



正文科技 2021法人說明會

議程

1

開幕

Speaker - Chairman Howard Chen

2

營運報告

Speaker – CEO James Lee

3

市場趨勢

Speaker - Exec. Board of Director & Spokesman

4

Q & A

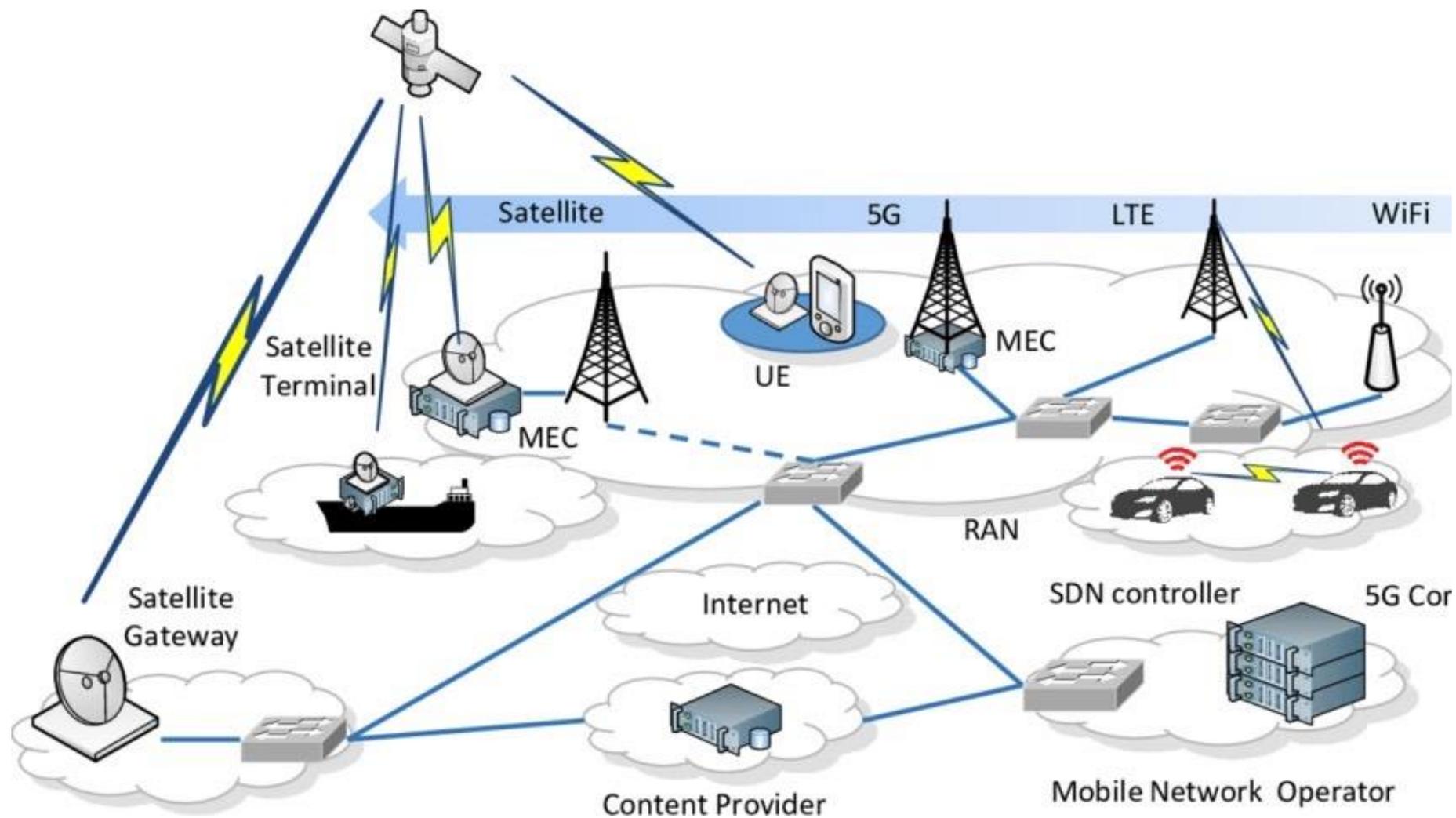
5

產品展示

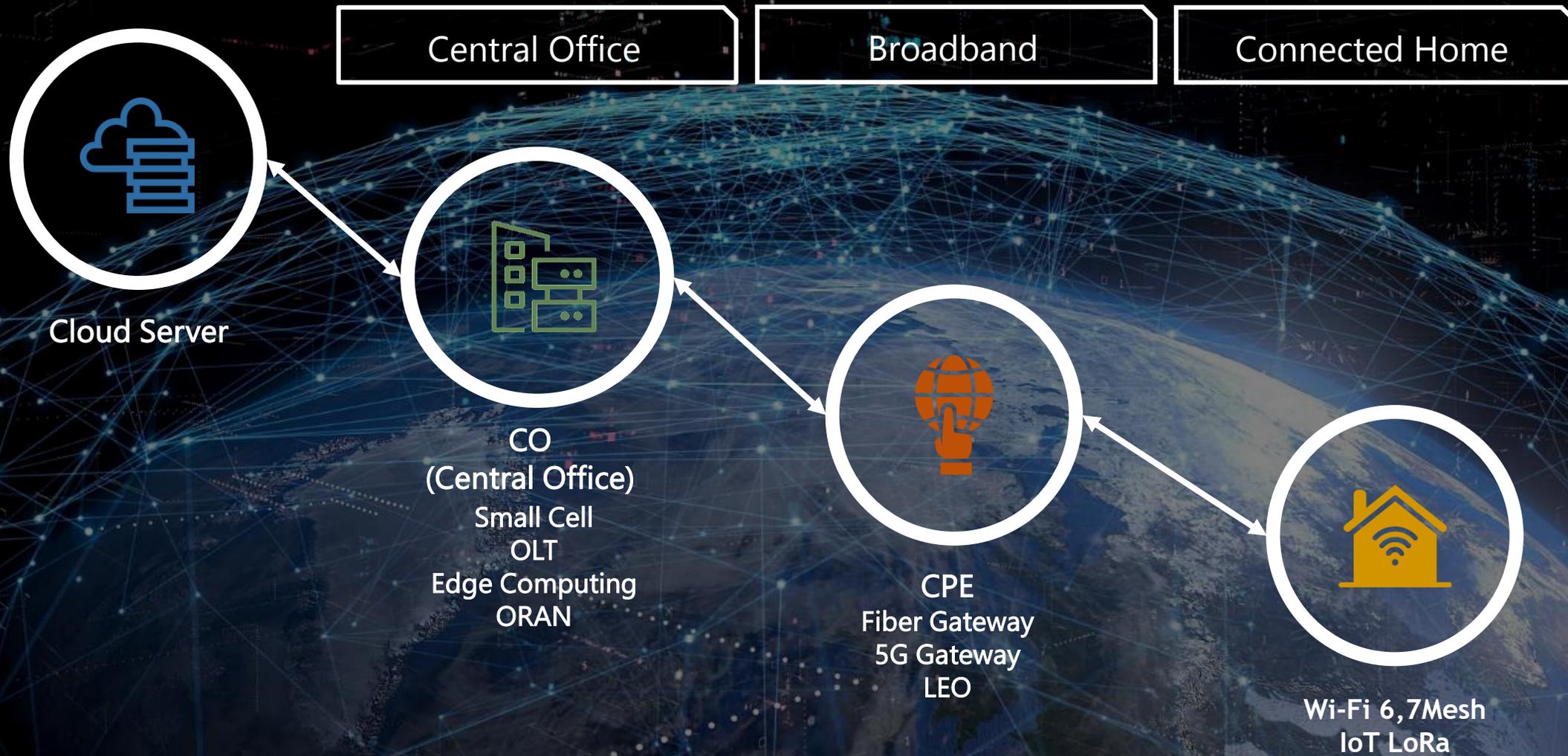
The image features a dark blue background with a complex network of glowing blue lines and nodes. A globe of the Earth is visible in the lower half, with the network lines appearing to connect various points across its surface. The overall aesthetic is futuristic and digital.

A New Era of Telecommunication

大通訊時代



商業機會



A photograph of Xi Jinping and Joe Biden at a press conference. Xi Jinping is on the left, wearing a black suit, white shirt, and red tie, with a headset on. Joe Biden is on the right, wearing a dark suit, white shirt, and striped tie. They are both looking towards the right. The background features the American flag on the left and the California state flag on the right. The text '中 美 對 峙' is overlaid in the center in white characters.

中 美 對 峙

貿易

科技

金融

中美對峙加劇全球供應鏈的遷移



美國政府正極力打擊中國大陸電信及科技公司

- **Trump's Executive order**
Cut the supply chain of Huawei.
(ex TSMC、Samsung、Qualcomm, etc.)
- **Clean network program**
Aligned with other countries to boycott HW and SW from China.
- **The Secure Equipment Act**
Reduce the presence of Huawei and ZTE equipment in U.S communications networks.





挑戰 & 機會

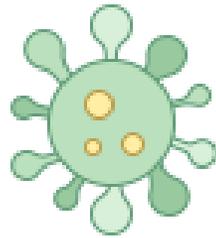
挑戰



Tariff



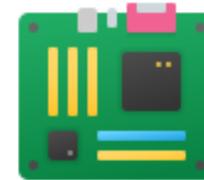
Worsen
Condition of
China
Manufacturing



COVID 19



Currency Risk



Material
Shortage



Electricity
Restriction
In China

機會 – 乾淨網路計畫

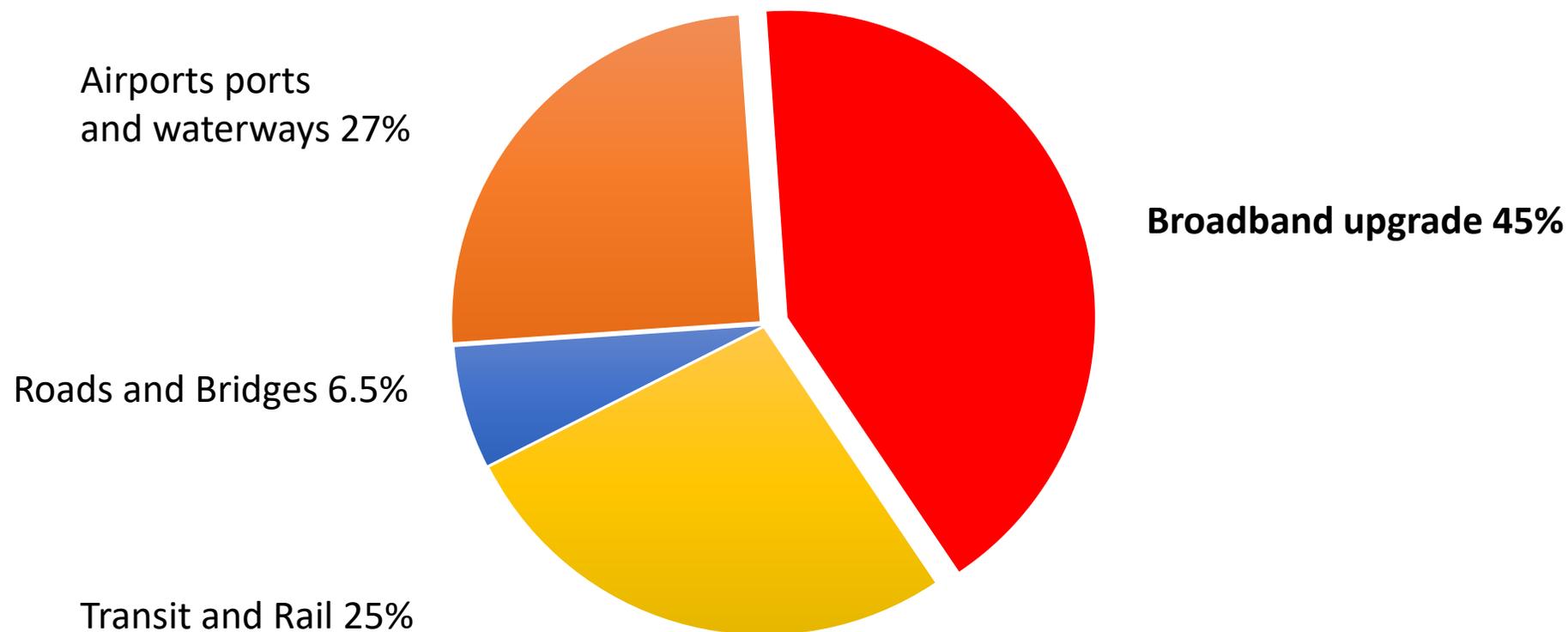
SELECT 5G CLEAN TELECOMMUNICATIONS COMPANIES



