

2026 Market Survey: Fixed Wireless Access CPE

Confidential Report for GSA FWA Forum Members

**Internal version for approval of
participating companies
(PROHIBITED DISTRIBUTION)**

Reminder of applicable antitrust and competition laws

This statement must be read out at the start of all internal GSA meetings and presentations

- The attention of the members of this group is drawn to the fact that GSA activities are subject to all applicable antitrust and competition laws and that compliance with said laws is therefore required of any participant of this meeting including the Chairperson and Vice-Chairperson. The leadership shall conduct the present meeting with impartiality. In case of questions it is recommended that you contact your legal counsel.
- This reminder shall be reflected in the meeting minutes as follows:
- Reminder of applicable antitrust and competition laws:
 - The attention of all participants to the meeting was drawn to the fact that GSA activities are subject to all applicable antitrust and competition laws and that compliance with said laws is therefore required by any participant of the meeting, including the Chairperson and Vice-Chairperson.

Introduction

- The purpose of the GSA FWA Forum is to educate the industry about the fixed wireless access (FWA) market. There are currently no agreed market definitions, there is a lack of market information and no consensus about the volume of FWA device shipments and FWA installed base globally.
- The annual GSA FWA CPE market survey aims to address this issue. It was first conducted in 2021, and this report presents the findings of the 2026 survey, where data was collected from April to July 2026. A total of 15 vendors of customer-premises equipment (CPE) from the GSA FWA Forum answered the survey.
- The results present the aggregate answers of those 15 CPE vendors. We estimate that this is still a significant representation of the market for 3GPP-based FWA devices.
- Please note that the sample sizes and participant companies differ slightly from year to year, so caution should be advised when drawing comparisons.
- Participants in the 2026 edition survey included: Askey, BEC Technologies, Changhong, Megatower/Da Ta Technologies, Gemtek, GreenPacket, Huawei, Jatun Technology, Shenzhen Jointelli, Netcomm, Tozed Kangwei, Vantiva, WNC, YaoJin Technology, Xiamen/Four-Faith Communication Technology.

2026 FWA CPE Survey Executive Summary

FWA CPE Shipment Trends

- 2026 shipments are expected to grow 16% to reach 23 million units. Reported 2025 total CPE shipments were 20 million, a 16% increase compared to 2024.
- The majority of FWA shipments are 5G-enabled, reaching 12 million in 2025. The growth of 5G FWA CPE shipments is expected to grow to 16 million, accounting for 69% of 2026 shipments and compared to 60% in 2025.
- North America accounts for 28% of the 2025 shipments, followed by Africa at 21%. India and North America lead the share of 5G CPE shipments at 99% and 97% respectively.
- The majority of FWA CPE shipments in 2025 were integrated indoor CPE (57%), followed by outdoor CPE (25%) and battery-operated hotspots (18%). 46% of the outdoor CPE were flexible self install indoor/outdoor CPEs during 2025.
- FWA supporting 5G standalone (SA) adoption stood at 96% of 5G FWA shipments in 2025 and are expected to grow 34% to 15.4 million in 2026 compared to 11.5 million in 2025.
- 5G RedCap shipments are expected to grow ~4x in 2026 to 800 thousand, representing ~5% of 5G shipments
- mmWave capable 5G CPE shipments reached 350 thousand in 2025, growing slightly to 400 thousand in 2026 (~3% of 5G shipments)

FWA CPE Market Trends

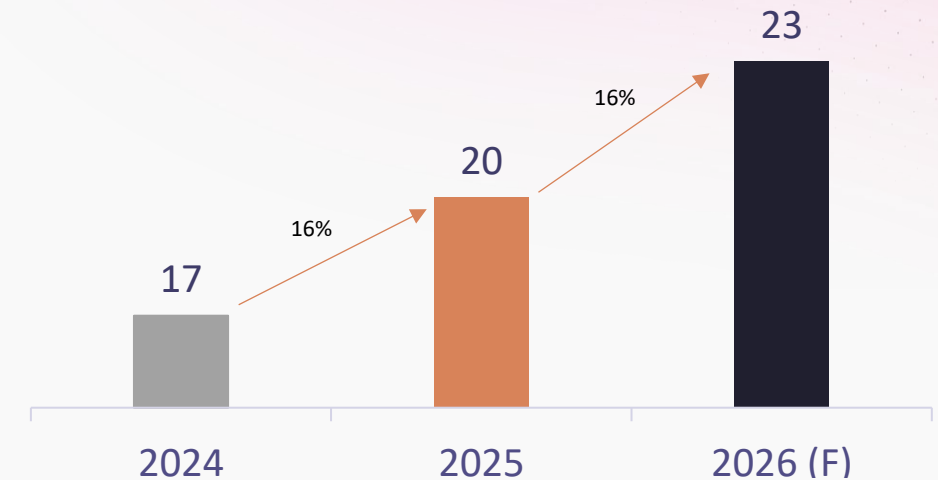
- 93% of vendors being affected by inflationary/memory chip price increases, which will lead to major impact (affecting pricing increases over 10%). 47% expect issues to dissipate in 2027
- The majority of vendors believe that the main benefit of introducing 5G FWA CPE that has AI capabilities would lead to an improved performance and experience of WiFi/In-home and 5G connectivity
- 53% of respondents have or plan to launch 5G RedCap devices in 2026
- Majority of CPE vendors with a module strategy to source from more than one third party vendor (80% for 2026). Similarly, chipset sourcing strategy also to include more than one chipset vendor over 85% of respondents.
- Increased support for 8RX, with over 50% of respondents either already have (27%) or plan to launch in 2026 (27%) a 5G FWA devices with 8RX support in their portfolio
- Price parity of 5G and LTE CPEs to be reached at later years with 53% expecting it to be reached in the coming 3 years compared to 82% in last years' survey.

Total FWA Device Shipments

- 20 million shipments were recorded across all respondents for 2025.
- Shipments grew by 16% from 17 million in 2024
- There was significant variation in performance as 9 respondents saw a growth in their shipments - yet 6 respondents experienced declines.
- Expectations for 2026 continues on the same path, with an expected growth of 16% year-on-year across the sample.

Please note - these figures are not representative of the total market size as the sample does not represent the full market

Total FWA Device Shipments (Mn)

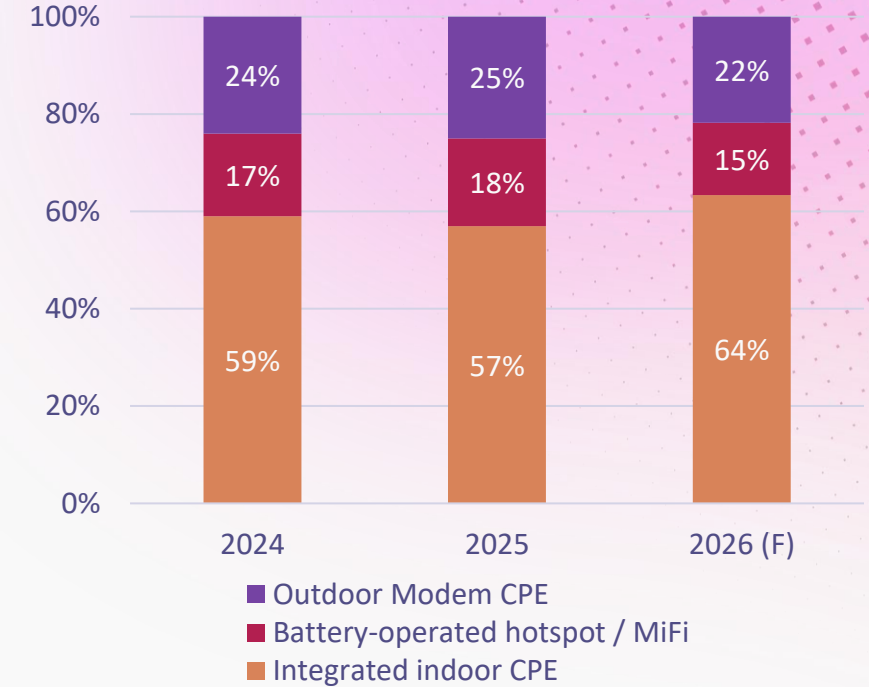


Total FWA Device Shipments by Type

- The share of Battery-operated hotspot/Mi-Fi declined from 17% of total shipments in 2024 to expected 15% in 2026, although it is growing ~10% in absolute-terms.
- Integrated indoor CPE continue to represent the largest and fastest growing segment of FWA CPE shipments
 - Share of shipments is expected to grow from 59% in 2024 to 64% in 2026
 - Indoor CPE shipments expected to grow about 28% in 2026, representing the fastest growing segment
- Outdoor modem CPE accounted for 27% in 2024 and is expected to represent 22% in 2026
 - Outdoor CPE shipments expected to grow in absolute terms throughout the period

* 4G and 5G devices, including FWA CPE and battery-powered pocket routers.

FWA CPE by Form-Factor



Sample: 2026 FWA Survey, 15 respondents

	YoY Growth %	
	2025	2026 (forecast)
Integrated indoor	14%	28%
Outdoor modem	19%	2%
Battery-operated hotspot / MiFi	20%	-5%

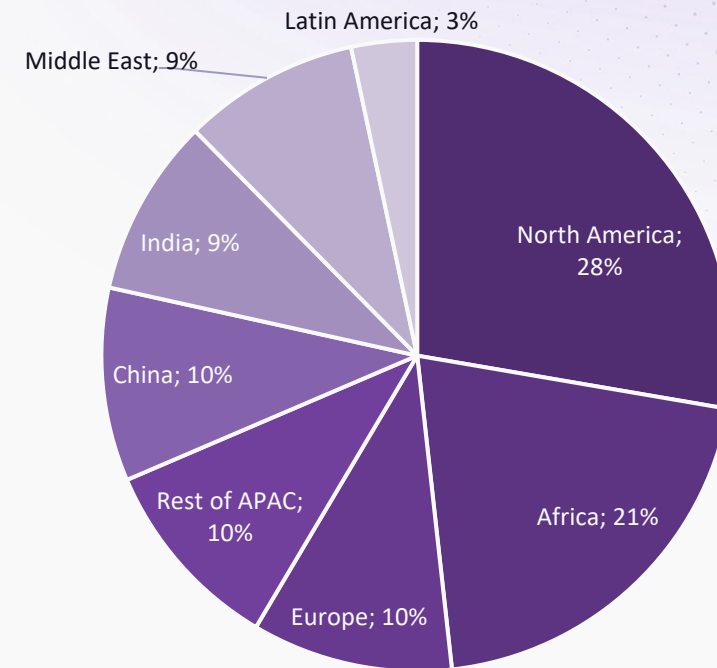
Sample: 2026 FWA Survey, 15 respondents

FWA Device Shipments by Region

- North America has the largest share of shipments reported in the FWA CPE survey with 28% in 2025
- A combined Europe, Middle East and Africa reaches 40% of shipments in 2025
- Asia Pacific (China, India and Rest of APAC) adds to 29% of shipments in 2025

How did your shipments break down by region in 2025?
(percentage of total device FWA shipments)

Sample: 2026 FWA survey, 15 respondents

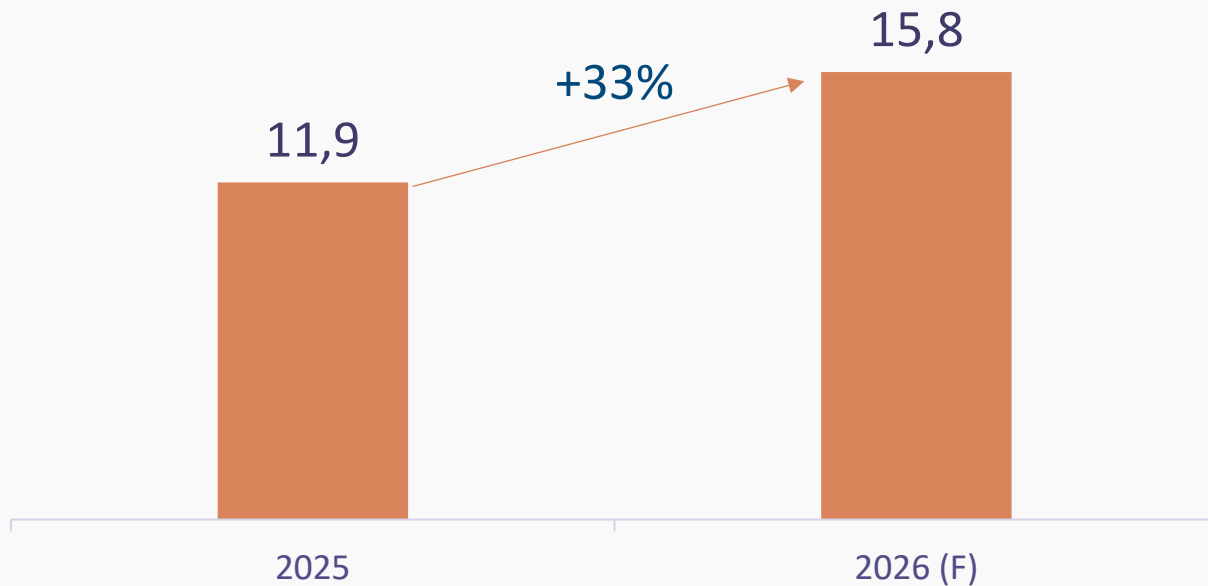


5G FWA Device Shipments

- 5G FWA shipments were 11.9 million in 2025, comprising 60% of all shipments.
- By 2026, we expect the share of 5G FWA shipments to increase to 69%, reaching 15.8m (+33% growth YoY)

