business cases like Globe Telecom's "Shift-Left" strategy, demonstrate the real-world value of targeted automation and AI implementation.



The Pain Points: Major Roadblocks

Despite progress, significant challenges are hindering the transition to a fully autonomous, AI-driven future. These issues are often foundational, relating to data, legacy systems, and organizational culture, making them difficult to overcome and preventing successful proofs-of-concept from scaling.



Deep Dive: Where Transformation Stalls

The Data Dilemma

The most cited blocker. A lack of unified data models, persistent data silos, and poor data quality cripple AI/ML initiatives before they can even begin. Without clean, accessible data, automation cannot scale.

Unclear ROI & Value

The industry struggles to build compelling business cases for new technologies. There's a fear of repeating 5G's perceived failures, where complexity and fragmentation diluted the return on investment.

Security Risks

As networks become more open, automated, and reliant on APIs through frameworks like ODA, the attack surface expands. Security must be fundamentally redesigned, not just bolted on.

Legacy Systems & Culture

Brownfield environments with aging BSS/OSS are difficult and expensive to integrate. This technical debt is compounded by a cultural resistance to change and a workforce skills gap in data science and AI.

Scaling Challenges

Moving from a successful, isolated Proof of Concept (PoC) to a fully scaled, enterprise-wide solution is a massive leap. The complexity of integration and process re-engineering often causes projects to stall.

Undefined 6G Scope

Strategic planning for the future is hampered by uncertainty. The NGMN Alliance's 6G program is currently stalled without a defined scope, risking a repeat of past missteps.

The Road to 6G: Learning from the Past

The development of 6G presents an opportunity to proactively avoid the pitfalls of 5G. The industry consensus is that 6G must prioritize simplicity, a clear value proposition, and a unified architecture to avoid the excessive complexity and market fragmentation that challenged the 5G business case.

