

MWC Las Vegas 2024 - Telco AI Summit

AI for Telco vs. Telco for AI hype, savior, or the new normal?

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Head of GSMA Intelligence

GSMA Intelligence

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GSMA Intelligence is the definitive source of mobile industry insights, forecasts, and research, used around the world. Our insights cover every mobile operator, network, and MVNO in every country worldwide.

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7/10

of Forbes' Top digital
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50m+

individual datapoints covering
everything from operational to
economic

4,600+

networks tracked, spanning
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of the top Telecoms in the world
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Why Talk About Telco AI – The Market Context

everyone is talking about it

It's no exaggeration to say that AI has come to dominate the discussion of all things technology and communications related.

- it's impacting the myriad forces which drive business operations and strategy
- it's dominating trade show agendas
- it's on the minds (and lips) of telcos
- it's getting more attention than gaming or wearables in the consumer space



GSMA Intelligence Market context

Forces influencing the development and use of AI

AI is a pervasive technology; it has a bearing on many parts of the telecoms industry and other sectors. However, it is easy to get lost in the noise and fail to understand its implications. GSMA Intelligence takes a structured approach to consider the factors influencing AI at the technological, commercial and regulatory levels.

Technological

- **Definitions matter** - The distinction between core AI, machine learning and genAI (terms often incorrectly used interchangeably) matters in terms of level setting how a telco uses AI in its business. A basic delineation of each AI variant as it grows exponentially is key.

Commercial

- **A transcendent topic** - AI is one of the most important technological shifts since the development of the internet. Understanding the benefits and risks at the sector and company levels is critical to successful implementation. Moreover, it demands transformational changes across company structures (in technology, strategy, culture and talent).
- **Easy wins versus slow burns** - Some AI uses are obvious (e.g. automation), while others are not, or take time to assess (e.g. customer engagement). Measuring AI success is challenging due to difficulties quantifying the benefits across various dimensions.

Regulatory

- **Ethics at the core** - Technology tends to move more quickly than regulation. However, the ramifications of AI mean responsible stewardship must be a priority.
- **It pays to understand the landscape** - The US, EU and UK have made AI a political priority, to get ahead of the curve. Principles have been established; these likely presage specific compliance requirements, and penalties for breaches.

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Humanising AI The view from MWC

Key takeaways	Top surprises	Implications
<ul style="list-style-type: none">• AI stole the spotlight. AI was a dominant theme at MWC. This was driven by the topic's breadth, as it impacts so much of the ecosystem.• The softer side of AI. Technology innovation made AI a reality, but regulators and other stakeholders recognise that success depends on skills development and governance, with a role for operators helping develop sovereign AI capabilities or models.• Return on investment. Ever-evolving AI use cases and services continue to impress, but operators make major investments for one of two reasons: making or saving money. New AI launches generally spoke to the saving-money angle.	<ul style="list-style-type: none">• GenAI – present but not dominant. After a year in which genAI buzz grew louder by the day, the AI focus at MWC24 was refreshingly broad, spanning genAI and more traditional areas.• AI devices – just plain present. Compared to an event like CES, MWC is not traditionally device-centric. PCs, phones and tablets all got a visibility boost thanks to new AI capabilities aimed at driving differentiation and sales.• Cost considerations – absent. How much it will cost operators to invest in AI and support its ongoing operation (including energy costs) was not generally discussed. In the early days of a technology this is not surprising – but AI is not new, and costs cannot be ignored.	<ul style="list-style-type: none">• Partnership imperative. The broad and multi-faceted nature of AI means most problems will only be solved through multi-party collaboration – evidenced by myriad, diverse AI tie-ups at MWC24.• Unintended consequences. As new AI use cases and innovations develop, unplanned impacts are revealed. Ethical externalities and unexpected costs are most publicised; revenue and operational efficiency upsides need attention too.• Proof points are paramount. Maintaining the current optimism around AI will require real-world proof points of its value, particularly as operators struggle with 5G monetisation. MWC24 delivered myriad use cases, but quantifying their value will be a necessary follow-on.

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everyone is talking about it

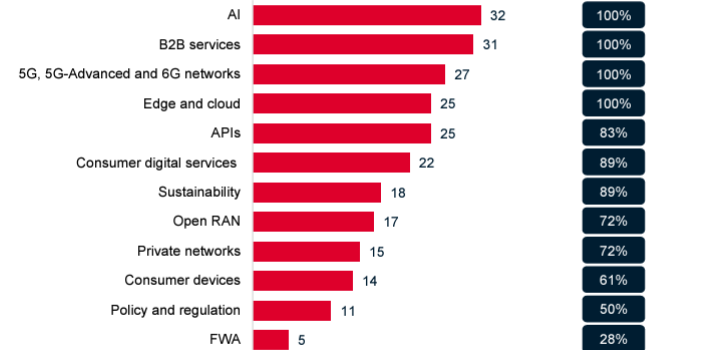
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Operators at MWC: ranking the areas of focus

- **The winners: AI and B2B services everywhere.** All 18 operators we tracked focused on both AI and B2B services. Furthermore, AI was a major area of focus for 14 of the 18 operators.
- **The surprise: the consumer focus is back.** While the focus on B2B was ubiquitous, there was a return to the focus on consumer, especially digital services (more than devices). Within digital services, immersive digital entertainment (e.g. XR, gaming, live sports) was the clear winner.
- **The loser: FWA garnered the least attention.** While some of the major network vendors did a great job in showcasing and discussing the early success and future potential of 5G FWA, FWA was the least-discussed topic among operators.