Evolution of 5G-enabled FWA shipments (millions)

Sample: 2026 FWA survey, 15 respondents



Breakdown of FWA shipments by technology	Shipments (M)		Year-on-year growth
	2025	2026 (F)	2026 (F)
Total FWA device shipments	19.9	23.1	16%
4G-only shipments	7.9	7.2	-8%
5G shipments*	11.9	15.8	33%
5G share of shipments	60%	69%	+8pp

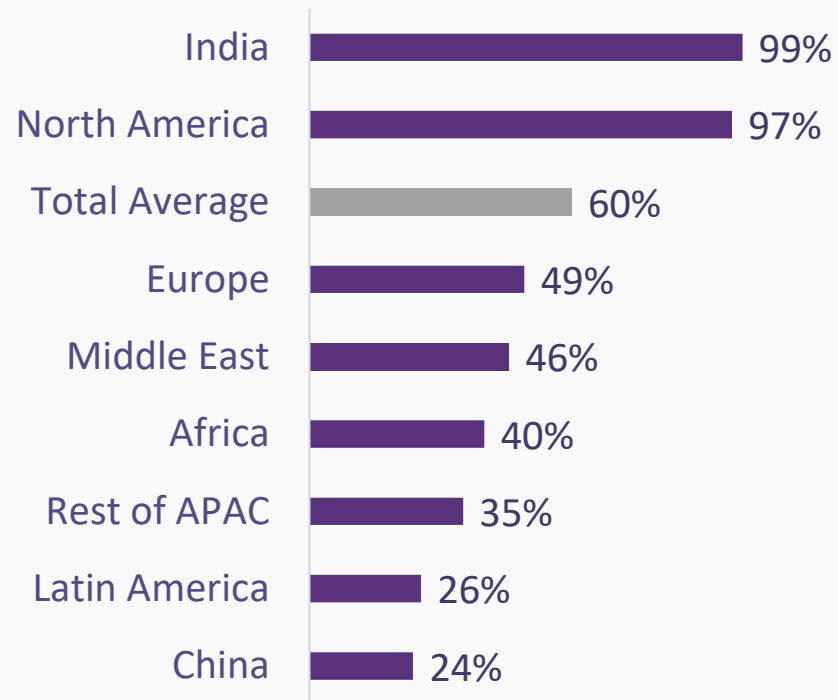
* 4G and 5G devices, including FWA CPE and battery-powered pocket routers.

5G FWA Device Shipments by Regions

- FWA device shipments for North America and India are almost entirely 5G-capable
- North America represents just over a quarter (28%) of global 5G-capable FWA device shipments

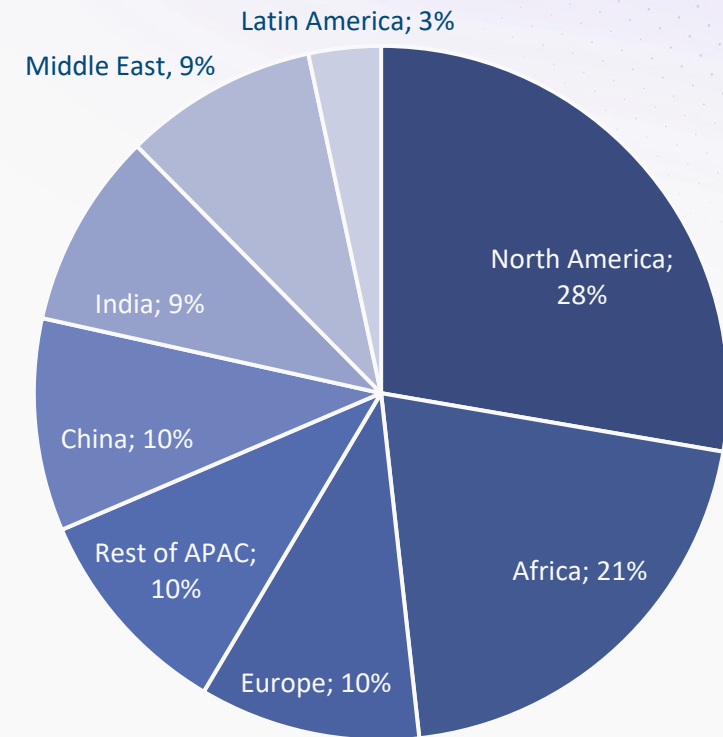
Share of 5G-enabled FWA shipments by Region (millions)

Sample: 2026 FWA survey, 15 respondents



Break-Down of 2025 5G FWA Shipments, by Region

Sample: 2026 FWA survey, 15 respondents

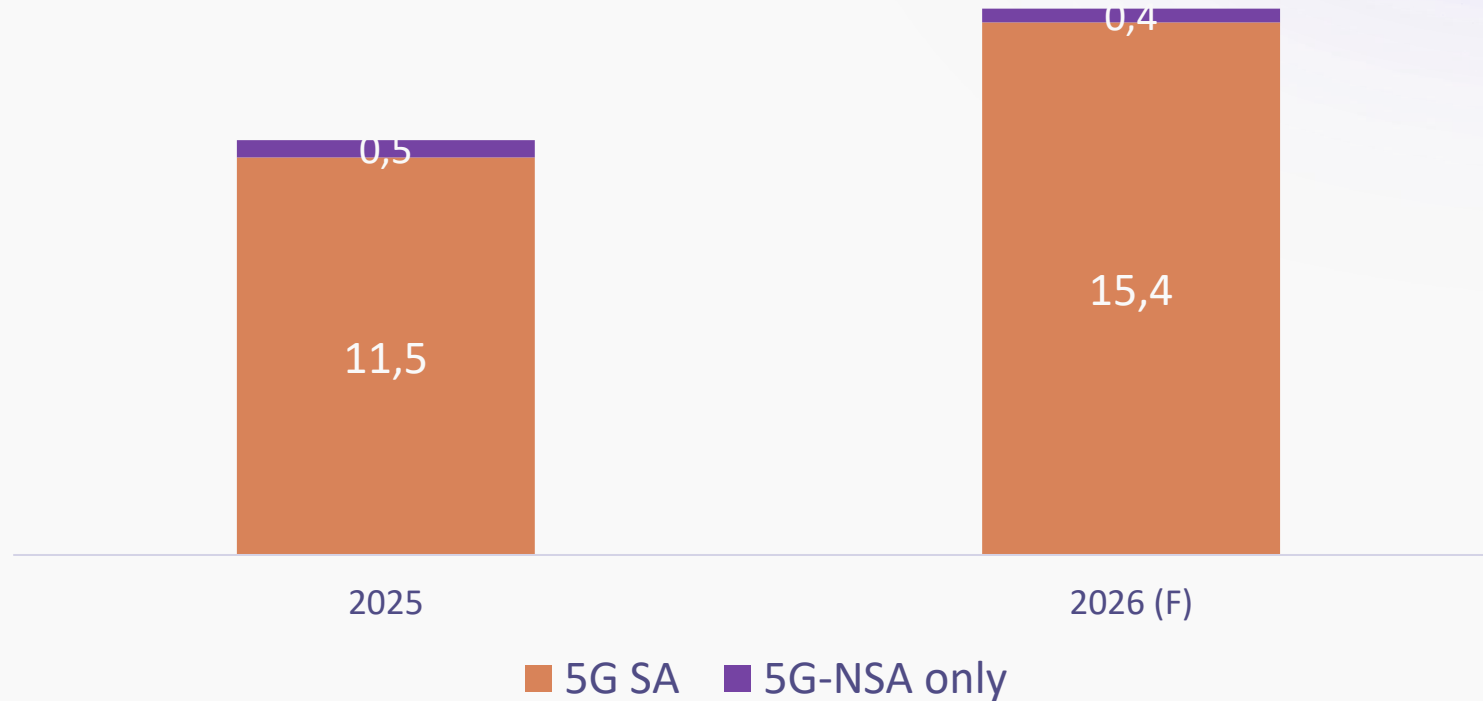


5G Standalone-Capable FWA Device Shipments

- 5G SA-capable FWA CPE shipments expected to grow 34% in 2026, resulting in 15.4 million units
- 5G SA-capable FWA CPE shipments representing 97% of units shipped in 2026

What % of your 5G FWA device shipments were SA capable? (millions)

Sample: 2026 FWA survey, 15 respondents

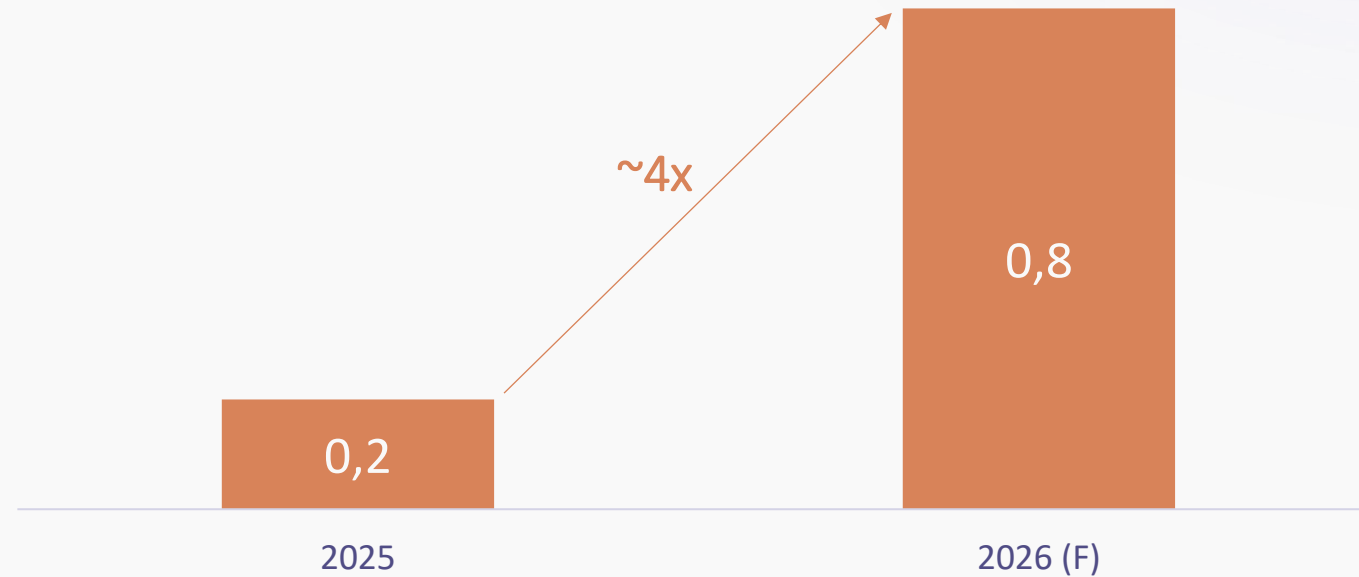


5G RedCap FWA Device Shipments

- 5G RedCap devices for FWA and Battery Pocket Routers expected to grow to 821 thousand in 2026
- 5G RedCap devices expected to represent ~5% of 5G FWA device shipments in 2026

What % of your FWA device shipments* were 5G RedCap? (millions)

Sample: 2026 FWA survey, 15 respondents– includes FWA CPE and Battery Pocket Routers



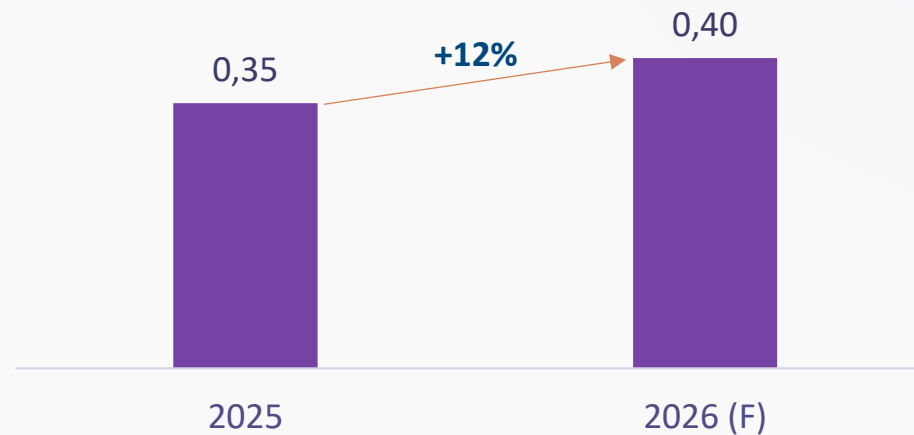
* 4G and 5G devices, including FWA CPE and battery-powered pocket routers.

mmWave capable 5G FWA Device Shipments

- mmWave capable 5G FWA shipments reached ~350 thousand in 2025
- In 2026, mmWave capable shipments are expected increase to 400 thousand (~3% of 5G shipments)

Evolution of 5G FWA mmWave capable shipments* (millions)

Sample: 2026 FWA survey, 15 respondents



* 4G and 5G devices, including FWA CPE and battery-powered pocket routers.

