



# 正文科技 2021法人說明會



# 議程

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## 開幕

Speaker - Chairman Howard Chen

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## 營運報告

Speaker – CEO James Lee

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## 市場趨勢

Speaker - Exec. Board of Director & Spokesman

4

## Q & A

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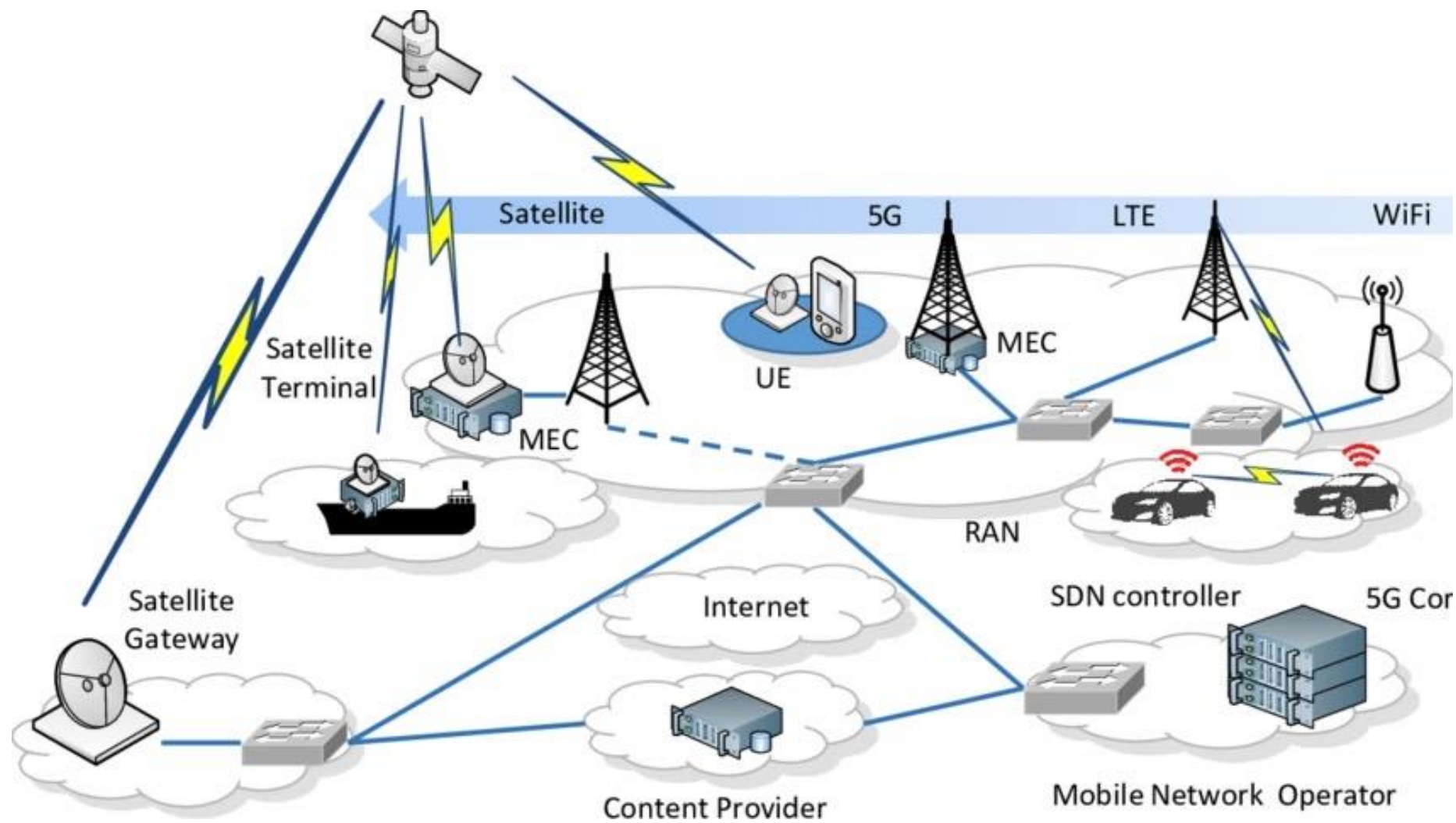
## 產品展示

A digital illustration of a globe with a complex network of blue lines and dots overlaid on it, representing global telecommunications. The background is dark with faint, glowing circuit-like patterns. The text "A New Era of Telecommunication" is centered in white.