- Clean Carriers
- Clean App Stores
- Clean Apps (Exclude TikTok, WeChat, etc.)
- Clean Cloud
- Clean Cable (Exclude Hong Kong. Connect Taiwan and the Philippines)

機會 – 拜登簽署\$1.2 兆美元基礎

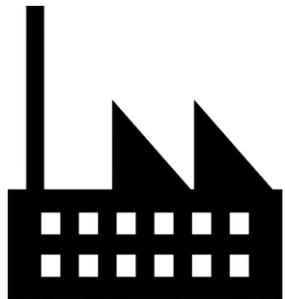
\$65 billion USD will be used to improve States's internet equipment



機會 - 轉單效應



The Orders place in China product line



Orders from Big EMS company

Transfer



Gemtek Can Do

- Shipment / Manufacture outside of China.
- Highly customize production

機會 – 中國競爭力下滑

- Producing cost in China has been rising
- Automated production become mainstream
- Pandemic & Political issue increase uncertainty
- Electricity restriction order



Then - China is a International Factory



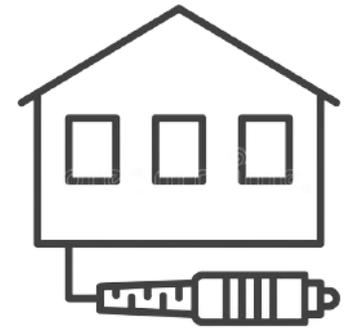
Now – Factories located globally



機會 – 新的網路通訊科技



LEO



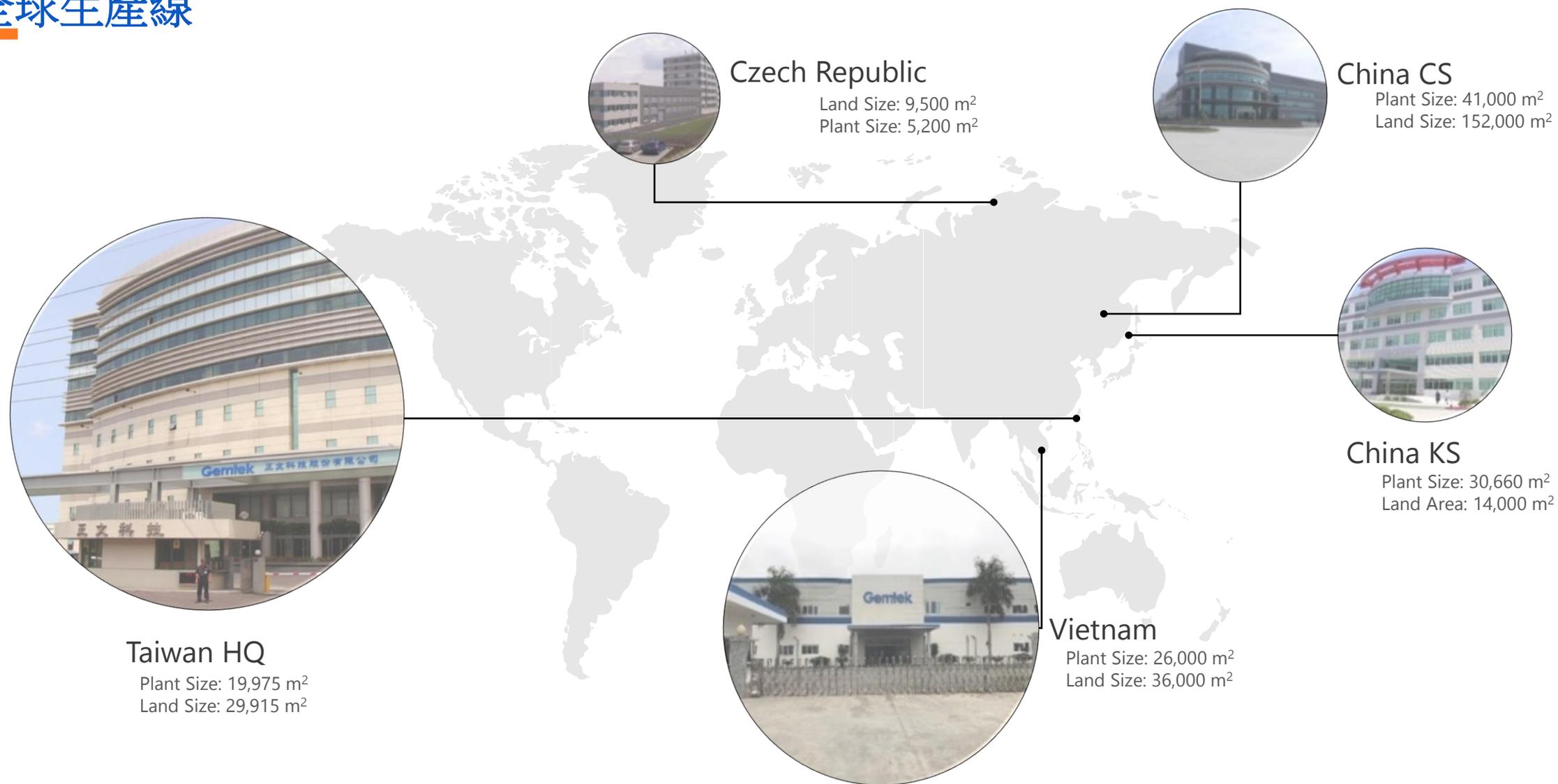
Fiber



營運報告

CEO James Lee

全球生產線



各廠簡介



Hsinchu, Taiwan



Ha Nam, Vietnam



Kunshan & Changshu, China

Capacity
(by product)

≈ 12%

≈ 38%

≈ 50%

Capacity
(by revenue)

≈ 5%

≈ 45%

≈ 50%

Product

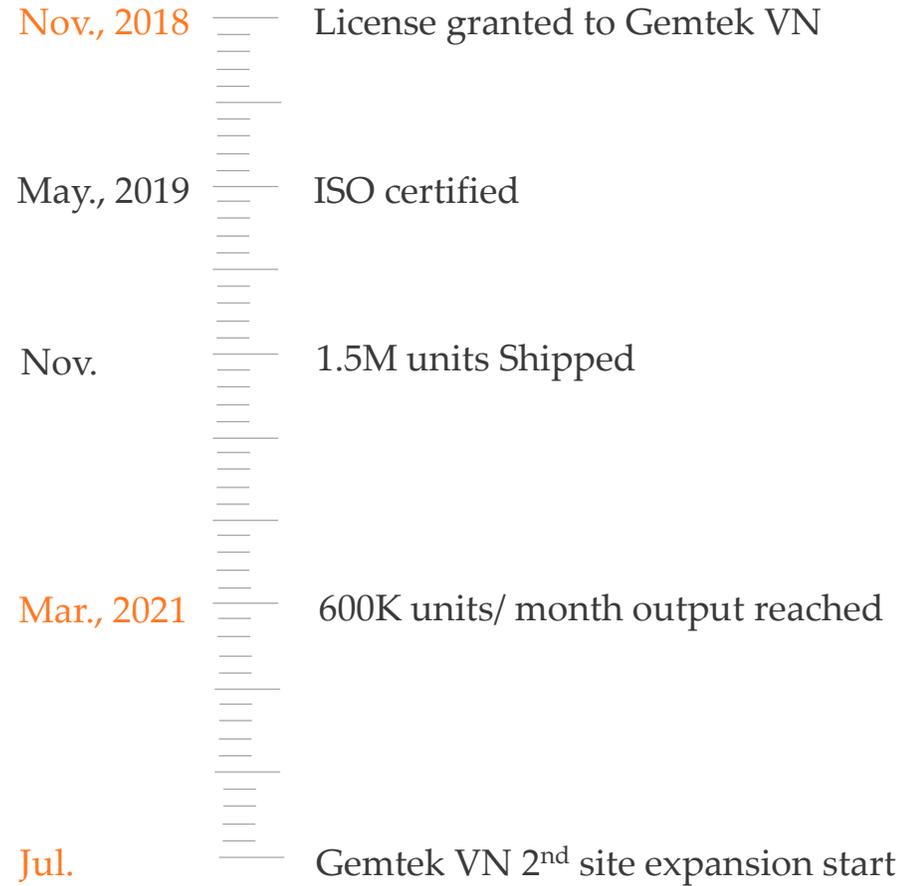
Pilot Run

Wi-Fi Product, LTE, Gateway,
GPON, Module, Sip Module

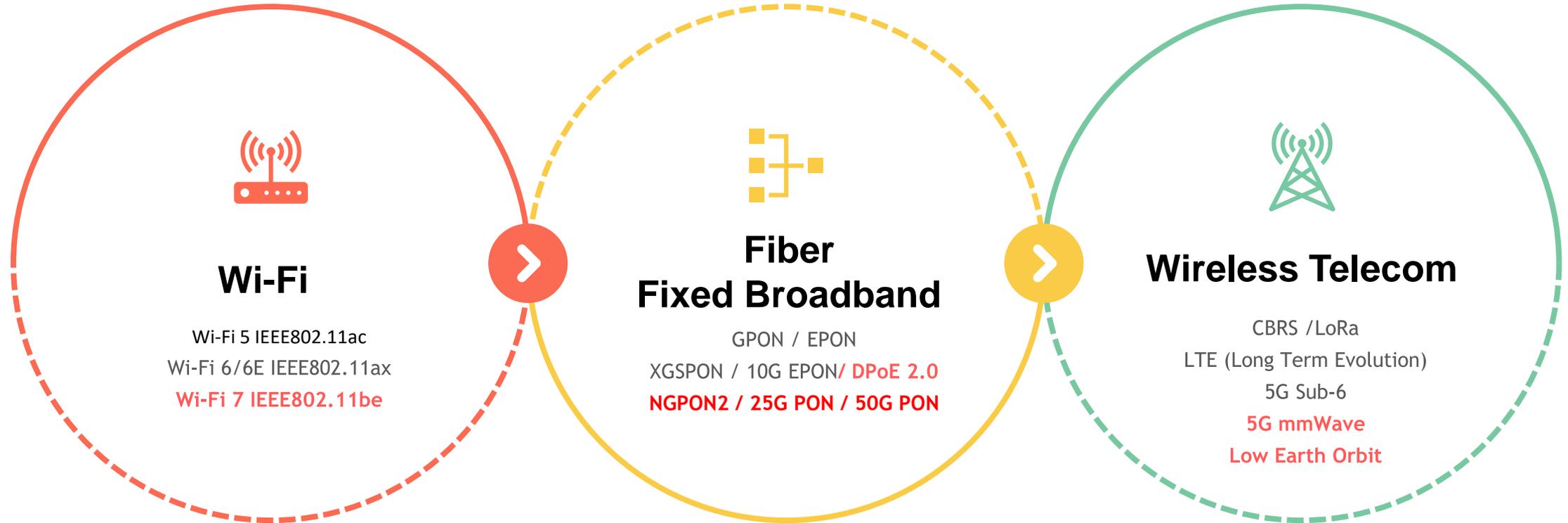
Wi-Fi Product, LTE, Gateway,
GPON, Module, Sip Module