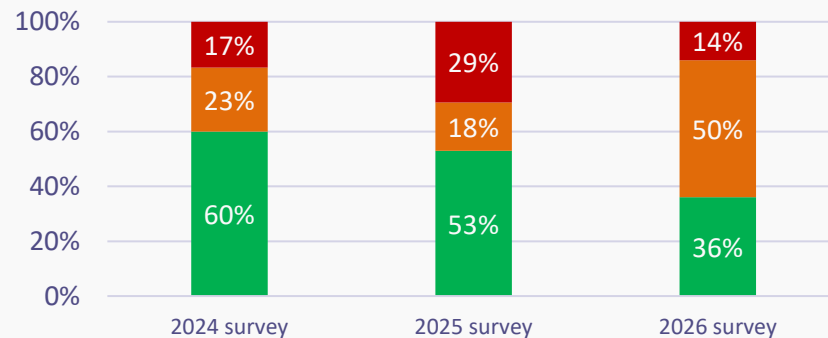
Future FWA Device Shipment Trends

- Interest in self-installation Apps remain consistently high at ~80% during the past 3 surveys
- Diminished consensus for Flexible Indoor/Outdoor CPE and window-mounted CPEs, although majority remain positive
- Lower interest on hybrid fiber/DSL FWA CPEs, with 20% expecting it to decline

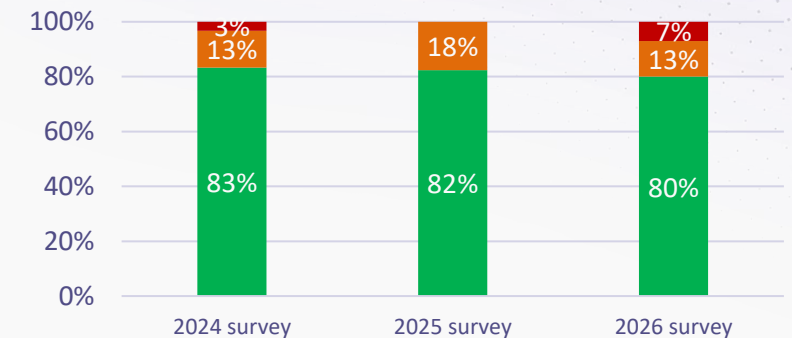
How do you think the market will change in 2024-26 for the following FWA form factors?

Sample: 2026 FWA survey, 15 respondents 2025 FWA survey, 17 respondents, 2024 FWA survey, 30 respondents

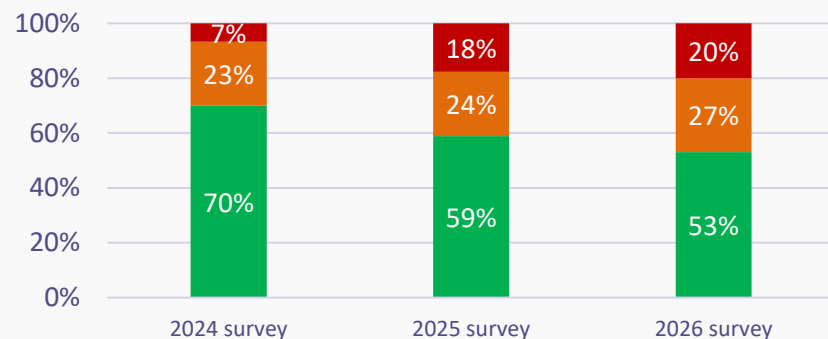
Window Mounted CPE



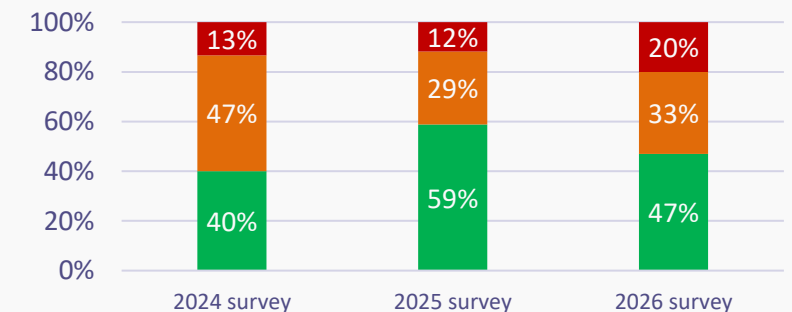
Self-Installation Apps



Flexible Indoor and Outdoor CPE



Hybrid fibre/DSL CPE

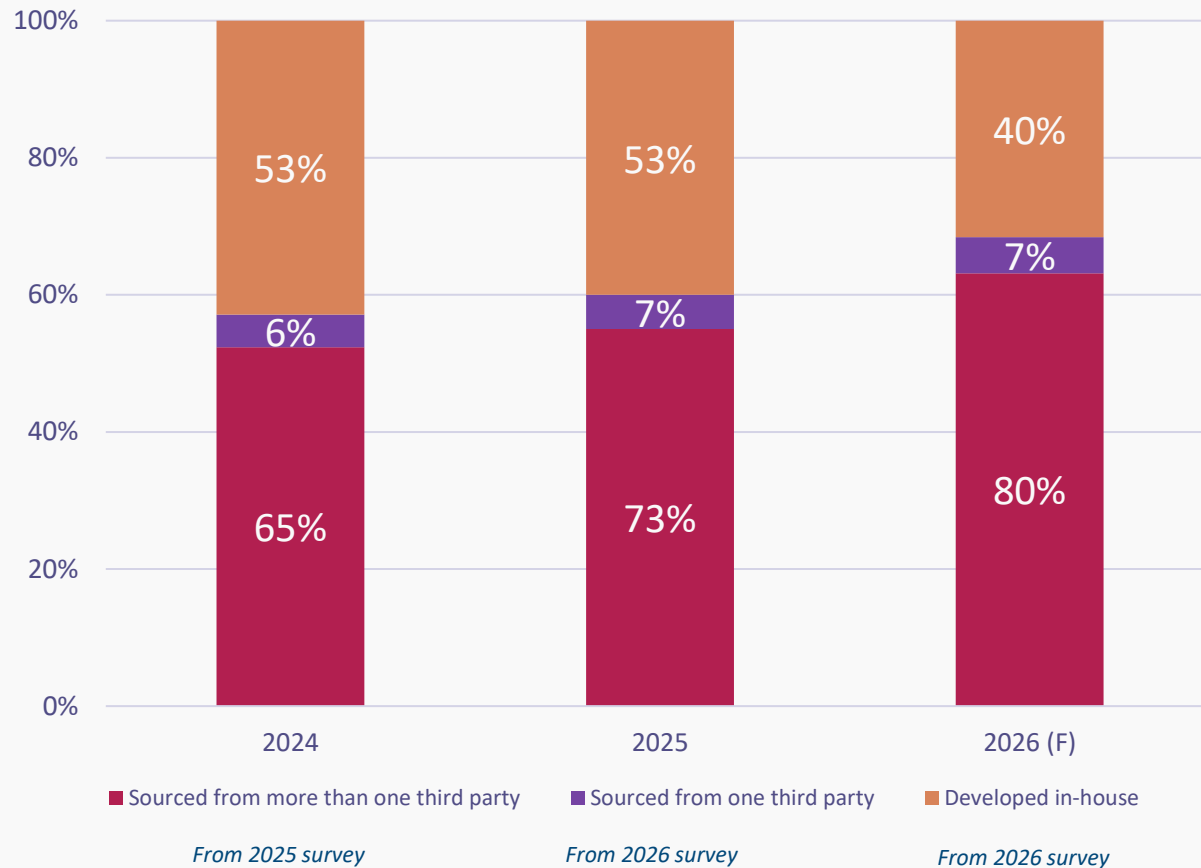


FWA Modules and Chipsets

- There was a continued trend for respondents to choose chipsets and modules to more than one party, growing from 65% to 80% for modules and remaining over 85% for chipsets.

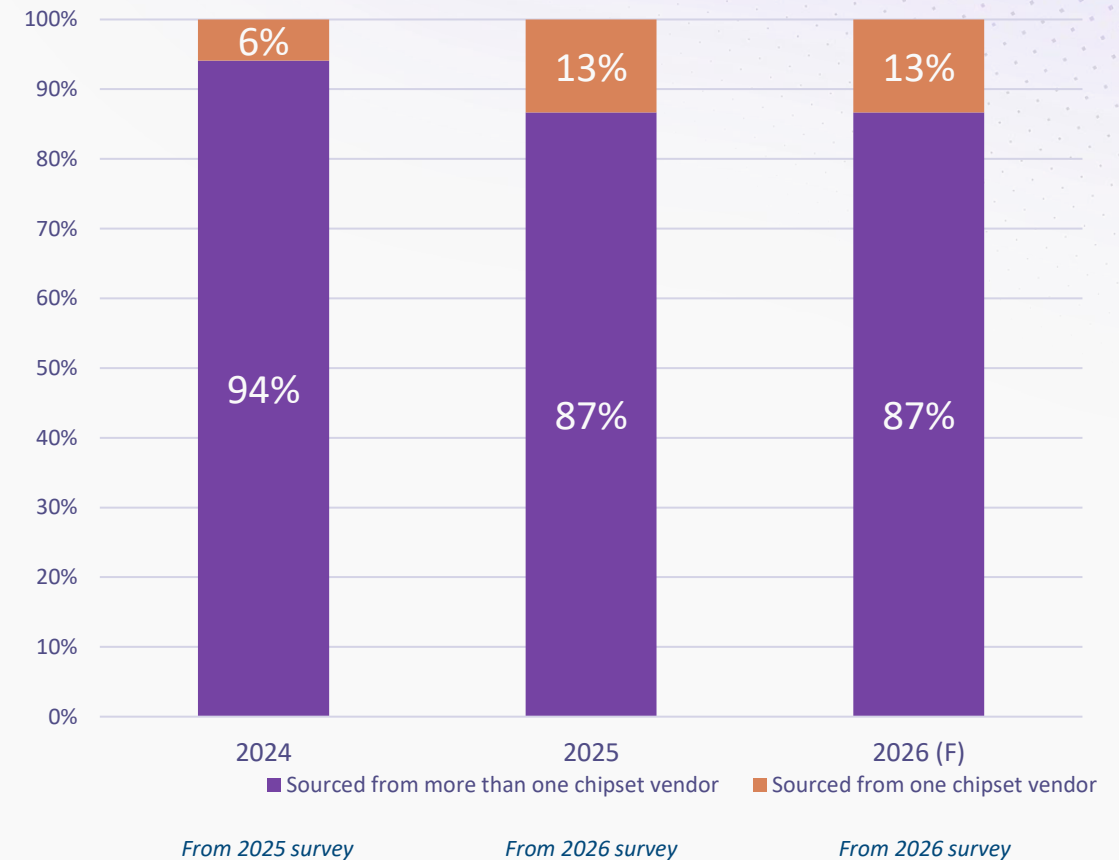
What is your current module strategy, and what is your module strategy for 2026? (multiple choice — in-house and third-party sourcing are not mutually exclusive)

Sample: 2026 FWA survey, 15 respondents 2025 FWA survey, 17 respondents



What is your current chipset strategy, and what is your chipset strategy for 2026?

