

Telecom operators appear to be reinventing their business models

But are they really?



A defining moment for telecoms

Globally, the telecommunications industry is at an inflection point, as it faces up to a set of powerful, converging forces including digital disruption, regulatory evolution, intensifying competition, and increasing pressure from shareholders for higher returns. Together, these factors are straining the traditional telecoms business model - built on vertically integrated networks and legacy revenue streams - to breaking-point and beyond. As technological innovation and changing consumer demands continue to reshape the market, telecom leaders are finding themselves forced to confront a stark reality: the survival of their businesses hinges on reinvention. However, despite

widespread acceptance of the need for transformation, many telcos remain tethered to outdated business models that limit their agility, efficiency, and ability to create value.

The good news? There's a way to break out of this logjam. <u>Business Model</u>
<u>Reinvention (BMR)</u>¹ is a process through which telecom companies can fundamentally reassess and transform their strategic, operational, and financial structures to create sustainable long-term value.

This transformation often involves shifting away from vertically-integrated legacy structures and towards specialised, modular business models, enhancing the business's ability to monetise infrastructure, expand into new digital services, and leverage emerging technologies such as AI and cloud computing. The need for BMR in the telecom sector is strongly underlined by PwC's latest Global CEO Survey², which finds that 55% of industry CEOs believe their companies will not survive

another decade if they continue along their current trajectory. In contrast, telecom leaders who have successfully pursued reinvention strategies report higher growth, improved shareholder returns, and greater resilience to market volatility.

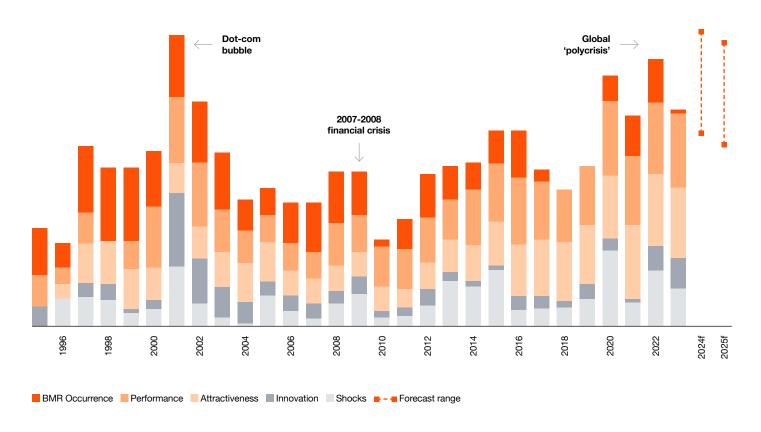
Against this shifting backdrop, this paper explores the necessity of BMR in the telecom sector, providing insights into emerging strategies, regulatory challenges and competitive imperatives. Drawing on recent thought leadership, real-world case studies and industry research - including insights from PwC's Global Telecom Outlook3 and recent PwC Strategy&4 analyses such as Reinventing the telecom model: A 'puretone' approach⁵ or The state of competition in telecoms6 - we examine how telecom operators can reposition themselves for long-term sustainability and growth in a rapidly-evolving digital economy.

The Business Model Reinvention (BMR) Pressure Index

To track changes over time in the degree to which telcos are being compelled to transform their business, we have developed the Business Model Reinvention (BMR) Pressure Index. The recent results make compelling reading. As shown in the chart below, the pressure on telcos to reinvent their businesses has reached historic highs,

rising to levels comparable with previous severe industry disruptions such as the dot-com bubble and much higher than those seen during the 2008 financial crisis. The current surge in pressure to transform is being driven by an array of forces including declining returns, technological shifts, and increasing regulatory scrutiny.