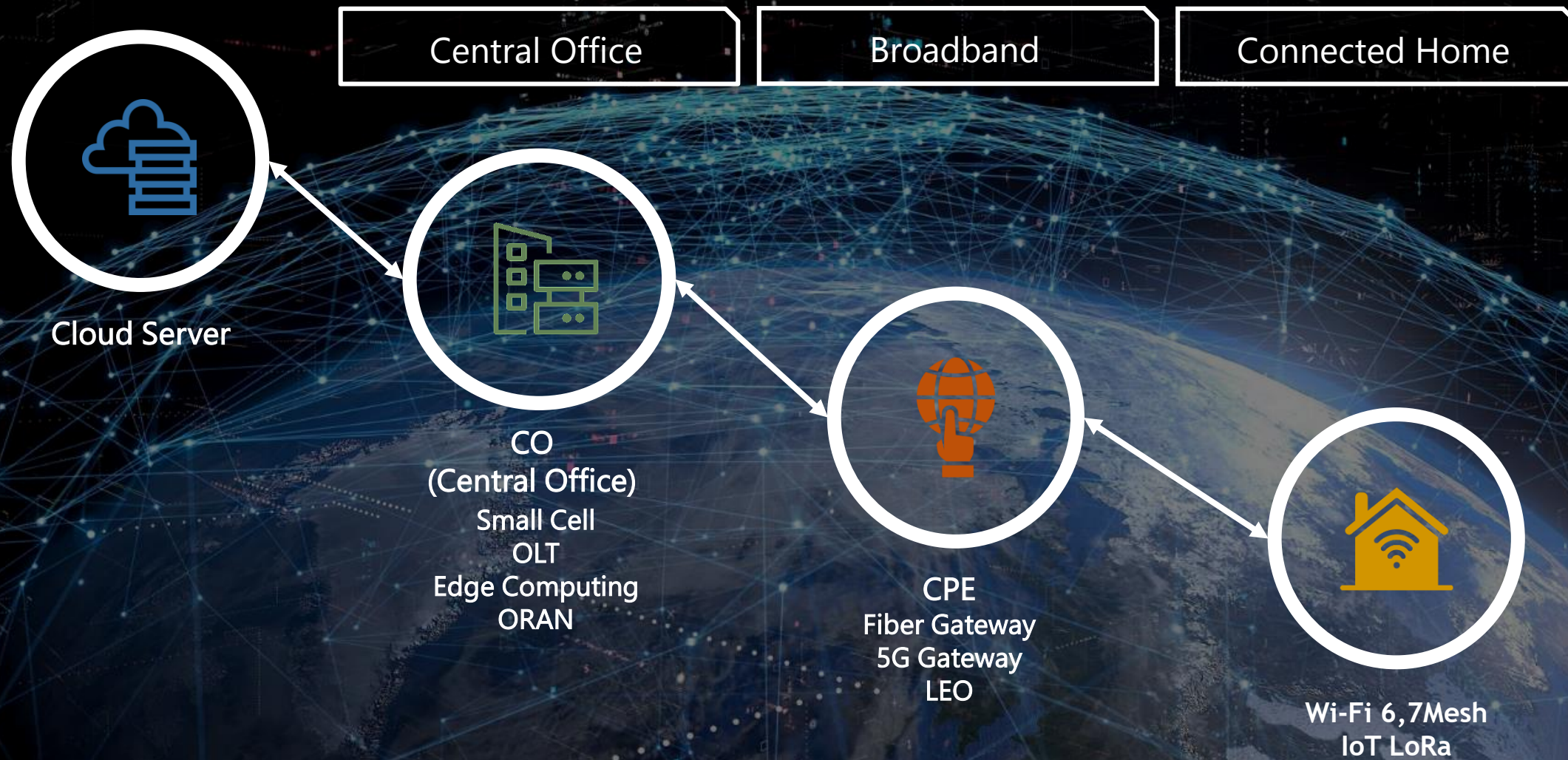
# A New Era of Telecommunication



# 大通訊時代



# 商業機會





# 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



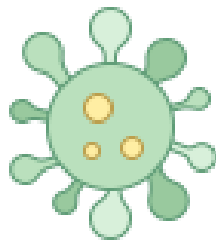
# 挑戰



Tariff



Worsen  
Condition of  
China  