Operators at MWC: level of focus on each area (scores)



Source: GSMA Intelligence

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Why Talk About Telco AI – The Market Context everyone is talking about it

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GSMA Intelligence IFA 2024: AI dominates the show

September 2024

INSIGHT SPOTLIGHT

European technology show, IFA 2024, saw around 215,000 attendees from 138 countries and 1,800 exhibitors. AI was everywhere, dominating company showcases of consumer devices and appliances. The show also saw notable developments across sustainability, smart homes, smartphones, wearables and gaming.

Analysis

AI at every booth

AI was the big theme across IFA 2024. This was reflected in prominent consumer electronics names such as Samsung and LG greeting visitors to their booths with the taglines of 'AI for all' and 'AI to the core', respectively. AI use cases included introducing new device functionality, better adapting device operations to user preferences, allowing new ways of interacting with devices, and improving device self-service.

Laptops capable of supporting on-device generative AI (genAI) also created a lot of buzz. These are available from the likes of Samsung, MSI and Acer and run on silicon from chipmakers including AMD, Intel and Qualcomm. Many also spotted Microsoft's Copilot genAI companion. A further highlight was AI's use in TVs for picture enhancements and personalisation. Demonstrations of embodied AI from firms such as Samsung and Tecno also garnered interest at the show.

Sustainability, a key theme

Though eclipsed by AI, sustainability was a big topic at IFA 2024. The most highlighted approach to sustainability was improving energy efficiency, including through the use of AI. However, initiatives also touched on increased use of recycled and recyclable materials, better product durability and reparability, better water management and green energy usage.

OEMs showcased solutions aimed at energy management for consumer goods. Examples included Midea's Ecomaster platform and Midea's Consumption Dashboard app. Retail associations also disclosed initiatives aimed at sustainability. Examples here included Leronics' new sustainability project and the development of a green sustainability index for electronic products, and iK Retail's "repair & care" initiative.

Smart home showing progress

IFA saw progress on the Matter smart home standard, with the release of Thread 1.4. Thread-led improvements across areas such as interoperability, connectivity and troubleshooting. Separately, momentum behind Matter was seen in the launch of new compliant devices from OEMs such as Bosch. Matter's slow expansion into new device types has been a concern, so it was encouraging to see progress from firms such as BSH and Midea.

There was also innovation in smart home hubs and platforms. AI capabilities were a highlight, as seen in LG's new ThinQ ON AI home hub and Tuya's smart home platform. Further highlights included the multi-app routine sharing seen in Aqara's Hub M3, and the incorporation of hub functionality into new device types – by Hisense, for example.

According to the GSMA Intelligence Consumer Survey December 2023, while ownership of PlayStation and Xbox consoles declined year-on-year, it increased for Nintendo consoles, which fell into the handhelds category. This is in line with the momentum seen behind handhelds at IFA 2024. Two new handheld gaming devices were released: the Claw 8 AI+ from MSI and the Nitro Blaze 7 from Acer. As with the Claw 8, the release of AI capabilities was a prominent theme across the gaming hardware updates at the show. For example, Acer unveiled a gaming desktop with AI-powered DLSS, and MSI released a gaming desktop with its MSI AI Engine.

Innovation in gaming device form factors was also on display at the show, with Acer's Project DualPlay combining a gaming laptop with a wireless games controller.

Smartphones and wearables see continued innovation

IFA saw new smartphone releases from various OEMs, such as TCL and JioFone. However, in this category the spotlight was on the global launch of Honor's Magic V3 – the thinnest foldable yet. This also continued the trend of genAI integration in flagship smartphones, with Honor announcing AI agents for future flagships.

Other highlights in smartphones included the HMD Fusion, a modular phone with strong reparability credentials, and Askey's Omnia-Frez wireless charging technology.

In wearables, smartAR glasses from the likes of Esolok/Luotica, Hisense and Tecno attracted attention, as did smart rings (e.g. from RingConn). Although smartwatches remain focussed on health and fitness, a standout at IFA was Honor's Watch 5 – with a claimed 15-day battery life.

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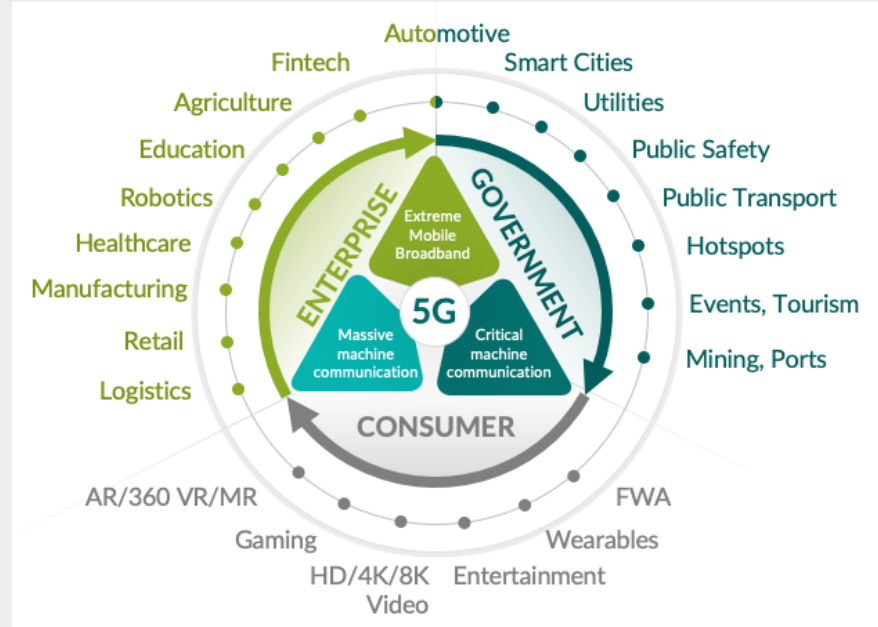
Why Talk About Telco AI – The 5G Context

ready for a trip down memory lane?