Sample: 2026 FWA survey, 15 respondents 2025 FWA survey, 17 respondents

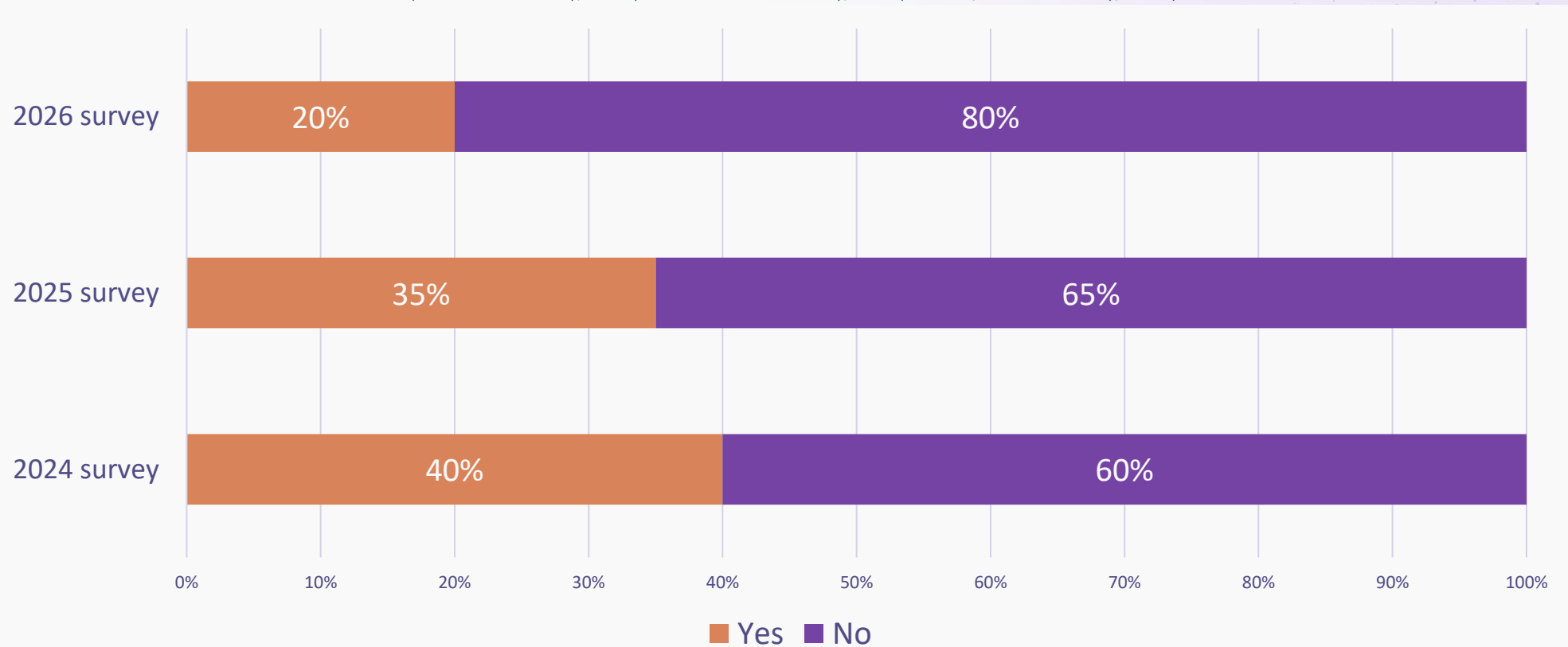


Product Road Map – 4G FWA

- A growing number of vendors (80%) are not planning to introduce new 4G FWA products this year

Do you plan to introduce new 4G FWA products to your portfolio?

Sample: 2026 FWA survey, 15 respondents 2025 FWA survey, 17 respondents, 2024 FWA survey, 30 respondents

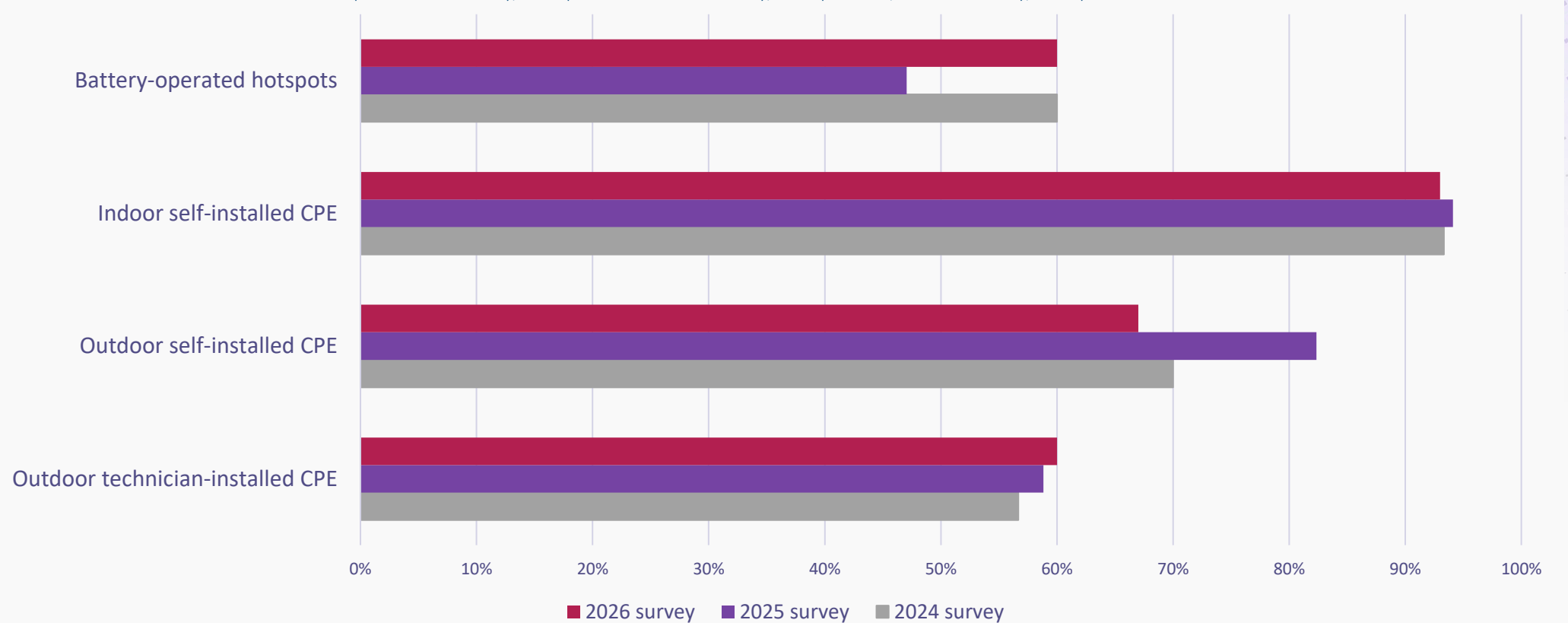


Product Road Map – Type of Installation of FWA CPE Devices

- Consistent view on CPE vendor having high share of Indoor self-installed CPEs and Outdoor technician-installed CPE
- Somewhat change in responses for Battery-pocket routers and Outdoor Self-install CPEs in the latest survey

Which of the following is on your roadmap?

Sample: 2026 FWA survey, 15 respondents 2025 FWA survey, 17 respondents, 2024 FWA survey, 30 respondents

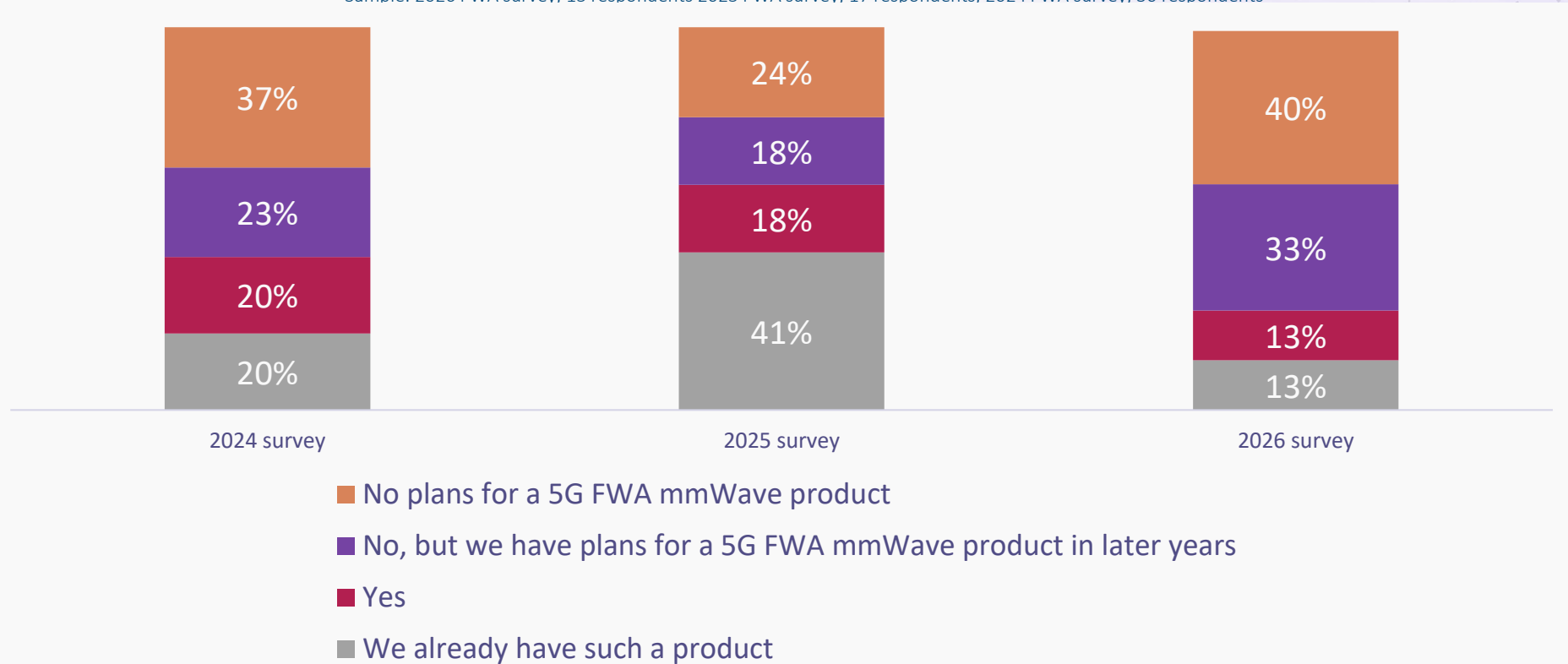


Product Road Map – 5G FWA mmWave

- 26% of respondents either have a mmWave capable device or plan to launch one this year
- 40% without plans for mmWave-capable device, while 33% with plans to launch such product

Will you be introducing a 5G FWA mmWave (FR2) device into your portfolio during the year?