Manufacturing



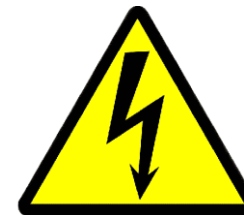
COVID 19



Currency Risk



Material  
Shortage



Electricity  
Restriction  
In China



# 機會－乾淨網路計畫

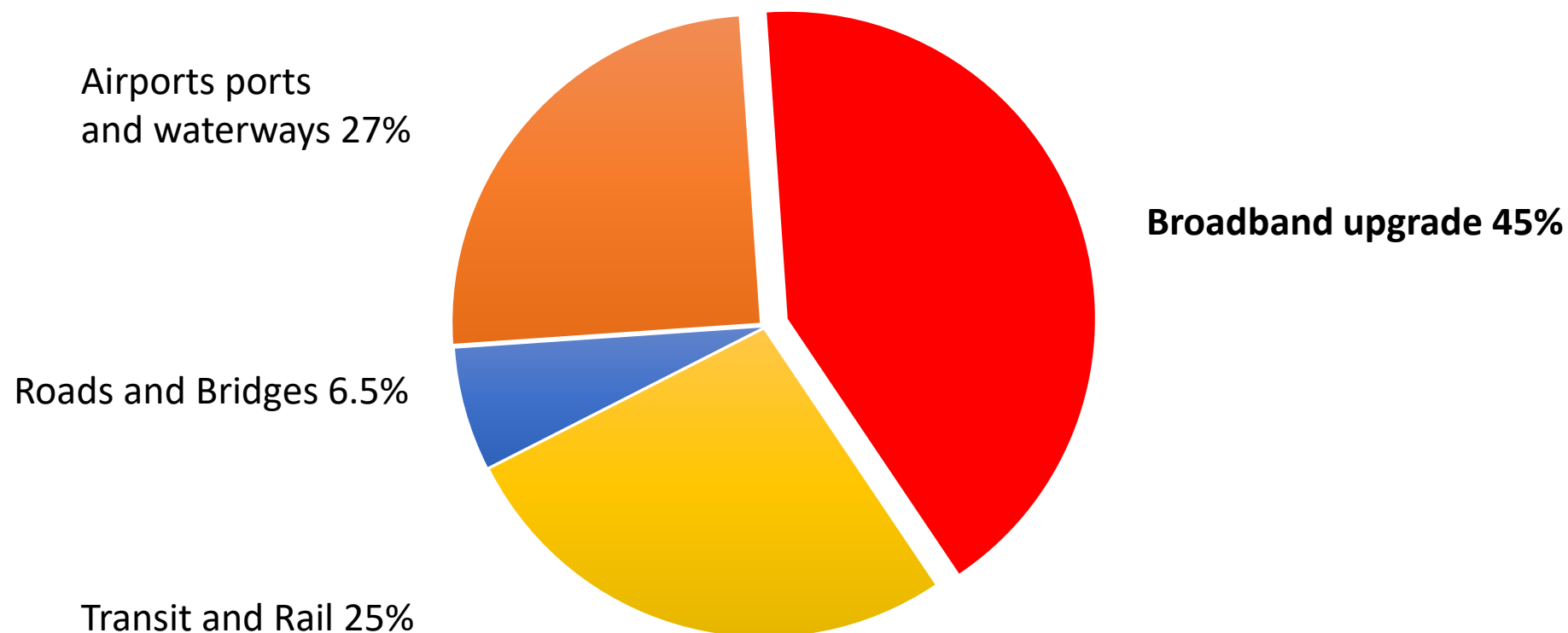
## SELECT 5G CLEAN TELECOMMUNICATIONS COMPANIES