From the outset – long before any 5G networks went into operation – the core use cases and requirements were well-understood.

- eMBB
- mass-scale IoT
- critical communications

The vision was to create a multi-purpose network which could support increasingly demanding consumer requirements while opening up new enterprise opportunities.



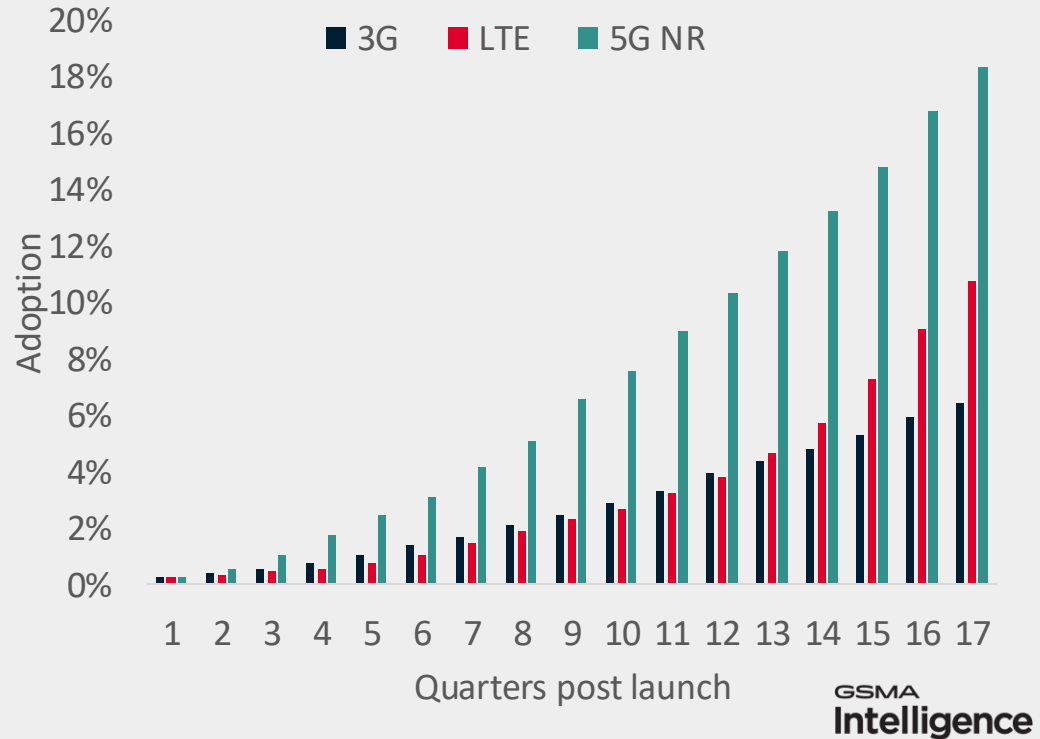
Why Talk About Telco AI – The 5G Context

uptake alone makes 5G a success

At roughly 20% global penetration, 5G has been rolled out – and adopted – faster than 3G or 4G, thanks to various factors.

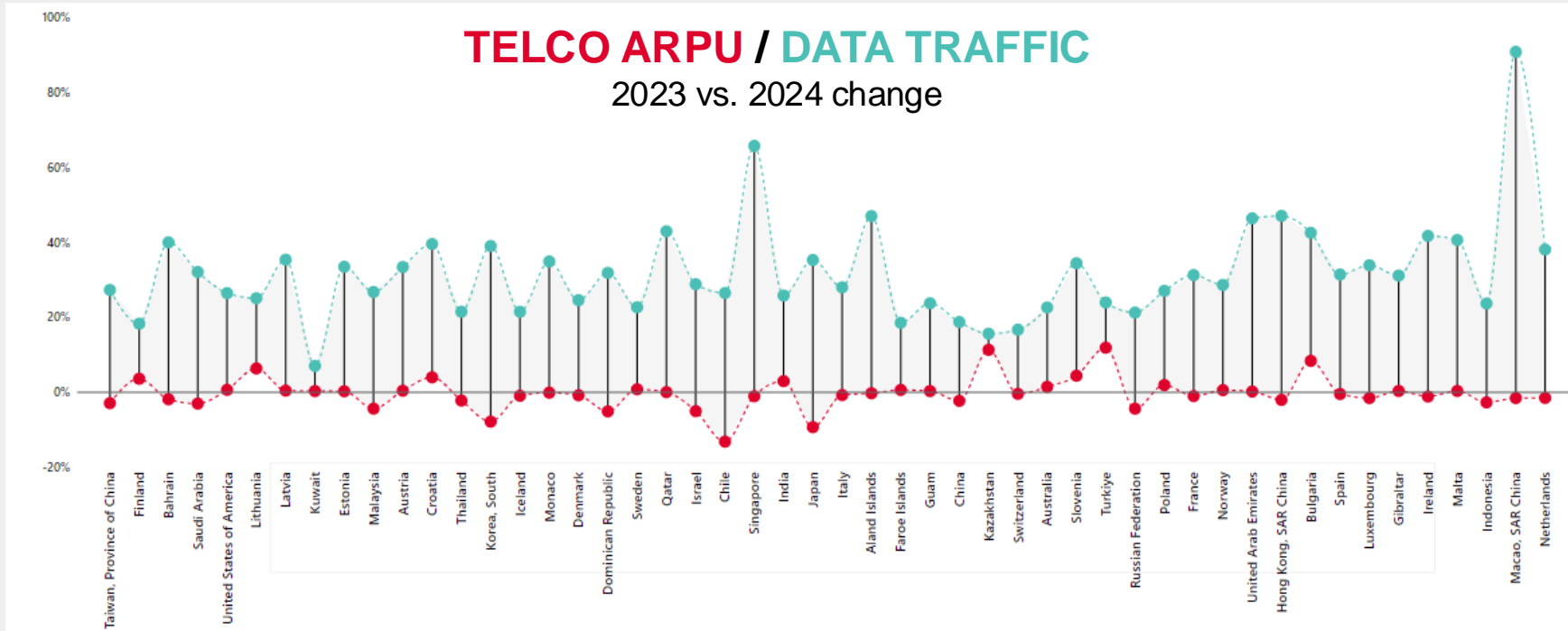
- spectrum availability
- (affordable) device availability
- understood value prop