Đồng Văn II Industrial Park
Bach Thuong Commune, Duy Tien District,
Ha Nam Province, Vietnam



關鍵技術



關鍵技術

Application \ Band	Band							
	Low (450MHz - 1GHz)	Mid (1 - 2.1GHz)	High (2.3 - 2.7GHz)	Very High (3.3 - 7GHz)	n258 (26GHz)	n257& 261 (28GHz)	n260 (39GHz)	ADAS (77 - 81GHz)
Portable	✓ LoRa LTE	✓ LTE	✓ LTE					
Indoor	✓ LoRa LTE / 5G Sub-6	✓ LTE / 5G Sub-6	✓ Wi-Fi LTE / 5G Sub-6	✓ CBRS Wi-Fi LTE / 5G Sub-6				
Outdoor	✓ LoRa LTE / 5G Sub-6	✓ LTE / 5G Sub-6	✓ Wi-Fi LTE / 5G Sub-6	✓ Wi-Fi LTE / 5G Sub-6	✓ 5G mmWave	✓ LEO 5G mmWave	✓ 5G mmWave	✓ Automotive

Gemtek expertise

美國寬頻服務訂閱人數超過一億人

Wireline Phone Companies	Subscribers at end of 2Q 2021	Net Adds in 2Q 2021
AT&T	15,481,000	46,000
Verizon	7,263,000	70,000
CenturyLink/Lumen	4,666,000	-62,000
Frontier [^]	2,798,000	-22,000
Windstream	1,131,800	9,500
TDS	513,600	11,900
Cincinnati Bell	437,800	200
Consolidated ^{^^}	393,480	-4,522
Total Top Telco	32,684,680	49,078

[^] In 2Q 2021, Frontier no longer included wholesale subscribers

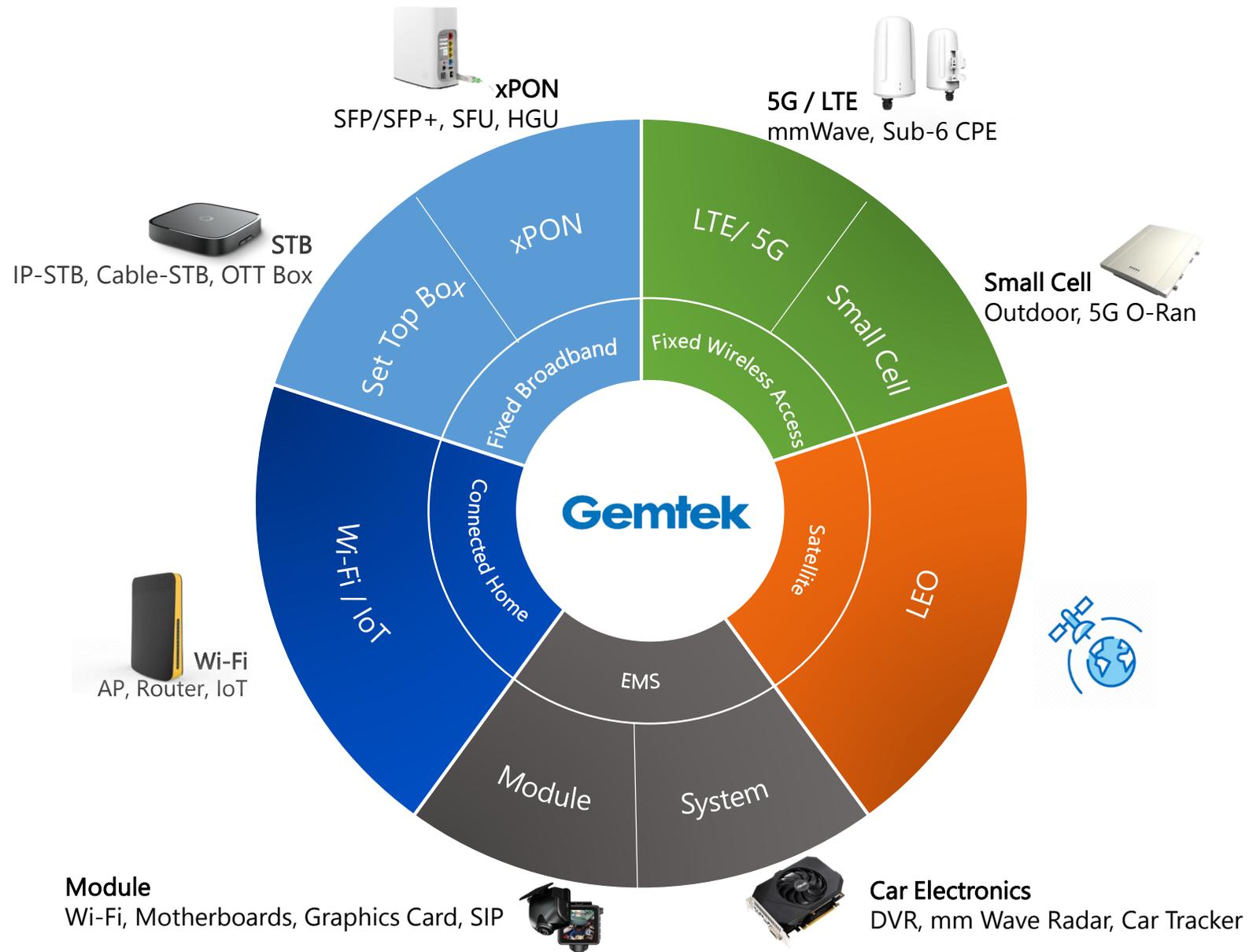
^{^^} In 2Q 2021, Consolidated began reporting only residential subscribers

Cable Companies	Subscribers at end of 2Q 2021	Net Adds in 2Q 2021
Comcast	31,388,000	354,000
Charter	29,634,000	400,000
Cox [*]	5,485,000	50,000
Altice ^{**}	4,401,300	200
Mediacom	1,468,000	14,000
Cable One ^{**}	1,017,000	14,000
WOW (WideOpenWest)	826,300	3,400
Atlantic Broadband	517,851	6,847
Total Top Cable	74,737,451	842,447

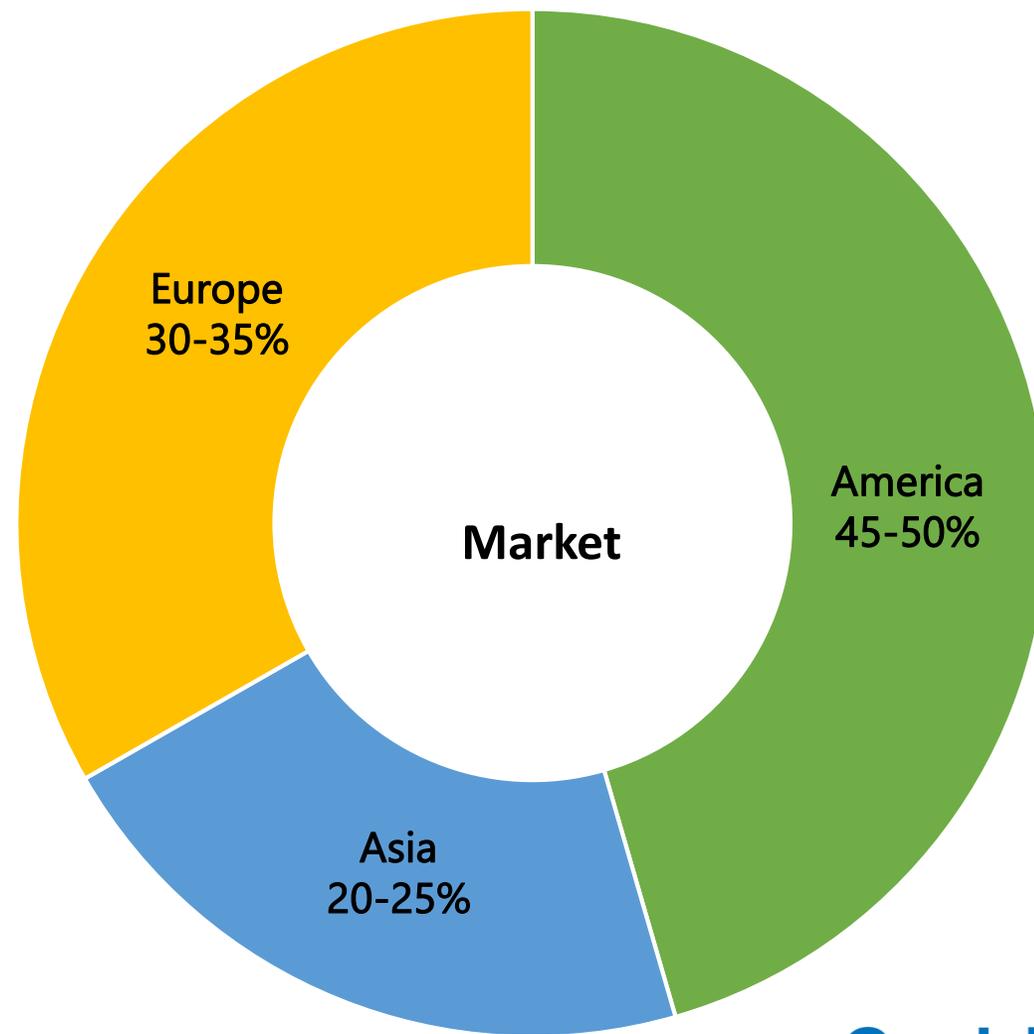
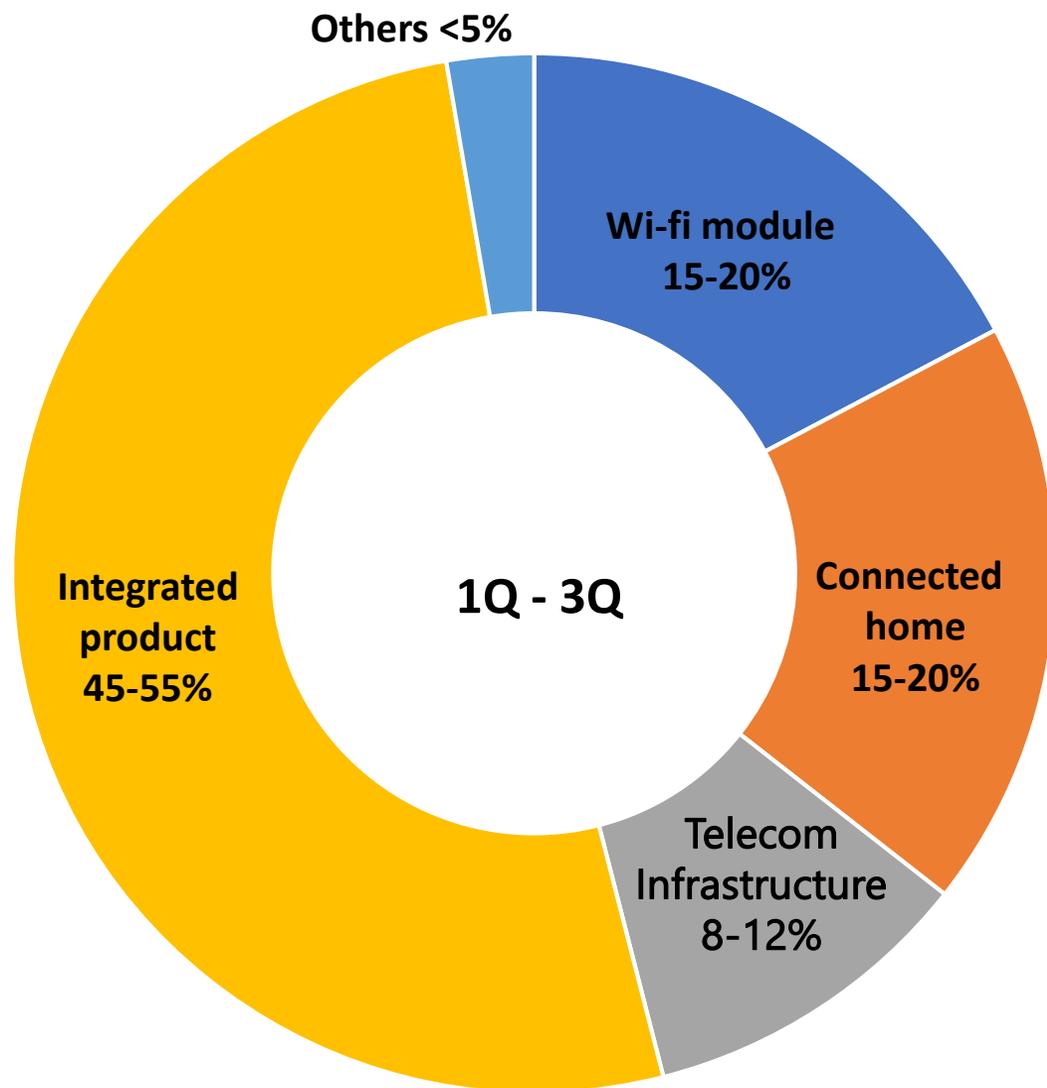
^{*} LRG (Leichtman Research Group) estimate