- 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**

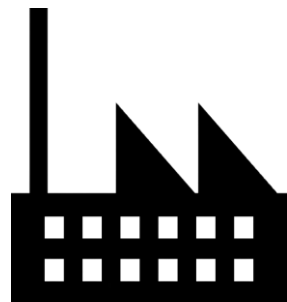




## 機會 - 轉單效應



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

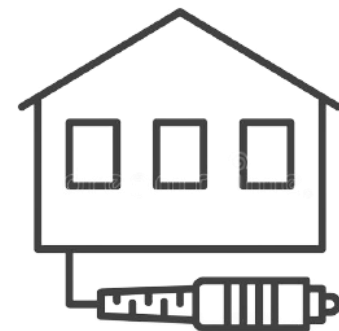




## 機會 – 新的網路通訊科技



LEO



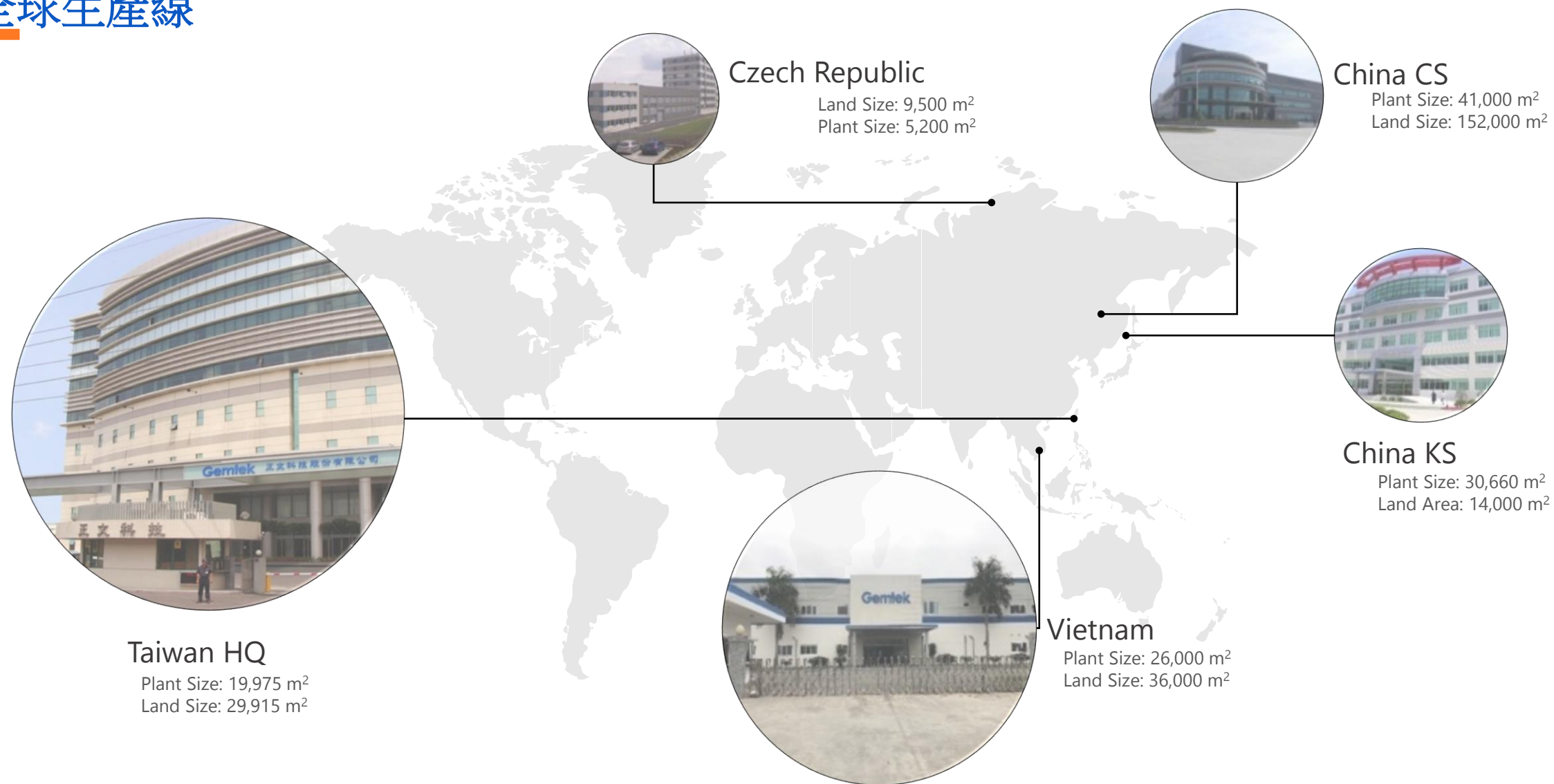