Figure 1: BMR Pressure Index for the global telecom sector, showing historical and forecast trends



Strategic shifts: Creating new business models, crossing growth frontiers

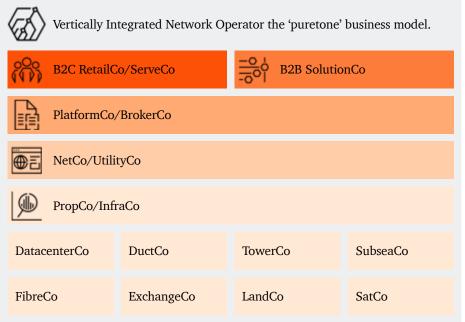
The clear message from our BMR
Pressure Index? That to compete
effectively in today's evolving digital
landscape, telecoms service providers
must rethink and recalibrate their
business models. And some forwardthinking operators are already doing
so, with the most progressive now
navigating a strategic shift towards more
modular, specialised business units.
This new structure is often referred to
as the 'puretone' model: an approach

under which distinct business functions
– such as infrastructure management,
enterprise services, and consumer digital
platforms – are unbundled and given a
high degree of operational autonomy.
The effect is to bring greater clarity and
focus that ease the burdens imposed by
vertical integration.

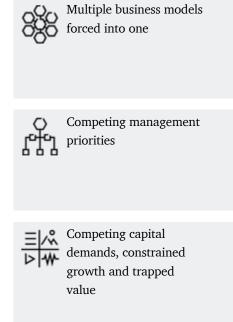
One of the most visible manifestations of this transformation is an increased focus on asset monetisation. Many telcos have begun to restructure their operations by creating separate entities for towers (TowerCos), fibre networks (FibreCos), and core network infrastructure (NetCos). These asset-light models allow telcos to release capital, improve efficiency, and attract specialised investment partners – all while freeing up time and resources to focus on higher-margin services.

Figure 2: The separation of telecom asset classes in the 'puretone' business model.

Telecoms asset classes and associated 'puretone' business models



Burdens of vertical integration



What makes a 'puretone' pure?



As the momentum of the move toward puretone business model builds, our experience in this area has grown to include dozens of consulting engagements as well as countless conversations with telecoms executives, deals professionals and financial analysts. Drawing on this wealth of insight, we've identified a handful of attributes or ingredients that are critical to making a 'puretone' business model

viable. The common features throughout are simplicity and clarity, mirroring the concept of 'purity'.

Collating our insights, we end up with six categories of factors that determine the ability of a 'puretone' business to succeed – that is, attain competitive advantage and translate that into profitable growth.

Here are the six categories, together with some key questions to test out each of them:

01

Clarity in mission

- Is the business guided by an intuitive, stringent recipe for value creation? In simple terms: Are you able to clearly articulate how you make money?
- Does the business have the strategic and organisational autonomy to pursue that mission?
- Can the mission be reflected in three or less key operational metrics to determine success? E.g., utilisation of a key asset (such as a mobile tower), or subscription value per customer.

02

Accountable leadership

- Are the 'general managers' of the business fully empowered to maximise performance, profit and value? Or is authority blurred and diluted by competing reporting lines and oversight by committees?
- Are management incentives and rewards aligned with the value creation recipe? Or are too many, too broad or competing metrics diluting the allocation of rewards for the right behaviours?

03

P&L integrity and control

- Does the business have complete transparency and control over all aspects of its P&L?
- Or do significant portions lack transparency or management control, as a result of issues such as opaque corporate allocations or arbitrary transfer prices?

Ability to invest

- Does the business have adequate capacity to invest in delivering against its strategic priorities, and to raise additional capital if required? Or is it subject to capital allocation processes where it has to compete for resources with other businesses, all pursuing different missions?
- Is the business able to align its investment horizon, capital return profile and cost of capital in a way that's consistent with its recipe for value creation?

05

Capability-building autonomy

 Does the business have the authority to select and deploy the right talent, processes and technology to enable value creation?

