

LEO

XGS-PON

WiFi 7

5G FWA

DOCSIS 4.0

DOCSIS 3.1

Spokesperson's office Quarter Report

January 10, 2024

XGS-PON

DOCSIS 3.1

DOCSIS 4.0

LEO

WiFi 7

5G Small Cell E2E System

5G FWA

Comprehensive Confrontation Between China and the United States



2018-present

COVID-19 Pandemic

Since 2019...

War Drives the Growth of the Military Communications Industry



Ukrainian-Russian War



Israeli-Palestinian Conflict

Major Adjustments to Global Supply Chains

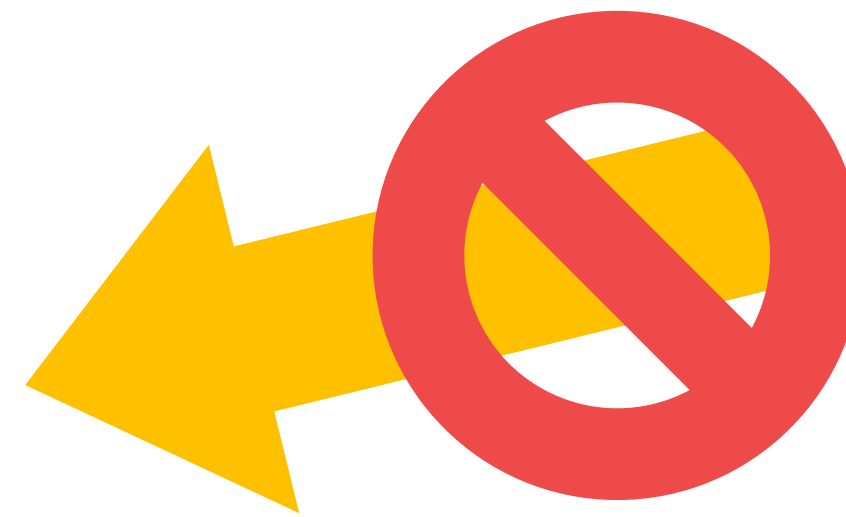


The confrontation between China and the United States and the uncertainty surrounding mainland China's policies have accelerated the relocation of supply chains overseas.

Opportunities

(Electronics and Network Communications Industries in Taiwan)

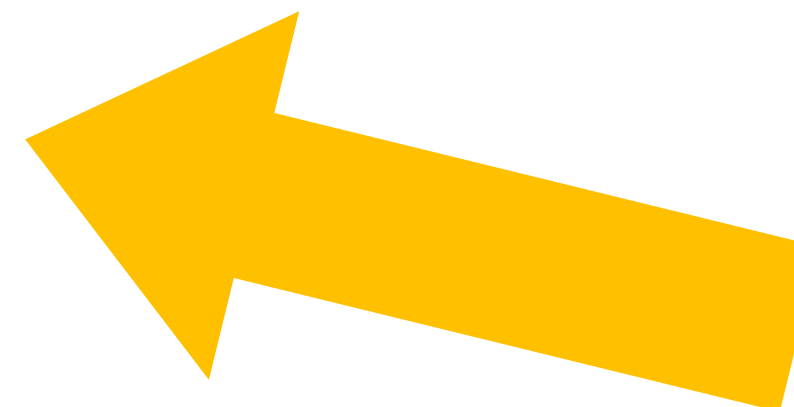
- US sanctions on Chinese companies
- Restrictions on the export of key technologies and components



China's manufacturing competitiveness is on the decline, and European and American companies are actively seeking new partnerships with Taiwanese manufacturing entities.

China is also on the lookout for new partnerships

→ New opportunities for some Taiwanese manufacturers

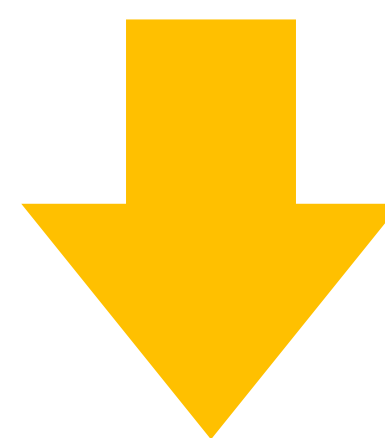




China Netcom's international manufacturing competitiveness is weakening.



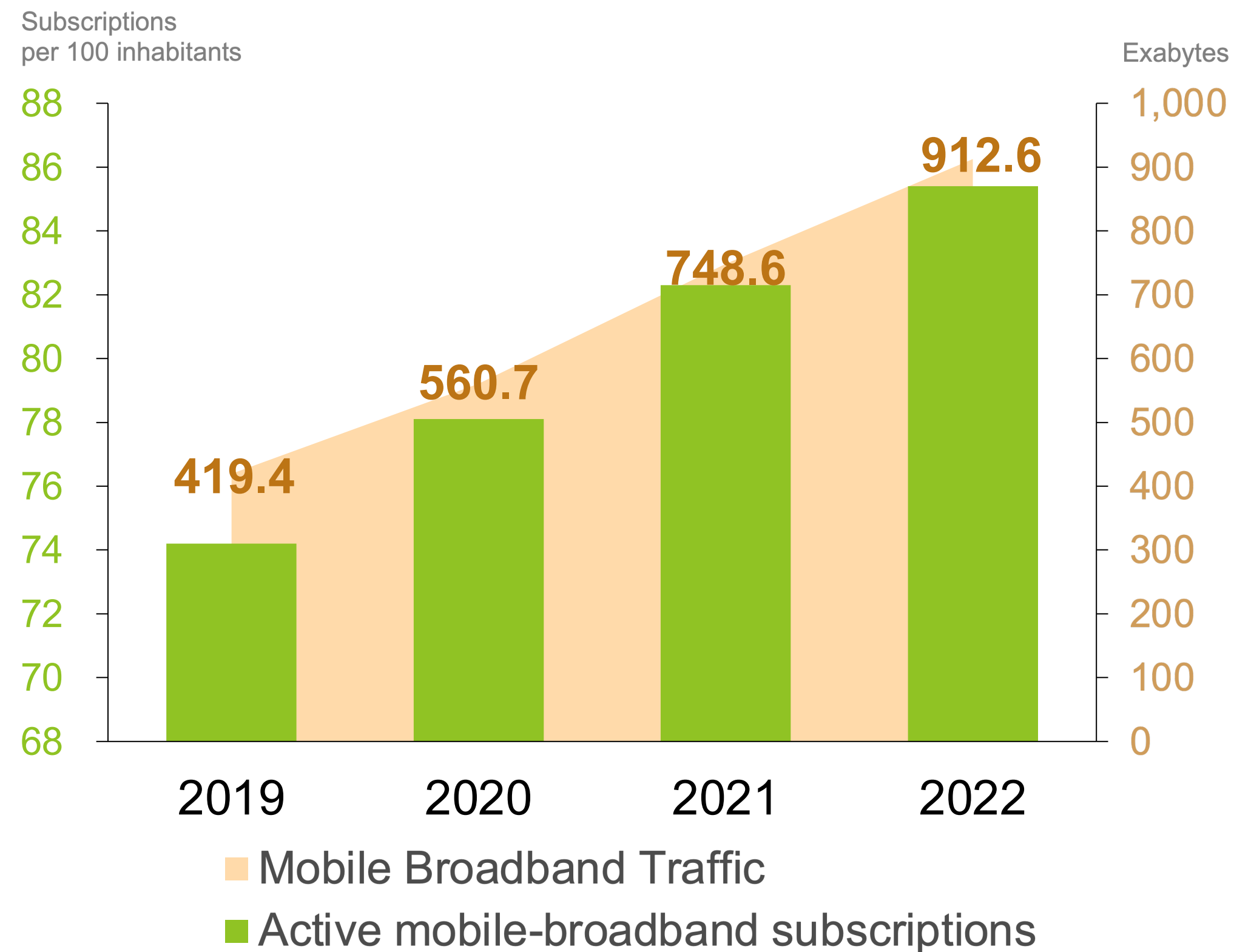
The manufacturing competitiveness of European and American telecom companies is growing stronger.



