Perspective

Open Network Index: 2025 results

Gorkem Yigit, Ameer Gaili and Caroline Gabriel

May 2025

Introduction

Open networks redefine how telecoms networks are built and operated. They create a vendor-agnostic, cloud-based, AI-driven foundation for greater automation, innovation and strategic independence. Telecoms operators have been on a long journey to achieve this vision, and they are now beginning to turn it into reality with tangible progress.

As the adoption of open networks in the telecoms industry grows, it is increasingly important to define and measure network openness to provide a clear benchmark for progress, foster ecosystem alignment and ensure that open networks fulfil their transformative potential.

Analysys Mason, in partnership with Dell, conducts an annual longitudinal study to understand operators' strategies for open networks and measure their progress towards deployment. The results form our Open Network Index (ONI).

This report is based on the results of the 2025 edition of the ONI, using data from a survey of 50 leading Tier 1 operators worldwide, conducted between December 2024 and January 2025. It assesses the progress and key changes in operators' open network transformations since the ONI 2024.[1] In addition, the scope of the ONI has been expanded to include operators' AI strategies in the network.

Geography	
Western Europe	32%
Developed Asia–Pacific	20%
Emerging Asia–Pacific	12%
North America	10%
Central and Eastern Europe	10%
Middle East and North Africa	8%
Latin America	6%
Sub-Saharan Africa	2%
50 Tier 1 operators	

Job function	
CTO office	43%
Head of network strategy	33%
Head of architecture	10%
Head of RAN strategy	10%
Head of operations	2%
Head of core network strategy	2%
50 Tier 1 operators	

[1] See Analysys Mason's *Open Network Index: evaluating operators' progress and attitudes to 'openness' across core, RAN and edge*.

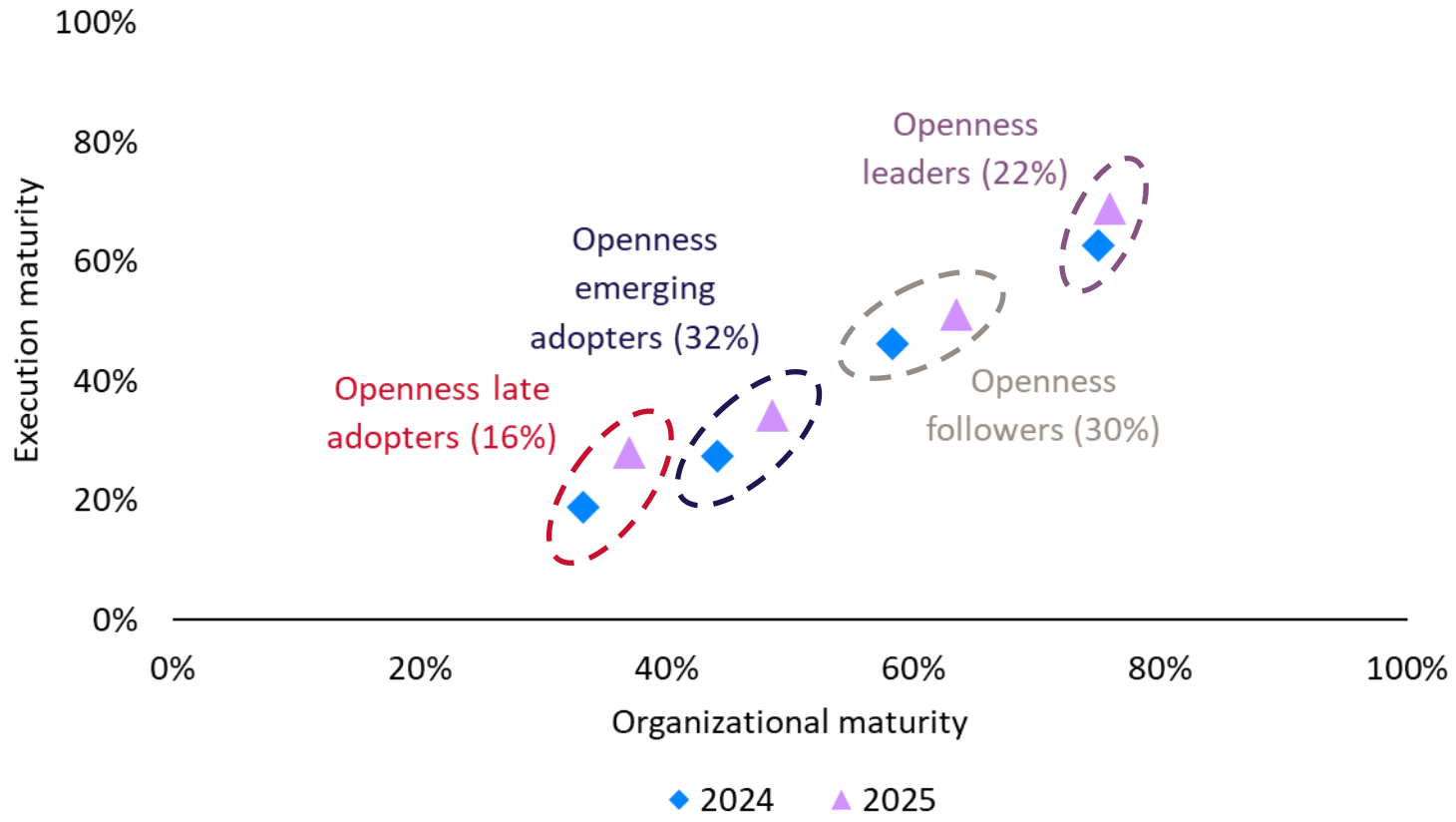
analysys mason

The ONI 2025 shows steady progress on open networks; the gap between vision and execution narrows and new operational challenges emerge

The ONI 2025 results show that operators are making gradual but steady progress towards open networks. Over half of operators (52%) have now reached ‘high’ organizational maturity (66% or above), thus creating a critical mass of readiness and expertise. The gap between operators’ open network ambitions and their ability to execute is also starting to narrow, driven by greater adoption of cloud-based networks and horizontal cloud platforms.

Operators are gaining confidence in the technical readiness, performance and reliability of open networks as the underlying technologies mature. However, they are encountering more operations-related challenges, such as security concerns and skillset gaps, as they scale up operationalization. A weakened open networks ecosystem (for example, some challenger core and RAN vendors are struggling financially, and some public cloud providers (PCPs) are scaling back in network cloud), along with ongoing capex and opex constraints, is also limiting their progress in open networks.

ONI 2025: open network progress of 50 Tier 1 operators, by execution and organizational maturity, worldwide, January 2024 –January 2025



analysys mason

ONI 2025 versus ONI 2024: operators have made notable progress in building the foundations of open networks

	Change since 2024	Takeaway
75% more operators are embracing open network architecture and operations	• More operators now have a well-defined, comprehensive strategy for open network architecture (22% in 2024 compared to **36%** in 2025) and a new operational model (16% versus **28%**). • The rest are gradually shifting from "planning to have" to "actively working on" openness strategies in both areas.	Most operators remain committed to their open networks vision and are making progress in developing a robust, joined-up strategy for architecture and operations. However, further progress from a broader set of operators is still needed.
Horizontal cloud platform strategies and adoption are gaining pace	• The number of ONI operators with a strategy for a cross-domain horizontal cloud platform has **doubled** (from 12% to **24%** of operators) since the previous ONI study, though is still limited. • The adoption of domain-specific horizontal cloud platforms progressed the most in the mobile core, from 16% to **28%** of operators.	Horizontal cloud architecture is central to open networks transformation. Operators are gradually overcoming barriers in the mobile core, and more advanced operators are looking to extend horizontal cloud architecture to other domains such as RAN in the future.
Cloud-based mobile core, RAN and edge deployments are scaling up	• There was significant year-on-year growth in the number of ONI operators adopting cloud-based 5G standalone (SA) core (**+41%**), Open RAN (**+30%**) and IMS (**+22%**). • The number of edge deployments driven by fixed-wireless access (FWA) and massive machine-type communications (mMTC) use cases both **doubled** between 2024 and 2025.	The scale of cloud-based networks, especially those built on decomposed, disaggregated cloud-native functions, is growing, particularly for 5G SA, as operators push for greater automation, vendor choice and the collapse of operational silos.

ONI 2025 versus ONI 2024: the need for internal skills and strong partners to tackle open network operations, security and AI has grown

	Change since 2024	Takeaway
The 2024 openness leaders appear to have outpaced the ecosystem, while the openness followers are now catching up with the leaders	• Most openness leaders made little-to-no progress in organizational maturity between 2024 and 2025 because they were already at an advanced stage. However, they executed their strategies only at modest scale. • Openness followers made the most progress between 2024 and 2025. They now require a new operating model and organizational upskilling to scale operations and address rising security challenges.	Some leading operators have advanced more rapidly than the broader ecosystem can support, which means that they must proceed more cautiously. However, rest of the market is catching up as the learnings and expertise from early adopter deployments spread.
Operators view embedded AI as vital to network performance but lack skills	• AI in networks is still in its early stages; progress is correlated with operators' openness maturity • Improving network performance and optimization is the primary objective for deploying AI in the network for most ONI operators.	AI is emerging as a key component in automating the operations of open, horizontal networks. However, many operators struggle with data challenges, in-house skillsets and quantifying the ROI.
IT vendors and systems integrators (SIs) are seen as the primary partners for open networks	• Operators are turning to IT vendors and SIs as the challenger vendor ecosystem contracts and PCPs' role declines. Indeed, IT vendors and SIs are filling the gap as neutral third-party partners to support operators' open networks strategies and execution. • Some operators are increasingly viewing network equipment providers (NEPs), who have been embracing openness, as prime partners for open networks.	The role of strong, committed neutral partners is becoming increasingly important in the weakened open network ecosystem to help operators stay on track with their openness goals and access the expertise needed to progress.

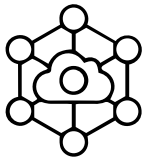
ONI 2025 versus ONI 2024: ambitions for multi-vendor RAN and core remain high, but operators are struggling to make progress

	Change since 2024	Takeaway
Multi-vendor Open RAN remains a long-term ambition for many operators	• The adoption of Open RAN grew by **30%** between 2024 and 2025, but many operators are taking a more pragmatic approach to mitigate multi-vendor complexities. They are favoring a single-vendor solution with open interfaces (or a roadmap to them). • However, multi-vendor Open RAN ambitions remain intact; **53%** of operators plan to adopt it within 2–3 years.	Advanced operators press on with multi-vendor Open RAN, but many other operators are avoiding vendor diversity until integration and interoperability issues are resolved. Instead, they are adopting open interfaces to support future multi-vendor deployments or swaps.
Multi-vendor progress and plans in the mobile core have slowed down	• The number of ONI operators that implemented a multi-vendor (minimum two vendors) mobile core increased only slightly from 40% in 2024 to **42%** in 2025. • The ambition to move away from single-vendor core in the next 3 years remains strong, but the overall number of operators planning to have a multi-vendor core decreased from 74% to **70%**.	Turmoil among challenger vendors (such as Affirmed, Casa and Metaswitch) appears to have affected operators' multi-vendor plans. Some operators are also now choosing to first build cloud-native network expertise in a more familiar, single-vendor environment.
Active involvement in open networking industry initiatives remains limited	• Slightly more ONI operators (52% in 2024 and **58%** in 2025) are now actively involved in the O-RAN Alliance, but membership numbers for other major industry initiatives such as CNCF, LF Sylva and Nephio remain largely unchanged (the number of TIP participants fell).	Active participation in open-source, cloud-native communities is crucial for operators to define common requirements and share best practices for open networks. However, fragmentation of initiatives and lack of operator resources remain major obstacles.

Open networks: calls to action for operators [1/2]

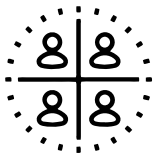
Focus on aligning network architecture and operations strategies to unlock open network scale

Sustained progress depends on aligning architecture and operations strategies as operators transition from vertically integrated architectures to open, disaggregated networks. This includes the integration of legacy and cloud-native functions, the automation of Day 0–2 operations and the cost-effective management of multi-vendor environments.



Build horizontal cloud platforms with unified automation, and scale openness pragmatically

Operators should define a clear, overarching strategy for a horizontal, common cloud platform from the outset for their open network architecture, even if deployment is incremental. They should start with more mature domains, such as the mobile core, to build expertise before expanding to more complex areas such as the RAN.



Ensure vendor choice and flexibility early on to enable openness and long-term open networks ecosystem health

Operators should actively engage challenger, open vendors from the earliest stages of planning to foster competition, promote openness and diversify the supply ecosystem. The continuous inclusion of these vendors is critical to strengthening the long-term resilience of open ecosystems and avoiding future market concentration.

analysys mason

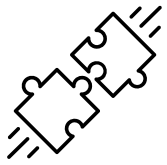
Open networks: calls to action for operators [2/2]

Integrate AI strategy with open networks and develop organizational capabilities in tandem

Operators should align their open network strategies with AI initiatives to maximize automation, agility and service innovation across domains. In parallel, they must invest in skills development, talent acquisition and Centers of Excellence to strengthen their capabilities and support sustainable, scalable AI adoption across the open networks.

Engage neutral partners to safeguard openness and balance large vendor influence

Operators should prioritize partnerships with neutral players that are committed to supporting multi-vendor, horizontal cloud strategies, despite a shrinking pool of challenger vendors and increased openness from incumbents. Neutral partners help to maintain competitive pressure, preserve openness and prevent NEPs from regaining control over network architectures.



Deepen engagement in open networking initiatives to shape standards and vendor roadmaps

Operators should expand their involvement in initiatives such as CNCF, Nephio, Sylva and the O-RAN Alliance, which drive open network principles, cloud-native operations and multi-vendor interoperability. Active participation strengthens operators' influence over standards development, fosters knowledge sharing and increases leverage over vendor ecosystems.

Open networks vision and strategy

analysys mason

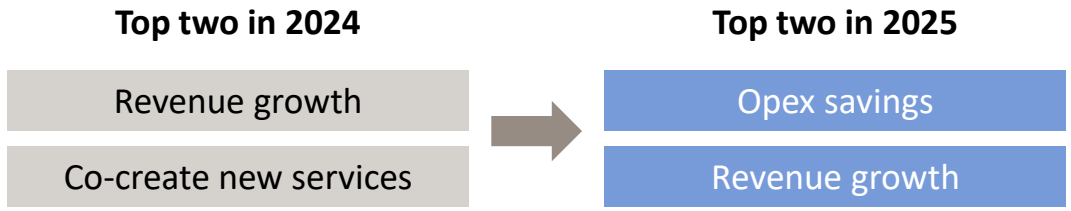
Openness vision: the desire for openness remains high, but operators' goals for openness have shifted slightly towards operational efficiencies

The ONI results show that operators are increasingly committed to transforming their networks into open, vendor-agnostic, horizontal cloud platforms that support disaggregated, cloud-native functions across multiple vendors and domains, underpinned by a common set of automation tools, APIs and operational processes. However, both their business objectives for open networks and their emphasis across network layers are evolving.

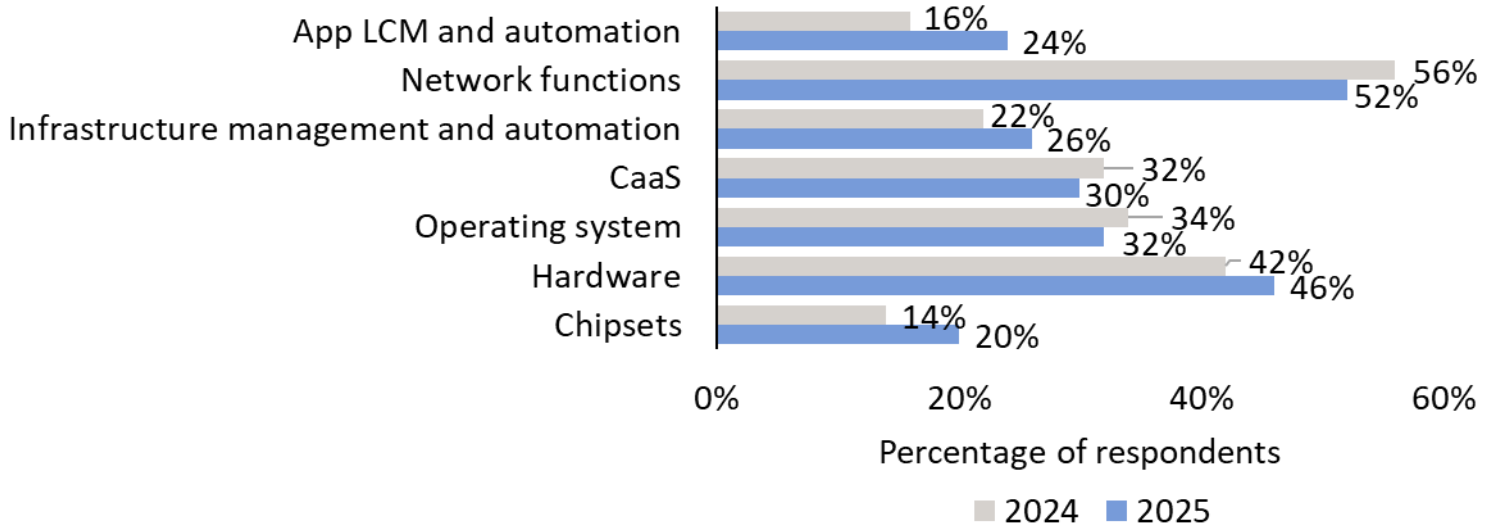
Operators' focus has shifted from driving new services and revenue growth to achieving opex savings via enhanced automation. This is mainly due to limited 5G monetization opportunities and increasing pressure to reduce opex.