^{**} Includes recent acquisitions and LRG pro forma estimates of net adds

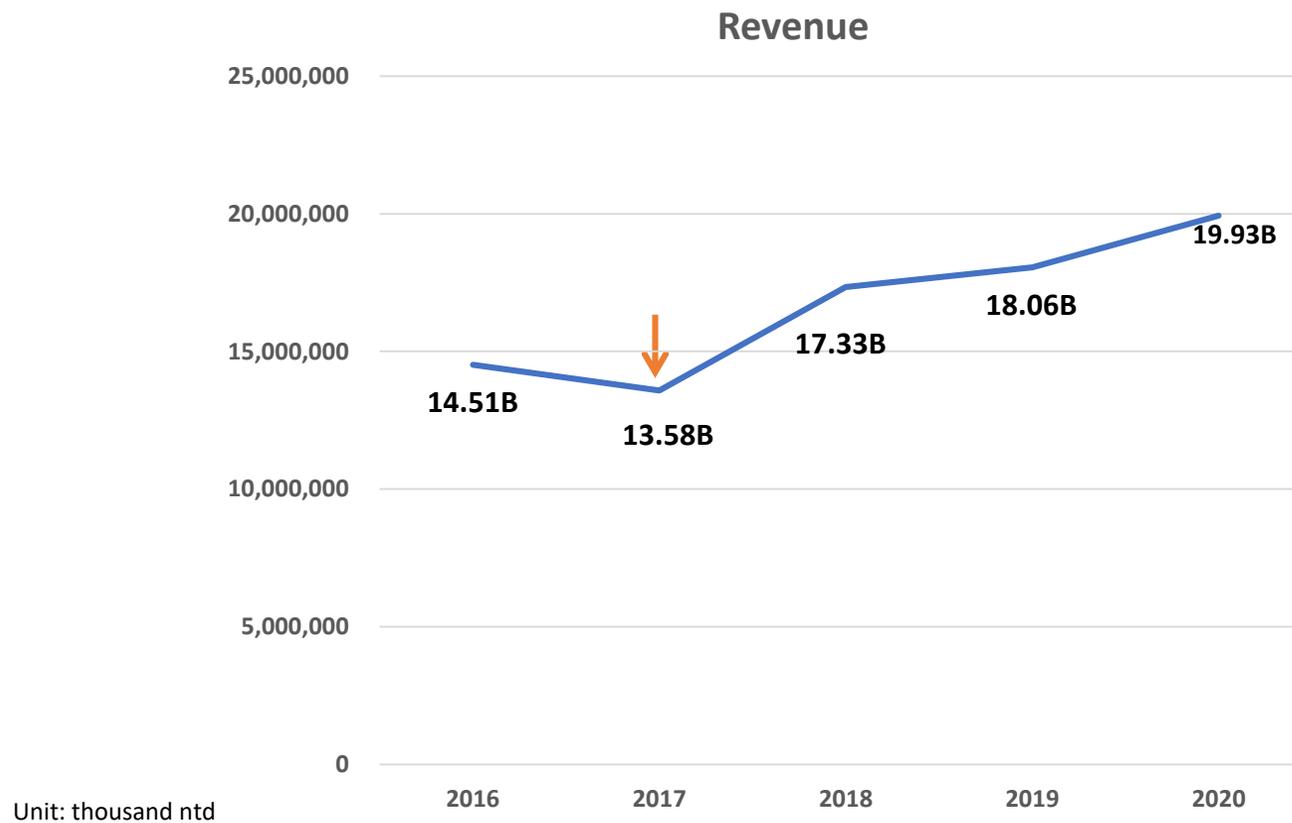
產品組合



產品組合



獲利持續向上



- Revenues grew 10.37% in 2020 as compared to (NTD \$19.93B)
- 2021 Revenue Target : YoY+13%

財務報表 (IFRS)

In NTD (thousand)	1Q-3Q 2021	1Q-3Q 2020
Operating Revenue	17,302,318	15,040,706
Gross Profit	1,586,274	1,729,702
Operating Expenses	1,224,544	1,349,577
Operating Income	361,730	380,125
Non-Operating Income and Expenses	123,646	1,075,967
Net Income	410,512	1,298,764
Net Income Rate	2.37%	8.63%
Basic EPS (NTD)	1.14	3.55

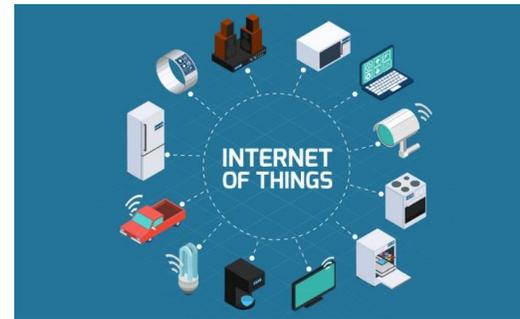
2022 展望



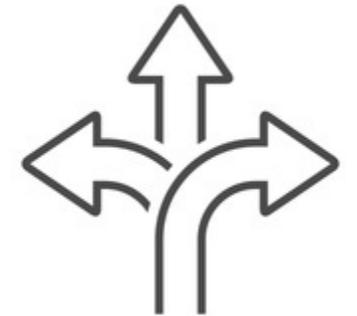
New Technology



**New Customer
New opportunity**



New Applications



Uncertainties

COVID-19
Electricity Restriction
Material shortage

小結



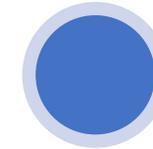
Revenue

- More customer firm orders in 2022.
- Increase the proportion of high-margin products.



Technologies

- Catch the leading position in Wifi, 5G, Fiber...
- higher value technologies: Small Cell, OLT, Software value added. LEO (Low Earth Orbit)