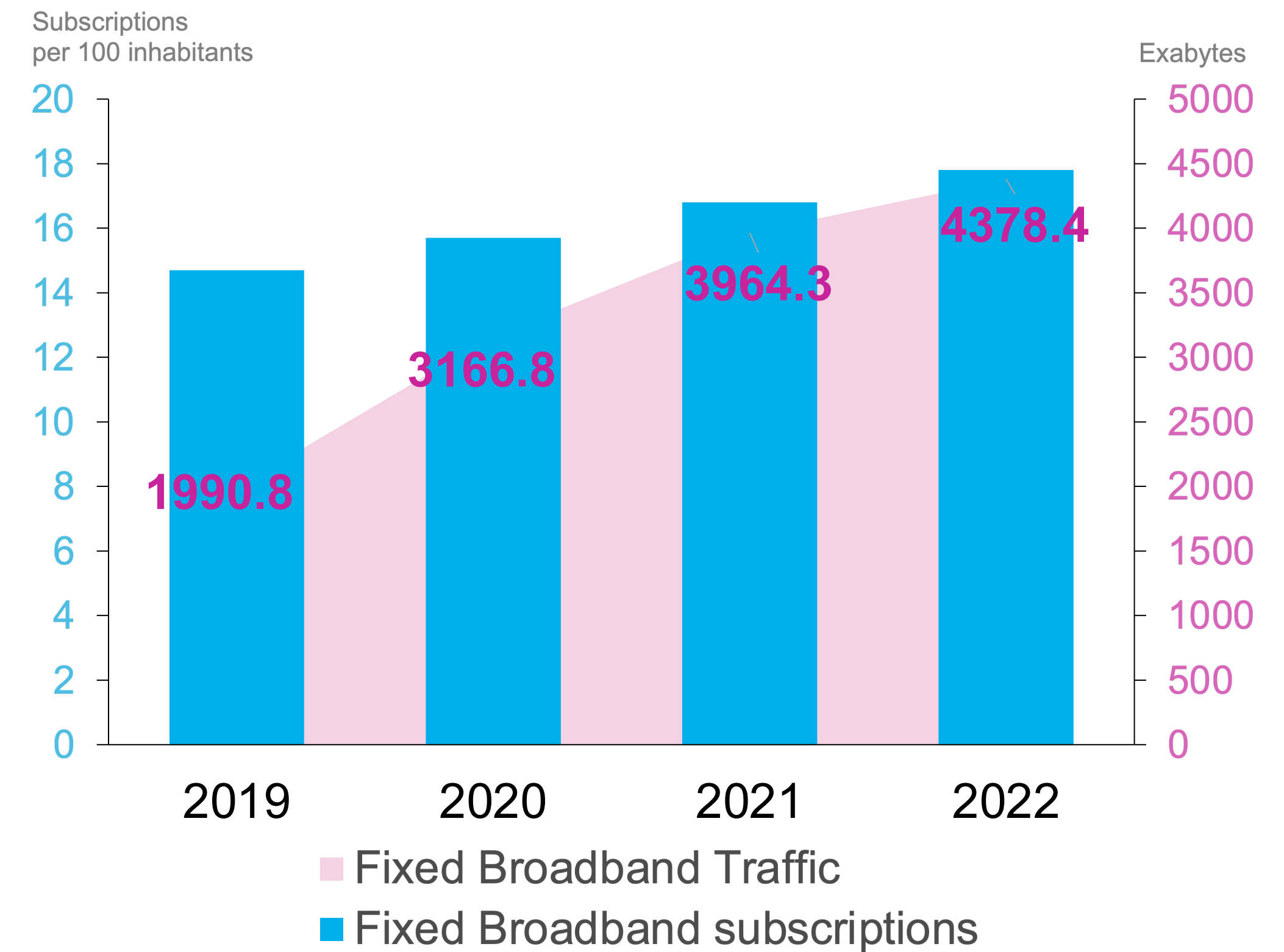
Benefiting Taiwanese manufacturers targeting European and American markets