This shift is reflected in where operators are focusing their efforts to achieve openness. More are now aiming to move away from closed, black-box automation towards more open approaches to application and infrastructure lifecycle management (LCM).

What is your top business outcome or objective that you are aiming to achieve by transitioning to open networks?



In which of the following cloud layers is it most important to you to have openness/choice of vendor?



Open network strategy: 75% more operators have embraced open network architecture and operations, but broader market progress is still needed

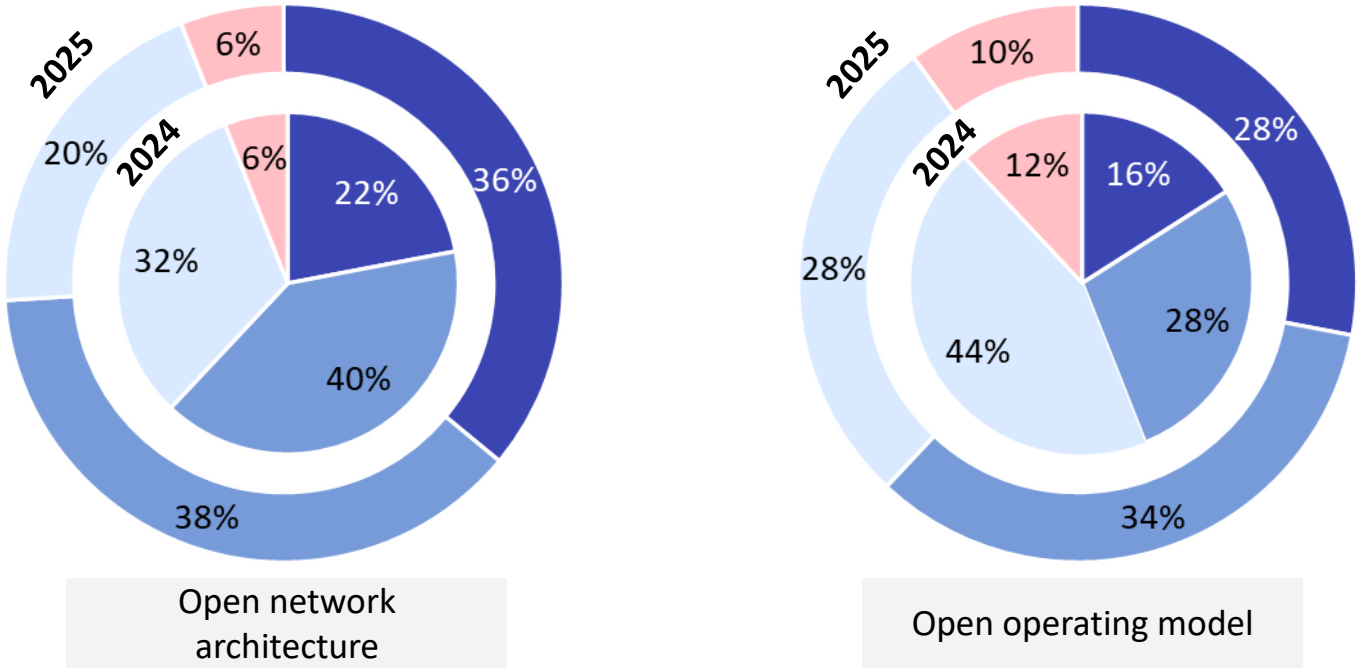
A growing number of operators recognize that a well-defined, joined-up open network architecture and operations strategy across multiple network domains is a key prerequisite to achieving their open networks vision and associated business objectives.

The percentage of ONI operators adopting such a strategy rose from 22% in 2024 to **36%** in 2025 for open network architecture, and from 16% to **28%** over the same period for open network operations.

Openness leaders are the most advanced in this area; they have clear, C-level-supported strategies that have allowed them to leap ahead of the market. This year, several **followers** and **emerging adopters** have joined them.

New operating models for open networks are often more challenging to implement than the network architecture. However, **62%** of operators are either working on one or are planning to, up from 44% in 2024.

Do you have a strategy for adopting the open network architecture and operating model?



Open network cloud: the development of horizontal cloud platform strategies is gaining momentum as followers also embrace the vision

The ONI 2025 results show significant progress in operators' plans to move away from vendor- and function-specific network cloud silos and towards the development of horizontal, disaggregated and vendor-agnostic cloud platforms across multiple domains.

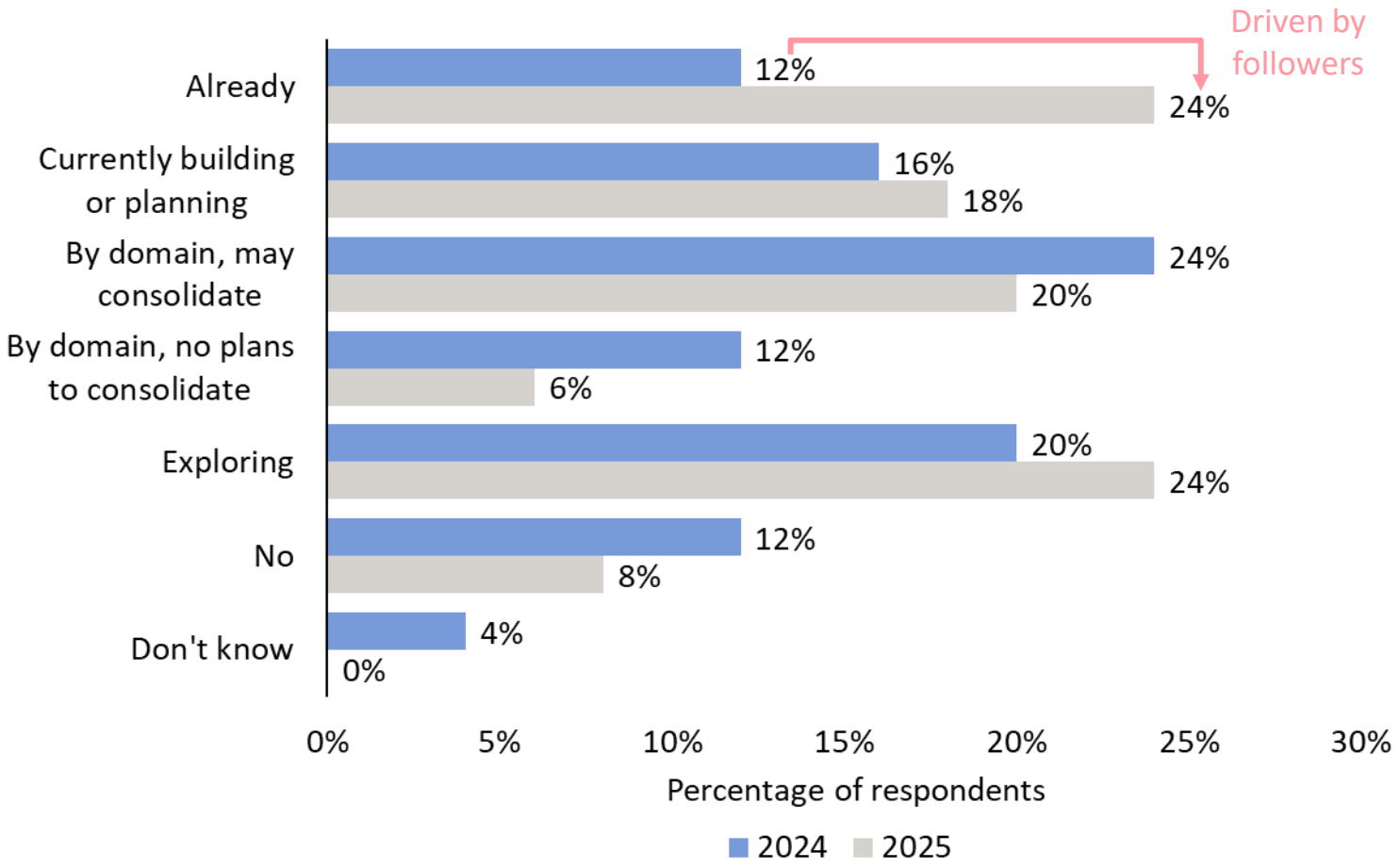
Indeed, the number of operators that have already built a strategy for a horizontal, disaggregated cloud platform **doubled** between 2024 and 2025.

This shift is driven by the aim to reduce the challenges of open network deployments, integration and operational automation by implementing a common operating environment.

In 2024, it was mainly the **openness leaders** that were driving the horizontal cloud platform vision. Now, **followers** are also adopting it, helped by initial efforts and best practices from early adopters.

Operators usually start adopting a horizontal cloud architecture within the mobile core domain and plan to consolidate and extend to other domains.

Do you have a horizontal, multi-vendor cloud platform strategy for your networks?



analysys mason

Openness partnerships and industry co-operation: fewer available open partners means that operators are turning more to IT vendors and SIs

Deploying and operating an open network requires most operators to have external partners that help them to alleviate the costs, risks and challenges of integrating and supporting disaggregated, multi-vendor and cloud-native networks.

The market landscape has changed significantly over the past year. Some PCPs have scaled back their investments, NEPs have started to embrace openness and other vendors have exited the market (fully or partially) or undergone M&A. This has led to:

- IT vendors and system integrators gaining more importance as neutral, third-party partners supporting the open network journey
- NEPs' strengthening their position due to their adoption of Open RAN, combined with technical challenges in multi-vendor RAN
- PCPs losing ground in both the core and RAN domains.

Which of the following options is/will be the best-suited to support your internal teams in addressing the most pressing challenges with your open network architecture?

	SI	NEP	PCP	Other IT	Outsourced
5G SA core					
2025	24%	34%	12%	24%	6%
Year-on-year change	+2pp	–6pp	–4pp	+8pp	–
RAN (all deployment models)					
2025	58%	52%	22%	50%	6%
Year-on-year change	–	+12pp	–4pp	+24pp	–2pp
Edge					
2025	19%	8%	29%	38%	6%
Year-on-year change	+4pp	+4pp	–13pp	+8pp	–4pp

analysys mason

Leaders versus followers: the 2024 leaders appear to have slowed down, while the followers are accelerating their progress towards open networks

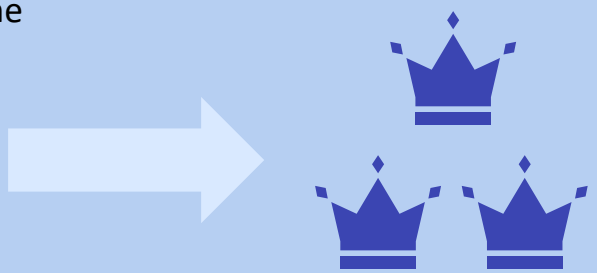
Surprisingly, most **openness leaders** from 2024 lost momentum in their progress towards open networks, despite being organizationally primed. These operators are further along in their journey than their peers, and may now be scaling back their ambitions and fine-tuning their approaches as they face the practicalities of the large-scale operationalization of open networks. This is particularly evident in their multi-vendor plans for both the mobile core and RAN. One openness leader has taken more dramatic steps in its strategy and its reducing focus on new vendors and increasing its reliance on NEPs.

By contrast, several **openness followers** made significant strides in both organizational and execution maturity between 2024 and 2025, and joined the openness leaders group. A key driver behind this was stronger C-level support for their openness strategies, the adoption of horizontal cloud architectures and the application of learnings from early adopters.

Only **2 openness leaders** from 2024 grew above the average

1 openness leader regressed to become an **openness follower**

3 openness followers moved up a category to become **openness leaders**



analysys mason

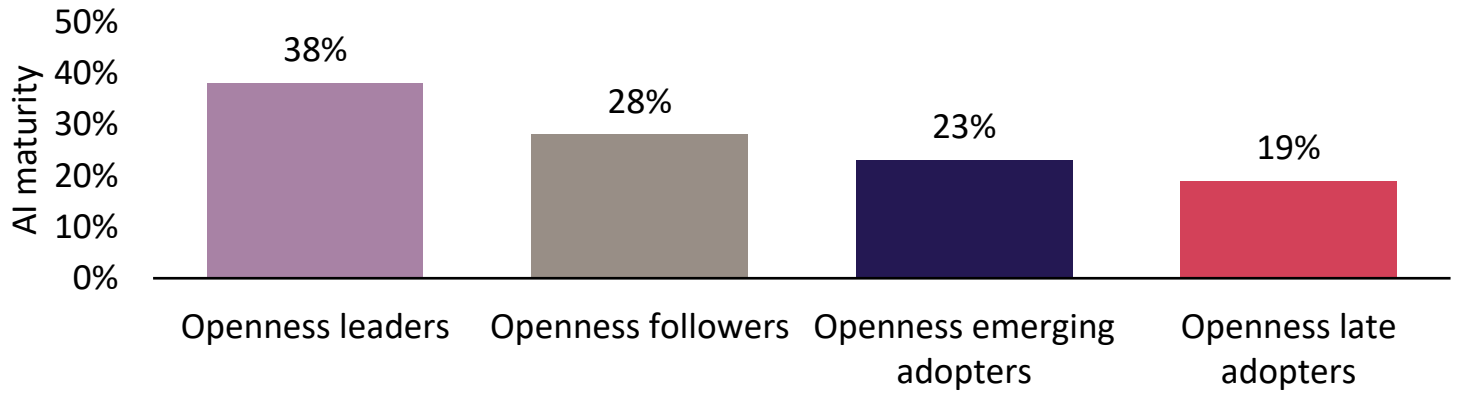
AI strategy: AI in networks is still nascent, but operators that are advanced in open networking are also leading in AI adoption

Many operators have been using AI technologies in their networks, but the emergence of generative AI (GenAI), large language models (LLMs) and AI agents is accelerating investment. Most operators are still in the early stages of building a strategy to integrate AI more deeply and at greater scale into key operational processes for enhanced automation and efficiency. Indeed, only **10%** of ONI operators have a strategy to use AI to significantly reduce network operational costs in the next 2–3 years.

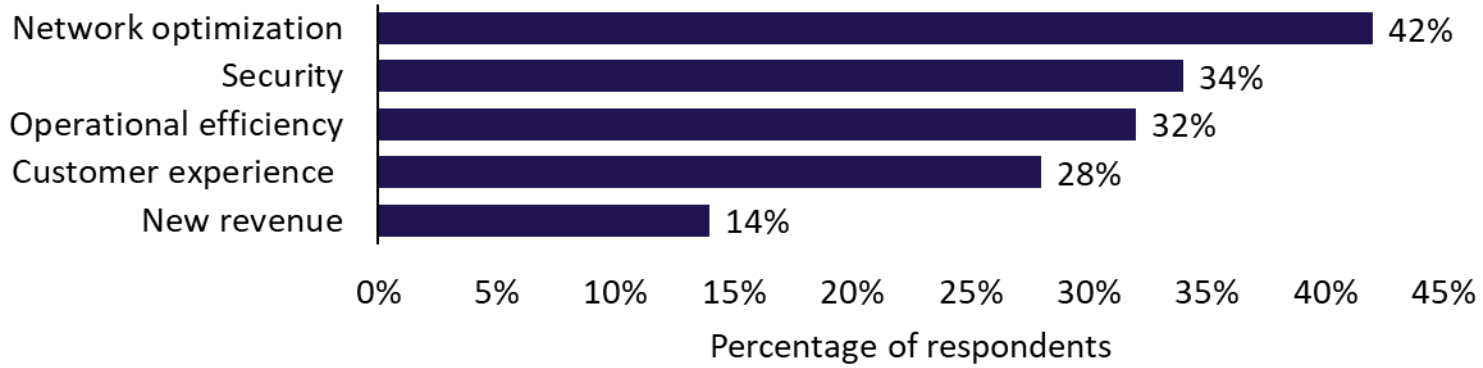
The ONI results show that openness and AI adoption maturity are highly correlated. The organizational mindset, capabilities and investments that operators apply to open networking are also enabling them to lead in AI adoption across the core, RAN and edge domains.

Operators are primarily focusing on using AI to optimize network resources and performance in the mobile core and RAN. There is not yet a clear consensus on where the biggest opportunities for edge services lie.

AI maturity score by operator openness grouping



Do you have plans to deploy AI in the network for the following strategic objectives?



analysys mason

Domain-specific results: mobile core

analysys mason

Deployment timelines: operators made strong progress on 5G SA; the number of operators adopting it increased by 40% year-on-year

5G SA momentum is accelerating.

After a 2-year delay, operators are now beginning to ramp up 5G SA deployments with renewed urgency, driven by the need for greater automation, AI integration and, to a lesser extent, monetization opportunities from network slicing and APIs.