Sample: 2026 FWA survey, 15 respondents 2025 FWA survey, 17 respondents, 2024 FWA survey, 30 respondents

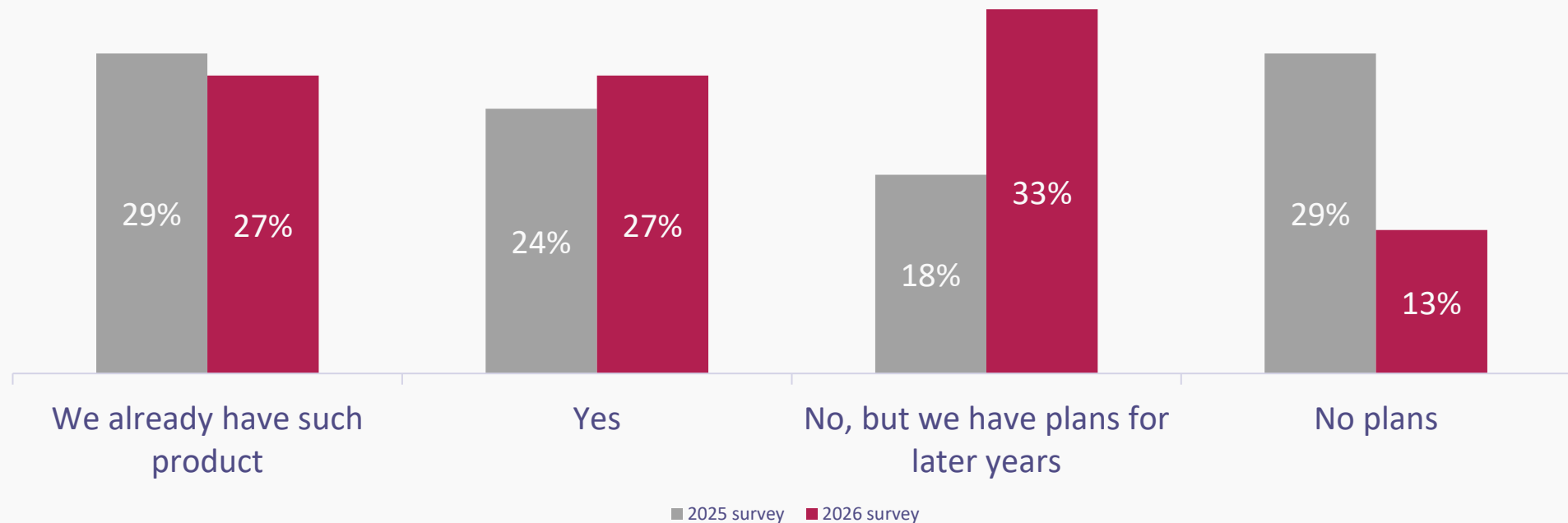


Product Road Map – 8RX Support for 5G FWA Devices

- Increase in support and introduction of FWA CPEs supporting 8RX in 2026 compared to 2025
- Over 50% of respondents either already have (27%) or plan to launch in 2026 (27%) 5G FWA devices with 8RX support in their portfolio

Will you be introducing 8RX support for 5G FWA device into your portfolio during this year?

Sample: 2026 FWA survey, 15 respondents 2025 FWA survey, 17 respondents, 2024 FWA survey, 30 respondents

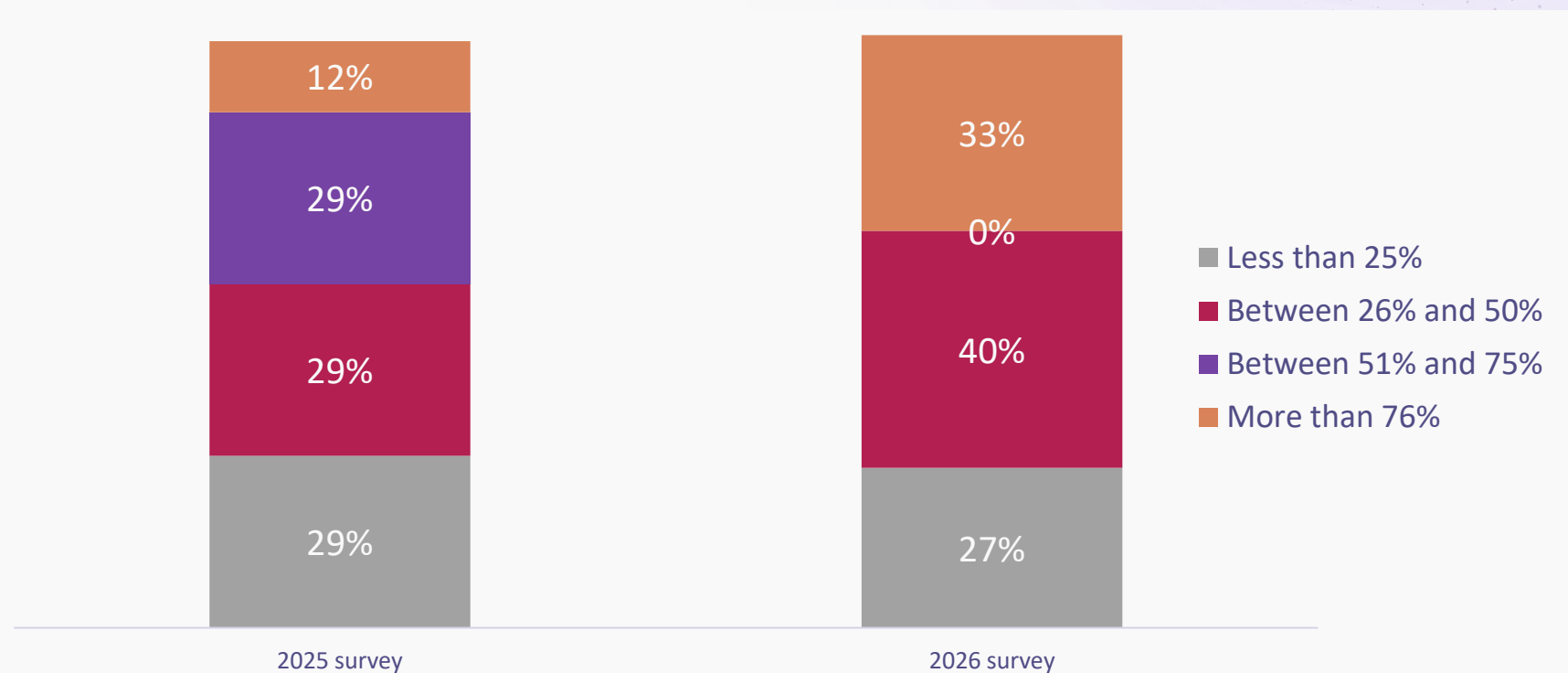


Product Road Map – Wi-Fi 7 in 5G FWA CPE

- One third of vendors (33%) have more than 76% of their 5G FWA device model portfolio that is able to support Wi-Fi 7 in 2026

What share of your 5G FWA device model portfolio for 2025/2026 do you expect to support Wi-Fi 7?

Sample: 2026 FWA survey, 15 respondents 2025 FWA survey, 17 respondents

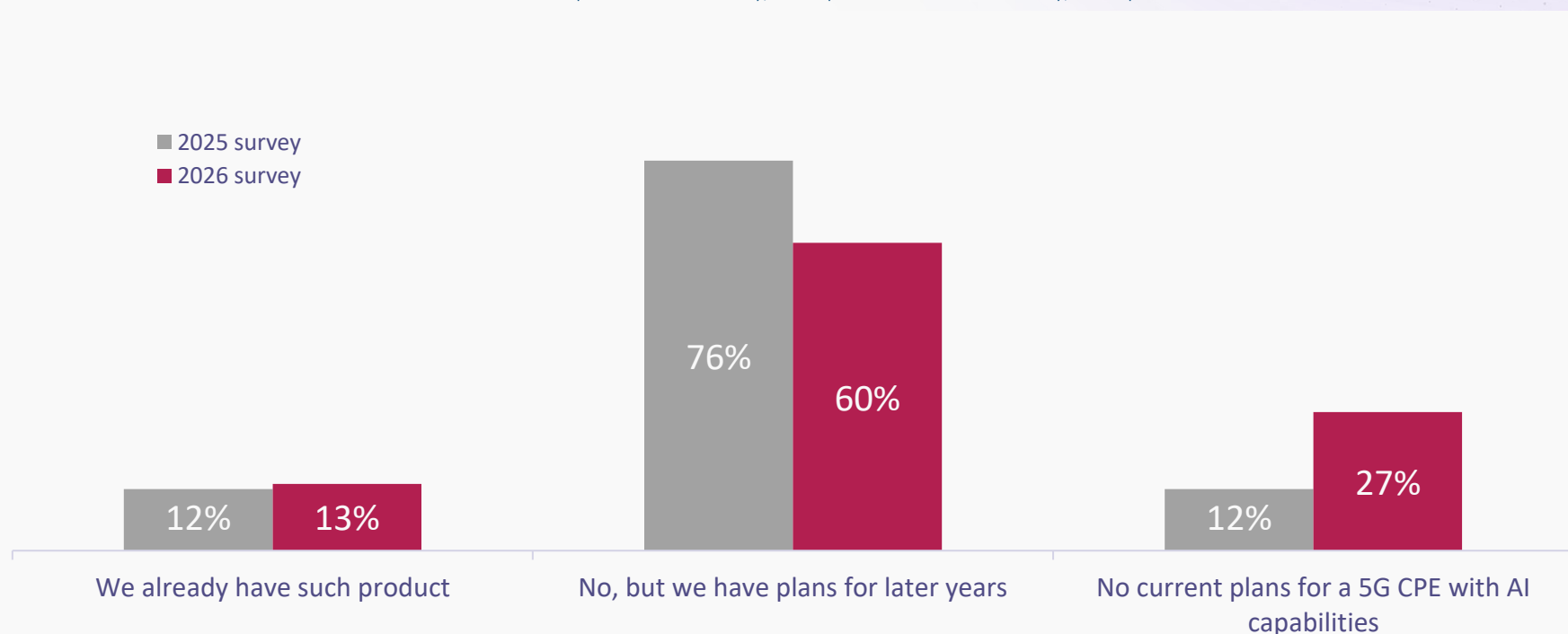


Product Road Map – 5G FWA CPE with AI Capabilities

- AI Capabilities with 5G FWA CPE are still in the early stages with 13% of vendors with a product with AI capabilities in 2026
- 60% are planning to introduce such a product into their portfolio in the coming years.

Will you be introducing 5G FWA device with integrated AI capabilities into your portfolio?

Sample: 2026 FWA survey, 15 respondents 2025 FWA survey, 17 respondents



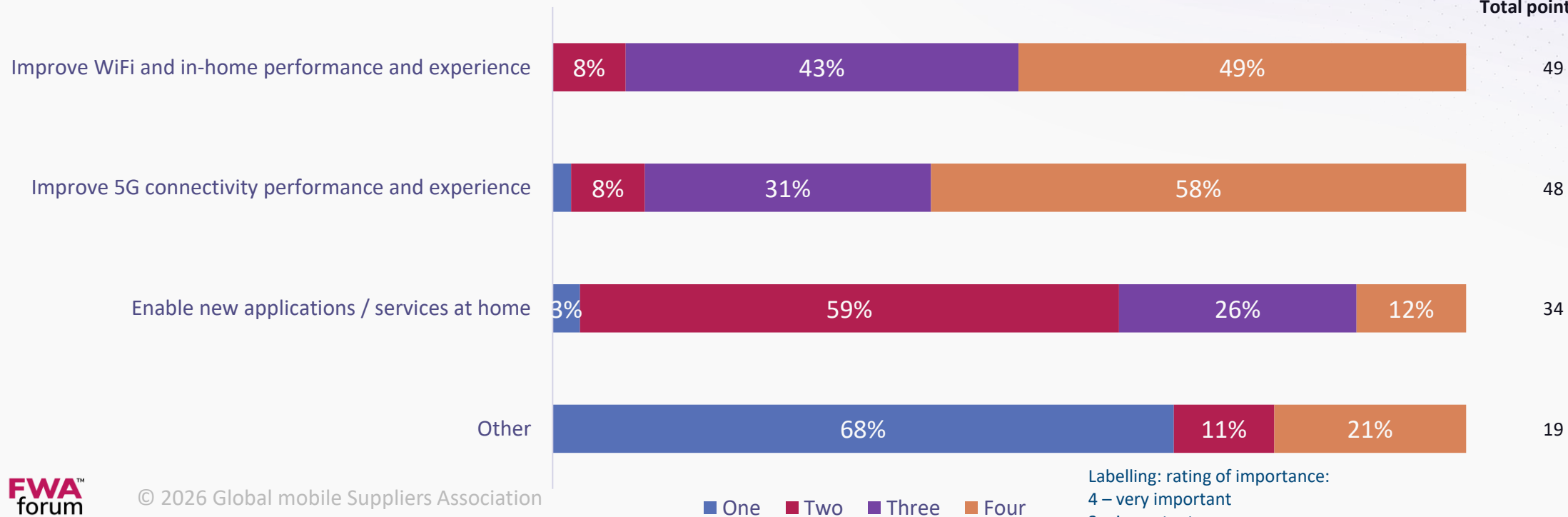
Product Road Map – 5G CPE with AI Capabilities

- Most participants have stated that AI is set to improve performance and experience of WiFi/In-Home connectivity and 5G connectivity
- Following this, was the ability to enable new applications/services at home, with 34 points

What would be the main benefits of introducing 5G FWA CPE with AI capabilities? Please rank the following answers by level of importance to the FWA CPE industry