This is, of course, a consumer success story. It doesn't necessarily reflect a business success or point to enterprise momentum.



Why Talk About Telco AI – The 5G Context

but revenue generation is a different story...can AI be the answer to 5G monetization?



Telco AI From the Analyst Angle

what do we need to understand beyond the hype, hope, and expectation?

AI represents an incredibly powerful tool for driving success across all industry verticals – telecom included.

How is telco different and what do we need to focus on in order to ensure operators fully execute on the AI opportunity?

What's the Telco AI Use Case?

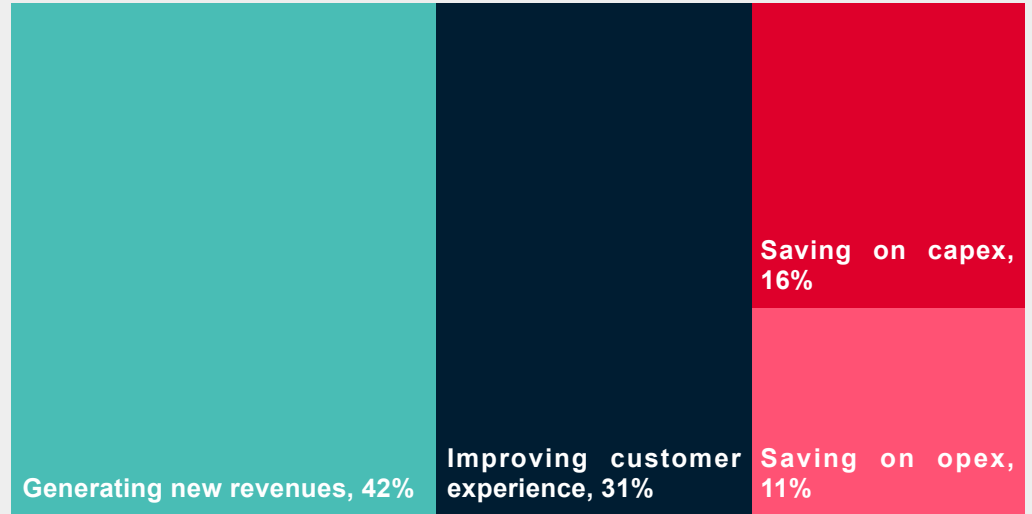
it's a basic question, but the best place to start the discussion

Every operator is different. Each will have its own needs and its own plans for AI. Understanding the breadth of use cases and strategies is key for finding the right ones.

- internal vs. external usage?
- making \$\$\$ vs. saving \$\$\$?
- AI for Networks vs. Networks for AI?

Network transformation strategy drivers

What is the primary criteria by which you measure the success of your network transformation strategy?



What's the Telco-Cloud Relationship?

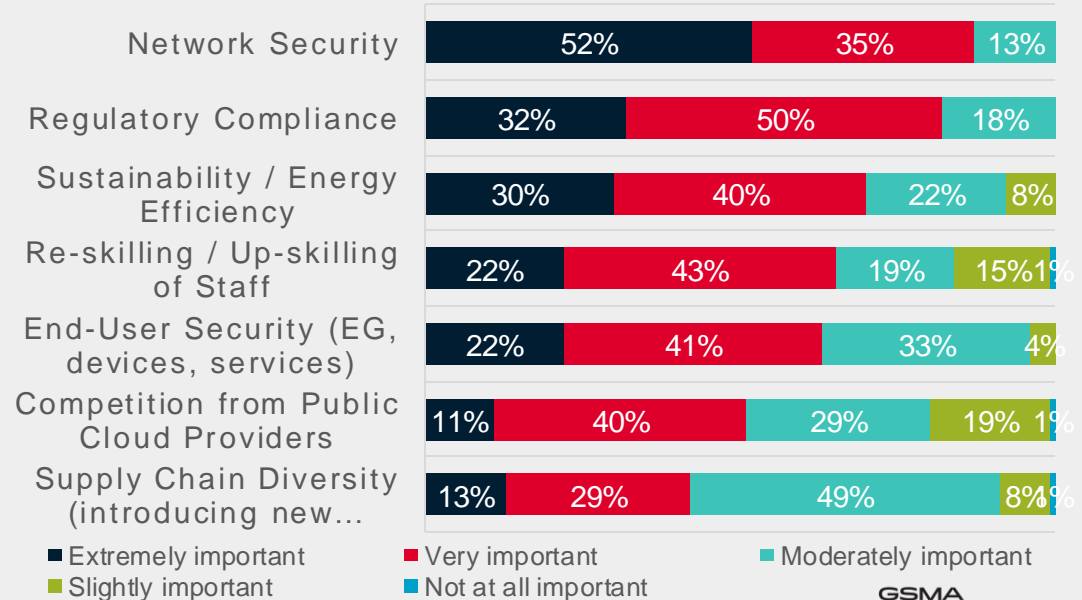
this isn't a new question, the rise of AI just makes it even more important

The relationship between telcos and cloud providers has long been “complicated.” As hyperscalers take a lead in driving AI innovation and AI capabilities, it's not going to get any less complicated.