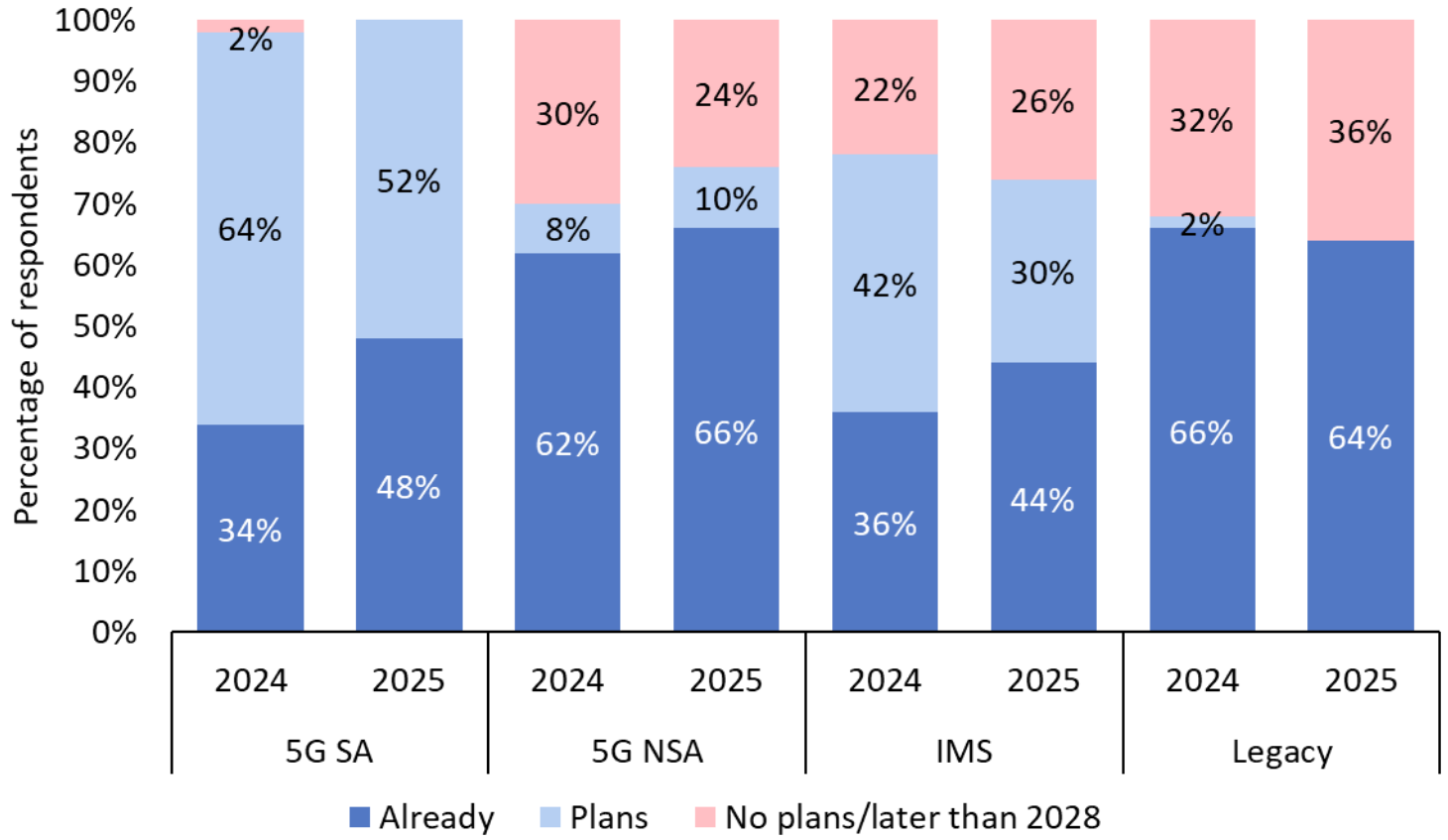
Western Europe is leading the charge.

Operators in Western Europe accounted for **71%** of new 5G SA roll-outs among ONI operators in 2024. Operators from Asia–Pacific accounted for the remainder.

Cloud-based IMS transformation is becoming a higher priority.

Operators also made strong progress in adopting cloud-based IP Multimedia Subsystem (IMS), driven by similar needs for greater automation and operational efficiency. Indeed, the number of ONI operators adopting the technology increased by **22%** year-on-year.

What is your timeline for adopting cloud-based network functions (virtualized or micro-services) in the following mobile core network domains?



Production lifecycle stage: operators' cloud-based core transformation efforts are centered on the 5G SA core and IMS

More 5G SA deployments are imminent.

On average, ONI operators have progressed to the system integration phase of the production lifecycle and are now positioned for deployment. This progress is being driven primarily by operators in Europe, the Middle East and emerging Asia–Pacific (most operators in developed Asia–Pacific and some in North America have already deployed 5G SA).

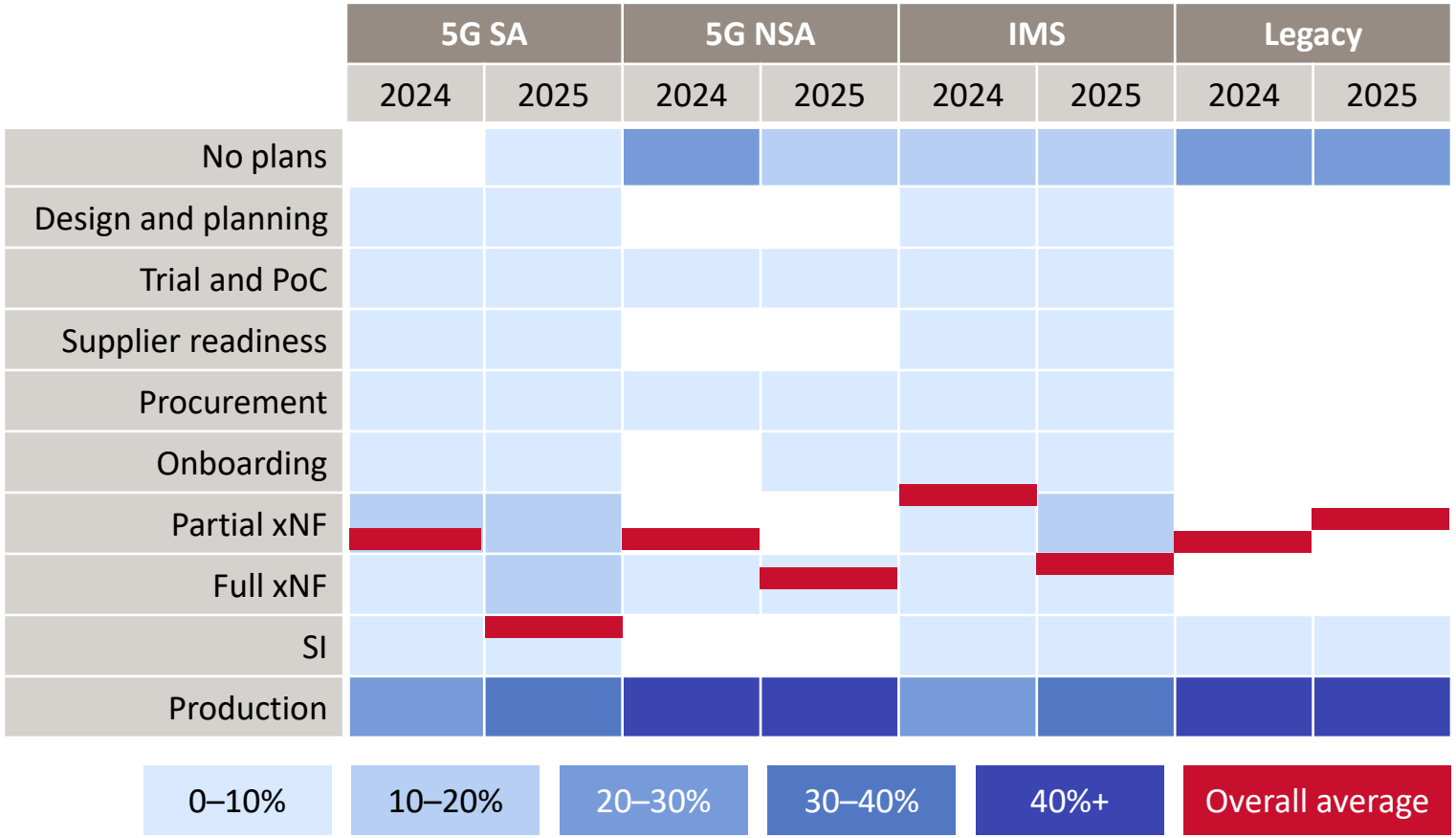
Operators are also active across the IMS production lifecycle.

Operators across all regions have made advances in their cloud-based IMS plans.

Operators are putting plans for cloud-based 5G NSA and legacy cores on hold due to the focus on 5G SA.

Most operators that are planning to deploy cloud-based versions of 5G NSA or legacy cores have already done so, while others show little intention to invest further in these areas.

At what stage of the planning/production lifecycle are you in for your cloud-based core?



analysys mason

Multi-vendor adoption: operators have slightly revised their multi-vendor 5G SA core ambitions over the last year

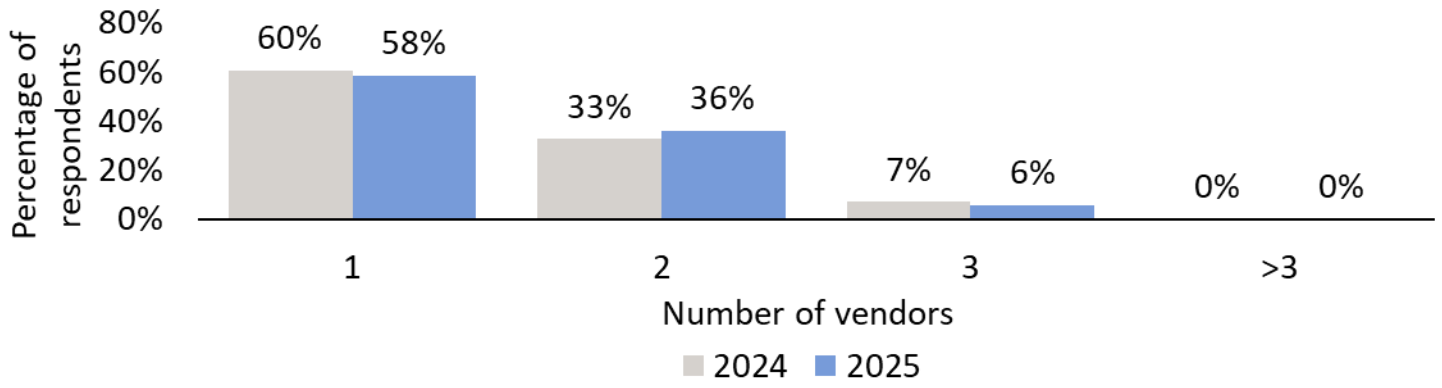
Operators have made moderate progress with their multi-vendor 5G SA core plans.

Most operators are choosing to first establish cloud-native capabilities within more manageable set-ups with a single vendor (or at most, two) rather than rushing into complex, highly multi-vendor environments. This staged approach reflects a deliberate effort to build internal expertise before expanding to broader vendor ecosystems.

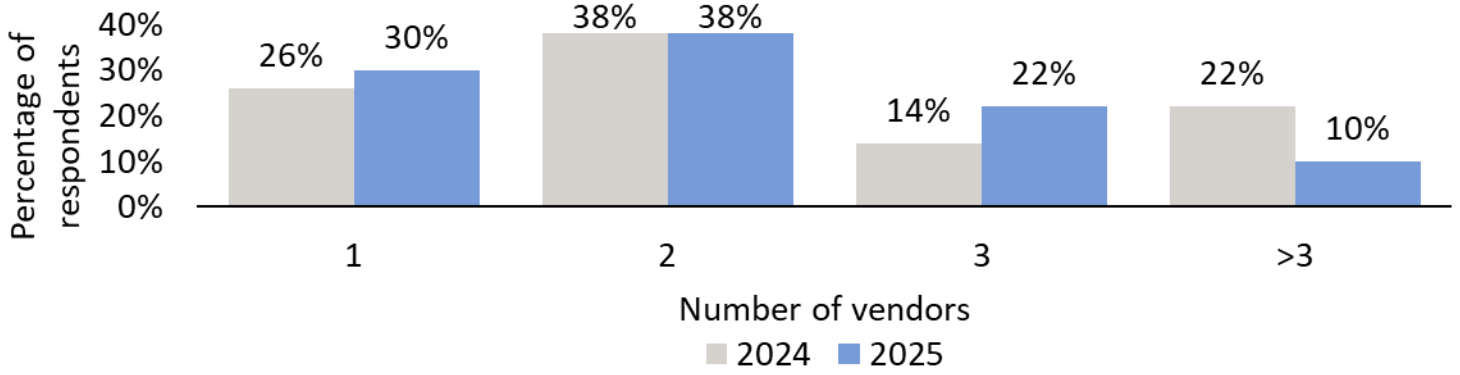
Operators have scaled back their multi-vendor 5G SA core ambitions.

Ambitions to move beyond single-vendor 5G SA cores remain high; 70% of operators target having two or more vendors in 3 years' time. However, this is down from 74% in 2024 because enthusiasm for highly multi-vendor set-ups (more than three vendors) has dropped off, suggesting that reality is setting in around the deployment and operational complexities.

How multi-vendor is your 5G SA core today?



How multi-vendor will your 5G SA core be in 3 years' time?



analysys mason

Openness challenges: security became the biggest challenge affecting operators' openness progress in the mobile core

Operators have grown more comfortable with open networking.

There has been a significant decrease in the number of challenges that operators face when adopting open mobile core networks. Technology maturity has become considerably less of an issue as disaggregated, cloud-based networks have become more technically viable.

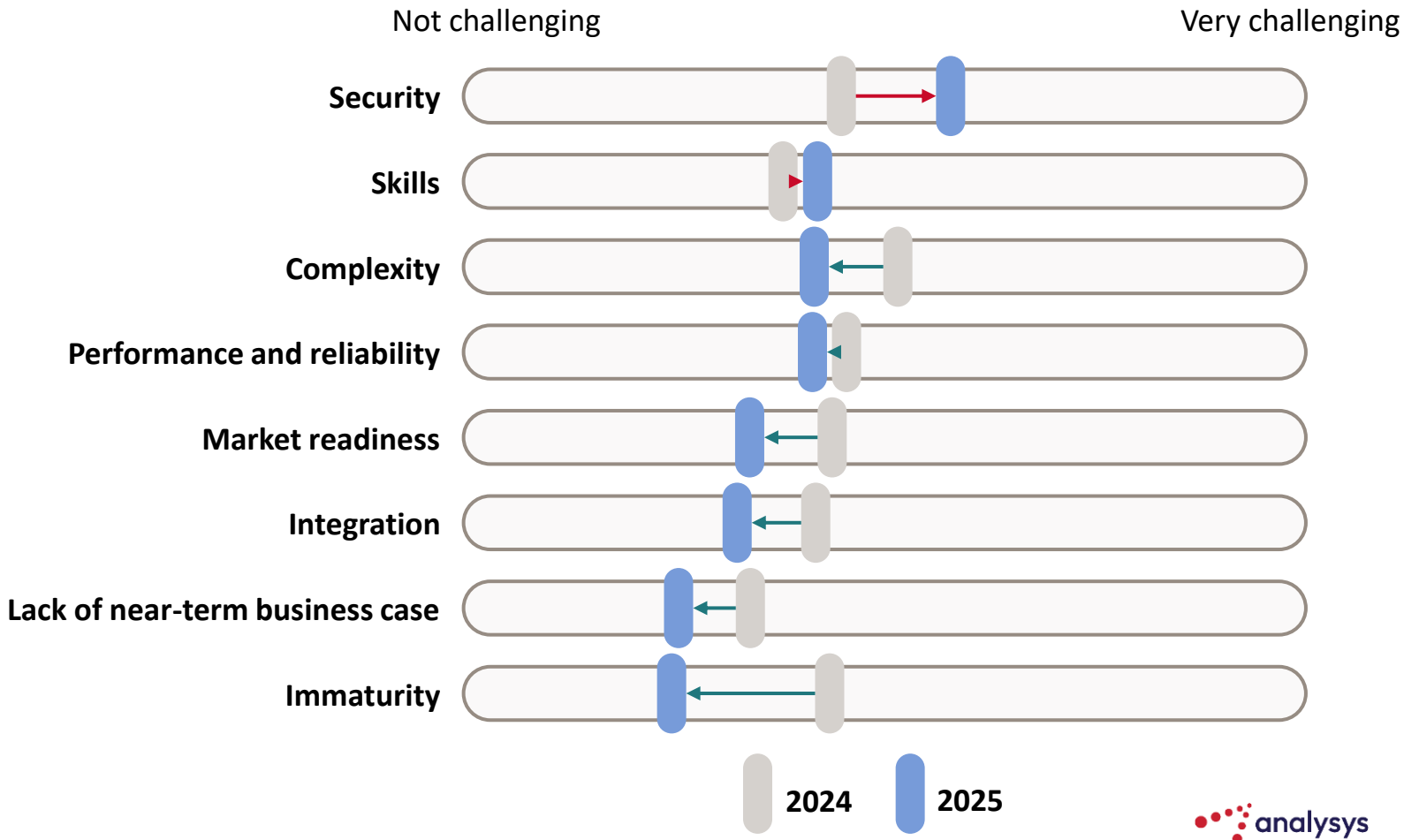
Security and skills are the top concerns.