06

Competitive viability

- Does the business have the ability to gain leadership in a competitive market on factors like price, quality and cost structure?
- Is the business subject to true
 market forces, where its customers
 are free to choose whatever
 suppliers they want? Or are
 'internal' customers within a
 broader corporate portfolio
 compelled to source products
 and services from the business at
 artificial, possibly inflated prices?

No question, it's possible to debate the trade-offs and realities associated with every item on this list. But we believe that, collectively, these six categories of factors build into a diagnostic framework providing a sound indication of a 'puretone' business's chances of success.

Figure 3: BMR maturity - Diagnostic dimensions



Clarity in mission

- Value creation recipe
- · Strategic autonomy
- · Operating model autonomy



Ability to invest

- Raising capital
- Measuring returns
- Investment strategies



Accountable leadership

- · Empowered leaders
- Aligned KPIs
- · Aligned rewards



Capability-building autonomy

- People
- Process
- Technology



P&L integrity and control

- Control over P&L
- · Intercompany distortions
- Reporting



Competitive viability

- Market position
- · Customer base
- Viable scale



Re-frame, Re-configure, Re-invent:

The three-stage BMR Readiness Assessment Framework

As telecoms operators evolve and progress towards transformation, they move through three distinct stages: Reframe, Reconfigure, and Reinvent. Research shows that companies that navigate these stages successfully achieve stronger market positioning, greater diversification of revenue, and higher confidence among investors. However, this transition is neither automatic nor guaranteed. It requires deliberate action, investment, and leadership vision at each stage, as described here:

Figure 4: BMR Readiness Assessment Framework

Stage

Key actions and considerations

01 Re-frame

- Conduct an honest self-assessment of the company's business models, identify inefficiencies, and redefine the core value propositions.
- Clarify financial structures and revenue attributions.

02 Reconfigure

- Optimise the operational structures, carve out infrastructure assets, and implement new financial models to enhance efficiency and agility.
- Utilise 'transact-to-transform' strategies such as M&A and divestitures.

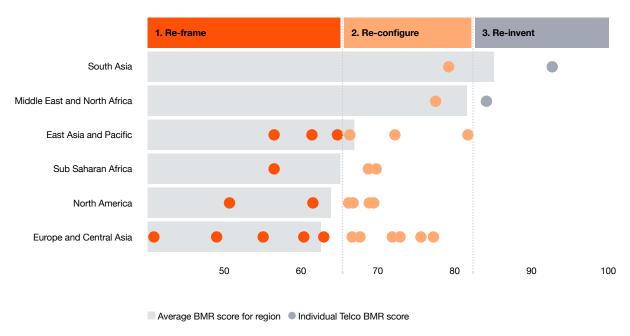
03 Re-invent

- Launch new digital services, expand beyond connectivity to engage in AI-enabled ecosystems, and create new revenue streams beyond traditional telco offerings.
- Develop partnerships in areas like cloud computing, cybersecurity, and fintech.

The global BMR research and assessment findings

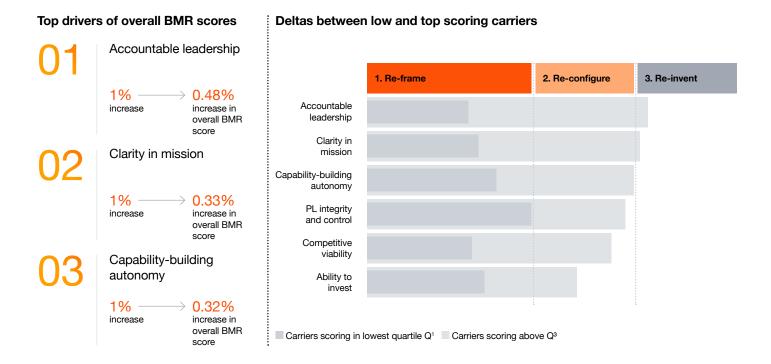
To assess the current status of Business Model Reinvention in the telecom sector, a global team of PwC industry specialists conducted an extensive outside-in analysis across more than 30 integrated telecom operators worldwide. The research evaluated each carrier's strategic readiness for BMR, by capturing the current business unit (BU) structure and assessing – at a BU by BU level – the extent to which the six categories of 'puretone' conditions are being met.