Business Model

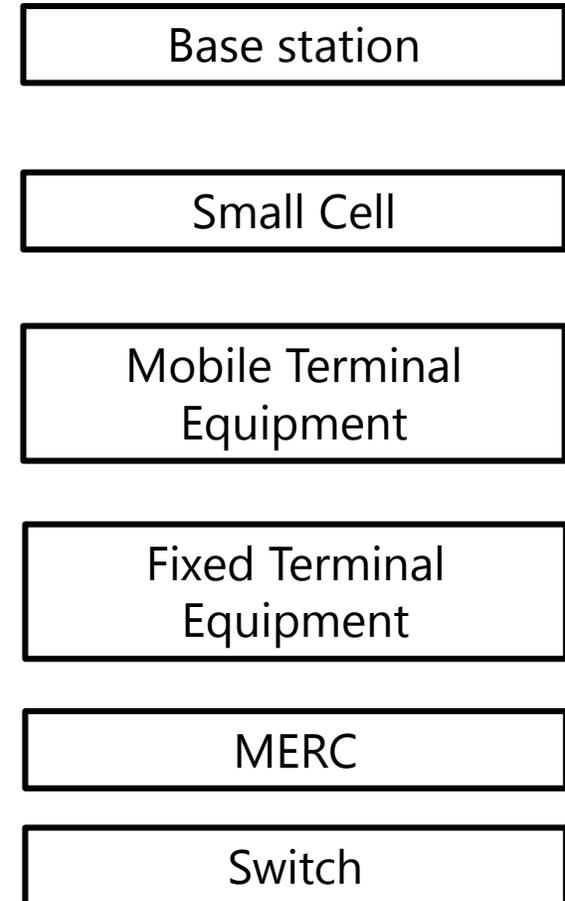
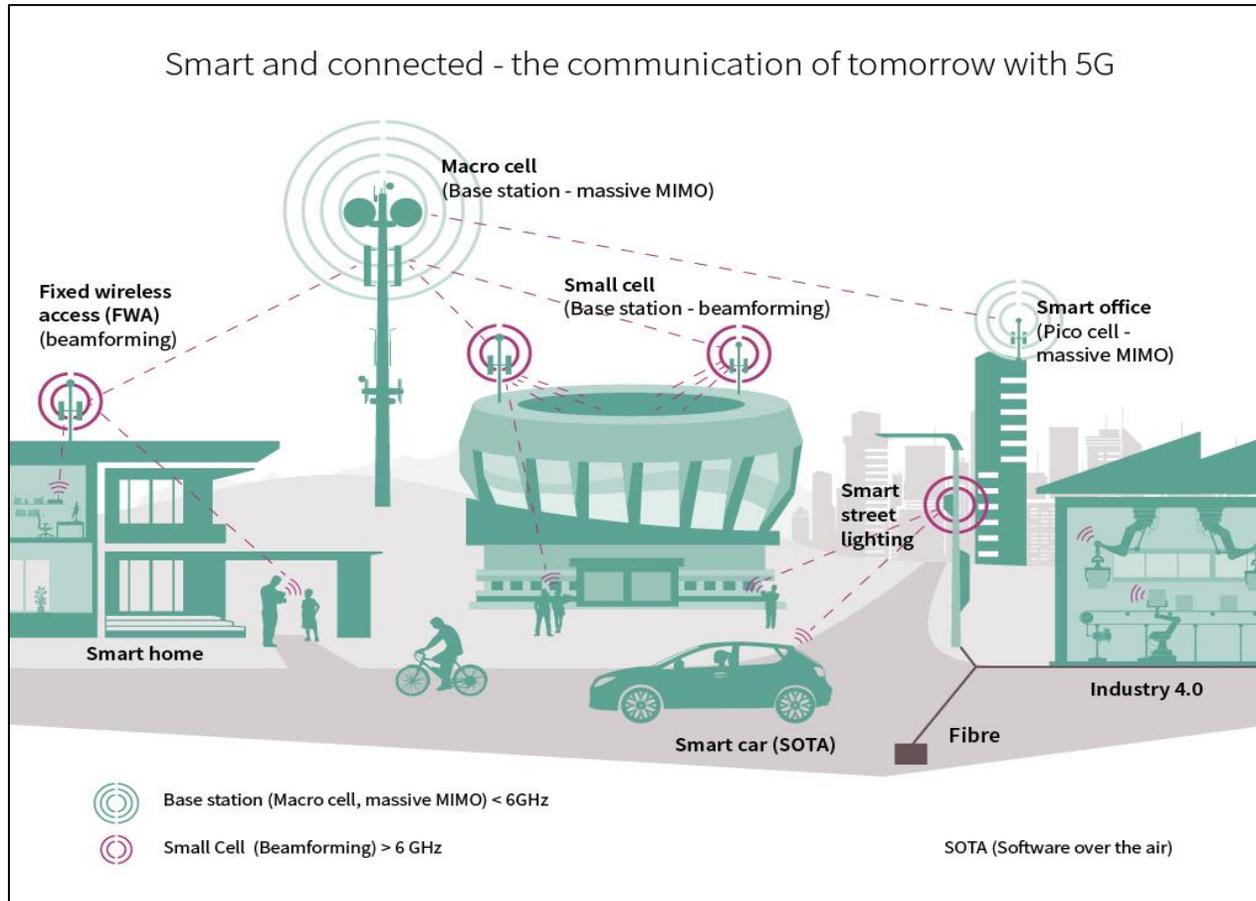
- ODM/OEM for 1st tier brand name.
- Direct supply to strategic operators.
- Global Distribution.
- Provide End To End Networking product.



市場趨勢

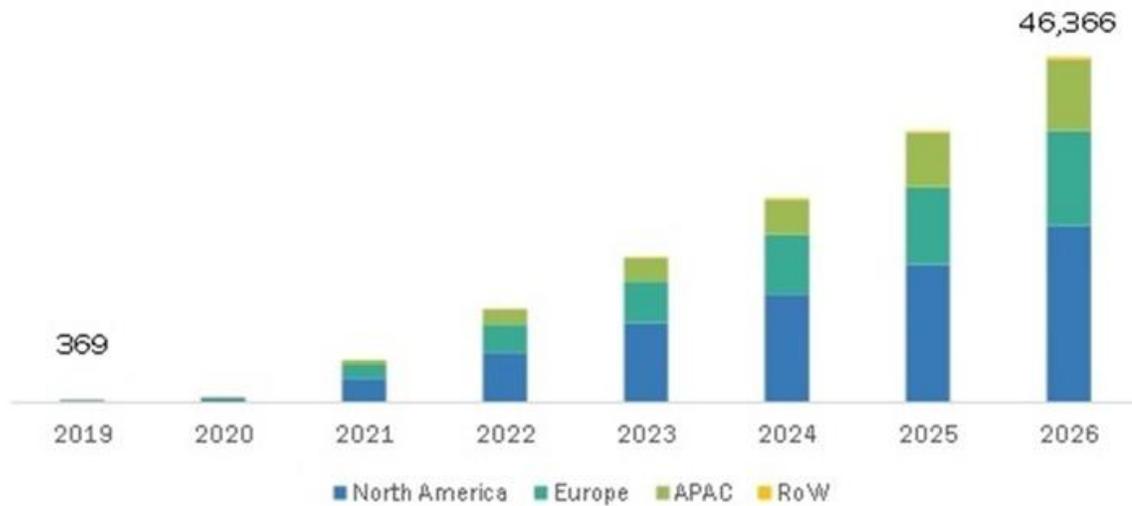
Founder & executive broader Dr. Young

5G 通訊基礎建設



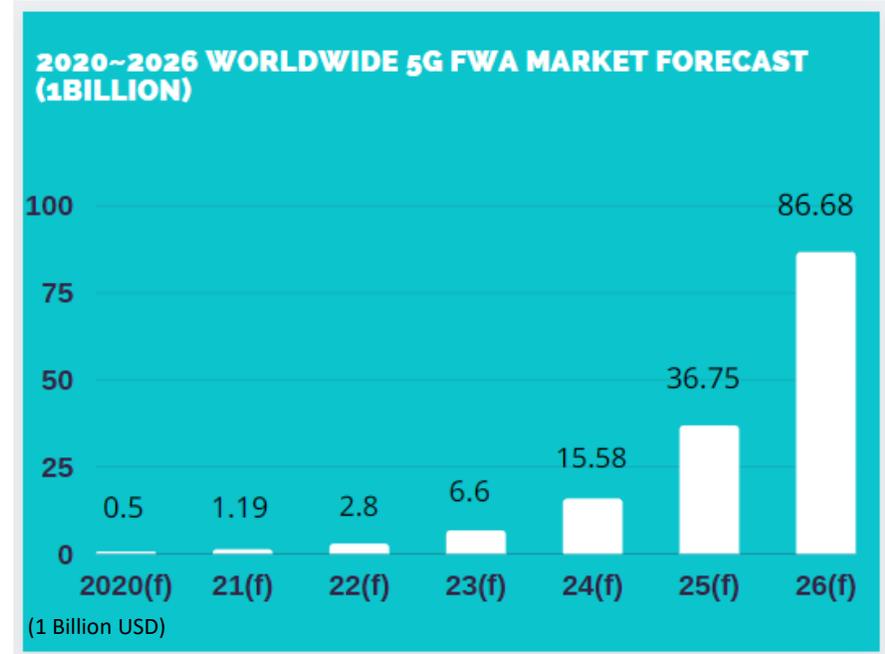
5G 市場預測

5G FWA Market by region (USD million)



Source: Market and market

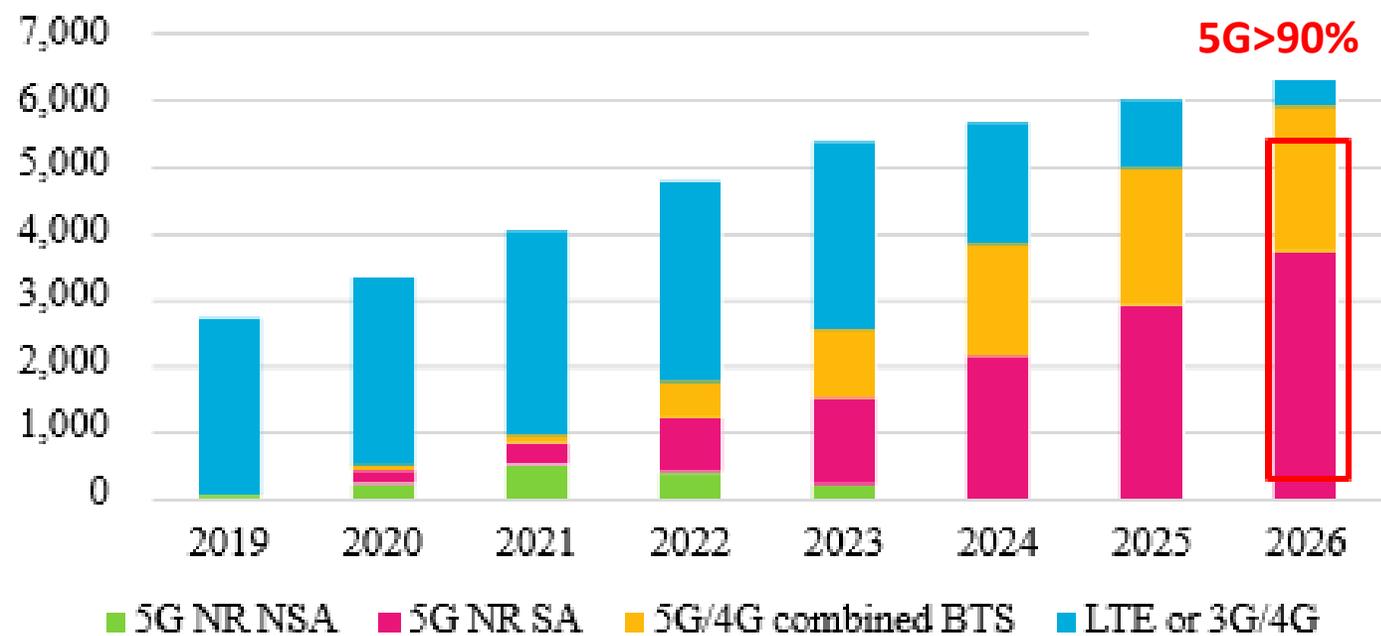
5G FWA: Game Changer for Fixed Broadband