Fiber



# 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

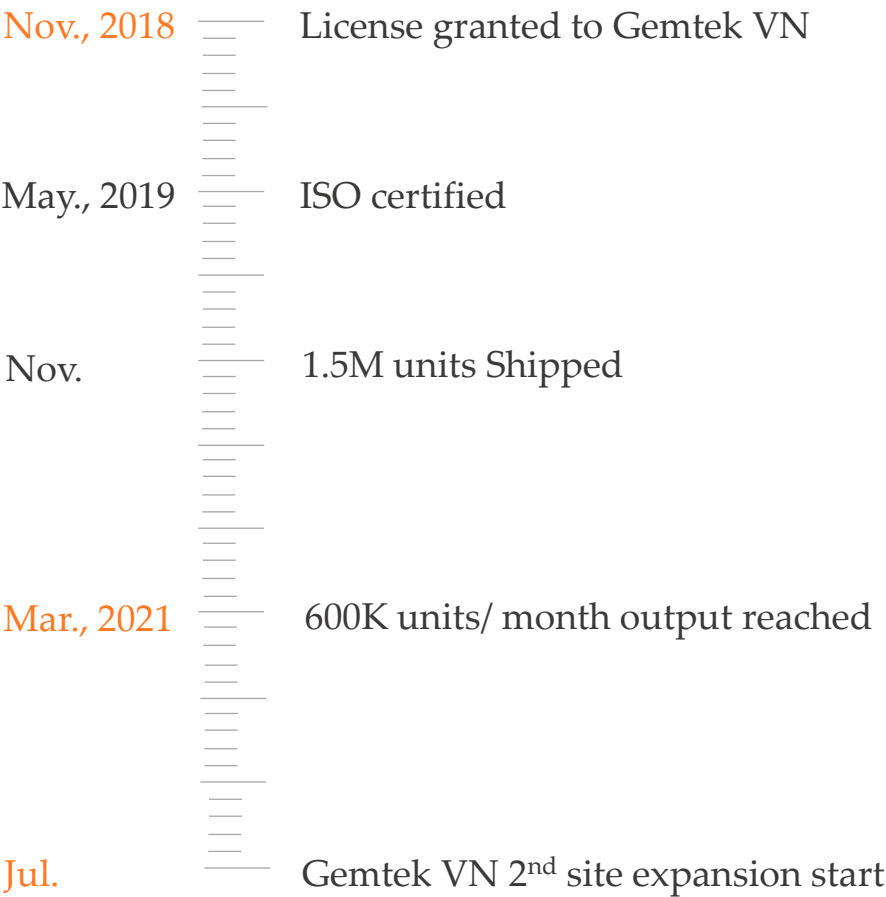
Pilot Run

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

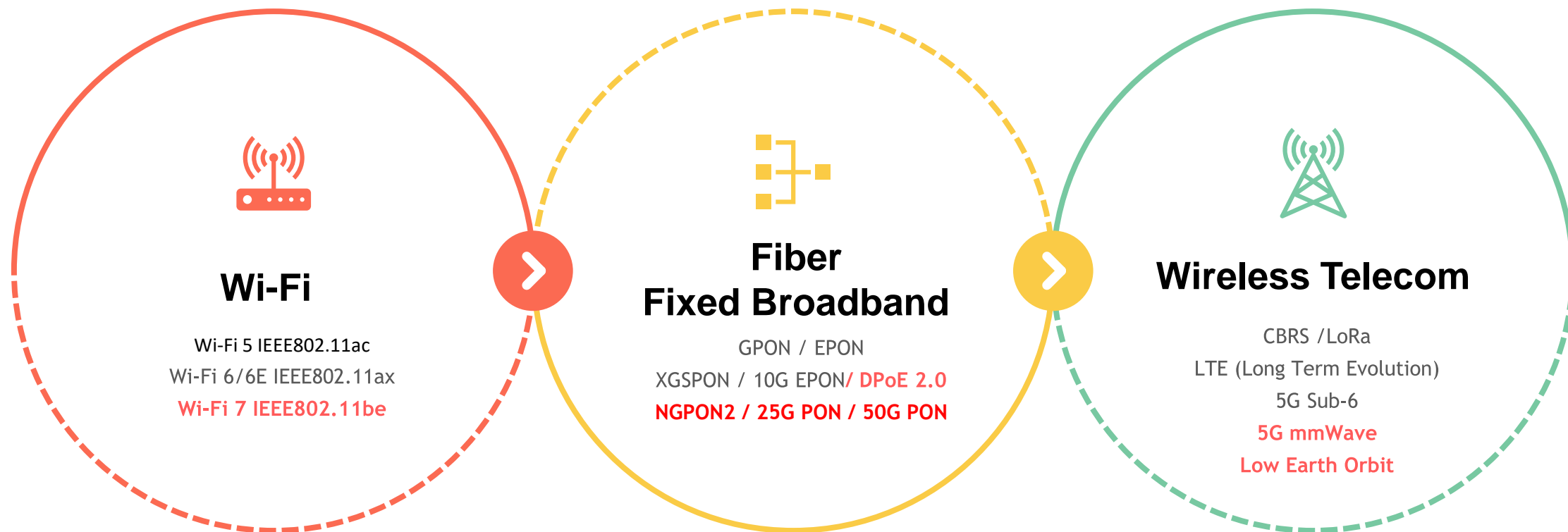
Wi-Fi Product, LTE, Gateway,  
GPON, Module, Sip Module



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 <sup>^</sup>	2,798,000	-22,000
Windstream	1,131,800	9,500
TDS	513,600	11,900
Cincinnati Bell	437,800	200
Consolidated <sup>^^</sup>	393,480	-4,522
<b>Total Top Telco</b>	<b>32,684,680</b>	<b>49,078</b>