Internet Use Keeps Rising

Mobile Broadband Penetration & Traffic

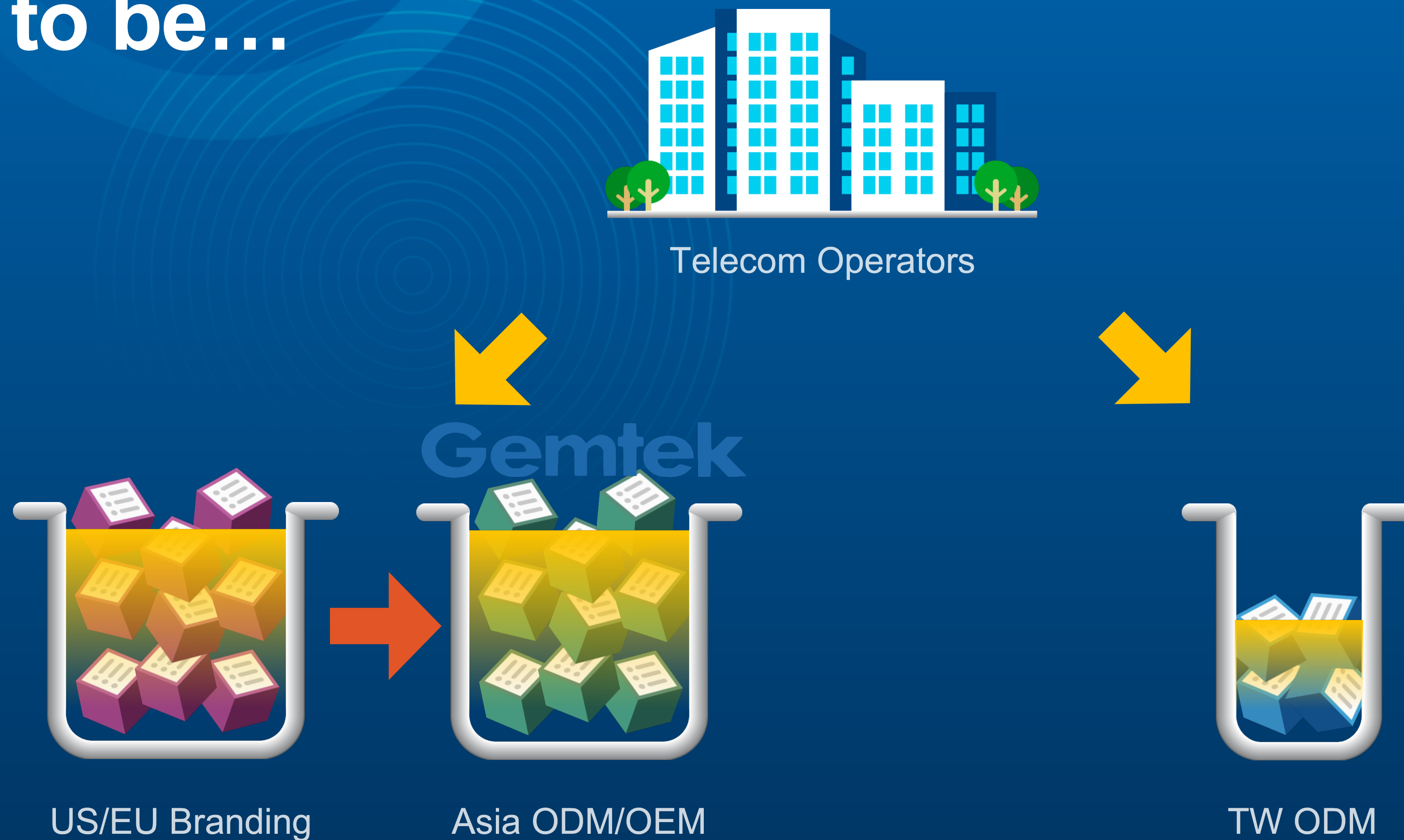


Fixed Broadband Penetration & Traffic

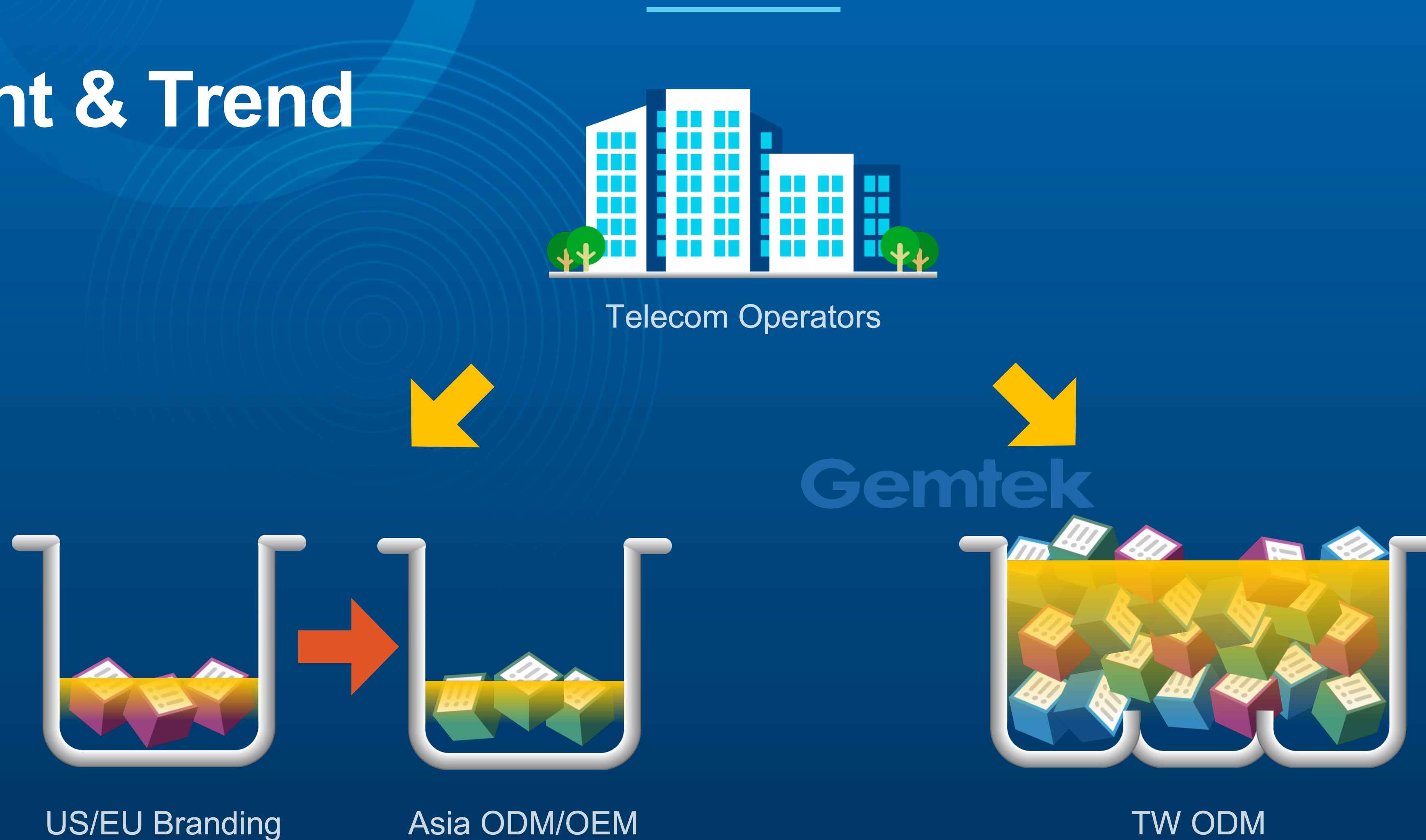


The Reshaping of Global Supply Chain

Used to be...

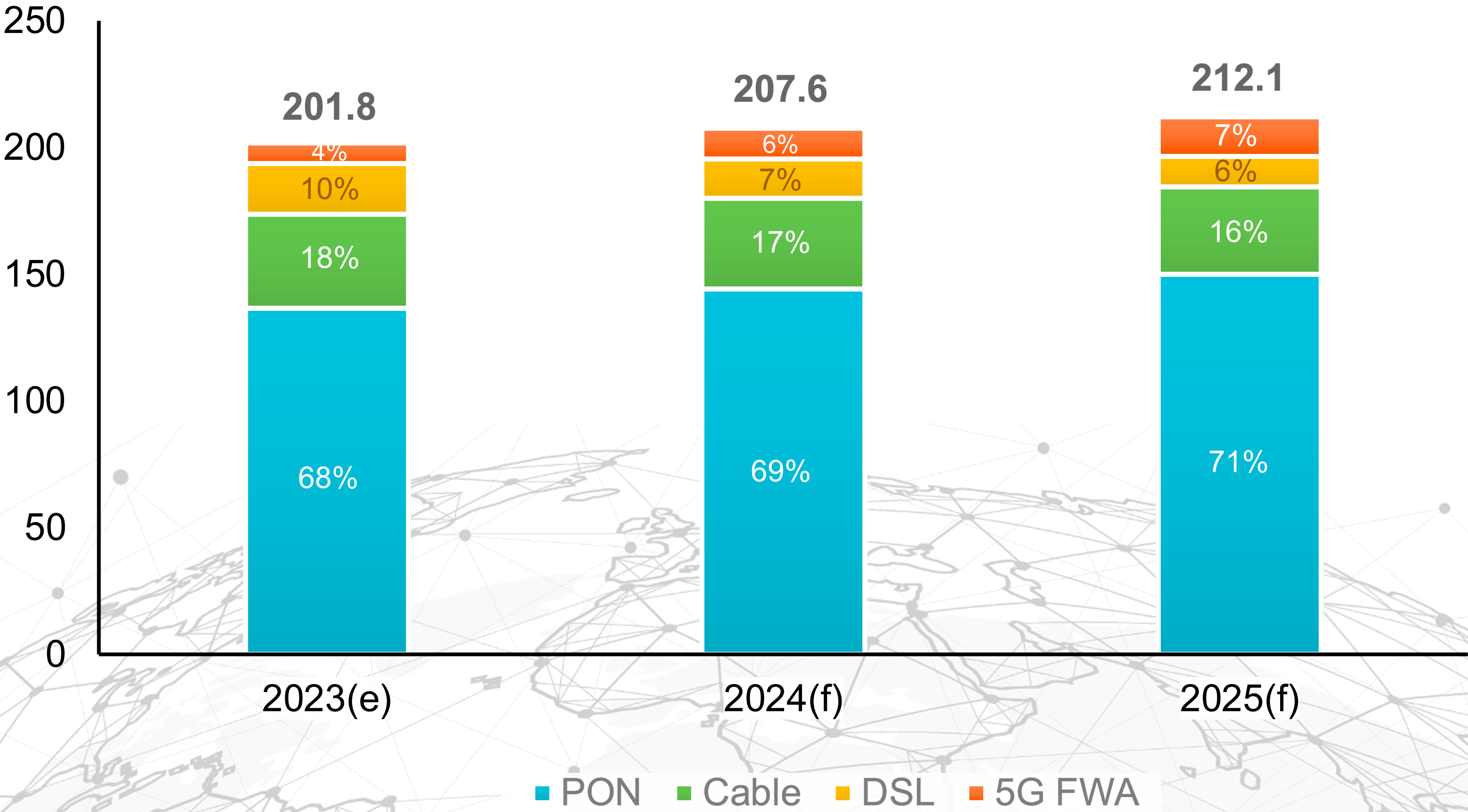


Present & Trend



Global CPE shipments, 2023(e)-2025(f)