Sample: 2026 FWA survey, 15 respondents

Total points score

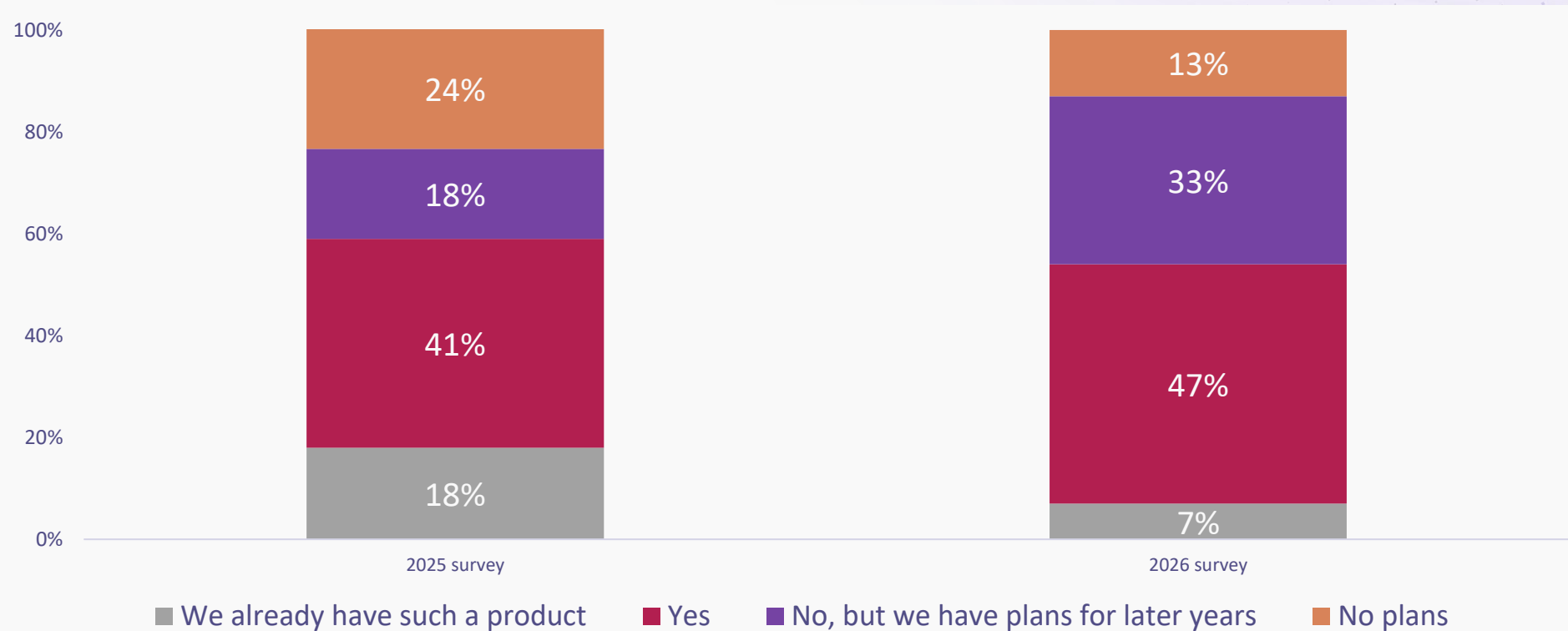


Product Road Map – 5G RedCap FWA

- 54% of respondents have or plan to launch 5G RedCap FWA devices this year, compared to 59% in 2025
- Almost half (47%) of respondents plan to introduce 5G RedCap FWA capable devices and products during 2026

Do you plan to introduce 5G RedCap-capable FWA products this year?

Sample: 2026 FWA survey, 15 respondents 2025 FWA survey, 17 respondents

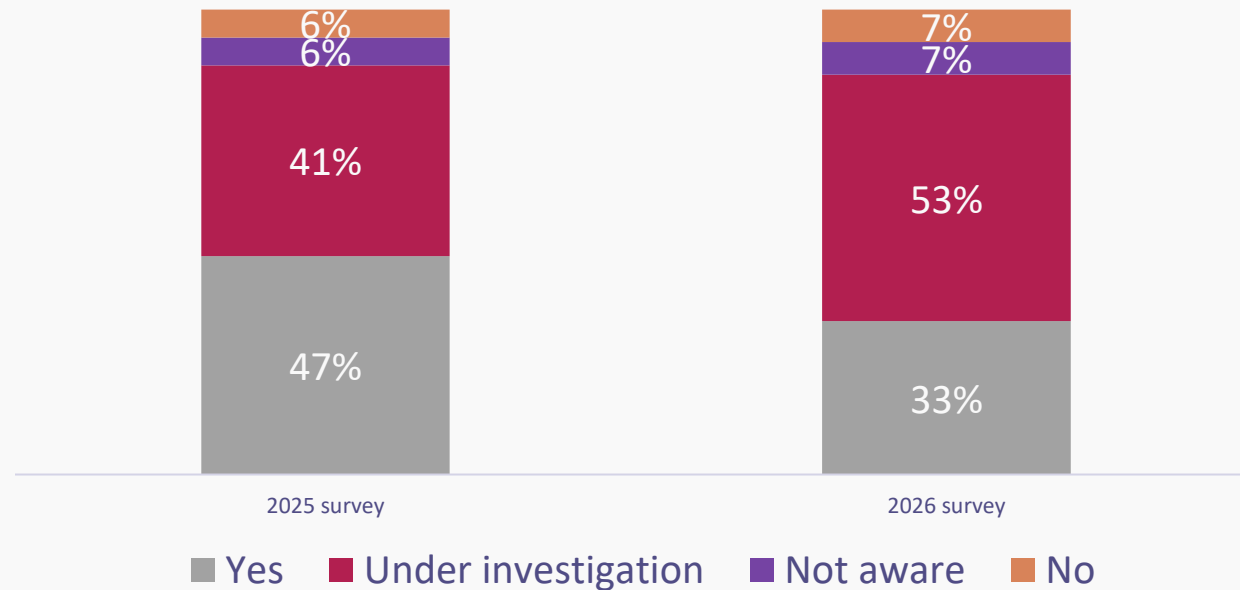


Product Road Map – Dynamic Network Slicing for FWA CPE

- Dynamic Network Slicing is considered to be the ability for the CPE to adapt to new or changed URSP (S-NSSAI) policies received from the Core Network in real time and apply appropriate routing intelligence
- One third of respondents (33%) claim that they already had plans to introduce such CPEs whilst 53% of vendors declare that these plans are currently under investigation
- A small percentage of respondents were either unaware or had no such plans to introduce CPE that supported dynamic network slicing.

Do you have plans to introduce CPEs that support "dynamic network slicing"?

Sample: 2026 FWA survey, 15 respondents 2025 FWA survey, 17 respondents

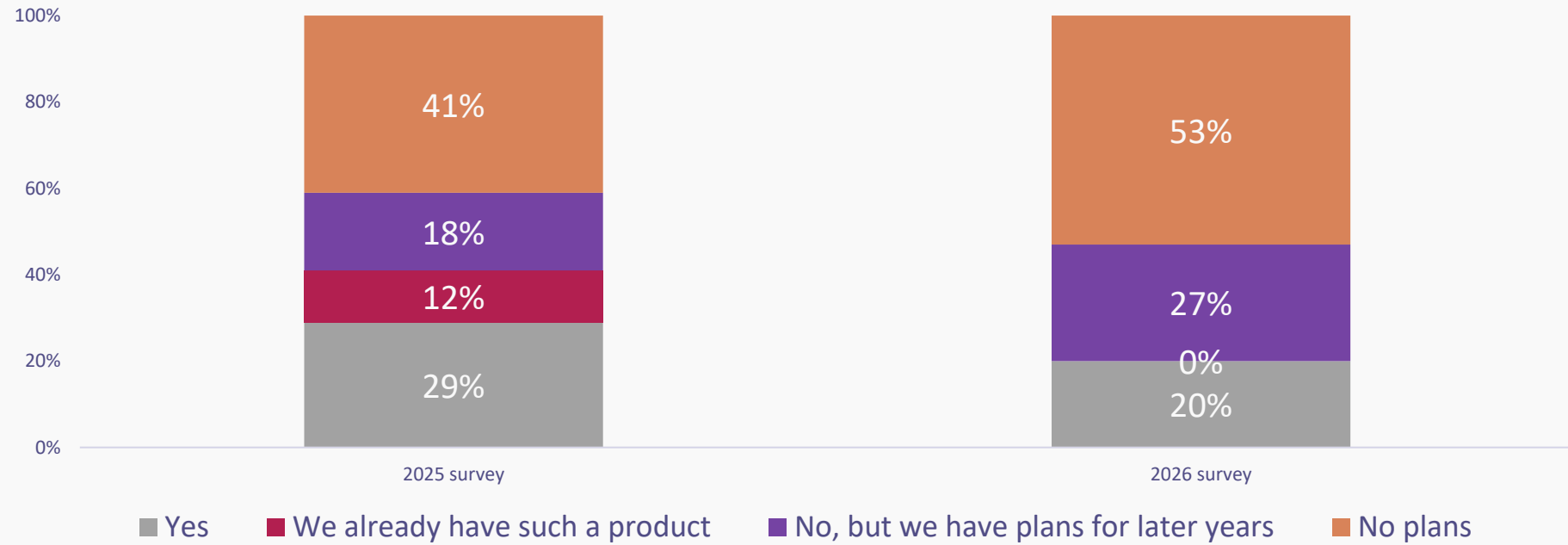


Product Road Map – Ethernet PDU for FWA CPE

- Just over half (53%) of the respondents have no plans to introduce a device that supports Ethernet PDU in their FWA devices.
- 20% of respondents have devices supporting Ethernet PDU already, compared to 29% in 2025 Survey

Will you be introducing a device supporting Ethernet PDU for end to end Layer 2 Connectivity into your portfolio during 2025?

Sample: 2026 FWA survey, 15 respondents 2025 FWA survey, 17 respondents

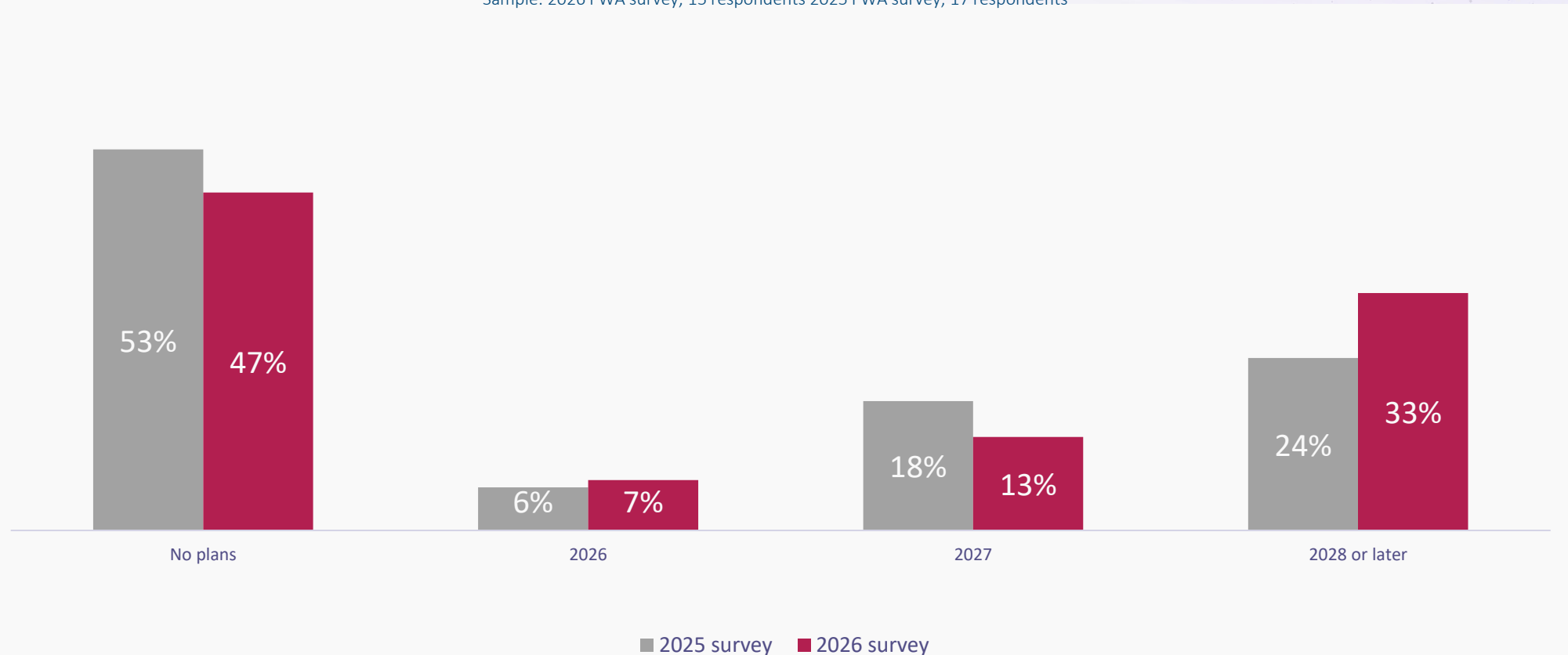


Product Road Map – 3GPP Upper 6GHz in 5G FWA Devices

- As of today, close to 50% of the vendors have no plans to introduce a 5G FWA device that is capable of 3GPP Upper 6GHz
- A third (33%) of respondents plan for 2028 or later, which is an increase compared to 24% in the 2025 Survey

When do you foresee the first 5G FWA device capable of 3GPP Upper 6GHz band (N104) in your portfolio?