Figure 5: BMR maturity scores by region and carrier³



This approach gave us a clear view of each business's stage of maturity in navigating reinvention. Some top line-findings? While virtually all the telcos analysed have embarked on the three-stage BMR journey, very few have reached the 'reinvent' phase – with most currently grouped in 'reconfigure'. And companies' level of BMR maturity is influenced by a small handful of attributes, led by accountable leadership and then clarity in mission.

Figure 6: Detailed BMR maturity assessment scores, highlighting the key drivers of BMR success⁴





A revenue breakdown across different operators' business models

A further significant finding from our research is that, among telecom operators undertaking business model reinvention, the distribution of revenue across traditional telecom services, adjacent business models, and net new ventures varies significantly. Here's what these three categories of revenue contain:

Traditional telecom services:

Core connectivity offerings such as mobile voice, broadband, fibre, and enterprise telecom solutions.

Adjacent business models:

Services closely related to telecom connectivity, including infrastructure leasing (tower and fibre spin-offs), cybersecurity, IoT, cloud computing, and managed IT services.

Net new ventures:

Revenue streams that extend beyond telecom and adjacent models, including digital payments, fintech, digital content, health tech, and AI-driven business solutions.

The percentage revenue breakdown between these three categories for the operators analysed in our research is shown below:

	Core telecom revenues	Adjacent business model revenues	Net new ventures revenues	Operators (selected)	Expansion examples
Traditionalists (Re-assessing)	70%	20-25%	5-10%	 Verizon Rogers KDDI Singtel Telstra	Private 5G networks, smart home, cloud security, managed IT services.
Followers (Re-configuring)	60%	25-30%	10-15%	NTT e& Deutsche Telekom Vodafone Orange	Cloud services, IoT solutions, cybersecurity, InfraCo spin-offs.
Leaders (Re-inventing)	50%	30-35%	15-20%	• Jio • TELUS • stc • SK Telecom • Softbank	Fintech/digital banking & payments, vertical specific digital solutions, digital & IT services.

These wide variations in revenue distribution reflect how telecom operators are transitioning beyond their core business into adjacent and net new business models, leveraging infrastructure separation, cloud computing, fintech, and AI-driven services. Companies like Jio, Softbank, and TELUS have significantly expanded beyond traditional connectivity. Meanwhile, others such as Verizon, Rogers and KDDI are maintaining a strong reliance on core telecom revenue – but are gradually increasing their exposure to higher-growth digital services.

Common patterns and strategies in telecom reconfiguration and reinvention

When we examine the approaches to restructuring and reinvention being taken by telecom operators worldwide, we find that a distinct set of strategies and patterns emerge as being especially common across the industry. The most prevalent of these are set out and summarised in the table below. These strategies are closely aligned with the industry-wide shift underway towards asset monetisation, digital transformation, and new revenue streams beyond connectivity.