Security and skills are the only challenges that have increased in impact for the mobile core as cloud-native networks move to the large-scale operationalization stage. **Openness leaders** are struggling the most in this regard.

Openness followers face performance concerns.

Followers have made headway addressing most challenges, but their performance and reliability concerns have grown as they move toward operating open networks at scale and start confronting real-world complexity.

Please score each of these challenges on the impact they have on your progress towards adopting an open mobile core network



analysys mason

Partner strategy: IT vendors are gaining traction across all mobile cores as operators look for a trusted vendor to achieve their openness ambitions

IT vendors are gaining ground.

IT vendors (both software and hardware vendors) are increasingly popular as partners to support operators on their openness journeys. Indeed, the percentage of respondents that used them for 5G SA increased by **50%** year-on-year in 2025 (+8pp).

NEPs are still the favored partner type, but the gap is narrowing for 5G SA.

NEPs remain the most popular partner choice, but operators want to lean on IT vendors to ensure that their open strategies are executed in the areas that they are most focused on such as 5G SA and IMS.

PCPs' role as a main open network partner is diminishing.

Some operators still view PCPs as their main openness partners, but PCPs' popularity has declined because some have scaled back their focus on, and investment in, telecoms networks.

Which of the following options is/will be the best suited to support your internal teams in addressing the most pressing challenges with your open network architecture?

	SI	NEP	PCP	Other IT	Outsourced
5G SA core					
2025	24%	34%	12%	24%	6%
Year-on-year change	+2pp	–6pp	–4pp	+8pp	–
5G NSA core					
2025	10%	76%	0%	15%	0%
Year-on-year change	–1pp	+1pp	–	+2pp	–3pp
IMS					
2025	14%	51%	9%	16%	9%
Year-on-year change	+2pp	–7pp	–	+7pp	–
Legacy					
2025	10%	80%	0%	5%	5%
Year-on-year change	–3pp	+1pp	–	+2pp	–

analysys mason

Horizontal cloud: there was a significant acceleration in the shift from siloed cloud stacks to horizontal cloud platforms within the mobile core

Operators' plans for horizontal platforms advanced the most in the core domain.

Operators made the most progress in their horizontal platform implementation in the mobile core because it is the most mature domain in terms of cloud architecture and disaggregation, and is often the starting point.

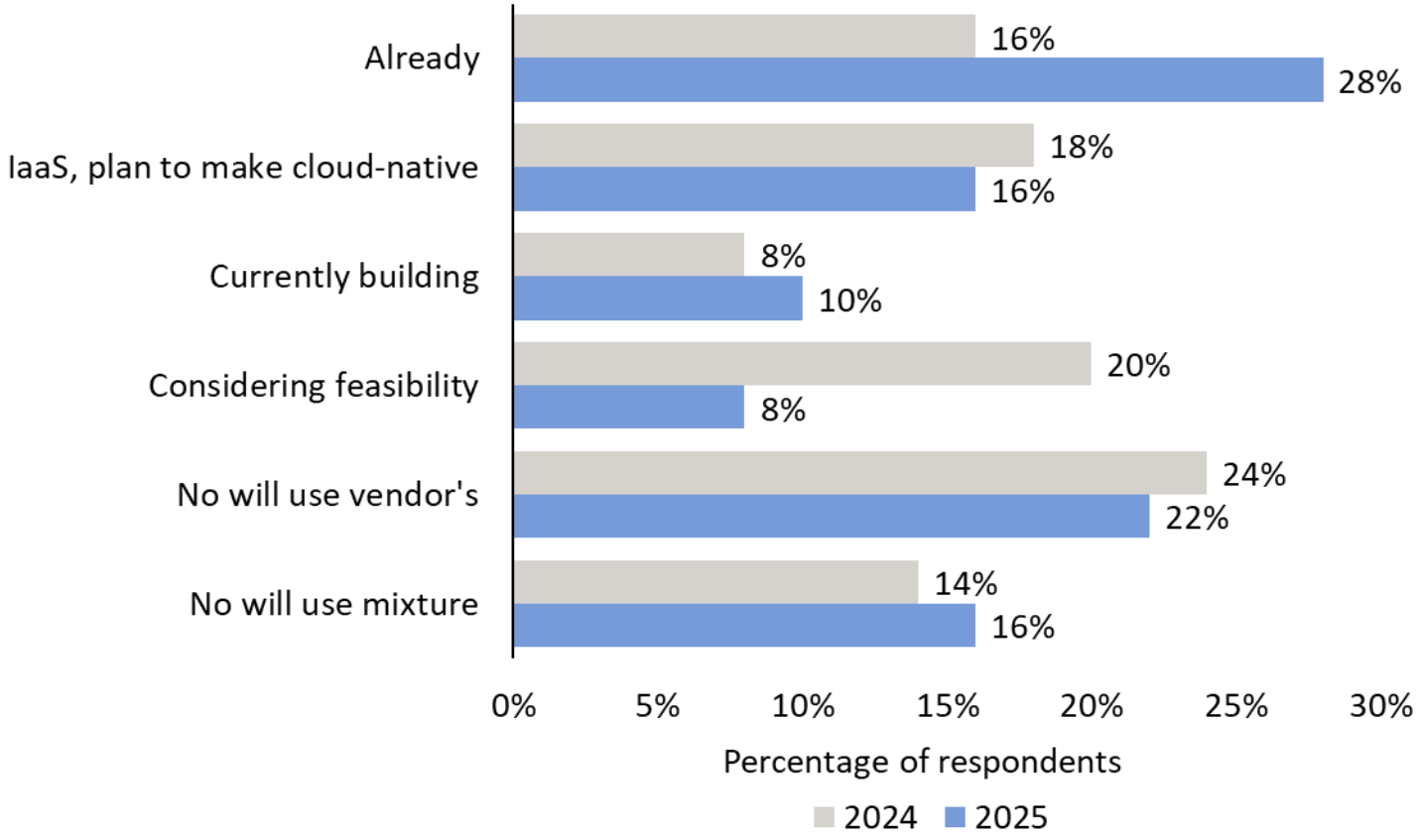
Most operators have now solidified their horizontal cloud strategies.

Only a few operators in Western Europe and North America are still considering the feasibility of a horizontal cloud, while others have already decided on their network cloud strategy.

DIY remains the primary model for horizontal cloud platforms.

Software-only cloud platform providers and in-house-built platforms (often using open-source components) gained ground between 2024 and 2025, while the use of PCPs fell.

Do you have a horizontal network cloud platform for your cloud-based mobile core?



analysys mason

AI strategy: network optimization and performance is the most-targeted AI use case for the mobile core

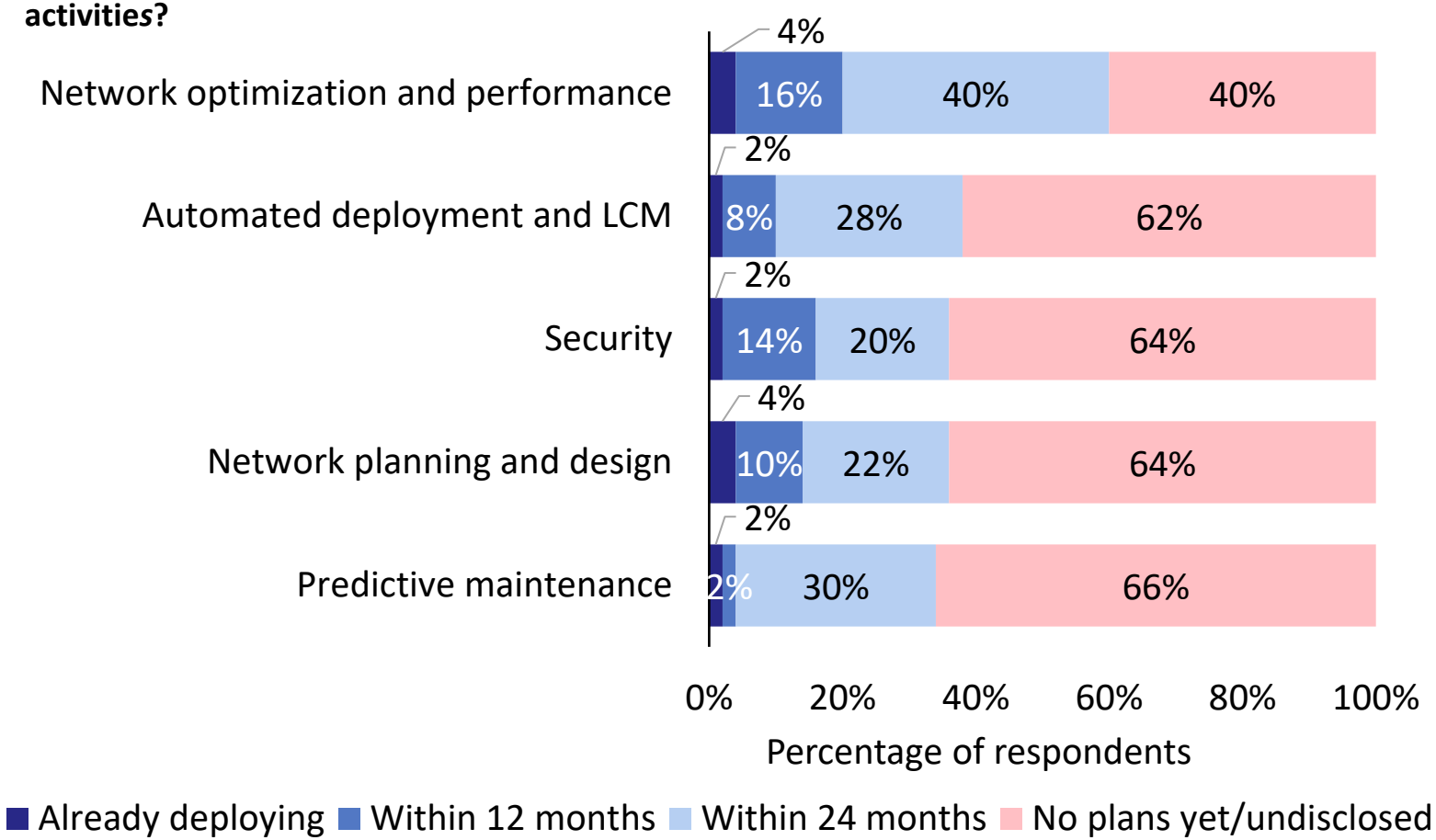
The adoption of AI to support mobile core network operations is still nascent, but a wave of deployments is on the horizon.

12% of operators (all from developed Asia–Pacific and North America) have deployed AI commercially for at least one operational use case in the mobile core network. However, interest is strong; **74%** of operators plan to adopt it within the next 24 months, and only **14%** have no deployment plans for this period.

Operators are deploying AI gradually using a step-wise approach.

Most operators are focusing on a small initial set of use cases to introduce AI into the mobile core and then will extend it to other areas over time. Network optimization- and performance-related use cases are the most popular targets; **60%** of operators plan to deploy them within the next 2 years.

Do you have plans to deploy AI in the mobile core network to support the following operational activities?



Domain-specific results: RAN

analysys mason

Deployment timelines: the take-up of NEP Open RAN increased the most, while operators continue to show ambition for multi-vendor Open RAN

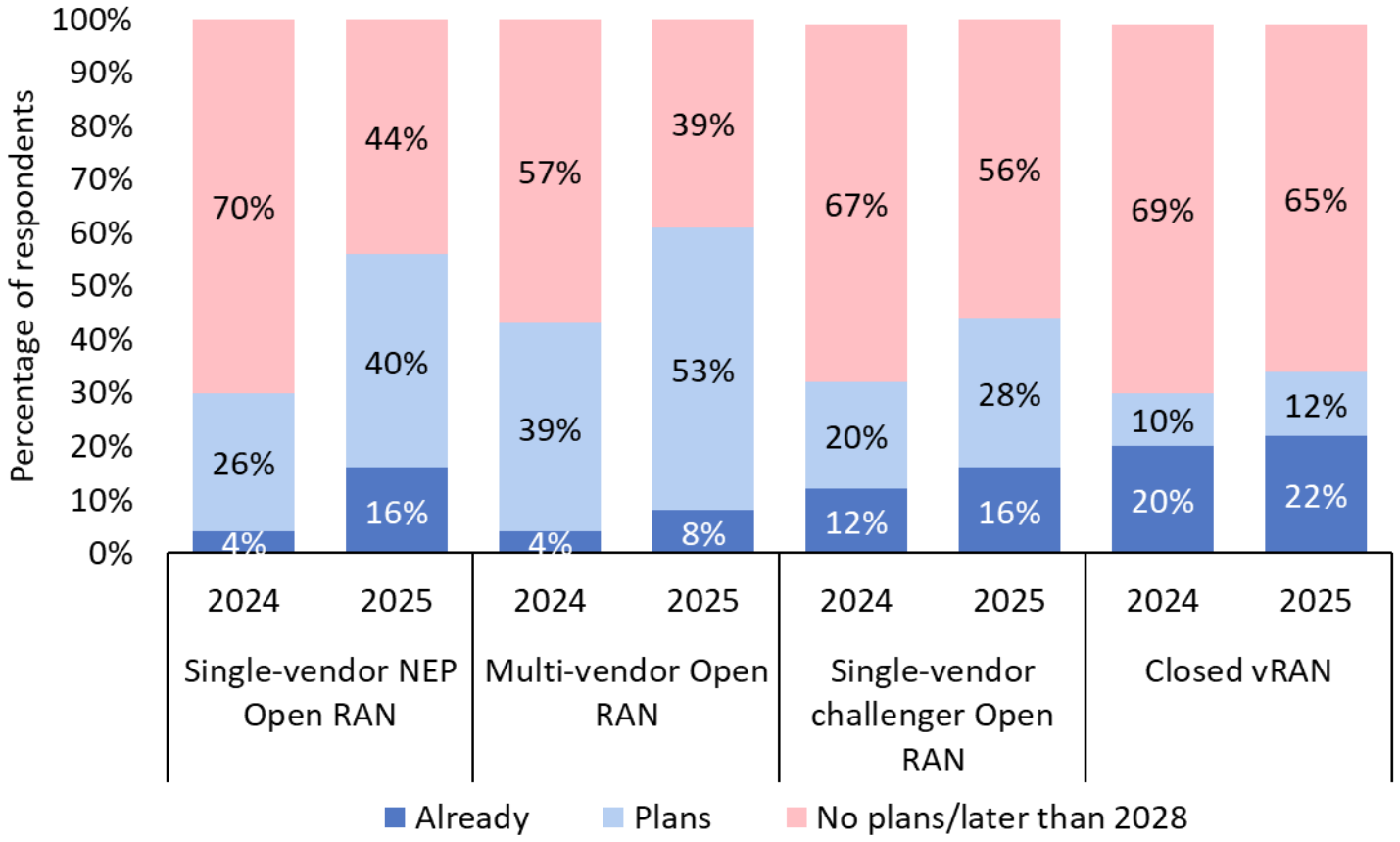
The number of single-vendor Open RAN deployments with NEPs tripled between 2024 and 2025.

Incumbent NEPs such as Ericsson and Nokia have made significant progress in aligning with Open RAN standards and open interfaces. Multi-vendor maturity is still developing and challenger vendors are facing hurdles, so operators are increasingly viewing NEP-based Open RAN with open interfaces as a safer, transitional path toward future multi-vendor models or swap-out possibilities.

Multi-vendor open RAN is a long-term plan, but interest in it grew strongly.

The number of operators that have deployed multi-vendor Open RAN remains small today, but ambitions have surged, and many operators believe that technical challenges will be addressed within the next 1–3 years. The share of operators planning deployments within this period of time has risen from 39% in 2024 to **53%** in 2025.

When are you planning to adopt the following cloud-based RAN (vRAN and Open RAN) architectures (note that not all operators provided an answer for all deployment models)?



Production lifecycle stage: operators continue to work on their multi-vendor Open RAN deployments behind the scenes

Operators' interest in multi-vendor Open RAN is high, and progress is steady.

Operators have made reasonable progress with multi-vendor Open RAN, moving from trials and PoCs to supplier readiness and RFQ definition. Operators from Western Europe and the Middle East led advances this year, though interest generally spans all regions.