Sample: 2026 FWA survey, 15 respondents 2025 FWA survey, 17 respondents

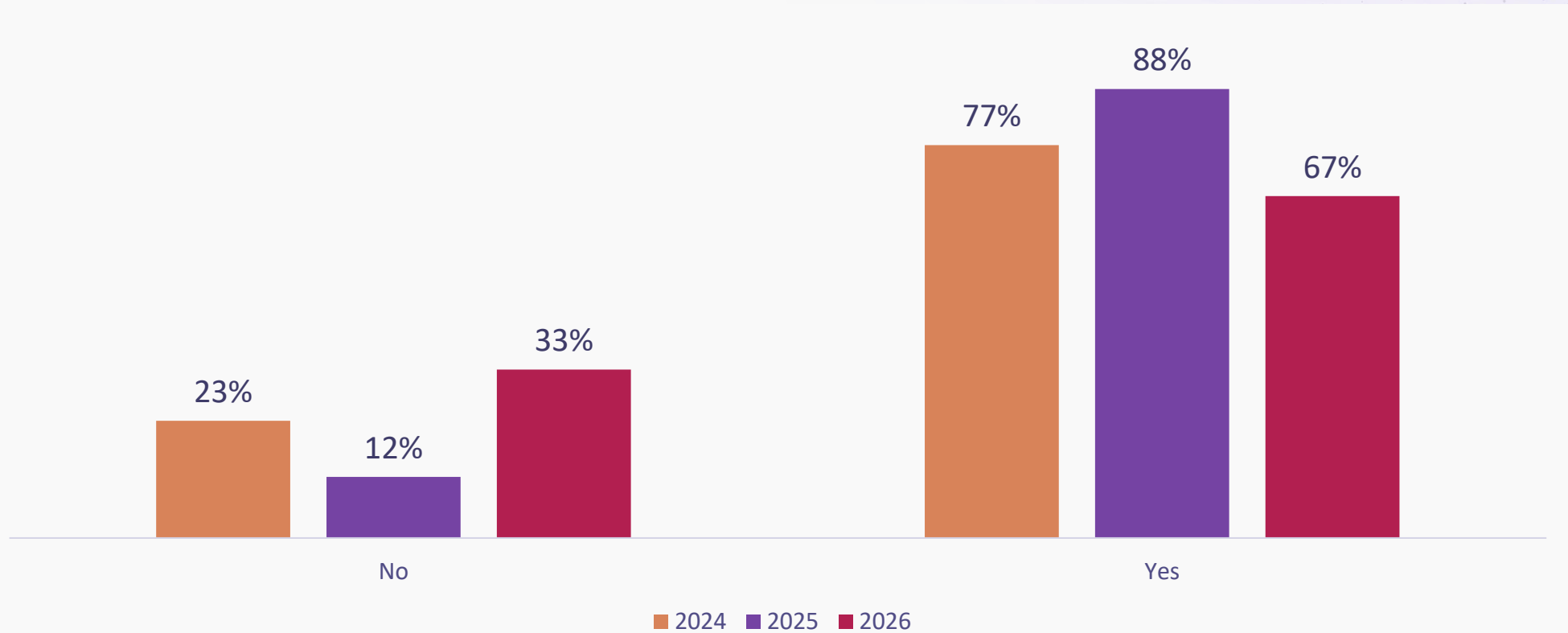


ACS System Capabilities for FWA Devices

- Two thirds (67%) of the responding vendors have in-house ACS capabilities

Regarding Auto Configuration Server (ACS) system, does your company have in-house capabilities?

Sample: 2026 FWA survey, 15 respondents 2025 FWA survey, 17 respondents, 2024 FWA survey, 30 respondents

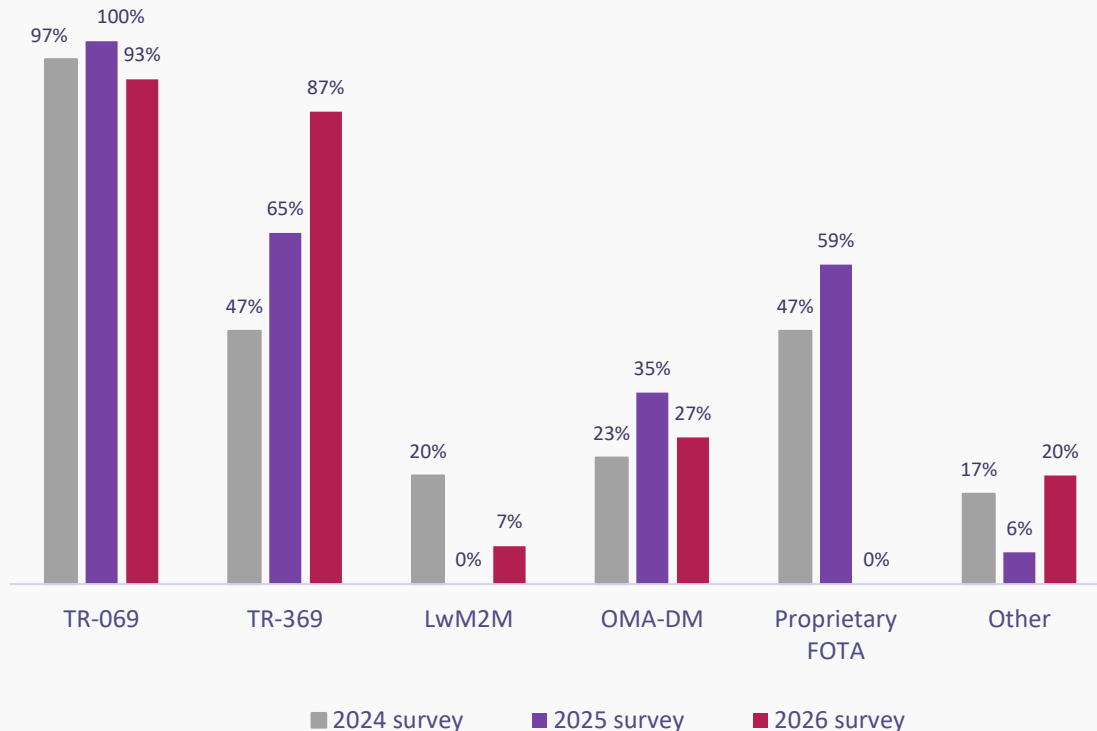


Remote Management & OS Support for FWA Devices

- TR-369 and Proprietary FOTA have seen an increase in support for remote management—TR-069 remains the most common
- OpenWRT remains the most common OS, with increased adoption of PRPL in the most recent survey

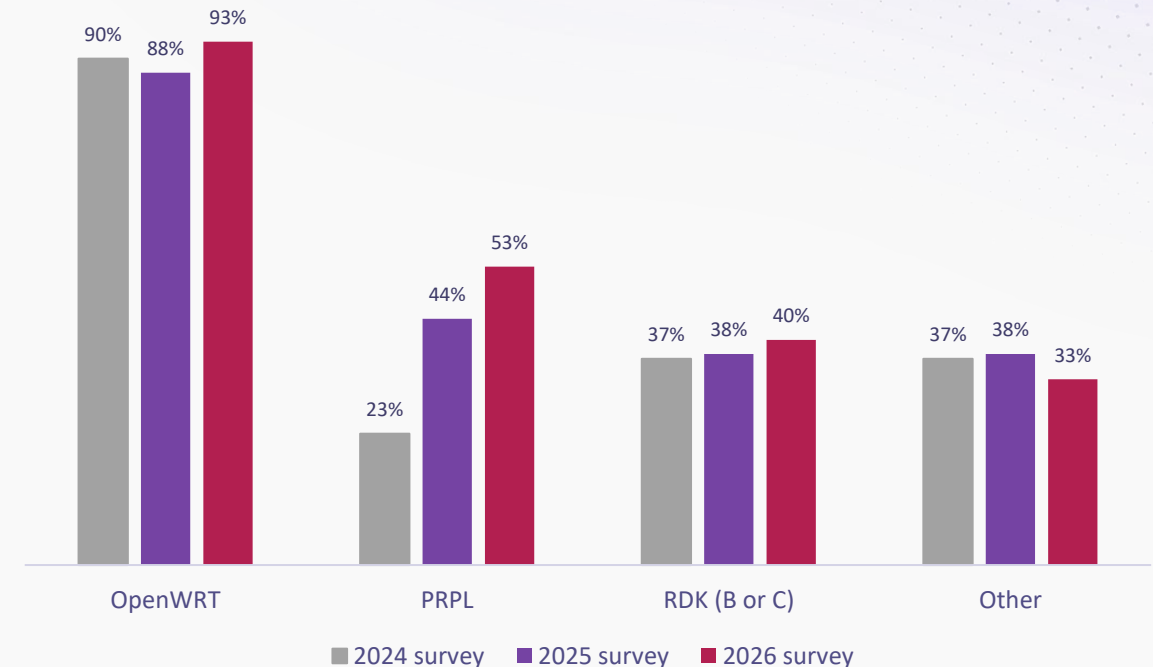
Which protocol for remote management does your company support?

Sample: 2026 FWA survey, 15 respondents 2025 FWA survey, 17 respondents, 2024 FWA survey, 30 respondents



Which protocol for remote management does your company support?

Sample: 2026 FWA survey, 15 respondents 2025 FWA survey, 17 respondents, 2024 FWA survey, 30 respondents

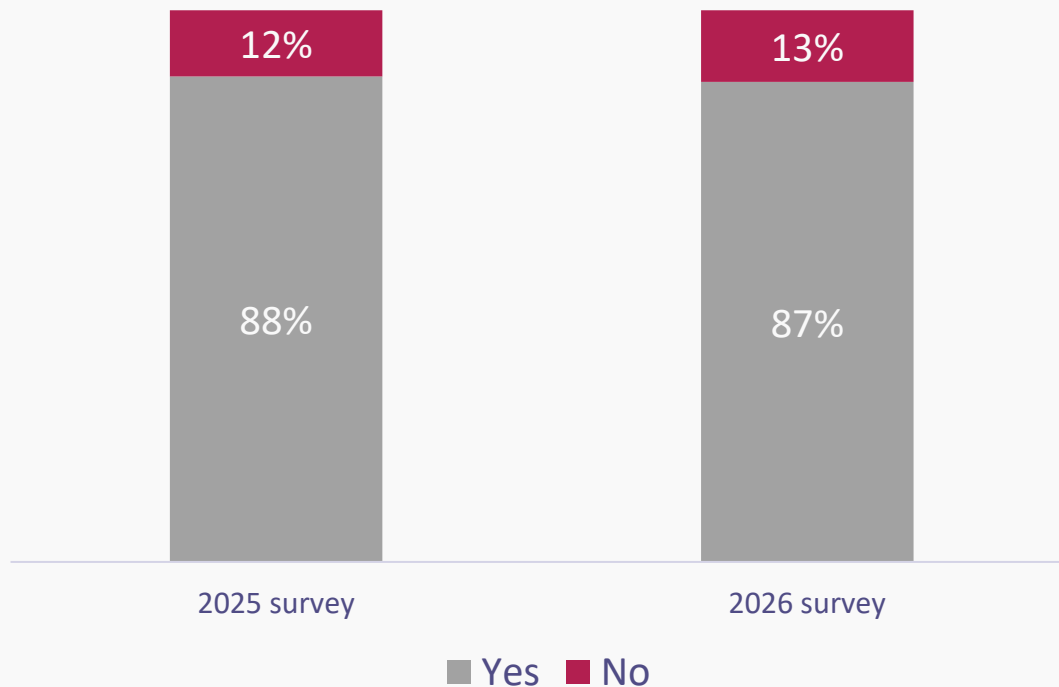


Remote Management Support for FWA Devices

- Majority of respondents have a solution for remote troubleshooting
- Decline in support for TR-143, with half of respondents do not have support for TR-143