Source: Digitimes

5G 市場預測

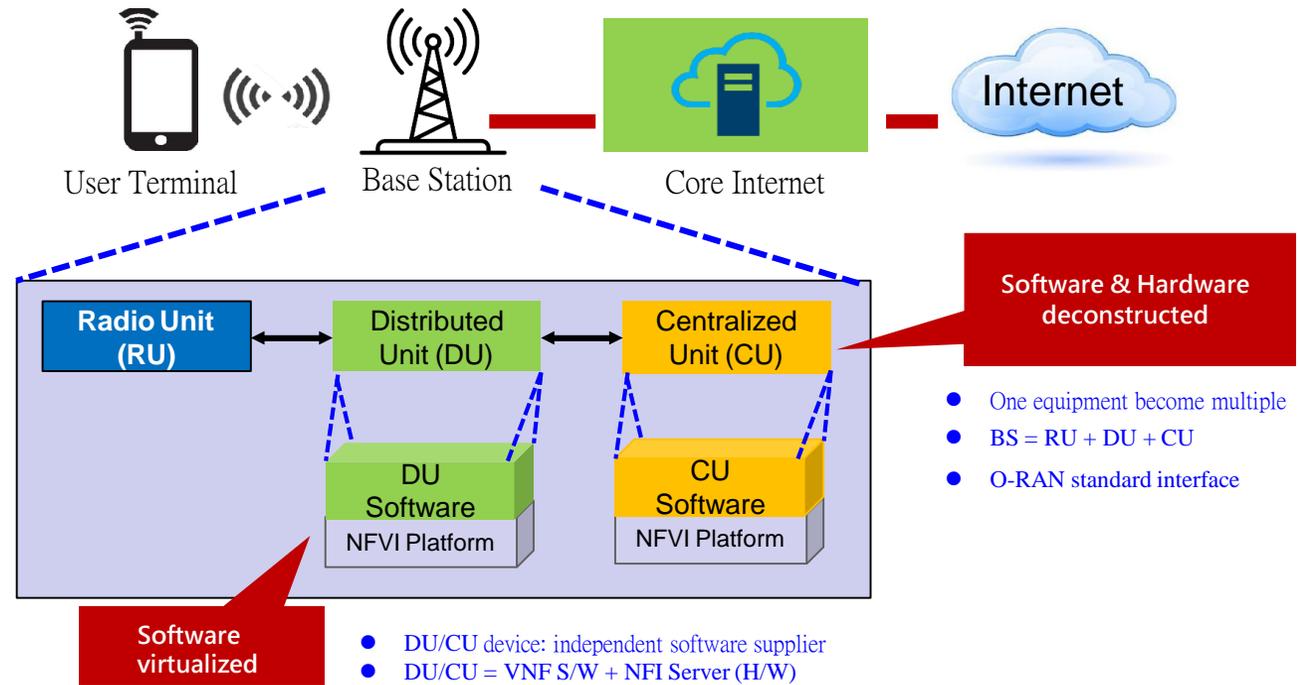
Global small base station market forecast



Source: MIC

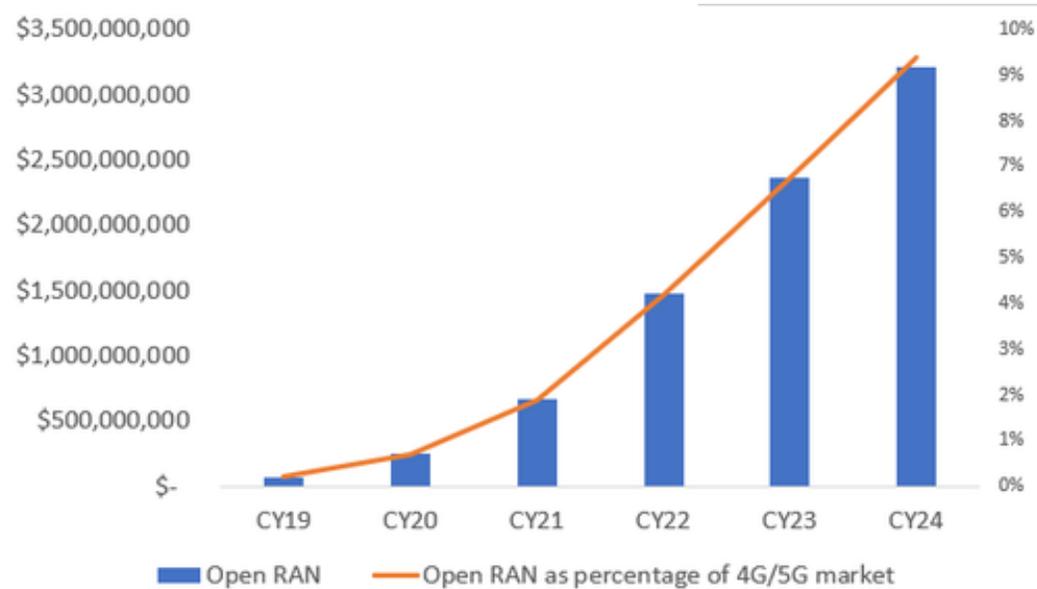
Open-RAN

One base station supplier become multiple.