Puretone model	Strategy	Description	Examples
InfraCo	Passive infrastructure spin-offs	Monetisation of cellular towers and passive infrastructure by creating standalone TowerCos or selling assets to infrastructure investors. This allows telcos to reduce capital expenditure and unlock liquidity for network expansion.	Vodafone's Vantage Towers , Telstra's InfraCo Towers , MTN's tower monetisation , Deutsche Telekom's GD Towers , Orange's TOTEM , Telefónica's Telxius .
	Real estate PropCos	Monetisation of central offices, switching centres, fibre exchange points, street furniture, and other real estate holdings. Telcos lease or sell these assets while focusing on core network investments.	BT's property divestments, AT&T's real estate portfolio restructuring, Verizon's data centre and land sales.
NetCo	Broadband and digital infrastructure expansion	Deployment of fibre , 5G , and data centres through single- purpose investible entities or joint ventures, allowing telecoms to attract outside investment while focusing on service differentiation.	Telefónica and Allianz's fibre joint venture, Vodafone and Altice's German fibre JV, e&'s subsea cable expansion, Rogers and Shaw's network integration.
	Special-purpose NetCos	Establishment of neutral host networks, private enterprise networks, and satellite communication ventures, often as independent units or partnerships. These serve enterprises, governments, and underserved regions.	Verizon's private 5G networks, AT&T's OneWeb satellite partnership, KDDI's IoT-driven smart cities, NTT's enterprise connectivity, STC's subsea cable ventures.
PlatformCo	Connectivity and compute brokerage	Aggregation and resale of cloud computing , edge processing , open-access broadband , and digital infrastructure services to wholesale and enterprise markets.	NTT's hybrid cloud solutions, Orange's cloud brokerage services, Deutsche Telekom's T-Systems hybrid IT offerings, Jio's AI-driven enterprise services.
	GBS-aaP (Global business services-as- a-platform)	Establishment of shared service centres , business process outsourcing (BPO) units , and joint procurement companies to optimise operations and generate external revenue.	Vodafone's VOIS , Orange and Deutsche Telekom's BuyIn , BT's Sourced, Verizon's VISL , Singtel's NCS , SK Telecom's AI-driven BPO solutions .

Puretone model	Strategy	Description	Examples
ServeCo	Direct-to-consumer (DTC) service bundling	Integration of mobile, broadband, OTT content, digital services, and commerce platforms into super-app ecosystems, increasing ARPU and customer retention.	Jio's JioMart and JioCinema , e&'s Careem Super App , Singtel's OTT and digital services bundling , Vodafone's M-Pesa- enabled commerce .
	Fintech and embedded finance expansion	Integration of payments, lending, insurance, and wealth management services into telecom ecosystems, turning operators into digital financial services players.	Vodafone's M-Pesa , MTN's MoMo mobile banking , Airtel's Airtel Payments Bank , STC Pay, e&'s e& money .
SolutionCo	Connected solutions Pro	Expansion into cybersecurity, system integration, managed enterprise solutions, and IoT to serve businesses and governments.	Singtel's NCS IT services, SK Telecom's quantum cybersecurity, Deutsche Telekom's enterprise security solutions, AT&T's network as-a- service offerings.
	Industrial automation	Deployment of AI , IoT , automation , and digital transformation solutions tailored to industries such as healthcare , agriculture , manufacturing , and automotive .	TELUS Health and Agriculture, Elisa's Industrial AI Solutions, KDDI's IoT in manufacturing, SoftBank's Stargate AI business solutions.

Looking across these common strategies, a number of patterns and correlations emerge for different models. These include:

01

InfraCo and NetCo strategies focus on asset monetisation and infrastructure expansion, making telecoms leaner and more investment-friendly.

02

PlatformCo models leverage digital marketplaces, shared services, and AI-driven automation, allowing telcos to scale efficiencies and provide wholesale solutions.

03

ServeCo models revolve around digital bundling, super-apps, and embedded finance, creating new direct-to-consumer revenue streams.

04

SolutionCo models include cybersecurity, managed IT, and AI-powered automation, positioning telcos as key technology enablers for enterprises and government clients.

By implementing these various business model reinvention strategies, telecom operators are navigating their way from legacy telecom providers to diversified digital services and infrastructure companies, securing long-term growth beyond traditional connectivity revenue streams.