Unit: Million



Operations Report

Continuous Growth



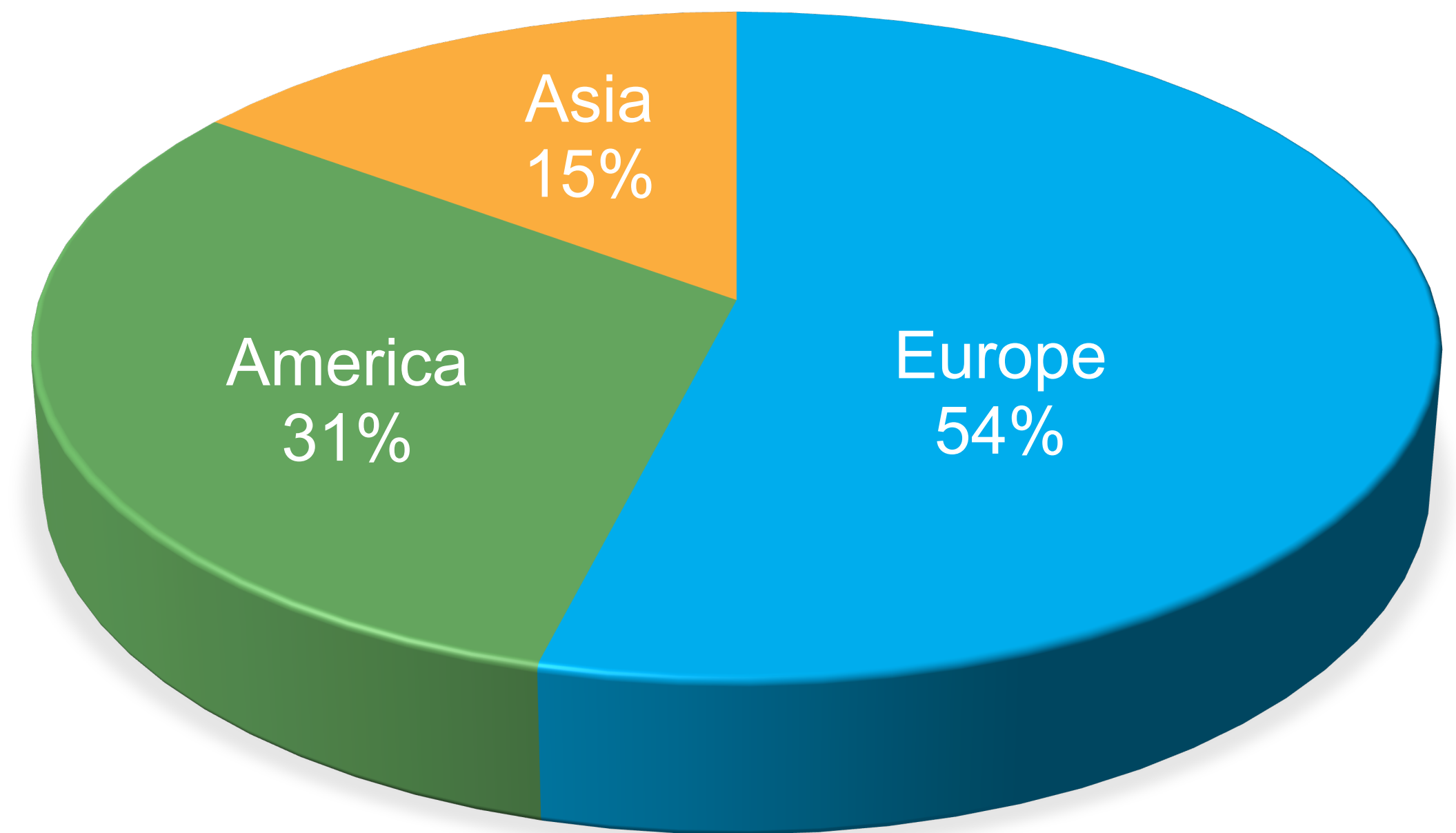
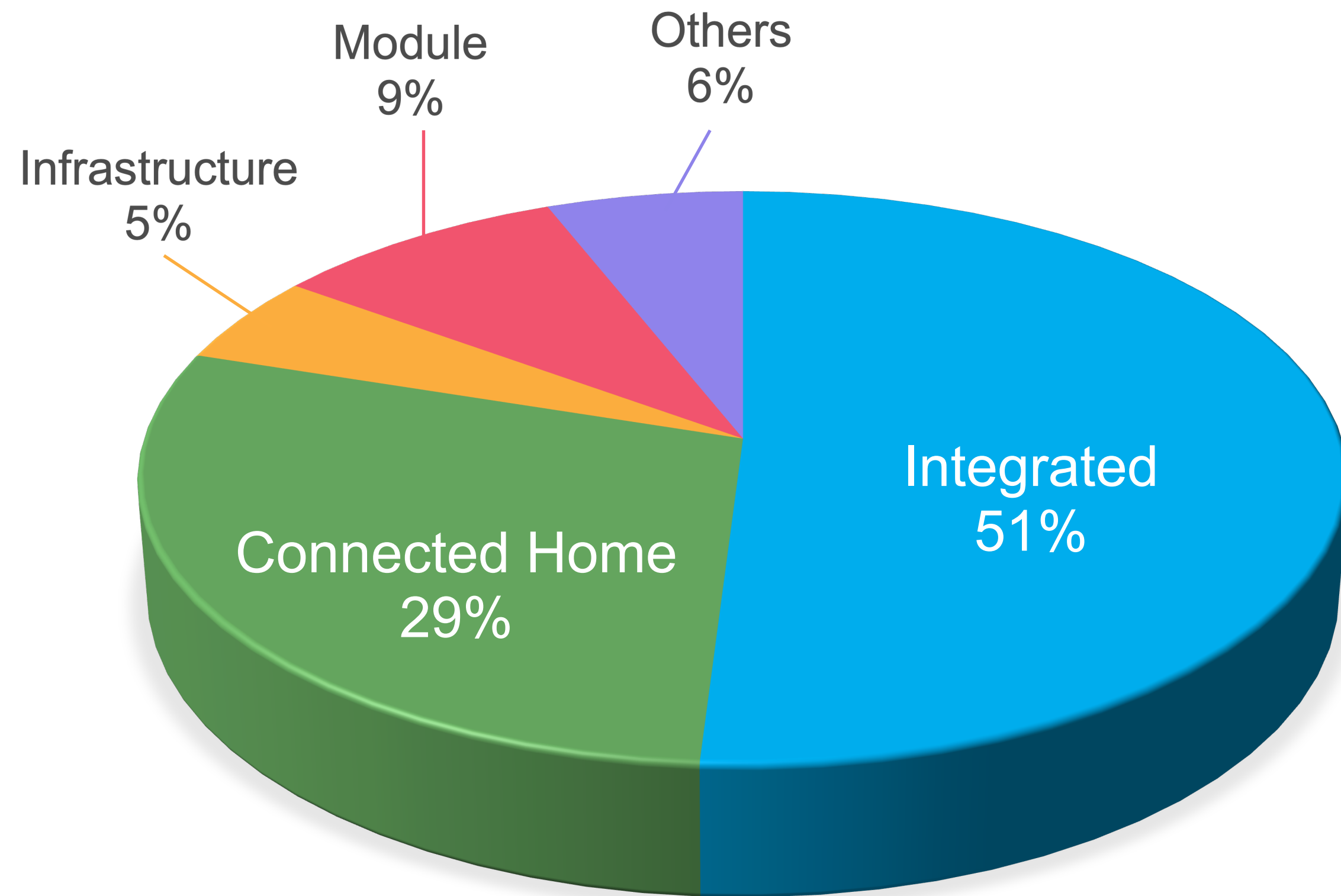
2022 Revenue : YoY **+21.77%**

Consolidated Comprehensive Income (IFRS)

In NTD (Thousand)	1Q 2023	2Q 2023	3Q 2023	1Q-3Q 2023	1Q-3Q 2022
Operating Revenue	7,063,009	7,013,592	6,156,474	20,233,075	19,369,253
Operating Cost	6,422,753	6,144,100	5,514,104	18,080,957	17,619,981
Gross Profit	640,256	869,492	642,370	2,152,118	1,749,272
Operating Expenses	566,343	588,155	588,236	1,742,734	1,536,356
Operating Profit	73,913	281,337	54,134	409,384	212,916
Non-Operating Income and Expenses	2,723	93,797	381,384	477,904	369,427
Pre-Tax Profit	76,636	375,134	435,518	887,288	582,343
Net Income	45,765	304,410	346,971	697,146	447,369
Basic EPS (NTD)	0.16	0.79	0.9	1.85 	0.66