<sup>^</sup> In 2Q 2021, Frontier no longer included wholesale subscribers

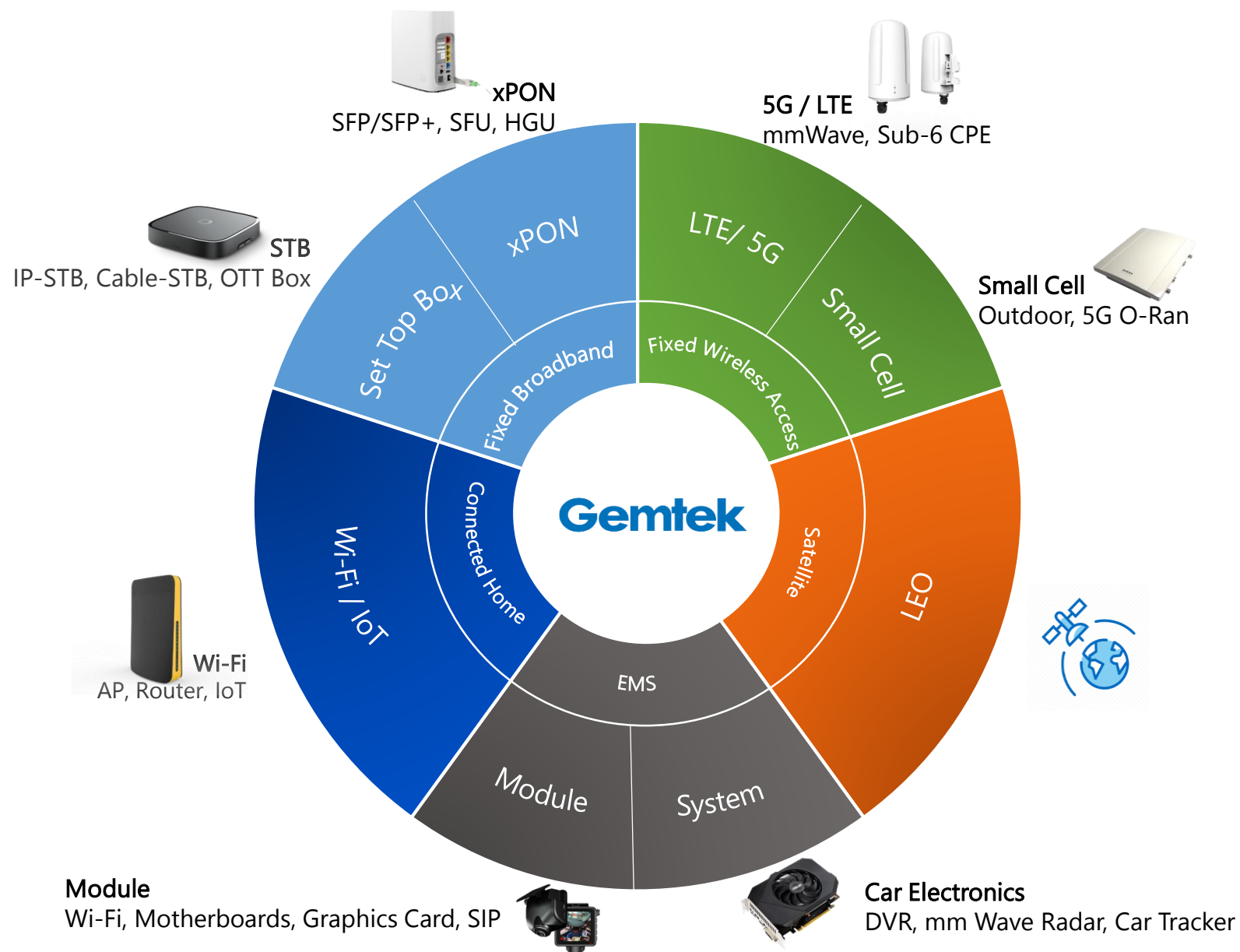
<sup>^^</sup> In 2Q 2021, Consolidated began reporting only residential subscribers

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 <sup>*</sup>	5,485,000	50,000
Altice <sup>**</sup>	4,401,300	200
Mediacom	1,468,000	14,000
Cable One <sup>**</sup>	1,017,000	14,000
WOW (WideOpenWest)	826,300	3,400
Atlantic Broadband	517,851	6,847
<b>Total Top Cable</b>	<b>74,737,451</b>	<b>842,447</b>