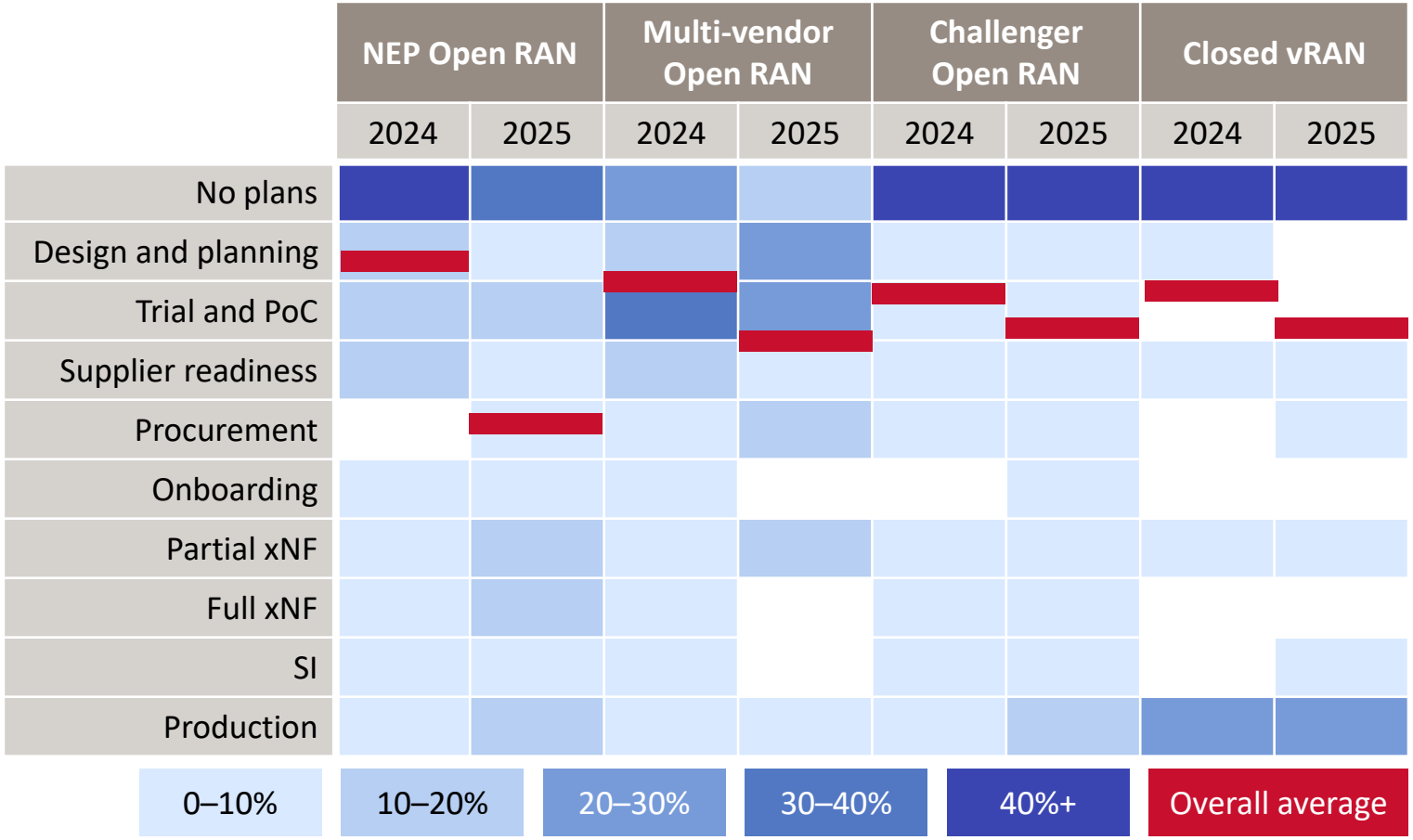
Openness leaders and late adopters favor multi-vendor Open RAN.

Both made their strongest advances with this deployment model. Leaders, in particular, are almost exclusively advancing this model, with little to no movement on other Open RAN types.

The middle pack of operators are most active in the NEP Open RAN space.

Openness followers and emerging adopters accelerated their NEP Open RAN plans; followers account for **50%** of all NEP Open RAN deployments in production.

At what stage of the planning/production lifecycle are you in for your cloud-based RAN?



analysys mason

Openness challenges: performance and reliability concerns have eased, but security has emerged as a major barrier to Open RAN adoption

Open RAN's technical viability has improved.

Performance and reliability concerns remain one of the top challenges for Open RAN. However, advancements in standardization activities (such as NG-LLS for mMIMO) and acceleration technologies are helping to address these concerns and improve the technology's viability for at-scale roll-outs.

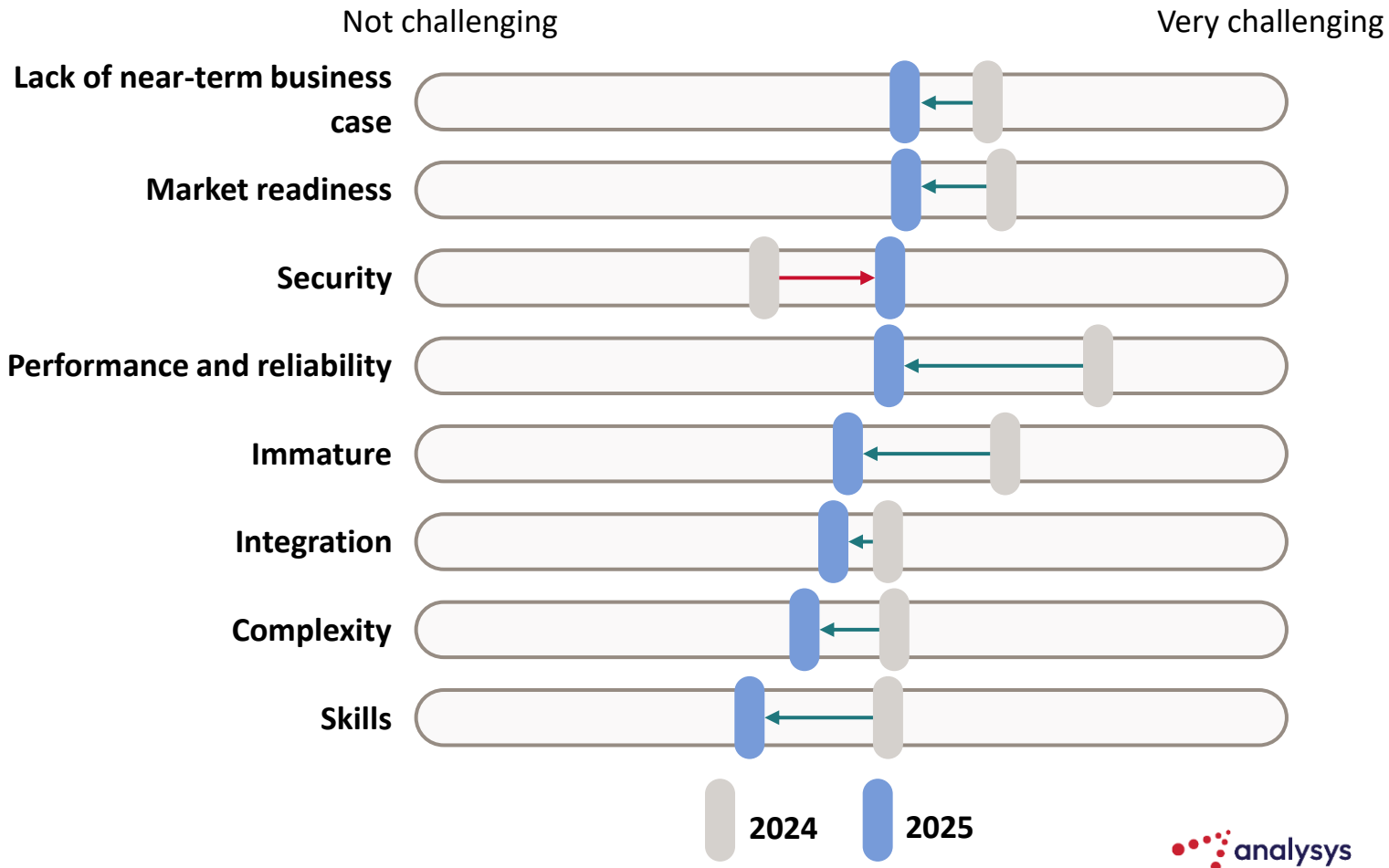
Security has become a major challenge.

Security is the only challenge that has become more difficult since 2024. It was previously considered the least pressing issue, but it now stands out as a key technical concern, particularly in multi-vendor environments, as Open RAN progresses towards commercialization.

Open RAN's TCO/ROI is still a major concern.

Uncertainty around Open RAN's promise to save costs continues to be a barrier for justifying the business case and investments. This affects even operators that are still exploring the technology the most.

Please score each of these challenges on the impact they have on your progress towards adopting Open RAN



analysys mason

Partner strategy: IT vendors are now the most popular partner choice for operators' multi-vendor Open RAN deployments

IT vendors overtook SIs as the main partner of choice.

IT vendors have become the most popular partners for supporting multi-vendor Open RAN deployments. The number of operators adopting this approach increased by **92%** year-on-year.

PCPs remain a partner option for multi-vendor Open RAN.

20% of operators consider PCPs to be the prime partner for multi-vendor Open RAN. Deployments with AWS by DISH Network (Boost Mobile) and NTT DOCOMO are giving operators confidence that PCPs can be a viable option for managing and integrating complex Open RAN environments.

Many early-stage operators have yet to decide on an Open RAN partner.

35% of emerging and late adopters are still exploring options for their future multi-vendor Open RAN partner.

Which of the following options is/will be the best suited to support your internal teams in addressing the most pressing challenges with your open network architecture?

	SI	NEP	PCP	Other IT	Outsourced
Multi-vendor Open RAN					
2025	24%	8%	20%	27%	2%
Year-on-year change	–7pp	+4pp	–4pp	+13pp	–4pp
Single-vendor challenger Open RAN					
2025	27%		2%	16%	2%
Year-on-year change	+5pp		–	+6pp	–

analysys mason

Horizontal cloud: operators are increasingly implementing a horizontal network cloud platform for cloud-based RAN

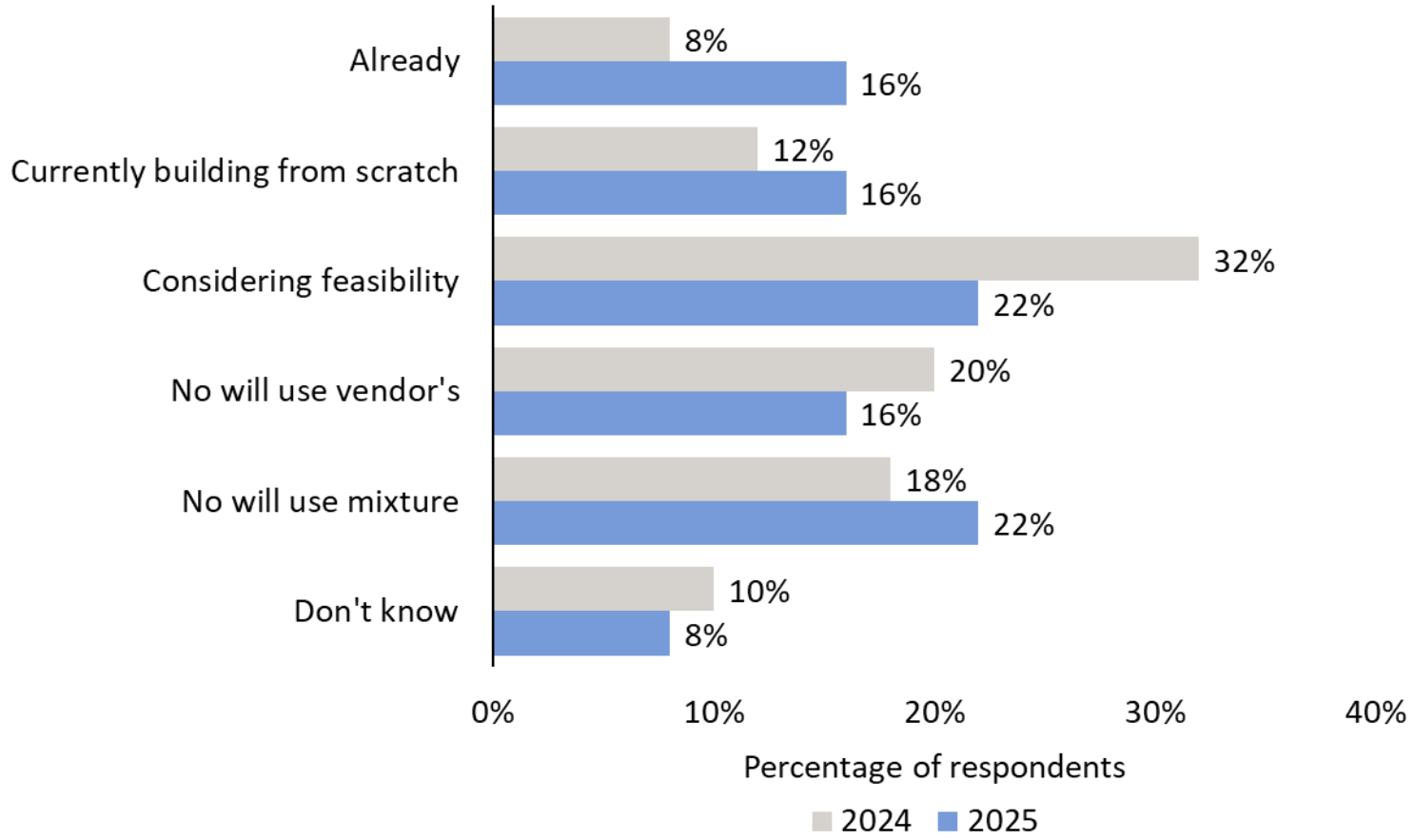
The number of operator deployments of a horizontal cloud for RAN doubled between 2024 and 2025.

RAN lags behind the mobile core in terms of horizontal cloud progress, but adoption and interest have grown significantly. Half of all new horizontal cloud deployments for RAN came from Western European operators, which have been on the Open RAN journey for some time and are now preparing to scale up deployments centered on this platform.

Followers are in the process of building a horizontal cloud for RAN.

75% of operators that are developing their horizontal platforms from scratch are in the openness followers group. This group has been the most active in Open RAN over the last year. Most are currently deploying single-vendor Open RAN with NEPs, but they plan to transition to a multi-vendor model in the future supported by their horizontal platform.

Do you have a horizontal network cloud platform for your cloud-based RAN?



analysys mason

AI strategy: advanced operators are increasingly adopting AI to improve security, performance and energy management

AI in the RAN is still nascent, and deployments are concentrated in just two regions.

12% of ONI operators have deployed AI in the RAN to support at least one operational activity, led by advanced operators in North America (focusing on security) and developed Asia–Pacific (focusing on energy management and network planning and design).

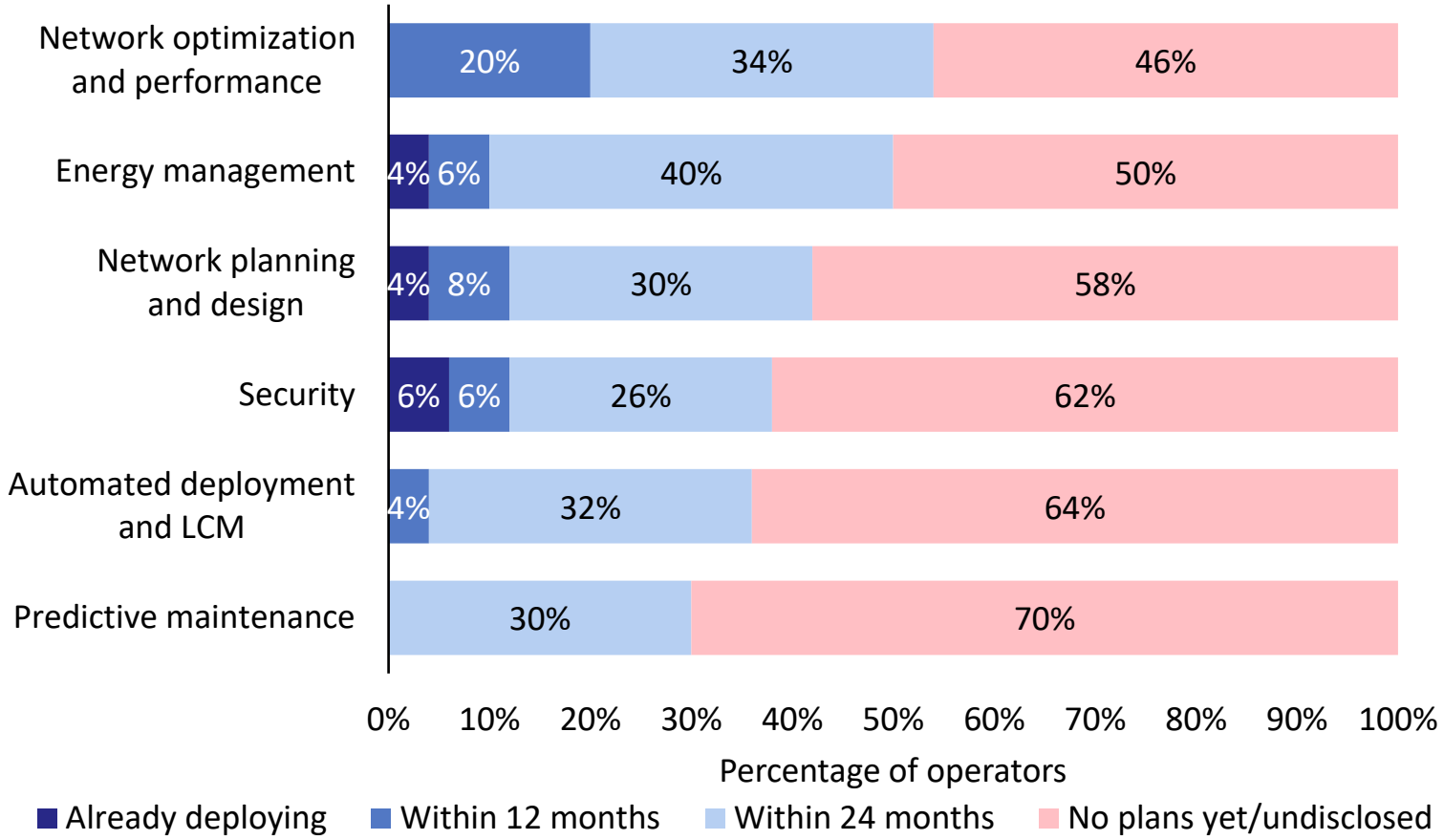
Network optimization and performance is the next key focus for AI in the RAN.