In NTD (Thousand)	Oct. 2023	Nov. 2023
Operating Revenue	1,821,600	1,906,562

Product Breakdown By Revenue Q1-Q3



Global Footprint



Manufacturing Capacity



Hsinchu, Taiwan



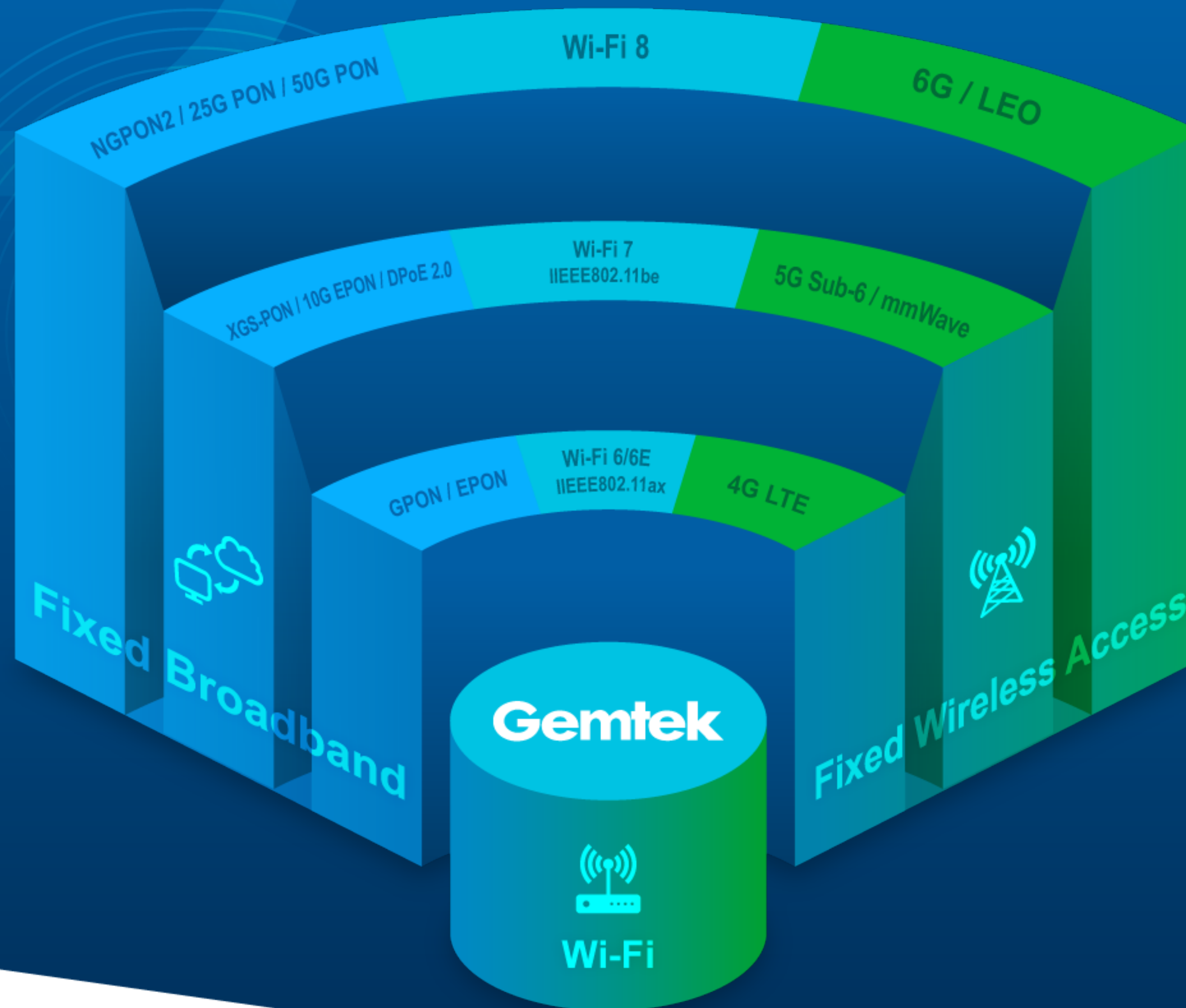
Ha Nam, Vietnam



Kunshan, China

	2022	2023	2022	2023	2022	2023
Capacity (by product)	≈ 12%	≈ 3%	≈ 38%	≈ 67%	≈ 50%	≈ 30%
Capacity (by revenue)	≈ 5%	≈ 5%	≈ 45%	≈ 65%	≈ 60%	≈ 30%
SMT	5	4	12	14	22	16

Key Technologies Focus



Market Trend & New Products Introduction

LEO – Internet Everywhere, Connecting Everything

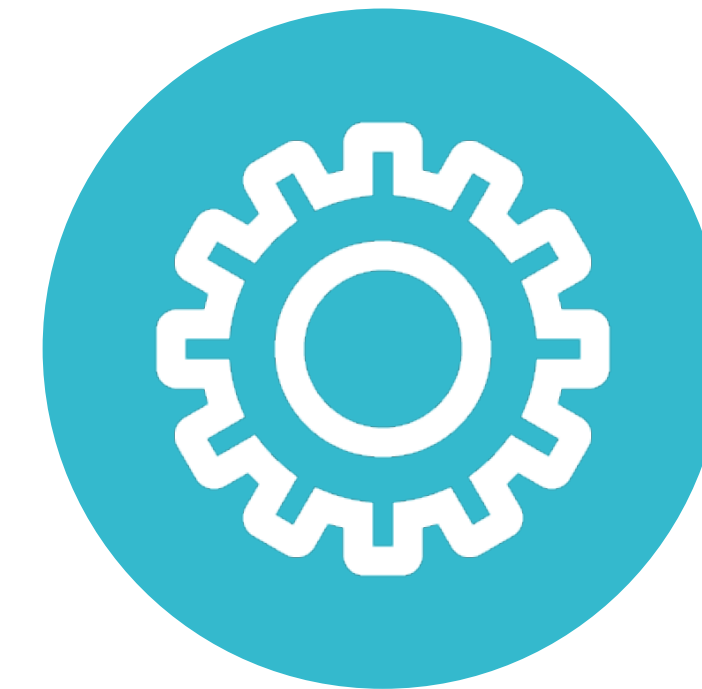
Satellite Broadband

- ✓ Fulfill Internet Access Demand: 49% of the world population don't have access reliable and affordable internet
- ✓ Enhance internet services for various modes of transportation— airplanes, vehicles, and boats