Close linkage between BMR scores and financial performance

When we map operators' Business Model Reinvention (BMR) scores against their financial performance, we find that a strong correlation exists between the two. Our analysis shows that telcos that have embraced structural change and business diversification have achieved increased market valuations and delivered stronger revenue growth. This reflects the fact that investors have responded favourably to telecom companies that successfully reframe,

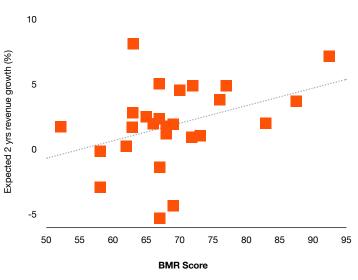
reconfigure, and reinvent their business models, rewarding them with higher earnings multiples and reaping improved shareholder returns.

Furthermore, a closer analysis of the BMR scores from our global sample of telecom operators reveals that those in the 'reinvent' stage tend to command significantly higher enterprise value (EV) to EBITDA multiples. The difference can be dramatic: operators that have

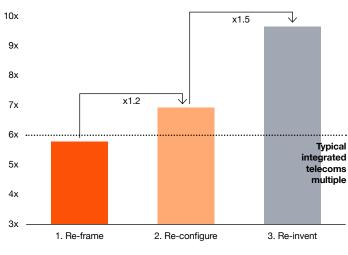
successfully separated infrastructure assets, launched new digital services, or expanded into adjacent industries enjoy valuation premiums of 30% to 50% over their more traditional telco counterparts. This is largely because they have been able to reduce capital intensity in core operations while increasing the margins from value-added services.

Figure 7: The correlation between BMR scores and financial metrics, including revenue growth and EV/EBITDA multiples

Revenue growth expectations vs. BMR score



Forward EV/EBITDA multiples for each BMR stage



Source: Capital IQ, PwC analysis

Source: Capital IQ, PwC analysis

US\$20bn

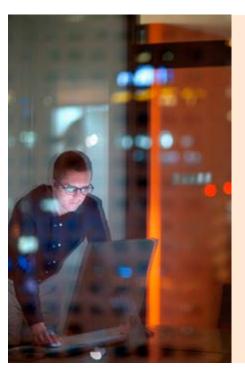
Jio attracted over US\$20 billion in foreign investments from firms such as Facebook and Google.

A great example of the relationship between BMR and financial performance is Telstra, which undertook a multiyear restructuring that culminated in the separation of its infrastructure business into an InfraCo while retaining a customer-facing services entity. This move enabled Telstra to unlock significant value from its passive network assets, contributing in turn to a 35% increase in its stock price over two years and a substantial uplift in investor confidence. With infrastructure now managed separately, Telstra's remaining operations could focus on higher-margin services such as cloud solutions and enterprise IT offerings, further increasing profitability.

Another notable example is Jio Platforms, which strategically repositioned itself beyond traditional telecom services by integrating fintech, e-commerce, and AI-driven applications. By creating a digital ecosystem that encompassed payments, retail, and media, Jio attracted over US\$20 billion in foreign investments from firms such as Facebook and Google.

As a result, its enterprise valuation soared, with Jio commanding an EV/EBITDA multiple significantly above the industry average, reaching 17x compared to the global telecom median of 7x to 10x. This reinvention has positioned Jio as more than just a telecom provider: its diversified business model now aligns it more closely with technology conglomerates, thereby achieving a valuation premium.

These examples highlight the financial rewards that can be realised when telcos transition successfully from legacy business models to high-growth, diversified operations. The strong correlation we've revealed between BMR progression and financial performance underscores the importance of strategic reinvention for long-term value creation.



Navigating the route to reinvention

Today, the telecom industry stands at a defining moment. Reinvention is not a choice; it is a necessity. AI is accelerating this transformation, opening up unprecedented opportunities in infrastructure, digital services, and customer engagement. The telcos that embrace innovation, adapt their business models, and invest in next-generation capabilities will shape the future of the industry. Those that fail to act risk being left behind.

We've created this white paper to serve as a guide to help telecom executives, investors, and policymakers understand the evolving landscape – and chart a course toward sustainable growth and leadership in the digital economy. The journey is not easy, but it's imperative, and the rewards are substantial. Is your business ready to undertake it?

Appendix

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