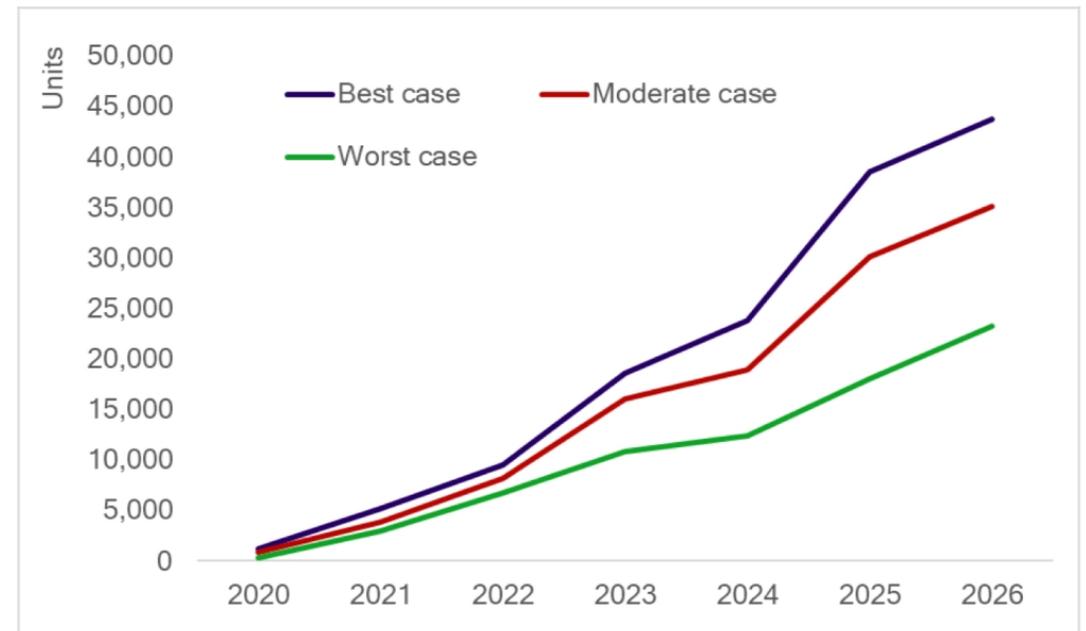


Open-ran 市場預測

Open-RAN market will reach 3.2 Billion USD in 2024

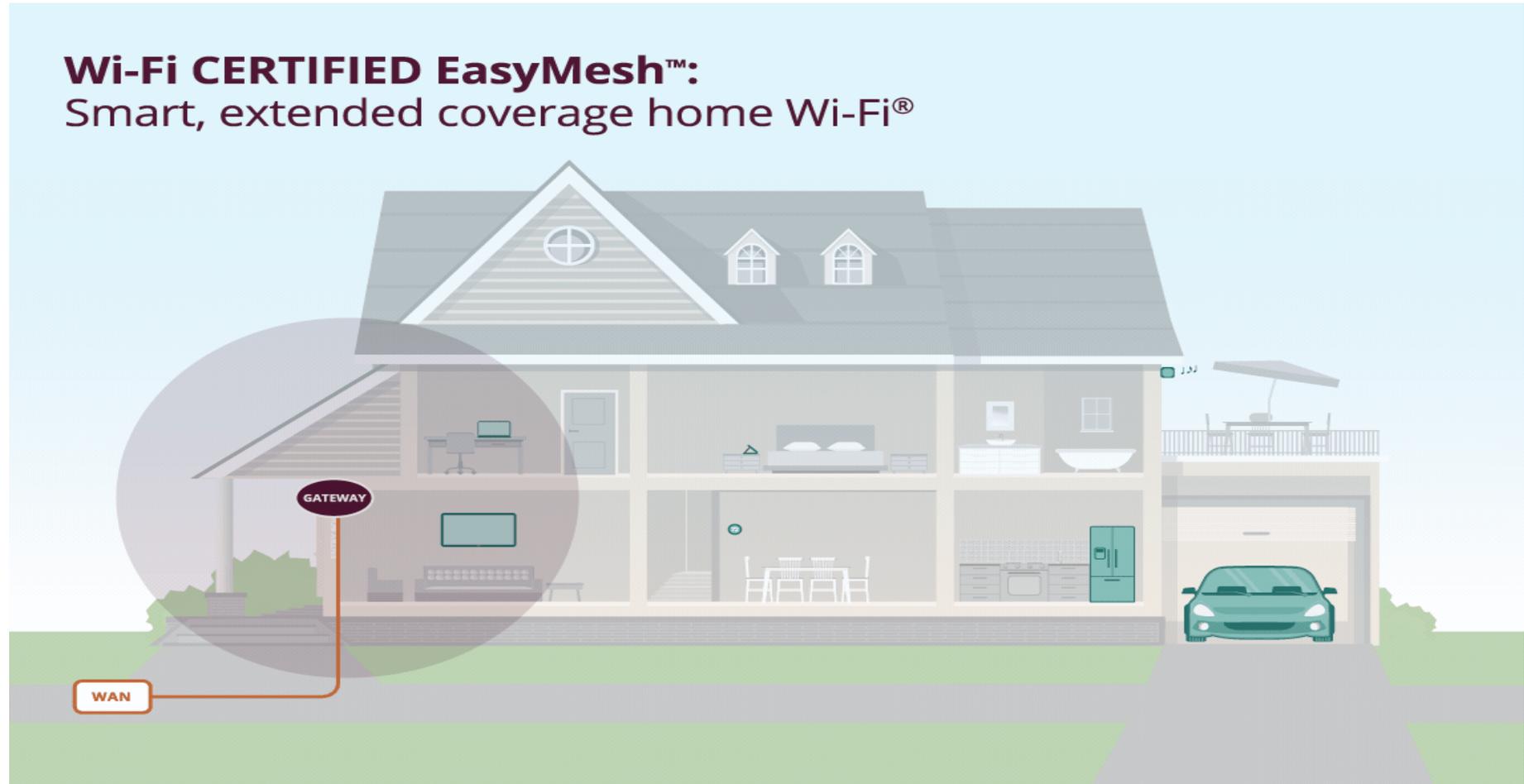


Open-RAN small cell infrastructure in different situation



Source: Omdia

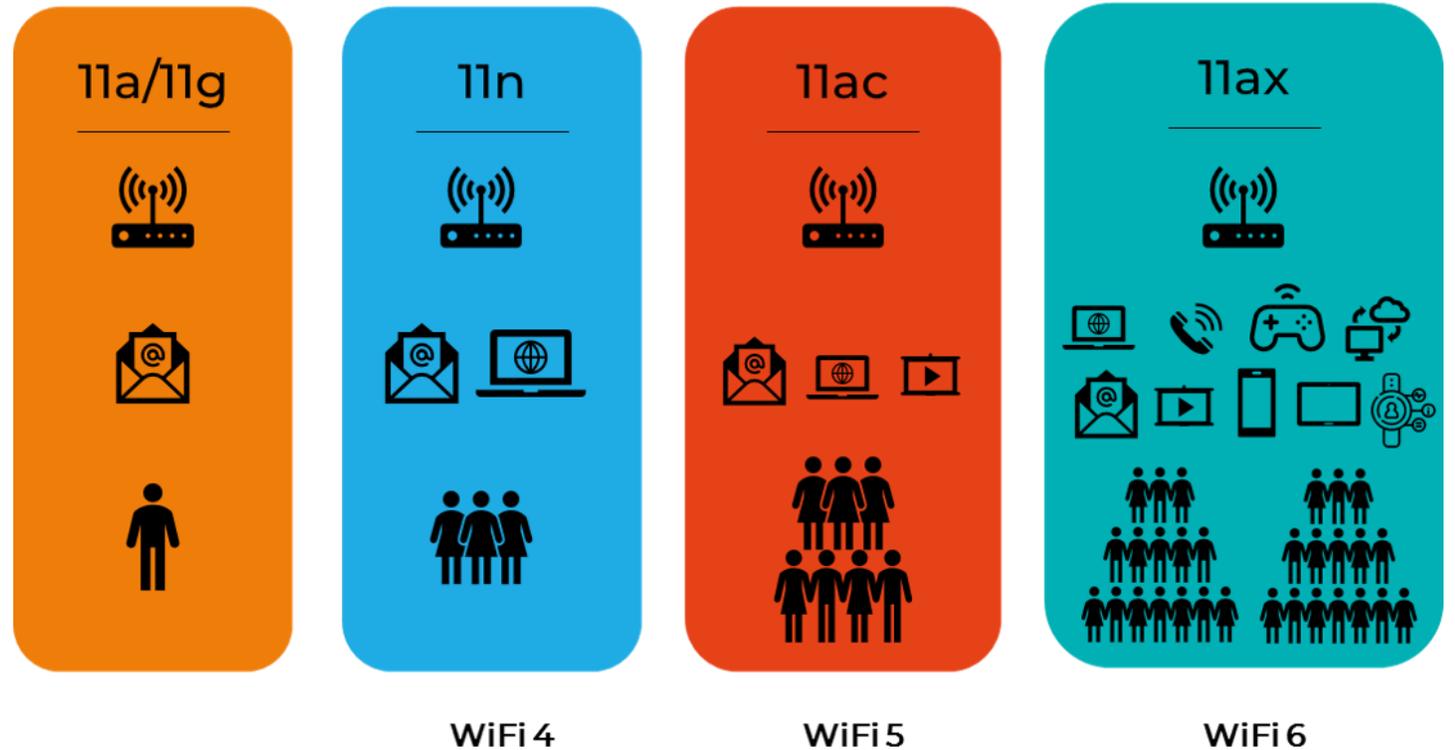
Wi-Fi 技術 – Easy Mesh (Wi-Fi 6 / 7)



Wi-Fi 技術 – Wi-Fi 6

Strength of Wi-Fi 6

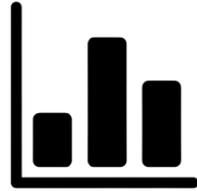
- **Efficiency upgrade**
Wi-Fi ap/rt can communicate with multiple terminal equipment in the same time
- **Better performance**
Transmission more data
Internet speed get faster
Lower power consumption



Wi-Fi 技術 – Wi-Fi 7



User Experience Data Rate



Spectrum Efficiency



Network Energy Efficiency



Connection Density

Key Enhancement

320 MHz channels
4096-QAM
16 spatial streams

Multi-Ru (puncturing)

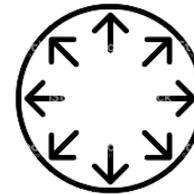
Multi-link operation
Multi-AP operation
Deterministic low latency