Satellite IoT

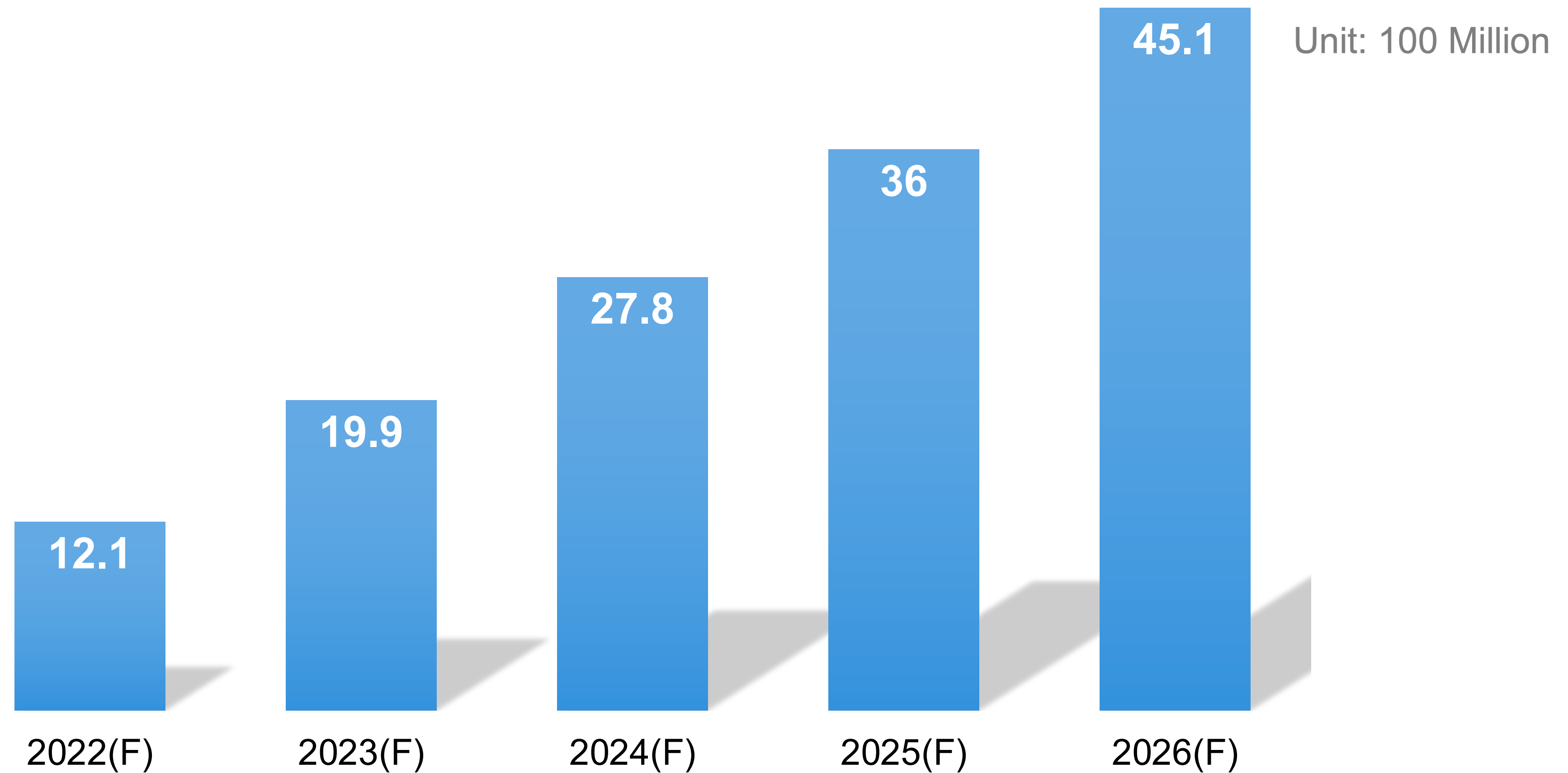
- ✓ Realization of IOT: Facilitating connections between a network of interrelated IoT machines and devices to the internet



5G is Happening

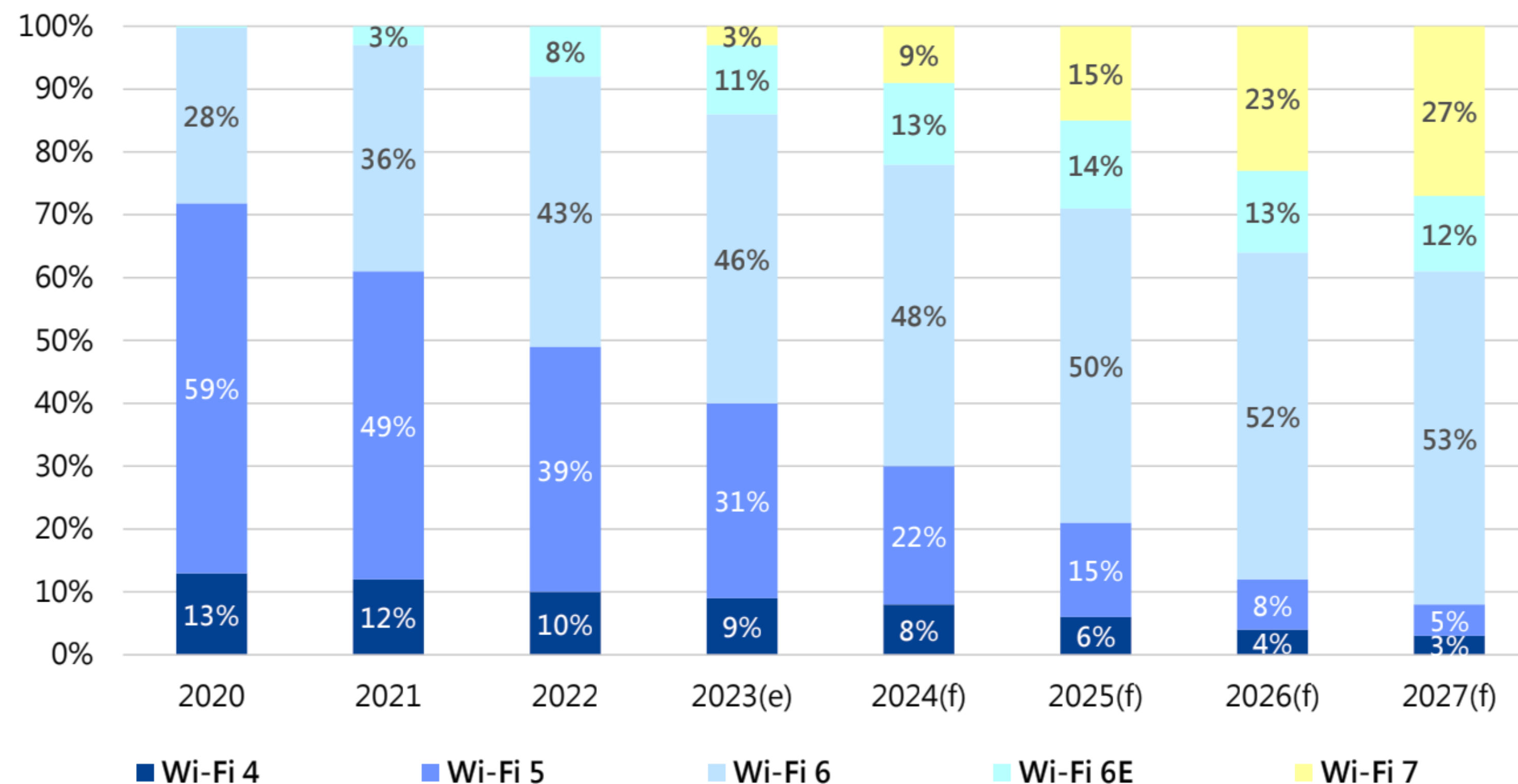
Global 5G Device Forecast

(Including smart phone and FWA)



Wi-Fi 7 Official Release is on the Horizon

Wi-Fi Market Global Forecast by Standard from 2020 to 2027



- ✓ Wi-Fi 6/6E has become mainstream in 2022
- ✓ Wi-Fi 7 is set to be integrated into various types of application products in the following years
- ✓ Wi-Fi 7 has yet to be globally deployed: Targeted applications--- AR/VR, in-car entertainment, and industrial robots
- ✓ Significantly upgrade home broadband performance

Wi-Fi 7 Technology – Seamless connectivity



User Experience Data Rate



Spectrum Efficiency



Network Energy Efficiency



Connection Density

Key Enhancement

320 MHz channels
4096-QAM
16 spatial streams

Multi-Ru (puncturing)