54% of operators plan to deploy AI in the RAN to support use cases in this area within the next 2 years. Operators in Western Europe, North America and developed Asia–Pacific have the most imminent plans, with deployments expected within the next 12 months.

Core and RAN AI deployments go hand-in-hand in advanced operators.

66% of early adopters have also implemented AI in the mobile core, indicating a broader, cross-domain AI strategy.

Do you have plans to deploy AI in the RAN to support the following operational activities?



analysys mason

Domain-specific results: edge

analysys mason

Deployment timelines: network edge use cases are still in the early stages, led by consumer services; enterprise and B2B use cases are emerging

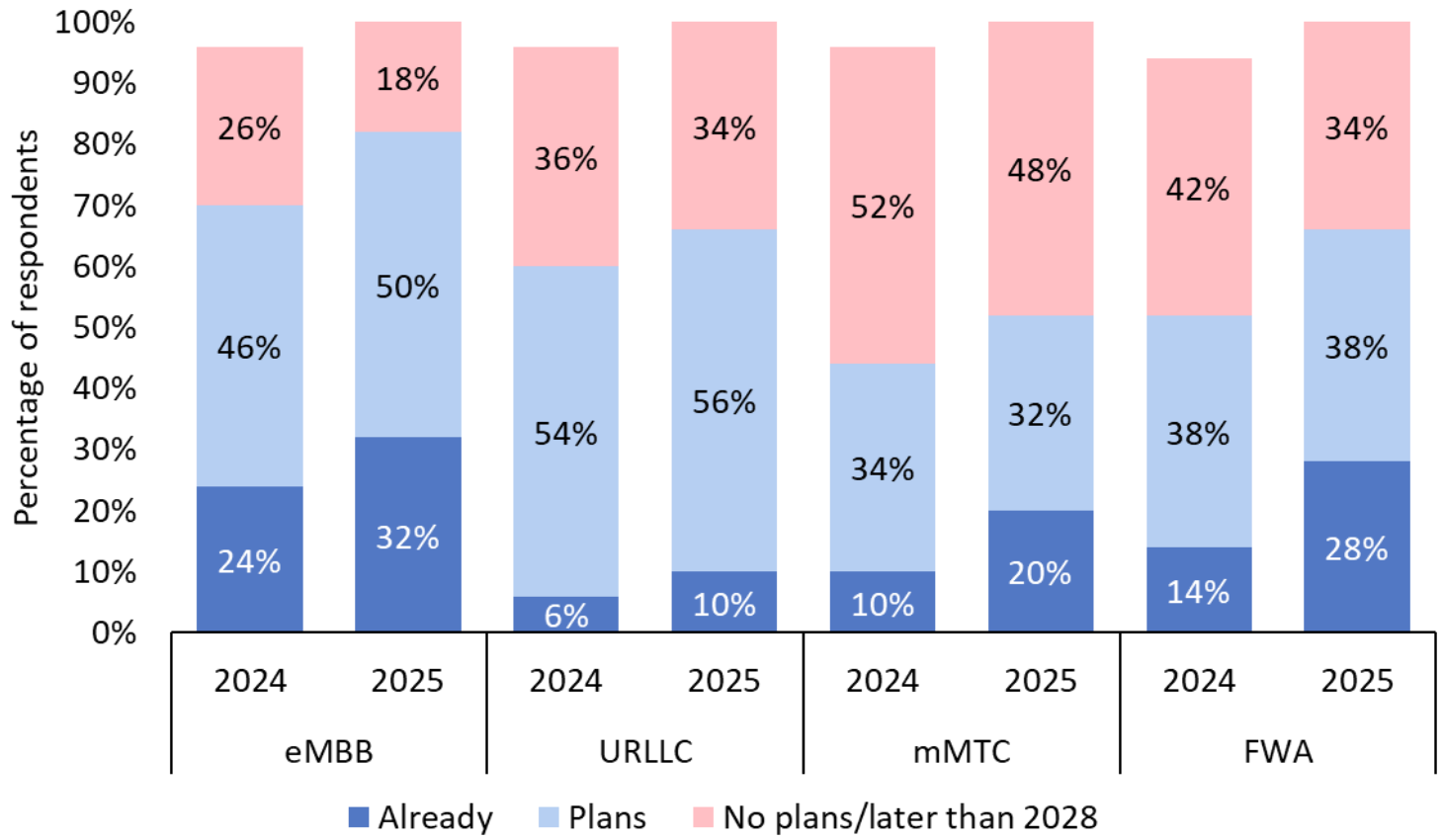
Enhanced 5G connectivity services with eMBB and FWA are the primary drivers for adopting edge.

Consumer-focused use cases at the network edge are the most prevalent among ONI operators because they increasingly use distributed network locations to drive incremental value from 5G, particularly via FWA. Operators from emerging markets are increasingly using the network edge to support FWA, in addition to those in North America.

Enterprise/B2B use cases at the edge are still limited, but mMTC has gained significant traction.

mMTC adoption doubled between 2024 and 2025, and interest in URLLC grew considerably. mMTC deployments have mainly focused on the healthcare vertical. All ONI operators that have launched URLLC have also deployed mMTC. Operators are increasingly identifying opportunities to roll out these use cases together; stadiums and smart cities are emerging as key deployment environments.

What is your timeline for the following edge use cases (note that some operators did not answer in 2024)?



Production lifecycle stage: operators have completed trials/PoCs for URLLC, but FWA and mMTC remain market-dependent opportunities

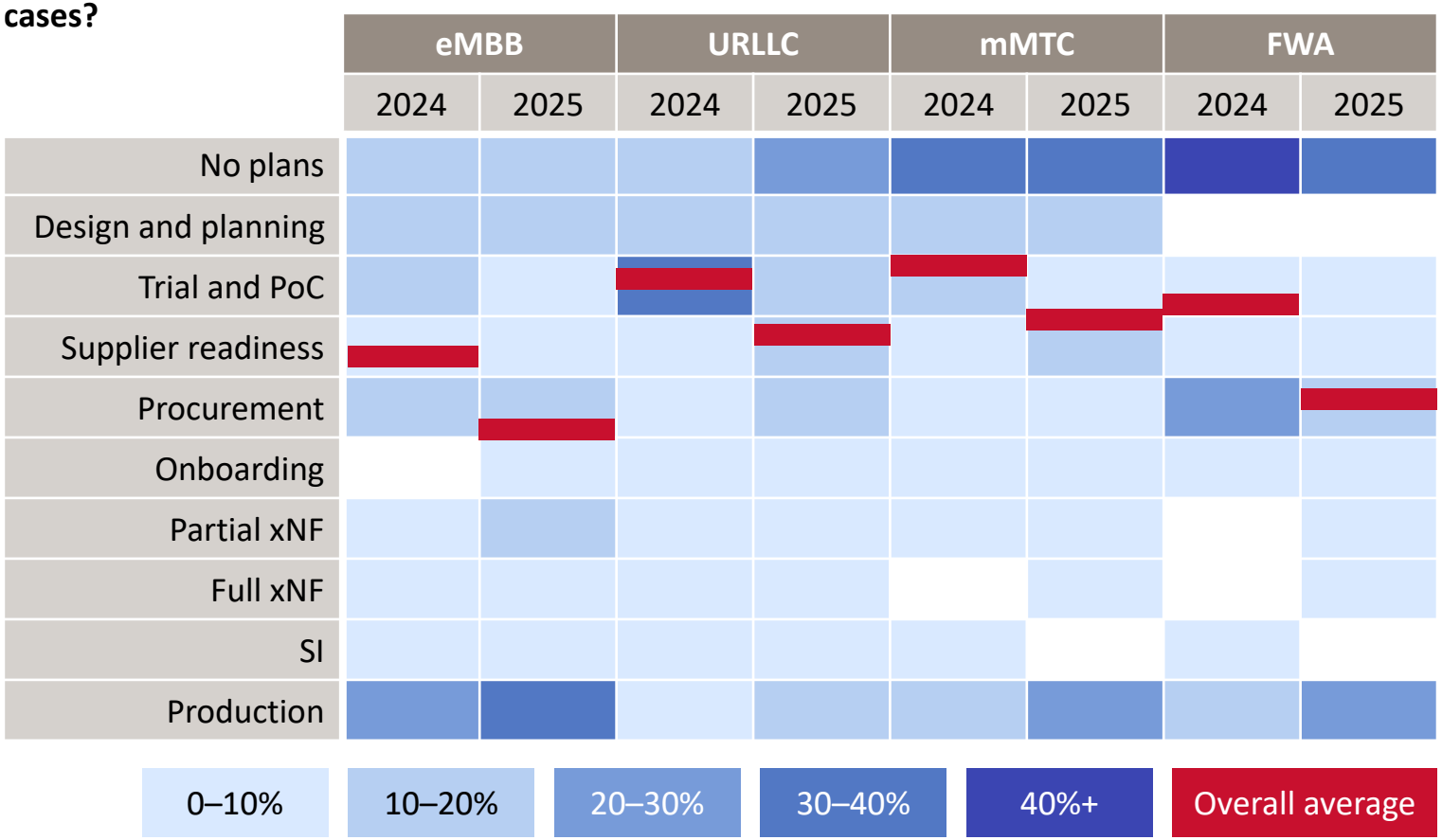
Operators with URLLC plans have advanced further in their journey than those without such plans.

The overall proportion of operators interested in URLLC remains unchanged from 2024, but many have progressed beyond early trials and PoCs and are now preparing their suppliers and ecosystems for commercial readiness. This is a critical step as network slicing and low-latency services are maturing and moving closer to being implemented in broader deployments.

The interest in mMTC and FWA among European operators is still limited.

European operators continue to show limited momentum around mMTC and FWA, which reflects a regional focus on enhancing mobile broadband rather than diversifying into broader IoT and fixed-wireless use cases. **65%** of operators with no mMTC or FWA plans are based in Europe, which suggests slower enterprise and vertical market adoption compared to other regions.

At what stage of the planning/production lifecycle are you in for the following network edge use cases?



Openness challenges: commercial roadblocks and security are the most challenging aspects of open network edge progress

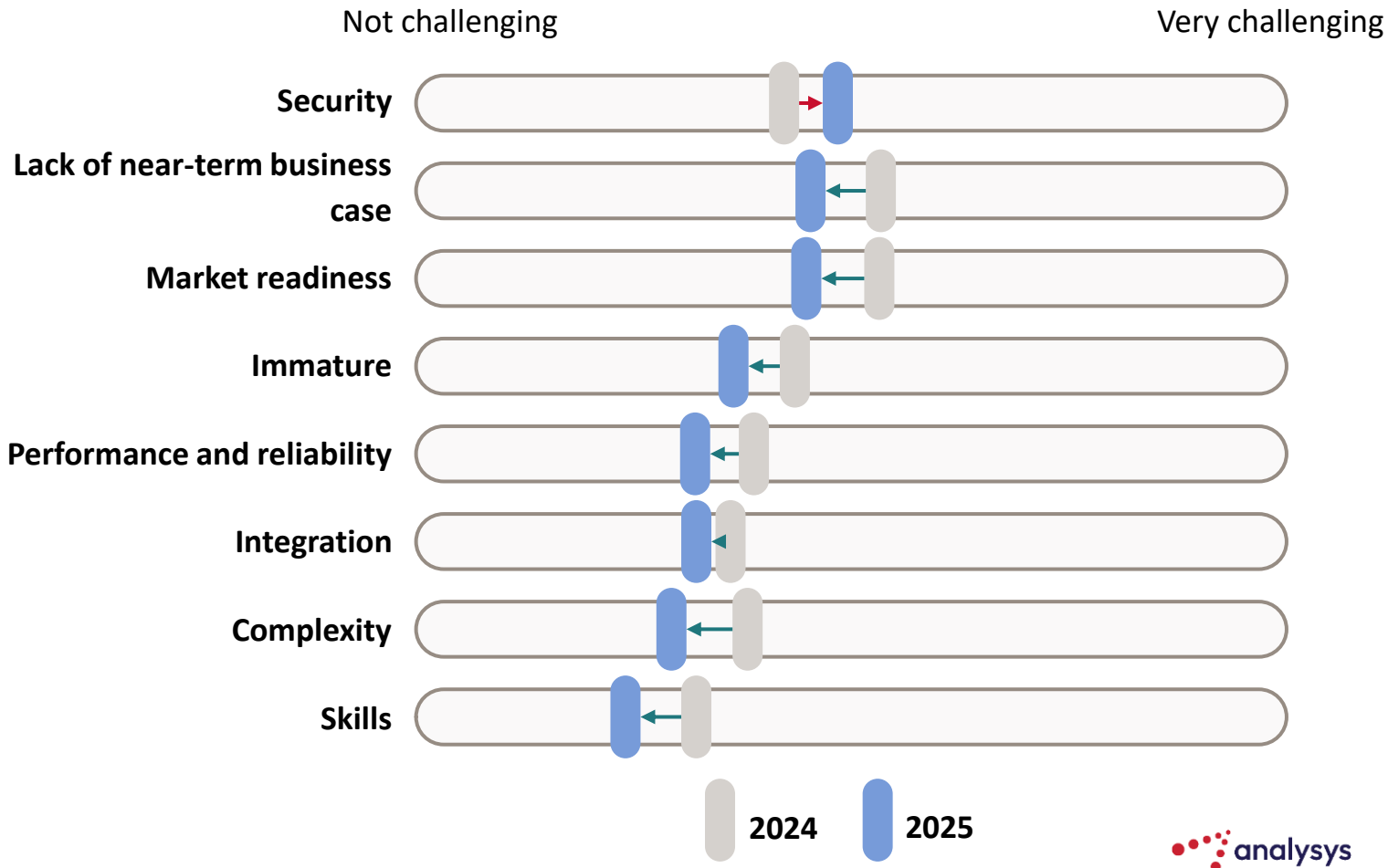
Limited monetization opportunities are slowing down open network edge progress.

The lack of a strong near-term business case and limited market readiness continue to hamper edge investments because consumer use cases offer minimal upside and enterprise/B2B opportunities remain unclear or immature. Security concerns have also become more pronounced as operators grapple with the complexity of securing distributed edge environments.

Large-scale edge roll-out ambitions exist, but have yet to fully materialize.

On average, operators have deployed at **22** edge locations, representing a **32%** year-on-year increase. However, this remains well below their 3-year target of **125** locations, showing that they are still in the early phases of roll-out. Many operators have also scaled back their targets, pointing to continued challenges with market readiness and the absence of a clear short-term commercial case for scaling up.

Please score each of these challenges on the impact they have on your progress towards adopting an open network edge environment



analysys mason

Partner strategy: PCP-based edge strategies have drastically reduced in popularity as operators look to take greater control with DIY models

Interest in partnerships with PCPs for the network edge has declined significantly.

Initially, most operators planned to build their network edge using PCP-based stacks, particularly in North America and Europe. However, PCPs scaling back their telecoms network focus appears to have affected operators' strategies at the edge, mirroring similar trends in the core and RAN.

Indeed, PCP edge stack deployment models have fallen in popularity. 45% of operators used these models in 2024 compared to **34%** in 2025. The selection of PCPs as a partner for open network edge deployments dropped from 42% to **29%.**

Operators are shifting towards a DIY model for edge.

DIY edge platforms have grown in popularity following the decline of PCP-based models. IT vendors are increasingly selected as the preferred partner, followed by SIs and NEPs.

Which of the following options is/will be the best suited to support your internal teams in addressing the most pressing challenges with your open network architecture?

	SI	NEP	PCP	Other IT	Outsourced
Edge					
2025	19%	8%	29%	38%	6%
Year-on-year change	+4pp	+4pp	–13pp	+8pp	–4pp

Which of the following models are you adopting for your network edge strategy?