- friends, enemies or something in between?
- if we're “frenemies” what can each best offer to its customers?
- what do early examples tell us?

Network transformation business priorities

How important are the following business priorities as a part of your current network transformation strategy?



Core vs. Edge – Where will AI Live?

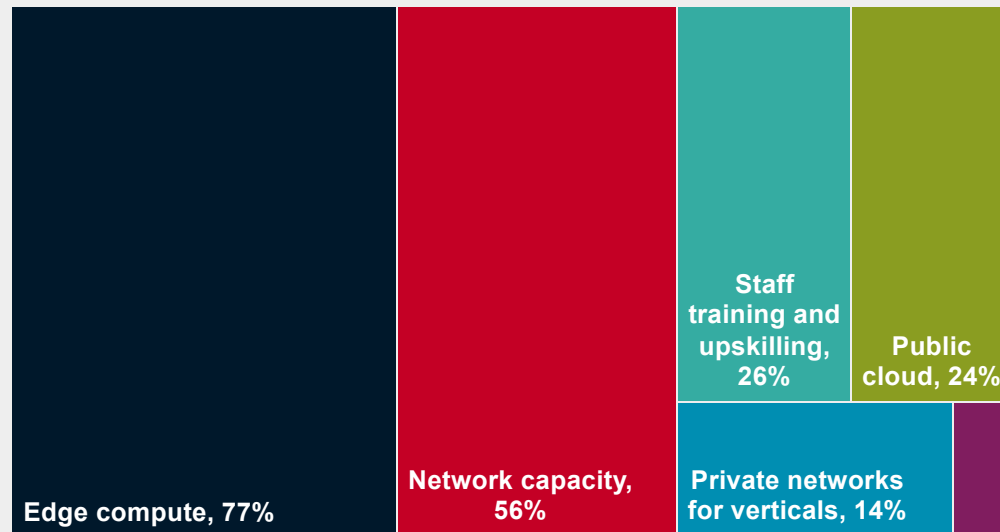
edge computing has long been positioned as a telco advantage, does AI accelerate that?

Beyond the generic “AI is everywhere” discussions from MWC24, “inferencing at the edge” was an oft repeated theme. Before we can evaluate the opportunity, we need to grapple with the requirements and implications.

- when does AI at the edge make sense?
- how do cloud, silicon, and network architecture innovations impact the opportunity?
- where is the edge anyway?

Generative AI: network investment requirements

Which areas of investment will you need to make in order to support an increasing use of Generative AI services across your customer base?

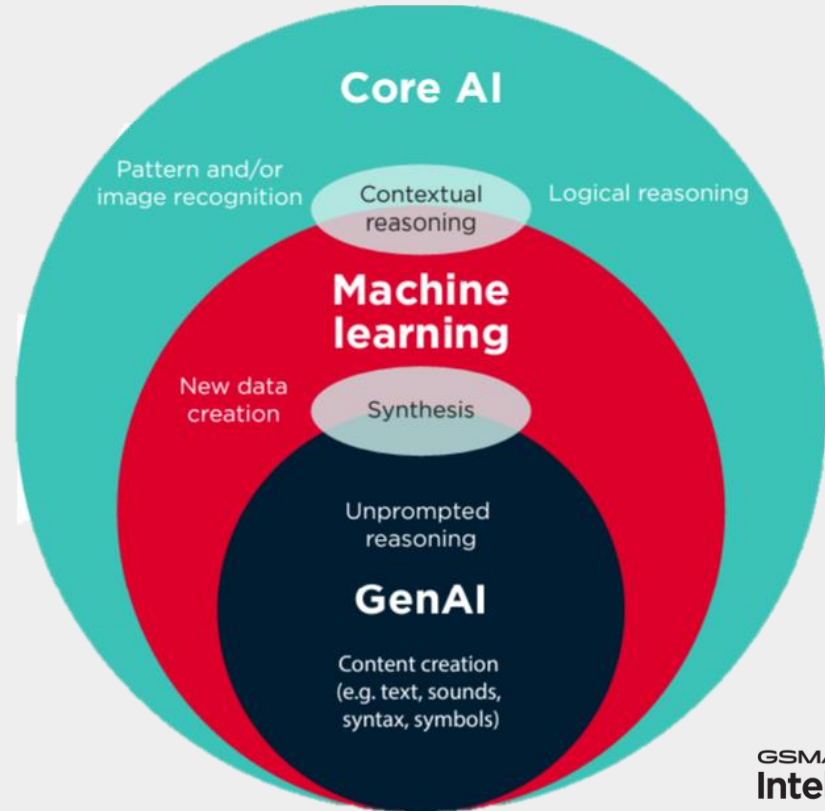


Core AI vs. Generative AI?

in the Chat GPT Era, are we paying enough attention to everything else?

Generative AI has democratized access to advanced AI solutions and innovations. The resulting network effects are responsible for much of the current attention. But, AI was being used by telcos for years before Gen AI made it into the vernacular.

- is Gen AI driving broader AI use or hindering it, diverting investment from more traditional applications?
- which is most useful to telcos?
- can we (should we) think about Gen AI and broader AI usage as distinct?



Sustainable AI – Oxymoron?