Multi-link operation
Multi-AP operation
Deterministic low latency

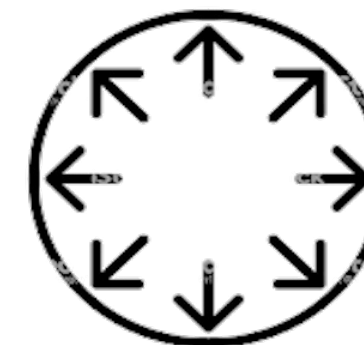


Peak Data Rate

over 40 Gbps,
a 4X increase over Wi-Fi 6E



Cost Effective



Area Capacity

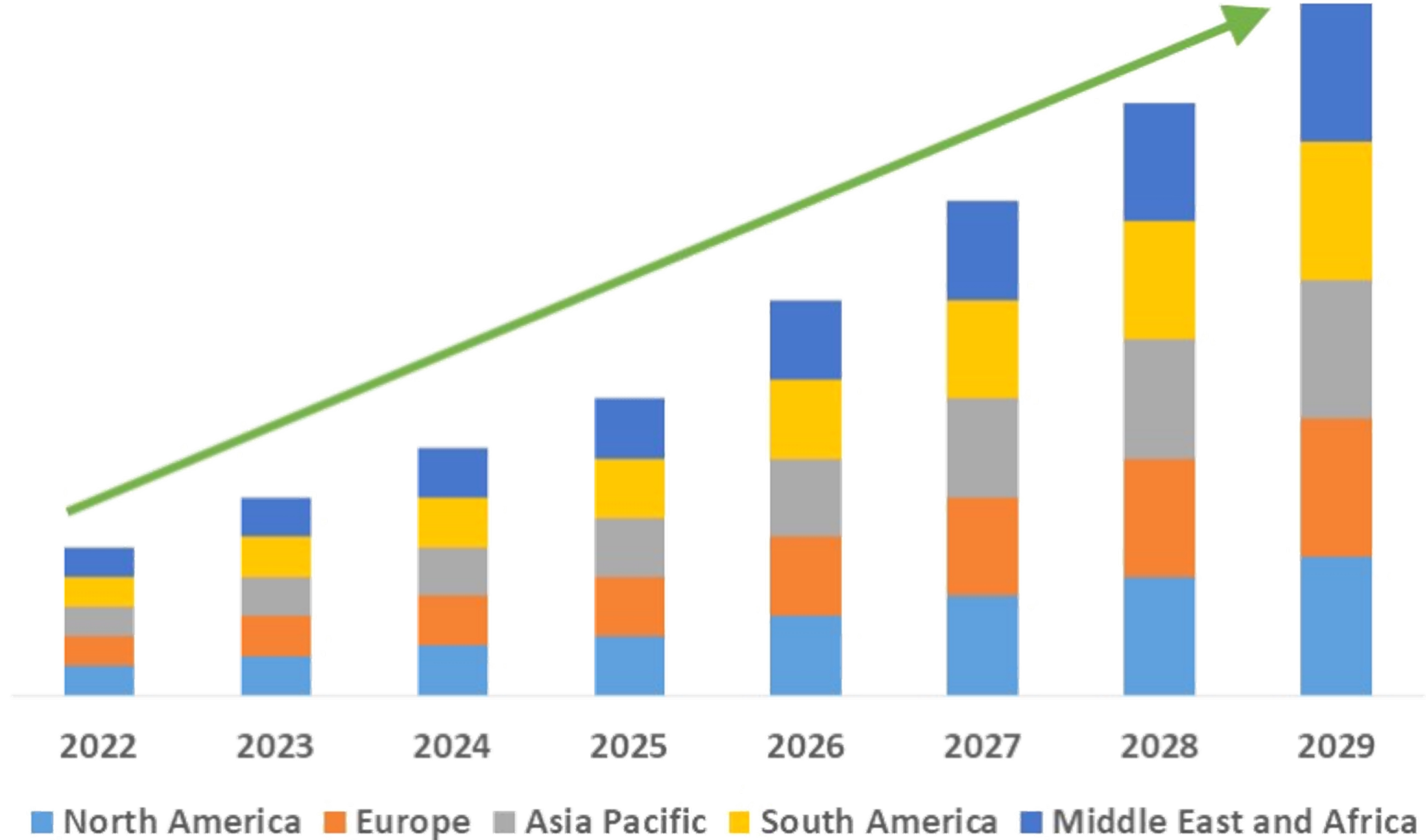


Low latency

Less than 5 ms

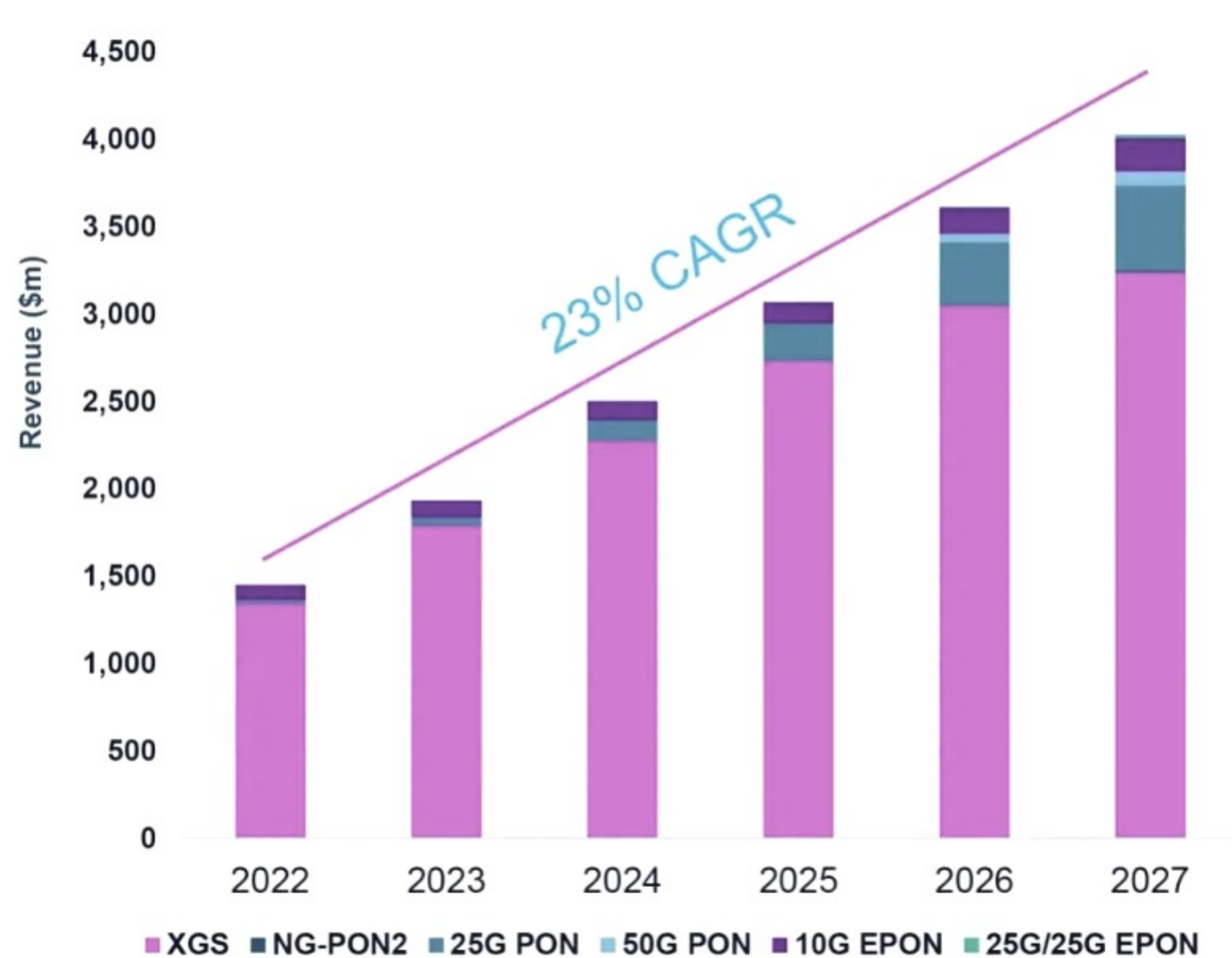
Fiber Broadband- 10G 25G 50G PON

Global Fiber to the Home (FTTH) Gigabit Passive Optical Networking (GPON) Market is Expected to Account for USD **46.49 Billion** by 2029