Peak Data Rate



Cost Effective

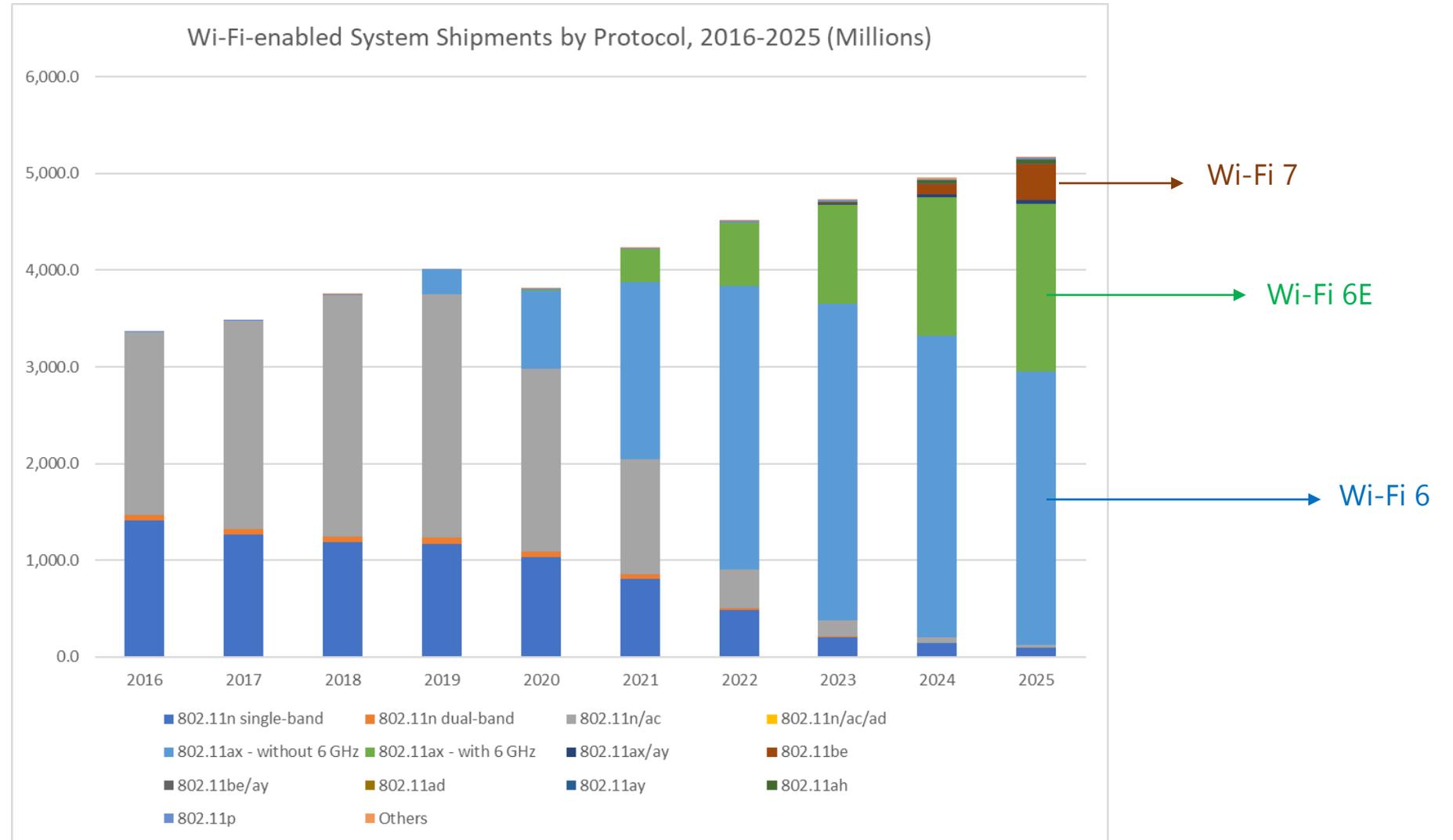


Area Capacity



Low latency

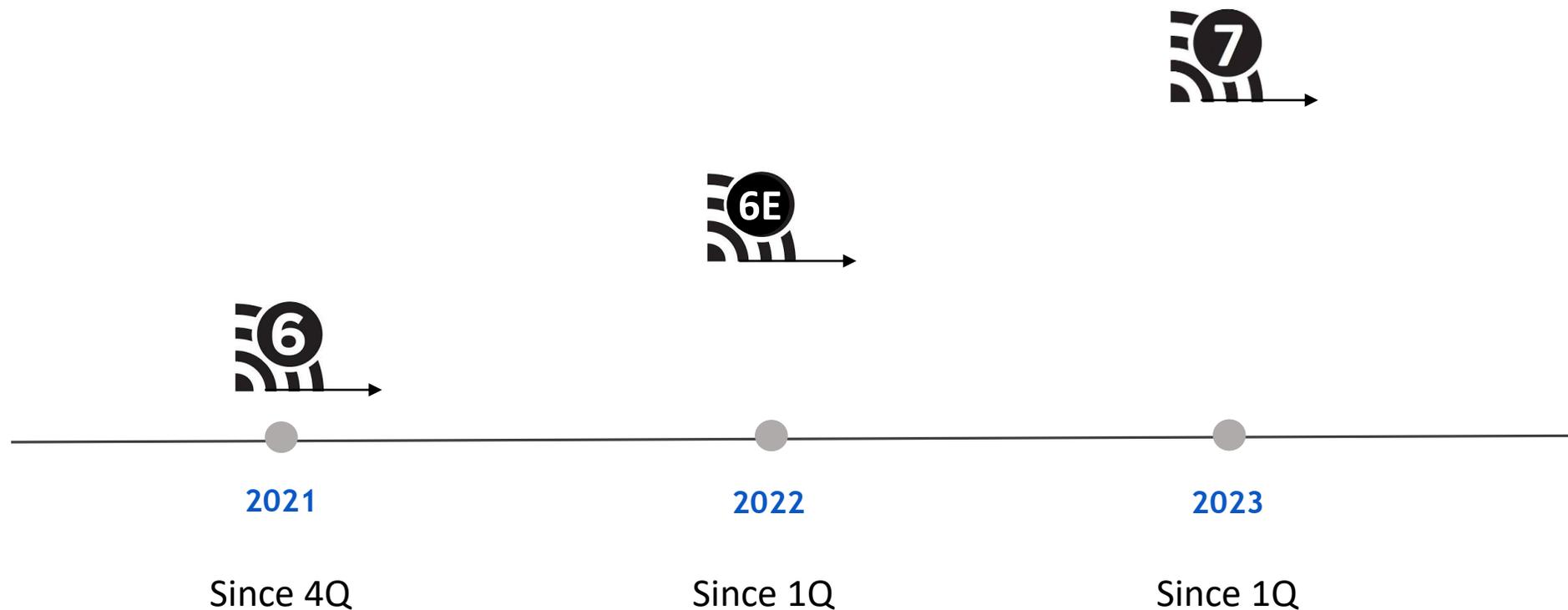
Wi-Fi 市場預測



Source: IDC

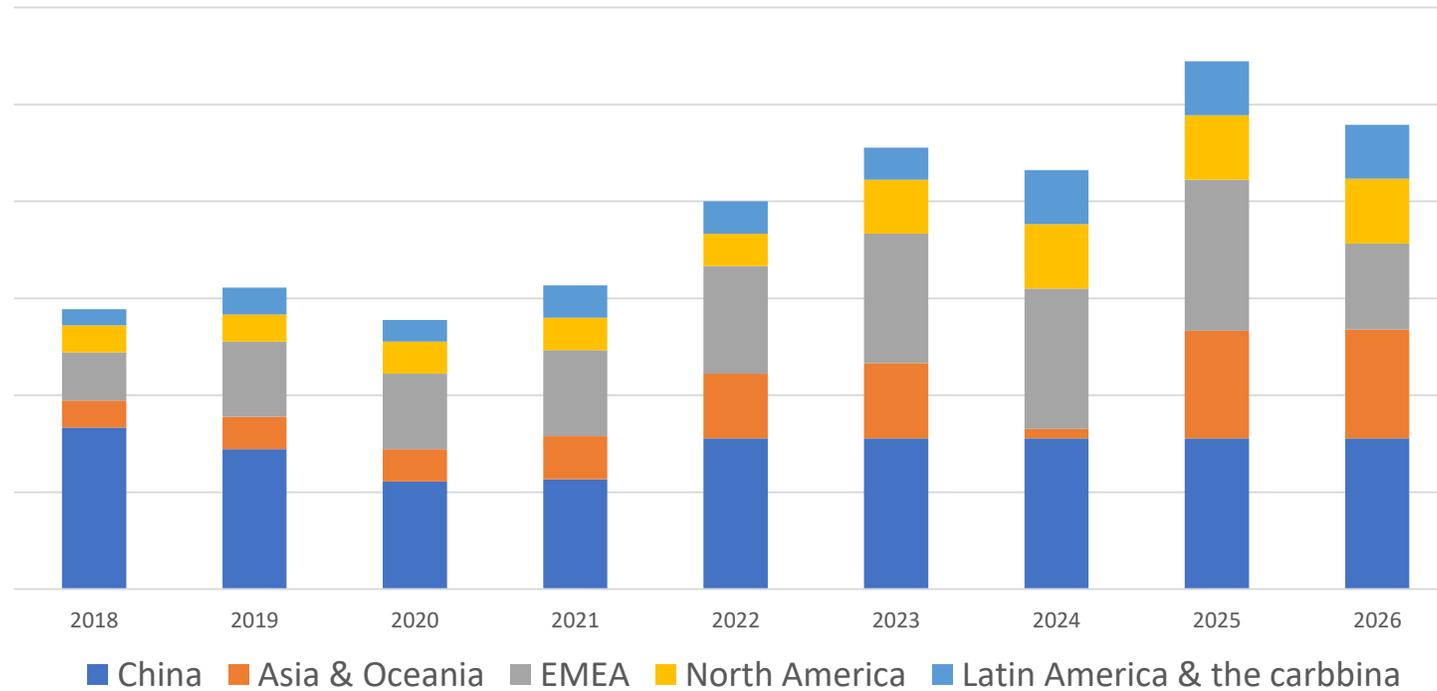
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Gemtek Wi-Fi 產品規劃



G-PON 市場趨勢

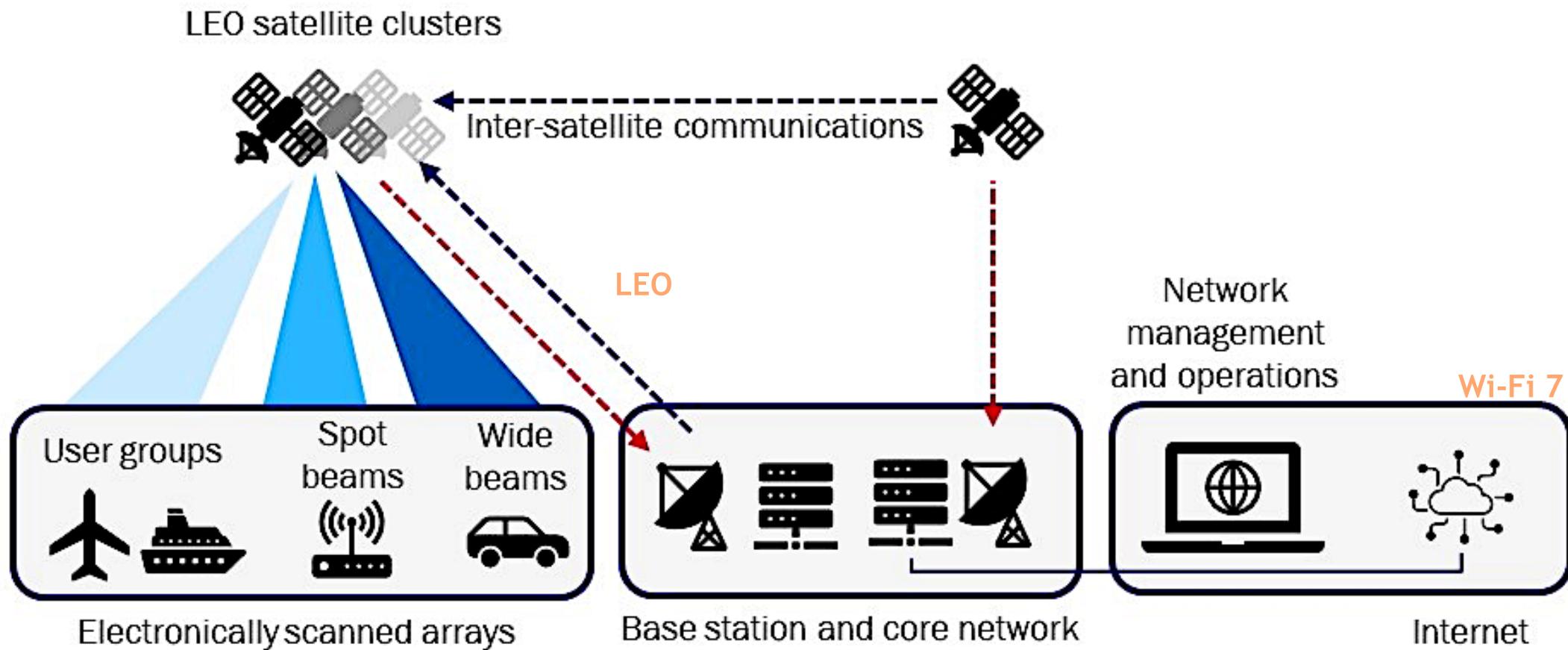
PON equipment revenue by region / country



Source: MIC

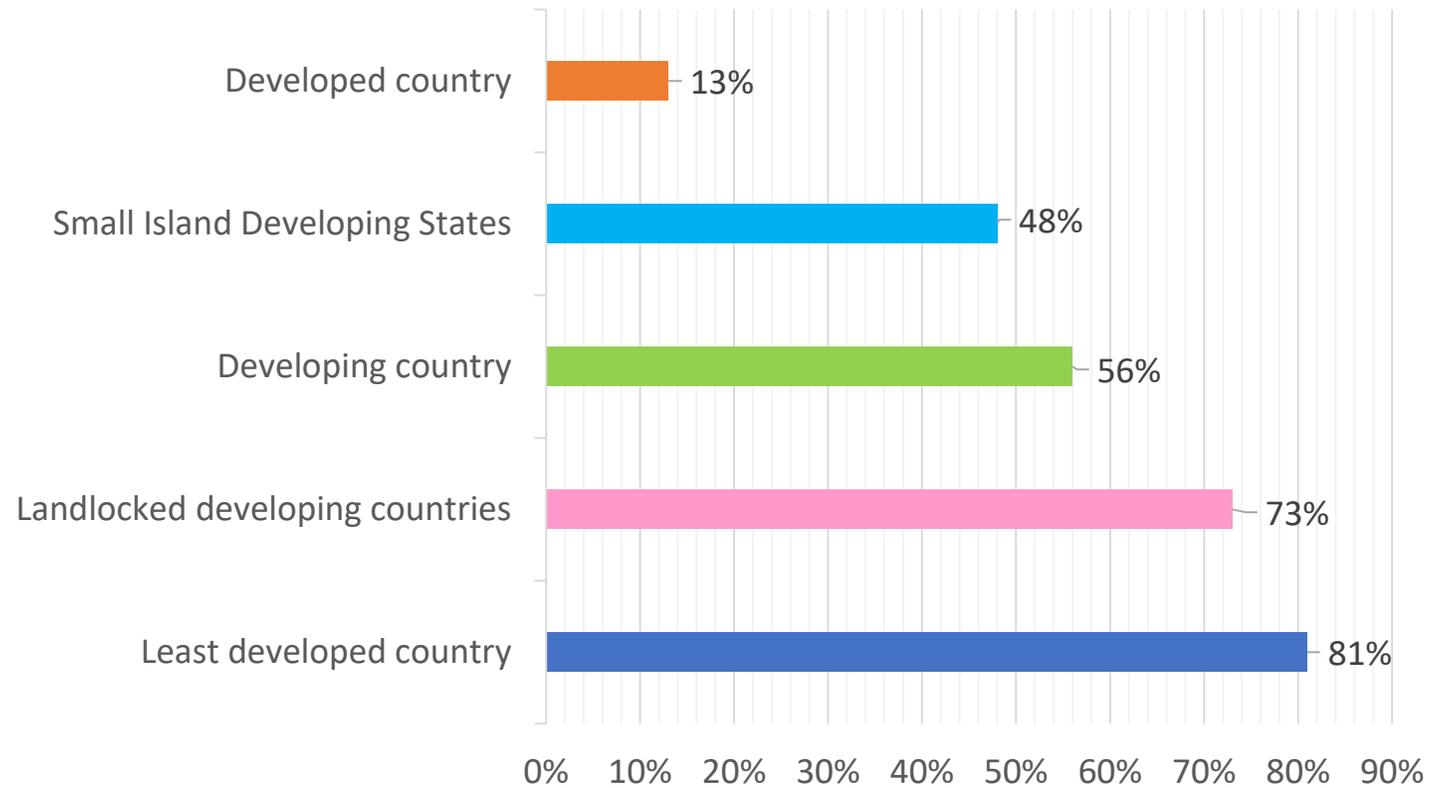
North America and EMEA represent Top2 world's fast growing PON markets

低軌道衛星 LEO



低軌道衛星 LEO

Potential market of LEO: Low internet coverage area

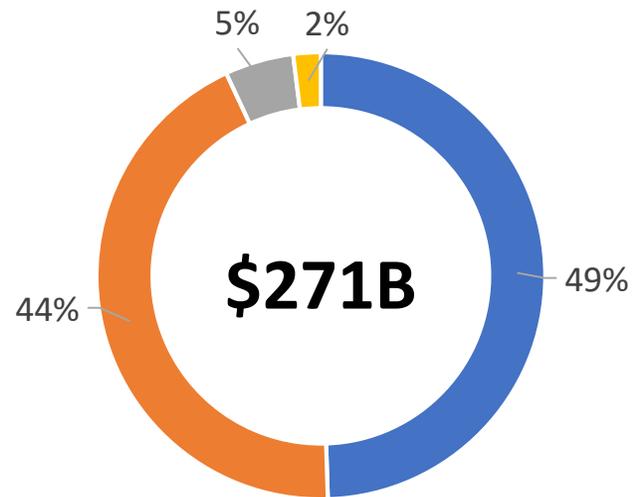


Source: MIC

- Until 2019 there are 49% population can't access to internet.
- Even in the developed country still 13% population can't access to internet.

Gemtek 在低軌道衛星的商業契機

The 2021 State of the Satellite Industry Associate Report: 2020 Global
Satellite Industry Revenue \$271B



■ Ground Equipment ■ Statellite Services
■ Satellite Manufacturing ■ Launch Industry

Source: TIER

Gemtek can do

- ✓ Ground Equipment.
- ✓ User Terminal, including phased array antenna module, system design, verification as well as manufacture. .