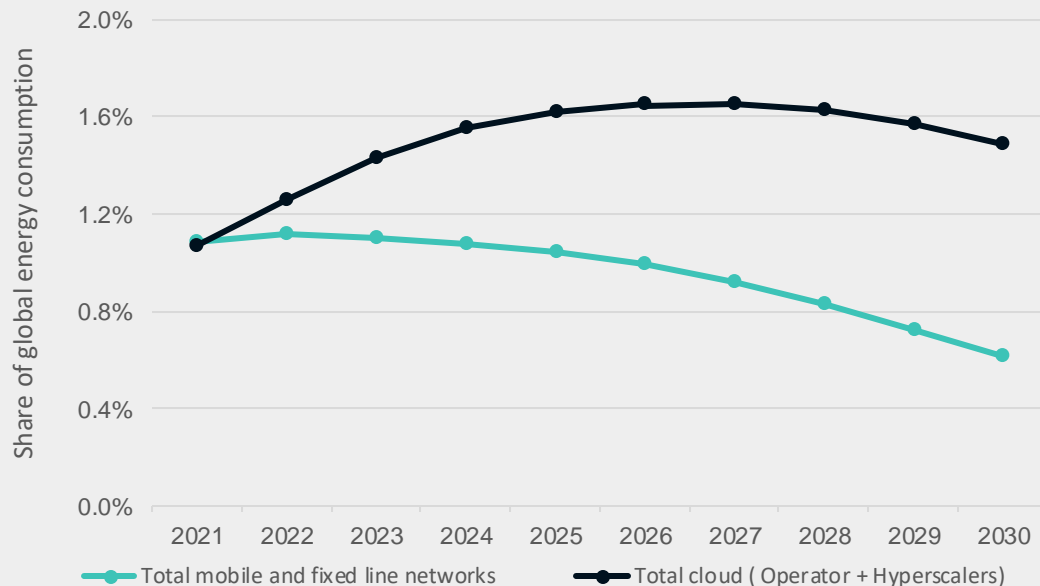
sustainability is strategic for every telco, but AI isn't always energy friendly

Against the backdrop of aggressive Net Zero commitments, operators have put an increasing focus on energy efficiency and sustainable operations more broadly. AI's energy consumption must fit into focus...somehow.

- is AI ultimately an energy savings tool or an energy consumption burden?
- are we ignoring the “enablement effects?”
- can the industry actually generate the energy needed to keep up with AI demands?

Telco and Cloud Energy Consumption

Access and cloud consumption as a share of global total.



Responsible AI – An Imperative?

regardless of the business value, people and ethics need to be front and center

Beyond any legal or regulatory requirements, telcos have built businesses which rely on industry trust and reputation. Unless consumer data is protected from potential AI risks and AI strategies integrate responsible AI practices, the risks of AI usage may outweigh the benefits.

- what represents a responsible AI strategy?
- beyond risk management, what else must telcos consider (operating models, 3rd party management, industry frameworks)?
- how can telcos prove their commitment?



1.1 RAI principles

- 1. Form an RAI working group:** Identify and assemble a small team of individuals (e.g., executive sponsors, RAI champion, legal counsel) within the organisation
- 2. Research and draft RAI principles:** Review industry standards, guidelines, and best practices related to RAI (e.g., NIST, EU guidelines, telco-specific policies)
- 3. Review and finalise RAI principles:** Circulate the draft among key stakeholders for feedback and incorporate their suggestions
- 4. Publish the RAI principles:** Formally publish the RAI principles on the company's internal communication platforms (e.g., Intranet, emails)



2.3 Roles and responsibilities

- 1. Identify key RAI roles:** Determine the essential roles required for implementing RAI (e.g., RAI experts, risk officers)
- 2. Establish responsibilities:** Create detailed descriptions for each role, outlining their duties, decision-making authority, and reporting lines



2.6 RAI tooling solutions

- 1. Create basic registry/registries template:** Develop simple Excel template(s) for documenting AI use cases, including fields for data, value, scope, ownership, costs, and risks
- 2. Train team members on using use case registry/registries:** Conduct a training session for relevant team members on how to document and track AI use cases using registry/registries
- 3. Populate the registry/registries with initial data:** Begin documenting existing AI use cases, ensuring all relevant details are captured



4.1 Third-party selection criteria and processes

- 1. Develop RAI-specific criteria:** Create a list of RAI-specific criteria based on relevant regulations and RAI principles (e.g., data privacy, transparency, fairness, accountability)
- 2. Incorporate RAI criteria into overall selection process and engage existing third-party partners:** Update overall third-party selection criteria to have RAI-specific criteria
- 3. Training:** Conduct training sessions for the procurement team to ensure they understand and can apply these criteria

Telco AI Requirements – Are They in Place?

after all, AI solutions won't just deploy, operate and manage themselves

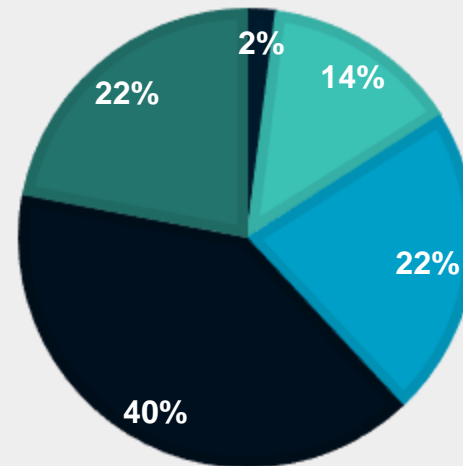
AI outcomes may look great on paper; there's no shortage of management consultants and system integrators ready to talk up the benefits. These outcomes, however, are dependent on a host of dynamics from institutional will and investment budgets to IT and OT coordination.