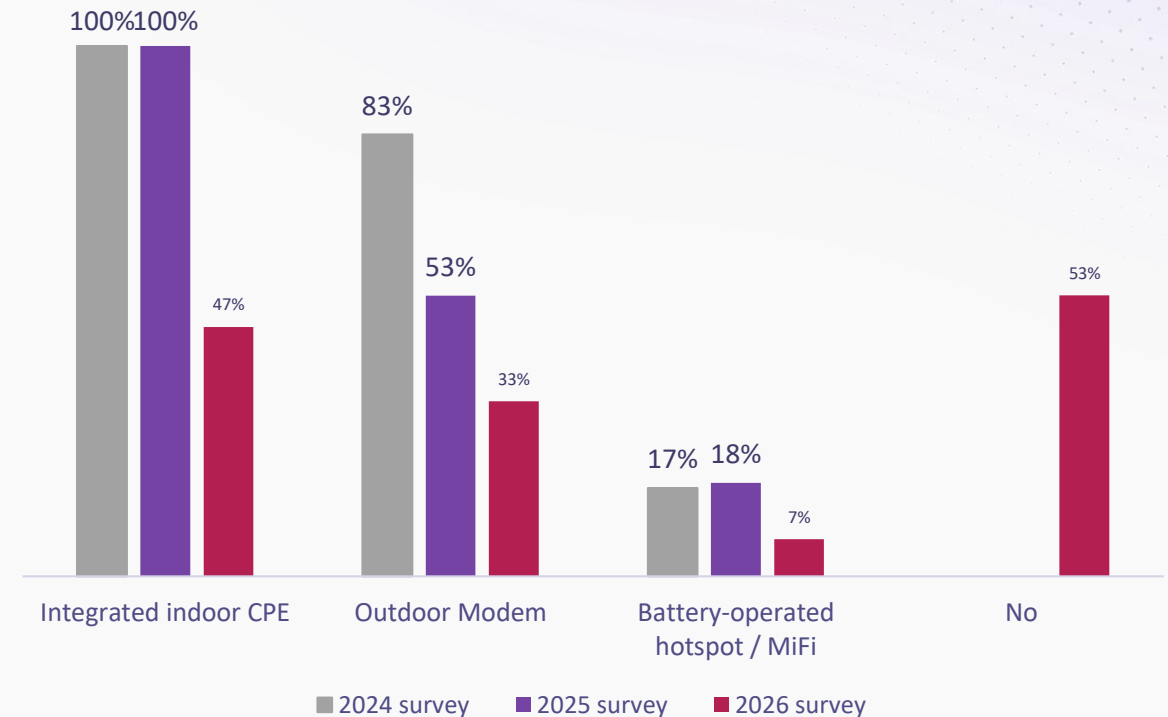
Do you have any solution for remote troubleshooting and logging from ODU or IDU devices?

Sample: 2026 FWA survey, 15 respondents 2025 FWA survey, 17 respondents



Do you support TR-143 (or other remote speed test measurements) in your devices?

Sample: 2026 FWA survey, 15 respondents 2025 FWA survey, 17 respondents, 2024 FWA survey, 30 respondents

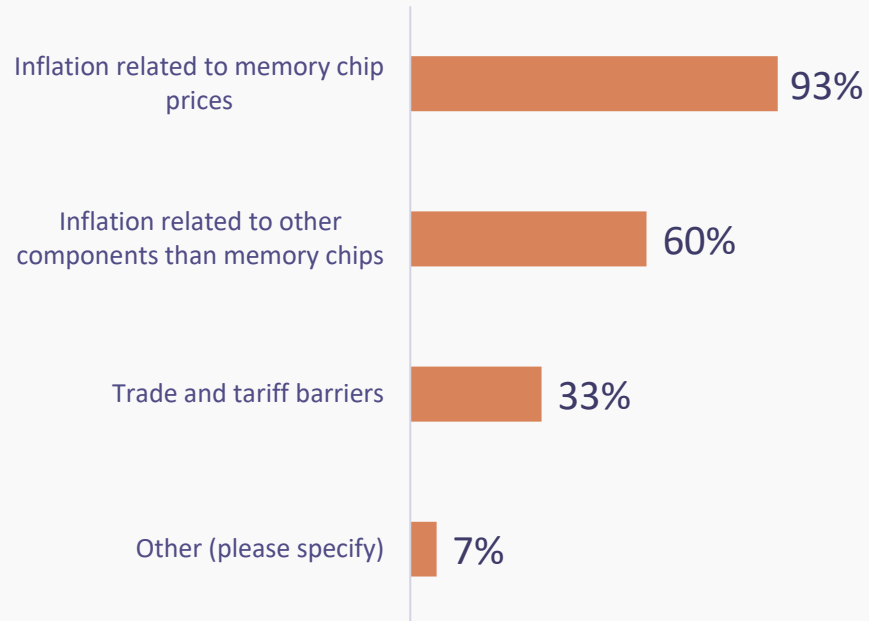


Macro economic conditions

- 93% of respondents impacted by inflation related to memory chip prices
- 67% affirm component/inflationary pressures in 2026 will have impact final prices by more than 10%
- 47% expect inflationary pressures to be dissipated during 2027

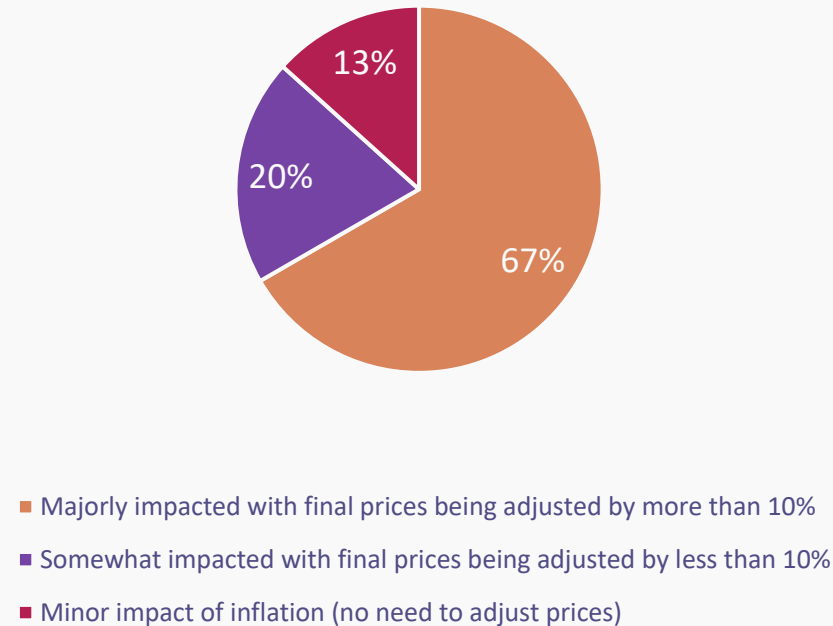
Is your company being affected by external economic factors during 2026?

Sample: 2026 FWA survey, 15 respondents



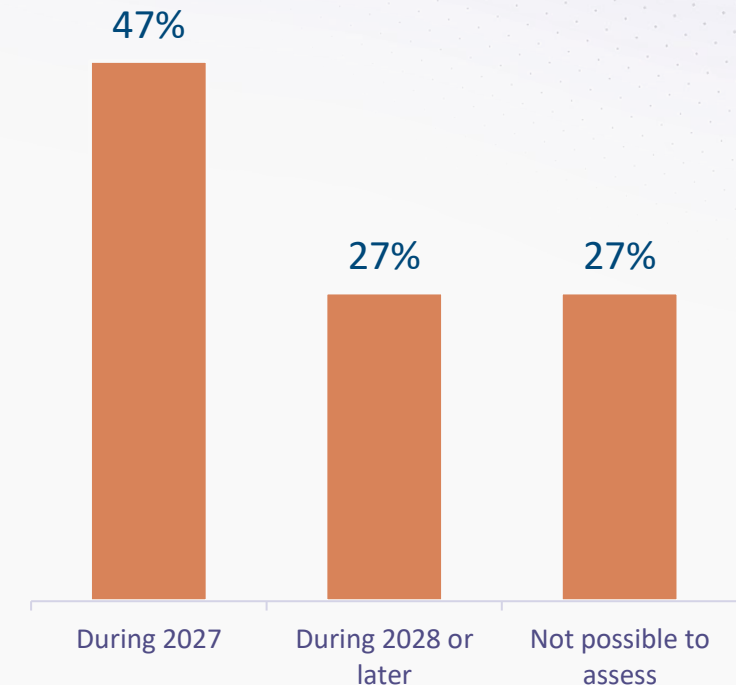
What is the impact of component/inflationary pressures in 2026 for your company?

Sample: 2026 FWA survey, 15 respondents



When do you expect these inflationary/component issues to be dissipated?

Sample: 2026 FWA survey, 15 respondents

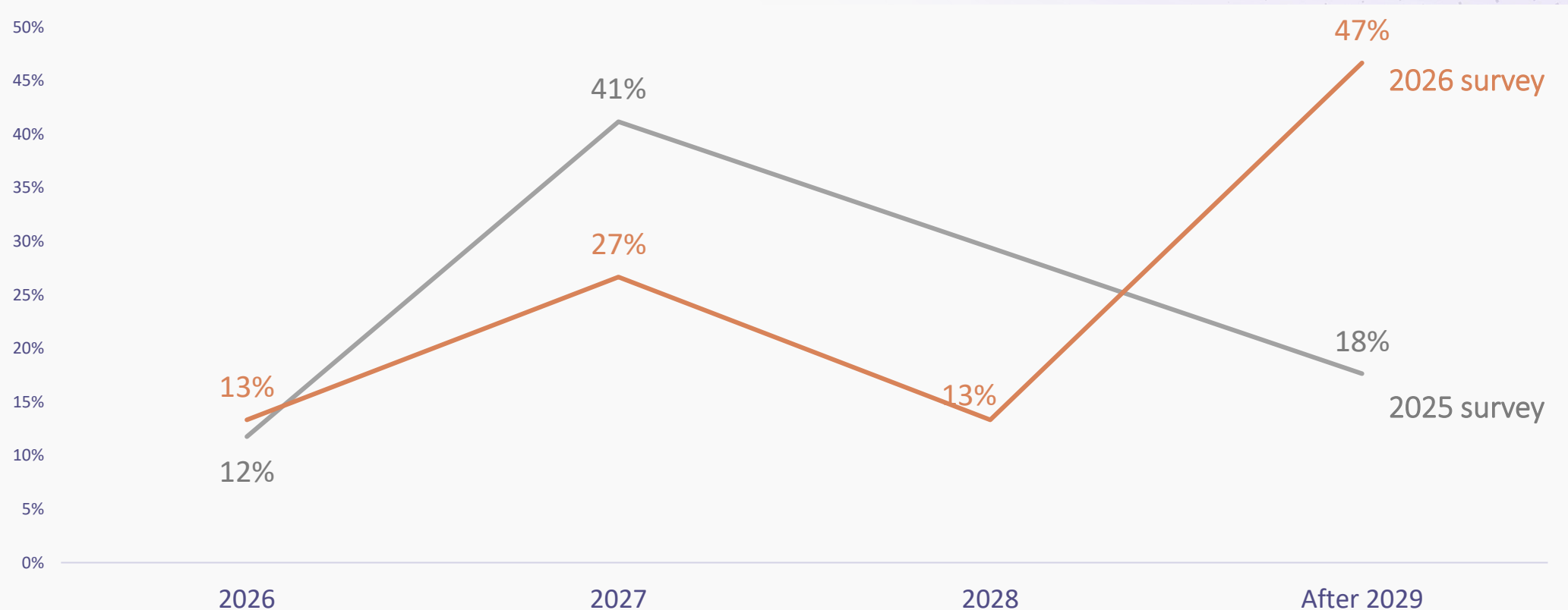


Price Trends of FWA CPE

- Significant shift in consensus, with 53% expecting 5G FWA CPE prices to reach 4G levels in the coming 3 years, compared to 82% in last years' survey

When do you think 5G FWA CPE will reach the price levels of 4G FWA CPE today?

Sample: 2026 FWA survey, 15 respondents 2025 FWA survey, 17 respondents



<https://gsacom.com/group/fwa-forum/>