	MEC platform	DIY network edge	PCP edge stack	No plans
2025	34%	28%	34%	4%
Year-on-year change	–1pp	+10pp	–11pp	+2pp

analysys mason

Horizontal cloud: operators are advancing their network edge and RAN horizontal cloud platform strategies in tandem

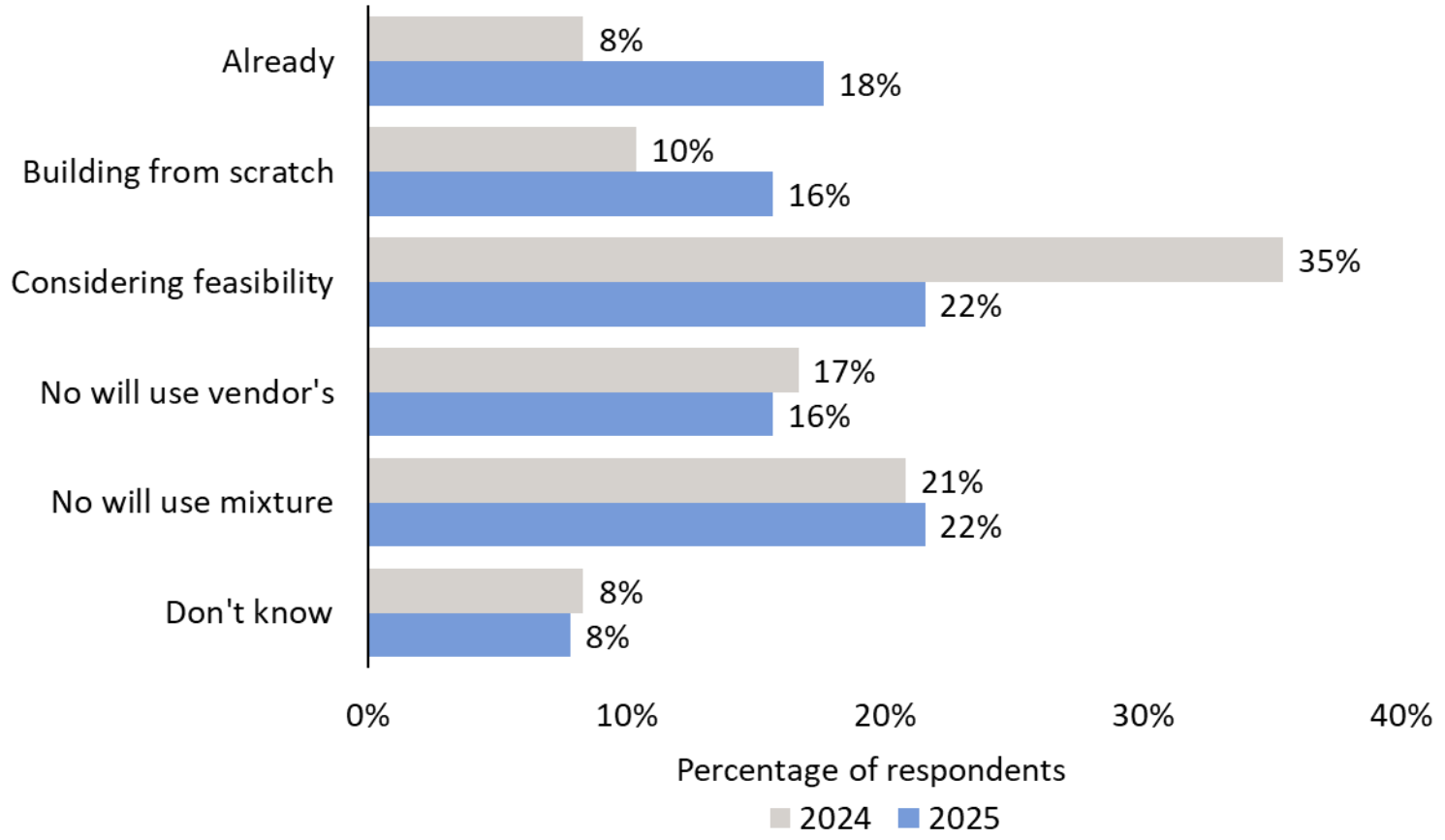
Horizontal cloud adoption for network edge is growing.

Network edge clouds require horizontal, open and flexible platforms that are capable of supporting a broad range of use cases, including multiple network functions as well as enterprise and AI applications. The number of ONI operators adopting such platforms increased from 8% in 2024 to **18%** in 2025.

65% of operators are at the same horizontal platform stage in both the edge and the RAN.

This reflects a deliberate strategy to build unified cloud platforms that can extend across RAN and edge environments, thus allowing operators to better use existing RAN infrastructure, simplify operations and maximize the revenue potential of emerging edge use cases.

Do you have a horizontal network cloud platform for your network edge?



analysys mason

AI strategy: operators are targeting a broad range of enterprise use cases as part of their edge and AI strategies

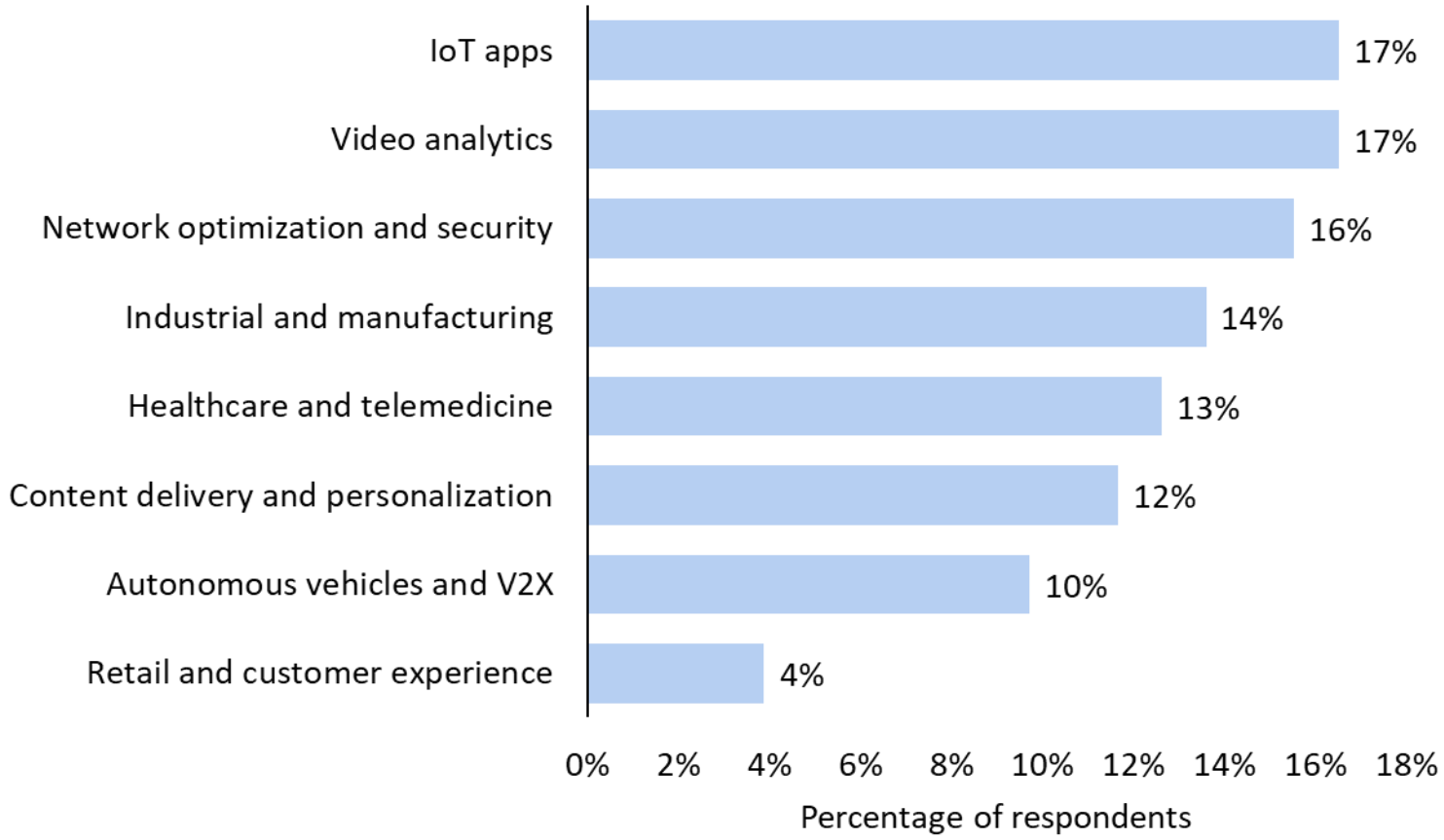
Operators in all regions are actively exploring a broad range of AI use cases at the edge.

Many operators are still in the exploration phase and there is no strong consensus on key use cases, but nearly half (**49%**) believe that the greatest AI opportunities will come from enterprise applications rather than consumer-focused services. However, a significant portion of operators (**34%**) remain undecided on where the most significant impact will emerge.

The trend toward network convergence is growing to support AI-driven connectivity.

Operators are increasingly focused on enabling multi-access connectivity options, including 5G, fixed and Wi-Fi, at the edge, driven by the need to meet the demands for enterprise connectivity and AI to provide more reliable, redundant and flexible networks. Notably, the share of ONI operators planning to add Wi-Fi support rose from 17% in 2024 to **60%** in 2025.

What are the top three AI use cases you will target at the network edge?



analysys mason

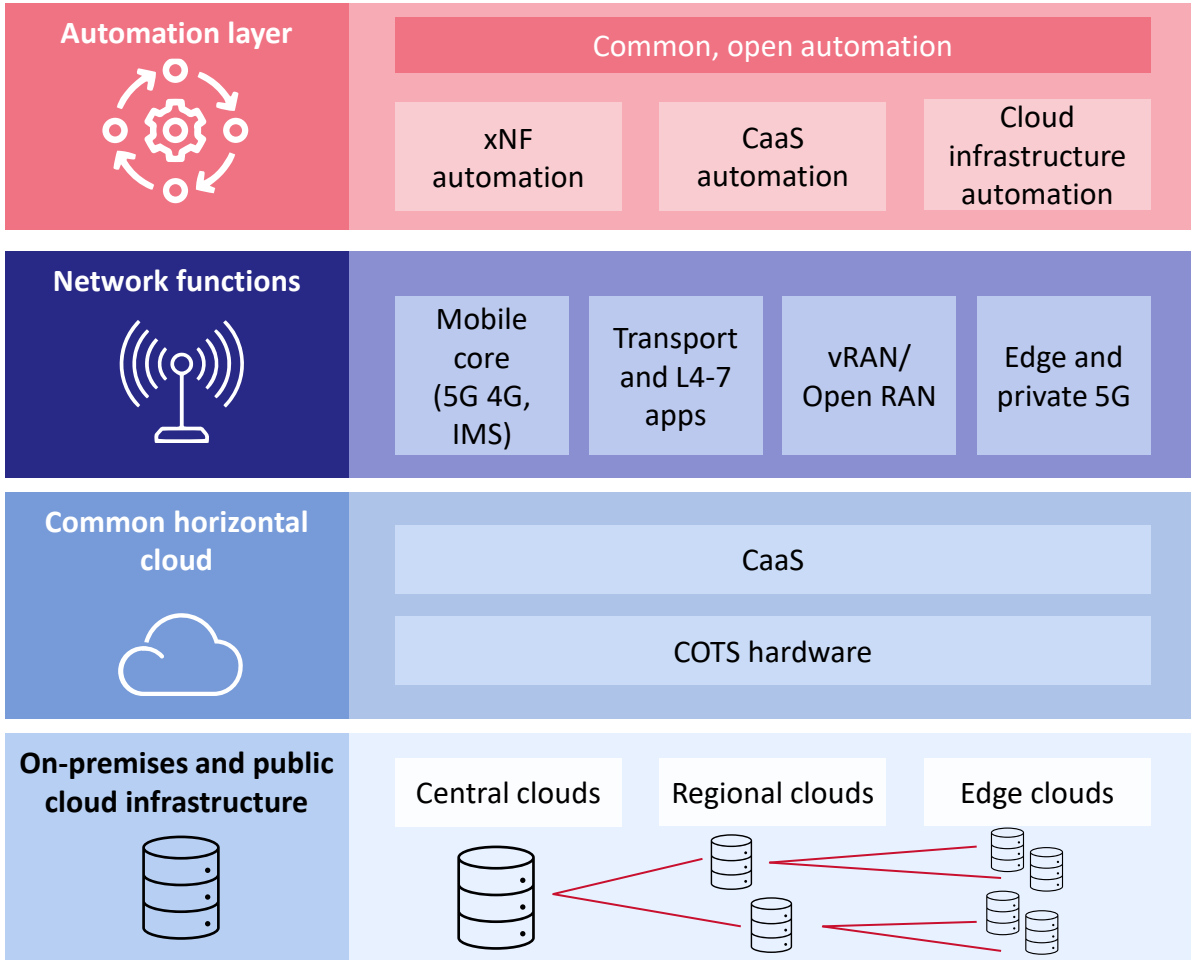
Annex

What is an open network?

Open networks are based on non-proprietary technologies and standards, including open hardware and software developed by open communities, as well as software technologies that individual vendors are exposing, typically through open application programming interfaces (APIs), to anyone who wants to use them.

Open networks draw on the work of multiple standards organizations, both telecoms-specific and, increasingly, from the general IT world. Open networks are software-driven, running on de facto standard cloud technologies on top of COTS hardware, with horizontally layered architectures that reduce dependencies on proprietary vendors across layers. In an open network, network functions of multiple types from multiple vendors can run on open, horizontal cloud software and hardware platforms.

Networks based on open technologies encourage faster and higher levels of innovation than can be achieved by a single vendor focused on proprietary, multi-layer development. Openness also lowers barriers to market entry, which in turn creates more vendor choice and deployment flexibility at each level of the open network architecture. Open networks can be managed and automated using widely available, non-proprietary tooling, which reduces operational costs.



Source: Analysys Mason

analysys mason

The Open Network Index (ONI) assesses the technical and organizational progress that operators are making towards deploying open networks

Open network domain execution

The ONI assesses deployment maturity across the mobile core, RAN and edge. It reflects operators' timelines for adopting open networks, the scale of their deployments and the maturity of their commercial models.

Adoption of open cloud

The ONI tracks operators' adoption of horizontal, vendor-agnostic and disaggregated cloud platforms as the foundational technology for open networks.

Open vendor approach

The ONI assesses operators' plans and implementation progress towards including multiple vendors in their 5G and edge deployments.

Openness vision

The ONI evaluates the importance that operators place on key aspects of open networks, as well as the commercial benefits and objectives that they aim to achieve by committing to an open network approach.

Open architecture and operational strategy

The ONI assesses how far operators are in terms of planning or implementing open architecture and operations strategies, based on horizontal cloud platforms, cloud-native automation and tooling.

Open partnerships and industry co-operation

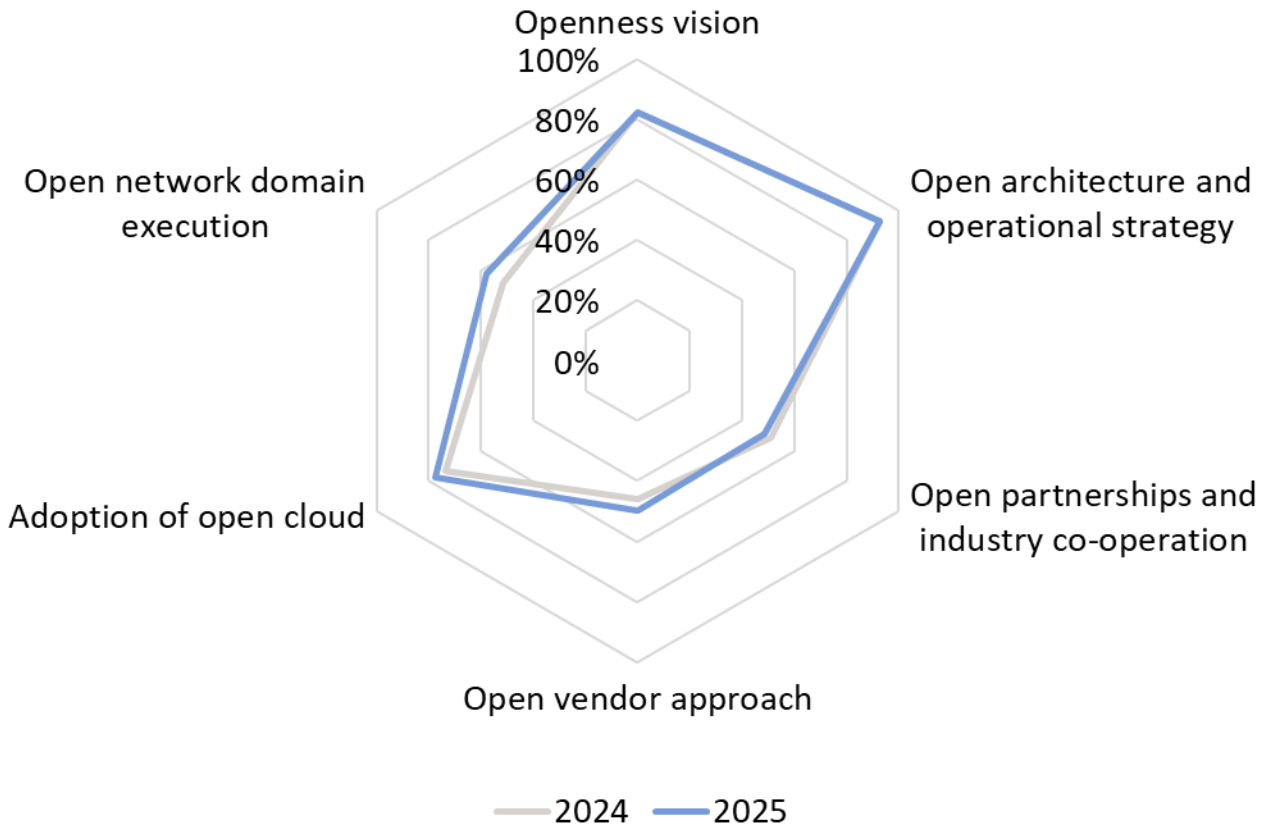
The ONI evaluates the openness of operators to partnerships with new vendors, as well as their level of industry co-operation with industry alliances and standards bodies.

analysys mason

ONI operator type definitions: openness leaders

These operators have a deep commitment to open networks, as evidenced by their advanced vision for openness, supported at the highest levels of the organization, the strategic nature of the business drivers that are guiding them towards open networks (such as a focus on innovation) and their roadmaps for, and progress towards, multi-vendor, 'plug-and-play' network implementations at scale, based on advanced cloud architectures. This category includes a higher proportion of operators from developed Asia–Pacific than any of the other categories. This supports other Analysys Mason research that shows that operators in this region are further ahead than their counterparts in other regions in terms of investing in open network transformation and innovation.