- do operators have the right skills in place?
- do they have the right data infrastructure and data assets in place?
- are we all being honest with ourselves?

Telco AI Infrastructure: Telco Views on Optimization

Where needed, my company's infrastructure is optimized to accelerate AI computations (e.g. adequate capacity and support for graphics processing units, tensor processing units, distributed & parallel processing)

- Do Not Agree
- Slightly Agree
- Moderately Agree
- Mostly Agree
- Completely Agree



The Known Unknowns

Telco AI is a big topic; there's never a shortage of questions to consider

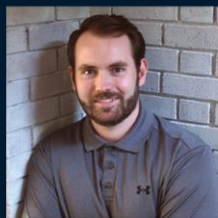
As much as we might like to, the key considerations and questions for how we'll drive the success of Telco AI cannot be split up into a handful of convenient buckets.

- given the investment requirements, can AI benefit large and small telcos equally?
- does the Telco industry need an industry-specific LLM?
- are we in an AI bubble? (if so, what's the risk?)



The People With the Answers

you didn't come here for a navel gazing session, did you?



Dario Scacciato

Regional Leader, Telco and Media, Microsoft

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Power your AI transformation with Microsoft

Dario Scacciati
Americas Telco Director



Key considerations for AI transformation

Where will you focus your **AI innovation**?

Which **employees** will you enable and why?

Where will you apply AI to serve **customers/partners** better?

Where will you apply AI to **streamline** operations?

Is your **data in order** to fuel this innovation?

Where will you **build**? Where will you partner?

Is your platform designed to **simplify** AI development?

How will you organize for **success**?

AI transformation opportunities



Enrich
employee
experiences



Reinvent
customer
engagement



Reshape
business
processes



**Bend the
curve** on
innovation

The industry is at a tipping point due to market changes



**Commoditization
dilemma**



**Changing
customer
preferences**



**Accelerating 5G
return on
investment**



**Operationalizing
generative AI**



**Developing a
resilient and
productive
workforce**

The transformation imperative for Telecoms



**Customer
reimagination**



**Business model
reinvention**



**Technology
revolution**

Transforming telecoms with AI



Elevate customer experiences



Optimize business and operations support systems



Modernize the network



Unlock new revenue stream



Generative AI | Telecoms Common Data Fabric | Responsible AI

IT and Network Security

The business impact is real



"TOBi conversational assistant has driven 66% of contacts to be automated."



"..innovate faster and be more responsive to the marketplace."



"90% of employees saved time and increased effectiveness, resulting in 20% less follow-up contact."

Closing remarks and next steps



Unleash the power of AI to transform telecom legacy systems into intelligent platforms that drive innovation and growth.



Learn more about transforming telecoms with AI



Learn more aka.ms/telecommunications



Andres Gil

Microsoft

Joel Brand

Marvell

Cristina Rodriguez

Intel

Elena Fersman

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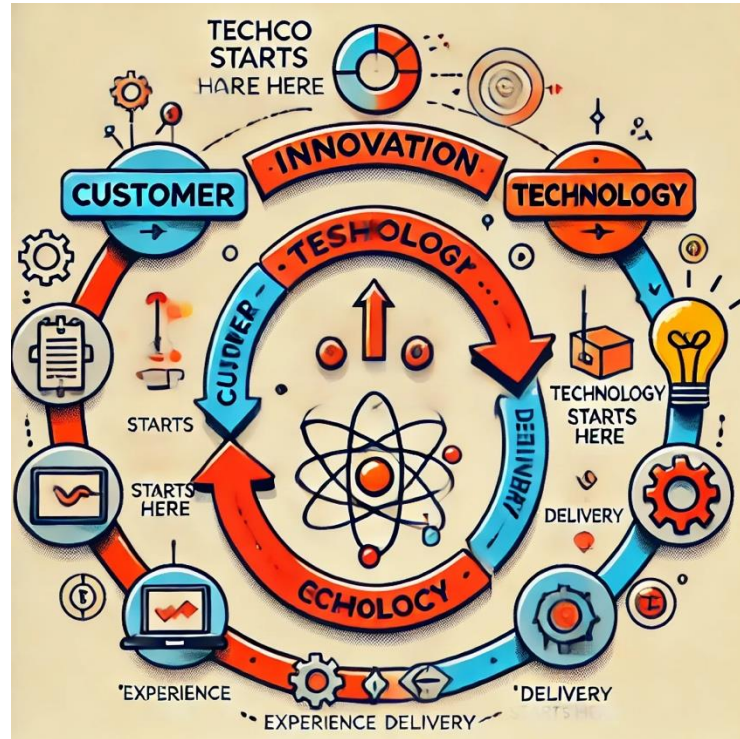
Geoff Hollingworth

CMO, Rakuten Symphony

October 8, 2024

Rakuten Symphony

Creativity



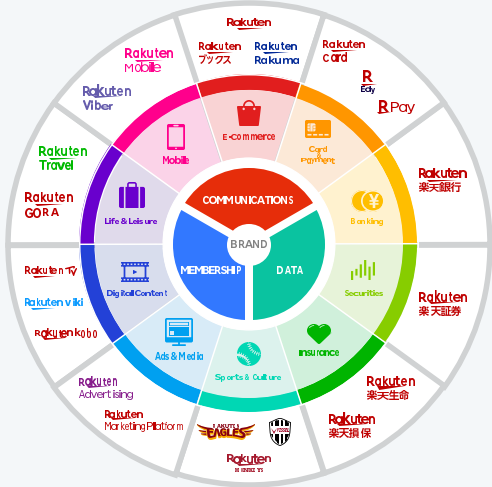
Agenda

- 01 Destroy the magic
- 02 Innovation
- 03 Use cases vs. ROI
- 04 Sustainability
- 05 Security
- 06 Reminder about magic destroyed