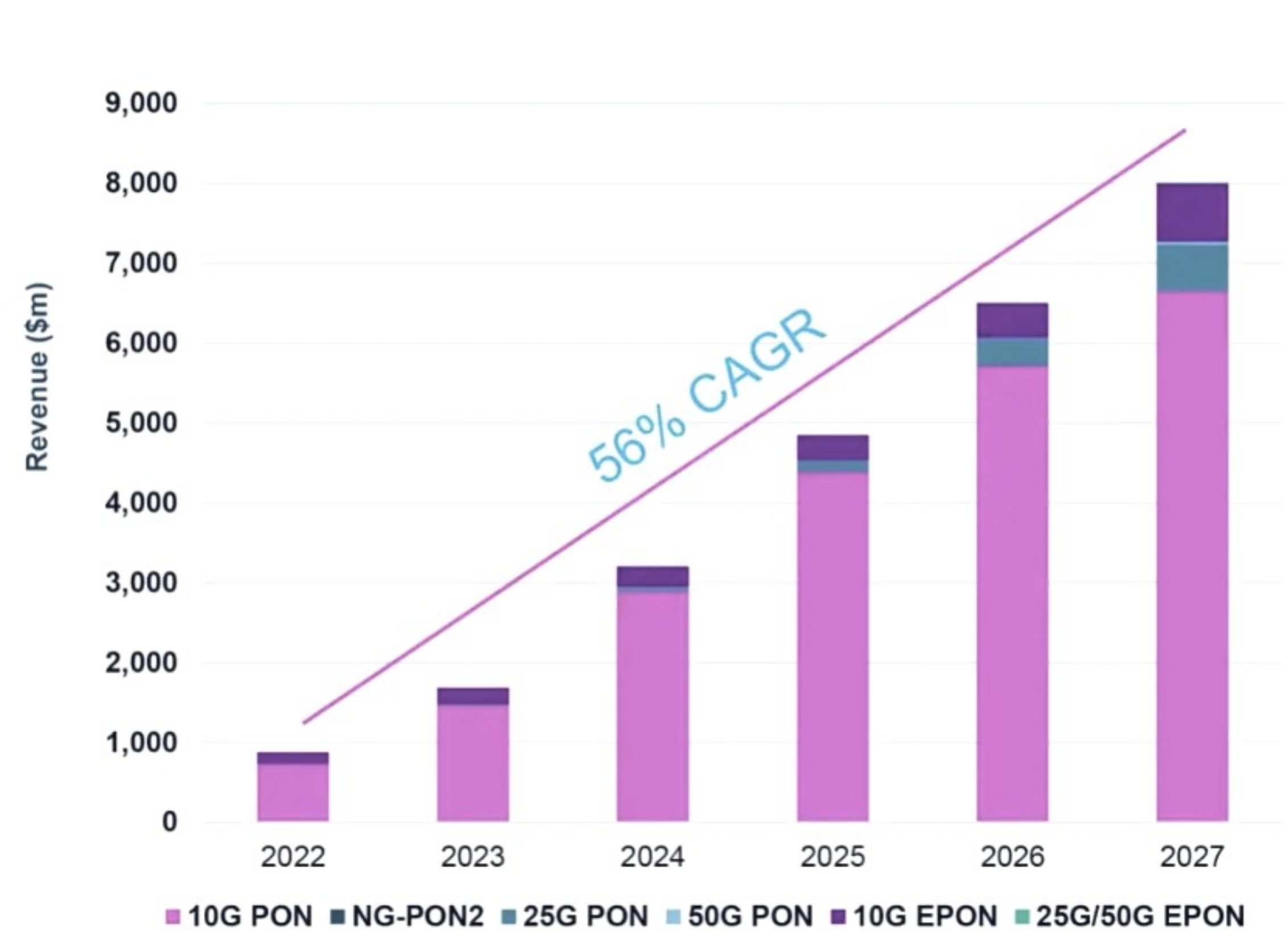


Next Generation Forecast

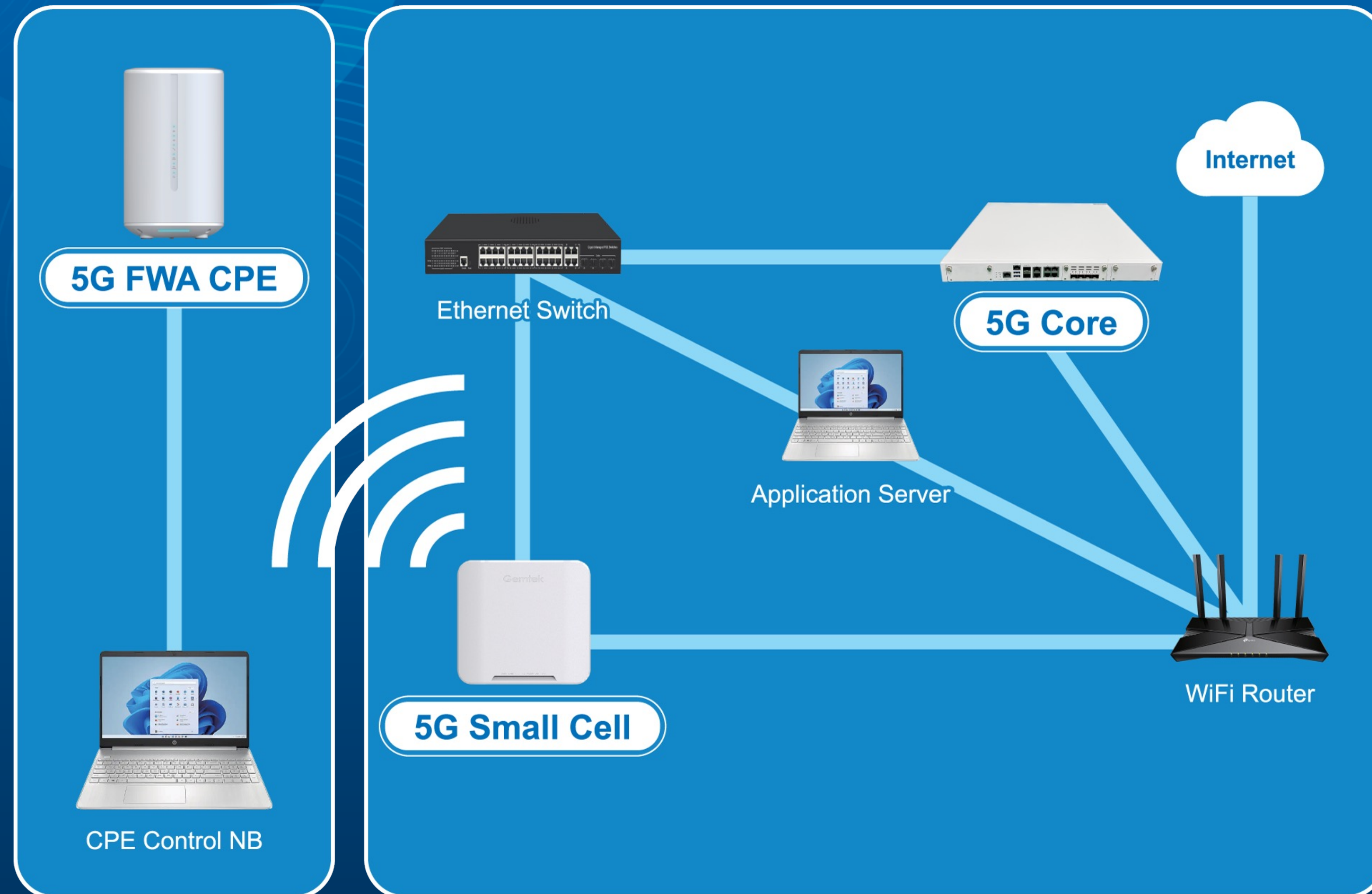
xPON Next Gen OLT Forecast (without China)



xPON Next Gen ONT Forecast (without China)



Gemtek 5G End to End Solution



Gemtek 5G End to End Total Solution

Enterprise Private core network



Gemtek NSA developing
HW platform (B3+N78)



Gemtek CBRS ng-eNB
Support SAS client function
FCC Certification Passed
Compatible to 5G SA core



Gemtek SA gNB
developing
HW platform (n78)



Cat 12/18 Indoor CPE



5G Sub-6 CPE



Local 5G IOT Gateway



Cat 12/18 Outdoor CPE



5G mmWave CPE

Wireless Service Anywhere



Compact
WiFi Mesh
Extender

Compact
WiFi Mesh
Extender

Broadband
Internet
Gateway

Compact
WiFi Mesh
Extender

Wi-Fi 7 Series in RDK & Prpl OS