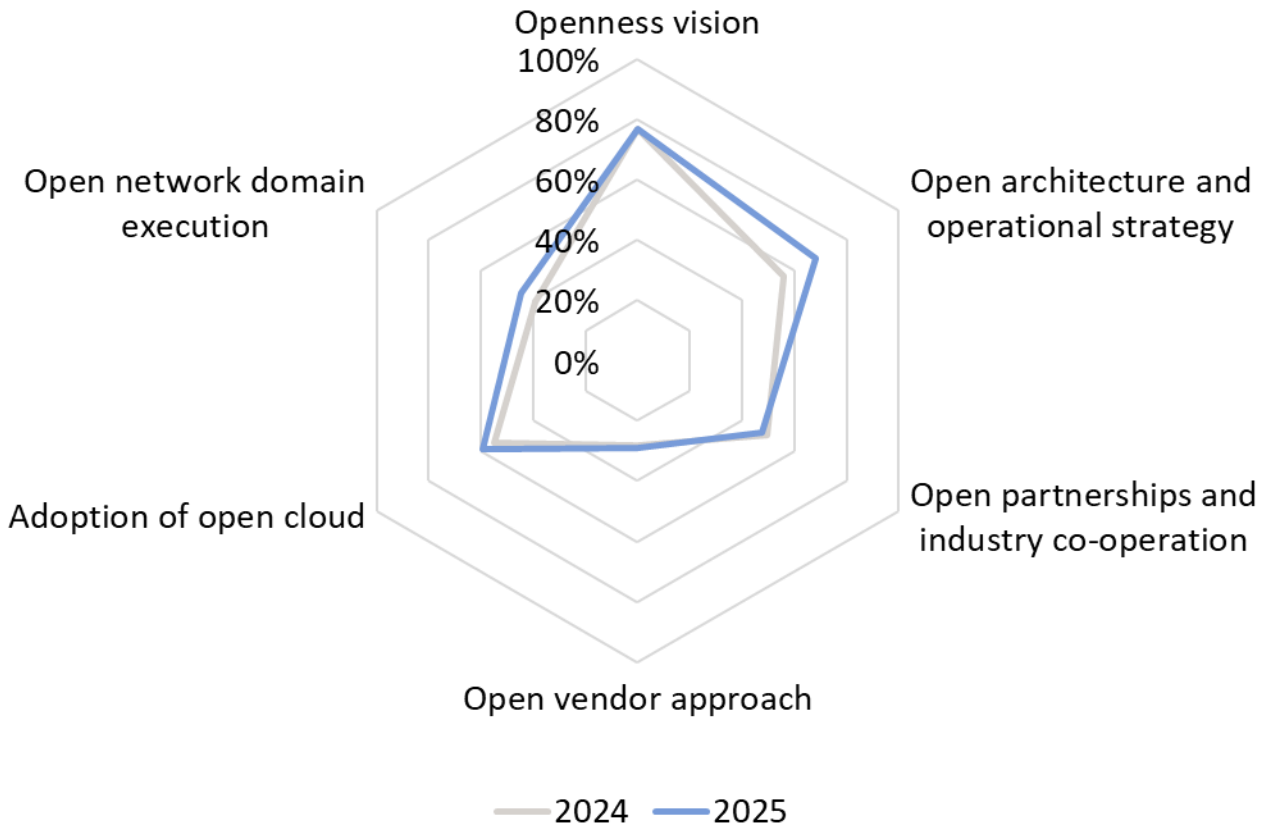
Performance evaluation against the six ONI indicators, openness leaders



ONI operator type definitions: openness followers

Operators in this category are implementing aspects of open networks, but they are more tactical in their approach than those in the openness leaders category. These operators have a more limited vision and strategy than the leaders, and are driven by pragmatic, rather than strategic, business concerns. A number of openness followers are at a similar stage of network deployment as the openness leaders, but they have a weaker commitment to an advanced horizontal cloud platform. Furthermore, openness followers are likely to make slower progress toward the implementation of truly open, multi-vendor and standards-based networks than openness leaders because they lack the strong level of senior executive support that the openness leaders enjoy.

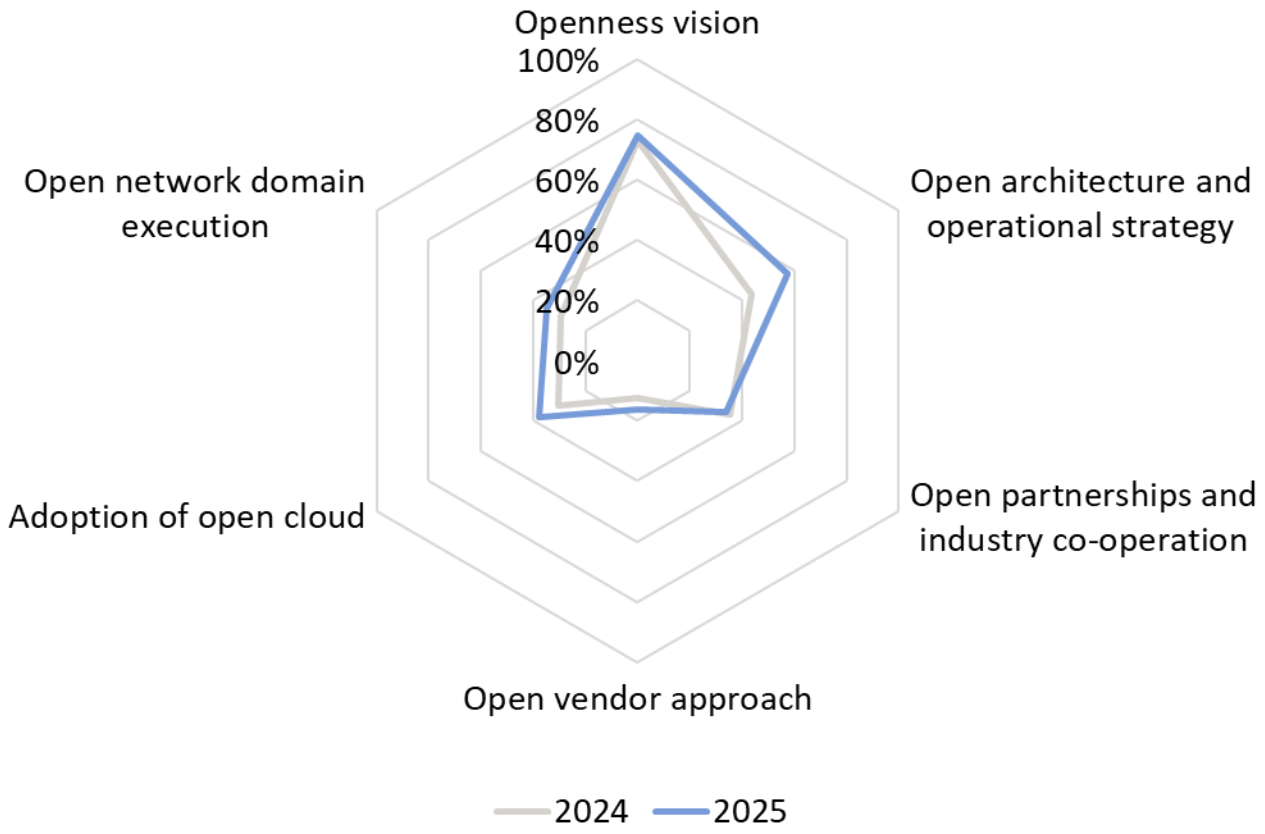
Performance evaluation against the six ONI indicators, openness followers



ONI operator type definitions: openness emerging adopters

This category of operators, which includes operators that are just starting their journey toward open networks, is interesting because of its diversity. It includes operators from developing markets with emerging strategies that are strikingly aligned with those of the openness leaders. They have not yet started to deploy the architectures that they are defining, but their vision indicates that such operators may well overtake many of the openness followers within the next 3 years if they execute their strategies successfully. However, this category also includes cautious adopters with more-pragmatic strategies and lower ambitions for open networks that are likely to join the openness followers category as their network deployments mature.

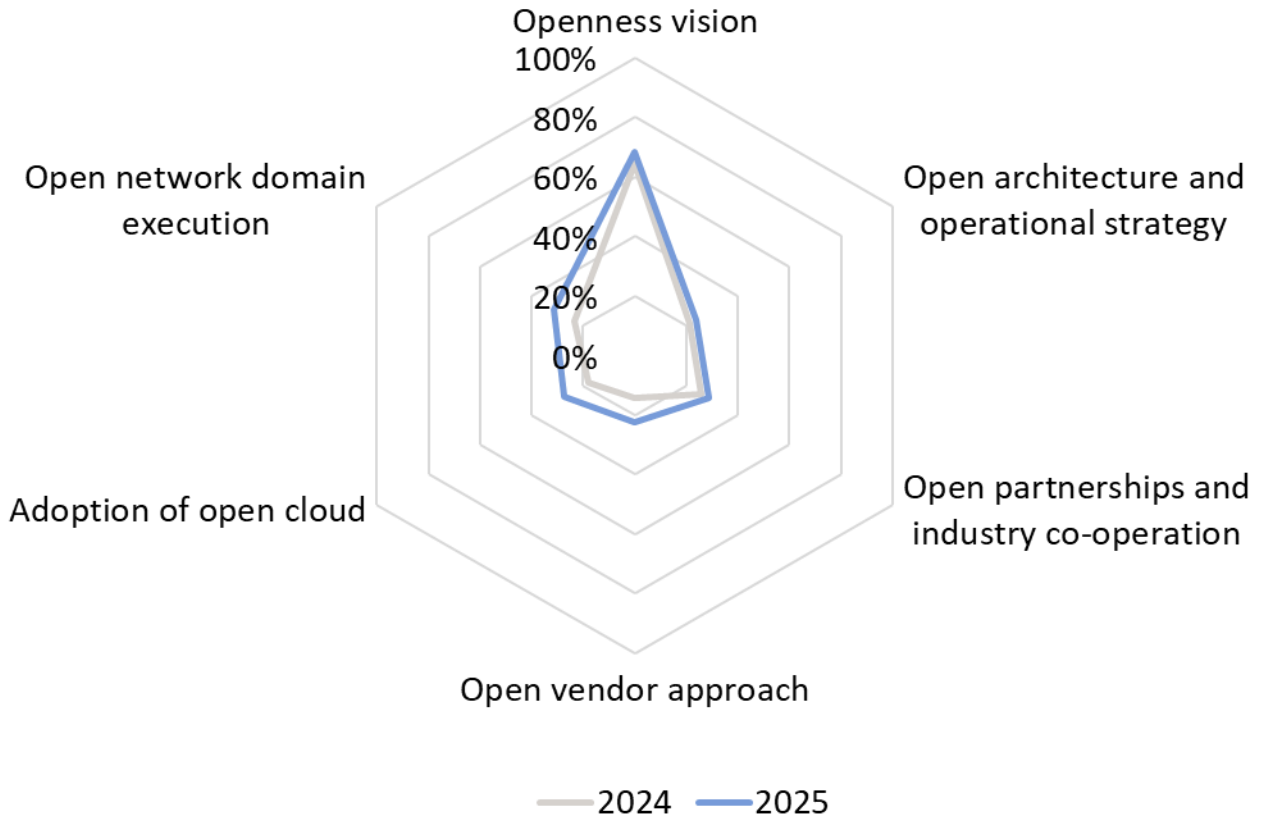
Performance evaluation against the six ONI indicators, openness emerging adopters



ONI operator type definitions: openness late adopters

These operators do not have a clear concept of what an open network is, and they have not yet started to formulate a strategy for achieving openness or winning senior executive support for investment in the organizational, cultural and technical change needed to support open networks. They have a low appetite for risk and perceive significant risks associated with moving away from incumbent vendors and embracing a more multi-vendor, open ecosystem centered on a disaggregated, horizontal cloud platform. These operators are highly cost-conscious and tactical in their approach to 5G network deployment.

Performance evaluation against the six ONI indicators, openness late adopters



Analysys Mason is a global technology, media and telecoms management consulting firm

We help clients navigate complex transformation journeys and make and act on the decisions that steer their progress and connect our world.

We have been at the forefront of pivotal moments that have shaped the technology, media and telecoms industry for four decades, from guiding government agencies to forge the path for mass connectivity, to defining the strategies for companies exploring the opportunities of space and satellites.

Together we are shaping the next

analysys mason

Our research and insights put clients at the forefront of change

Research and insights programmes

Consumer Services

- Fixed Services
- Fixed–Mobile Convergence
- Mobile Services
- Video, Gaming and Entertainment

Business Services

- Enterprise Services
- IoT Services
- Private Networks
- SME Services

Operational Applications

- Automated Assurance
- Customer Engagement
- Monetisation Platforms
- Network Automation and Orchestration
- Service Design and Orchestration
- Applications Data and Strategies

Networks and Cloud

- Cloud and AI Infrastructure
- AI and Data Platforms
- Fibre Infrastructure
- NaaS Platforms and Infrastructure
- Wireless Technologies
- Operator Spending
- Sustainable Networks
- Wireless Infrastructure

Space

- Earth Observation
- Government and Military Space
- Non-GEO Constellations Analysis Toolkit (NCAT)
- Satellite Capacity
- Satellite Mobility
- Satellite–Telecoms Integration
- Space Ground Segment
- Space Infrastructure

Data modules

Telecoms Data

- Developed Asia–Pacific Metrics and Forecasts
- Emerging Asia–Pacific Metrics and Forecasts
- European Core Forecasts
- European Country Reports
- European Quarterly Metrics
- Global Telecoms Data and Financial KPIs
- Latin America Metrics and Forecasts
- Middle East and Africa Metrics and Forecasts
- North America Metrics and Forecasts

SMB Technology Forecaster

- Business Applications
- Cyber Security
- Devices and Peripherals
- IT Infrastructure
- IT and Managed Services
- UC and Digital Services

Knowledge Centre and DataHub

analysys mason

We support clients with decision-making and complex change journeys

Strategy

We assist clients in shaping and determining the decisive moments that steer their progress and chart the course for lasting change.

We deliver essential advice and insights that drive efficiencies, mitigate risk and accelerate growth and put our clients at the forefront of change.

Research and insights

We provide qualitative and quantitative subscription research, bespoke research, and access to DataHub, our analyst-supported intelligence platform. These are essential assets for strategic planning and for our clients' investment and marketing decisions.

Regulation and policy

We advise major government and industry stakeholders on regulation and policy and have shaped the pivotal moments that have defined technology, media and telecoms (TMT) and connect our world.

Transaction support

We help investors with their investment and divestment decisions. We identify, evaluate and help implement investment decisions that deliver lasting results.

We provide robust and precise appraisals of investment opportunities related to capabilities, commercial, technical and ESG risks, their mitigants and investment upsides.

Transformation

We support clients to act on the decisions that create lasting value, advantage and change

We guide them through every phase of change on their complex transformation journeys and strategic change programmes.

analysys mason

analysys mason

This perspective was commissioned by Dell Technologies. Usage is subject to our disclaimer and copyright notice. Analysys Mason does not endorse any of the vendor's products or services.

PUBLISHED BY ANALYSYS MASON LIMITED IN MAY 2025

Analysys Mason Limited. Registered in England and Wales with company number 05177472. Registered office: North West Wing Bush House, Aldwych, London, England, WC2B 4PJ.

www.analysysmason.com | enquiries@analysysmason.com

Bonn Dubai Dublin Frankfurt Kolkata London Madrid Manchester Milan Munich New Delhi New York Oslo Paris Riyadh Singapore Stockholm