From the perspective of a techco doing telco

70+ services

The Rakuten Ecosystem centered on Rakuten ID



+

~1.8 billion

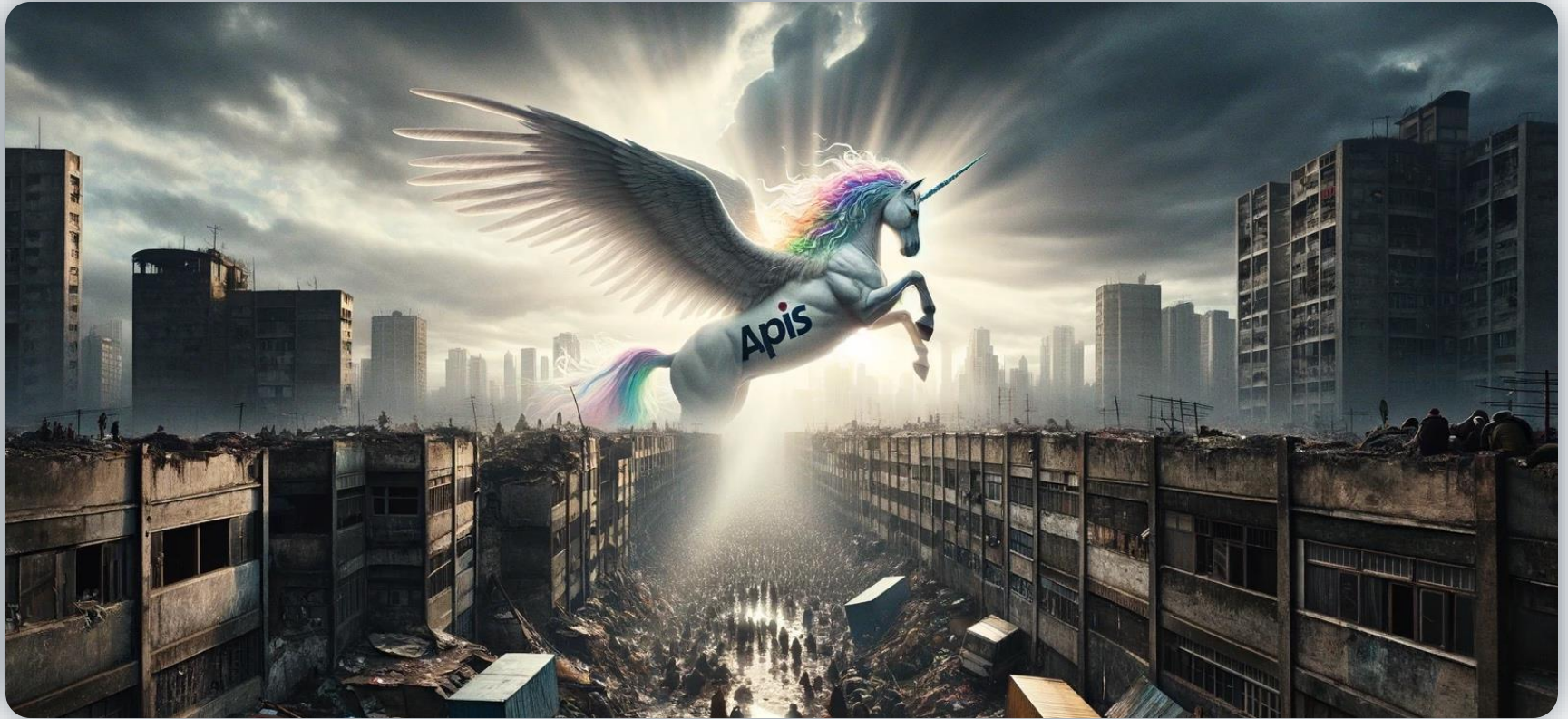
members across the world



Examples Galore...



Destroy the magic



Destroy the magic



Destroy the magic

What is the next XXXX

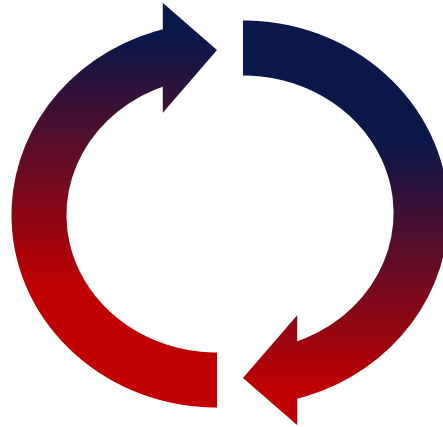
Understand the truth

Zero marginal cost
on creativity

Innovation

Customer/Experience

Telco starts here



TechCo starts here

Technology/Delivery

Use cases vs ROI

BUY vs DO

Sustainability

Turn the lights off
for goodness' sake!

Security



More than 60% Indians get at least 3 spam calls a day, often leading to cybercrimes, frauds and scams.

In an effort to curb this menace, Airtel has launched India's first spam-fighting network.

Reminder about magic destroyed...



Keep calm and carry on

Don't hurry

But...

MOVE QUICKLY

Reminder about magic destroyed...



Telecom – it's time to get out of our chairs and get fit

Thank you

Rakuten Symphony

Samantha Kight

GSMA

Pranay Bajpai

Verizon

Walt Shaw

Boingo Wireless

Matija Razem

Infobip

Moderator: Peter Jarich

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