<sup>\*</sup> LRG (Leichtman Research Group) estimate

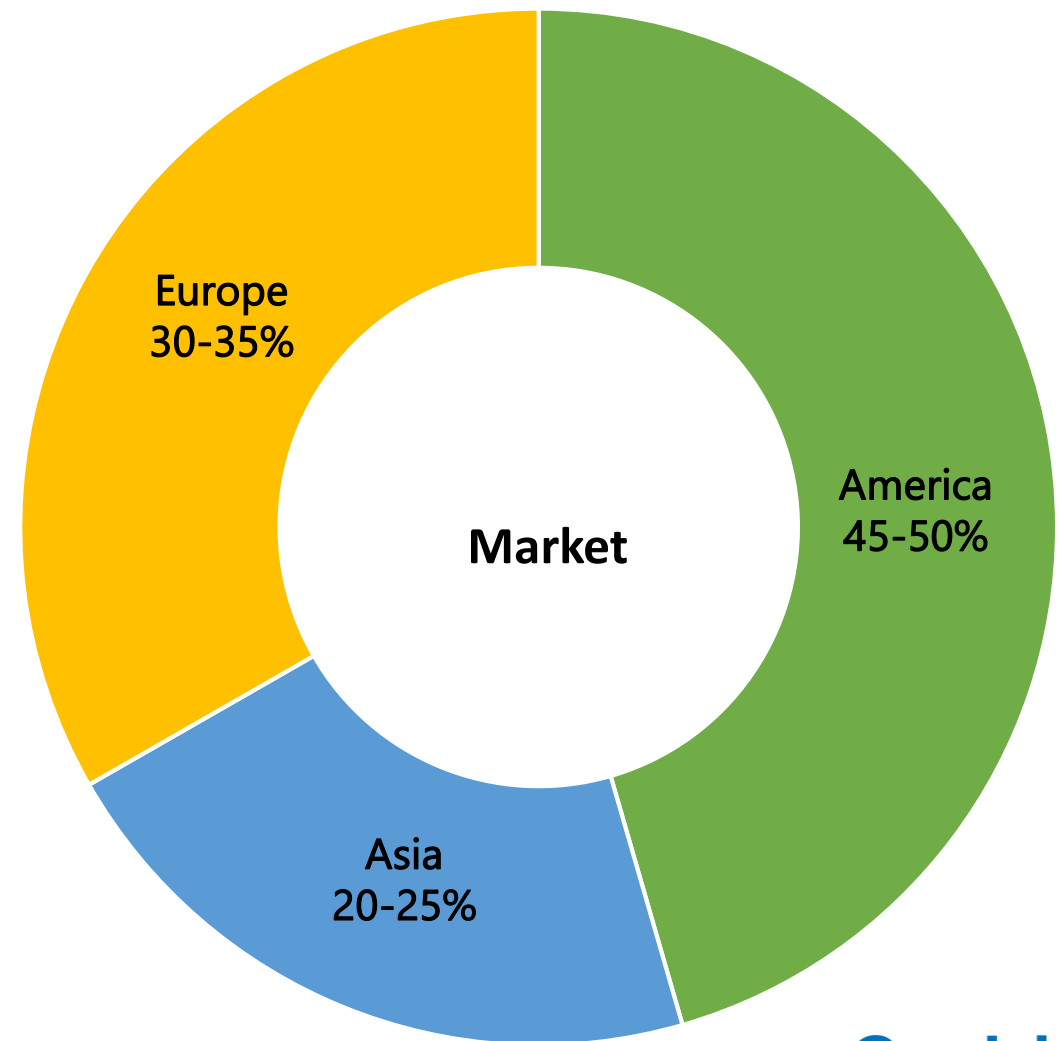
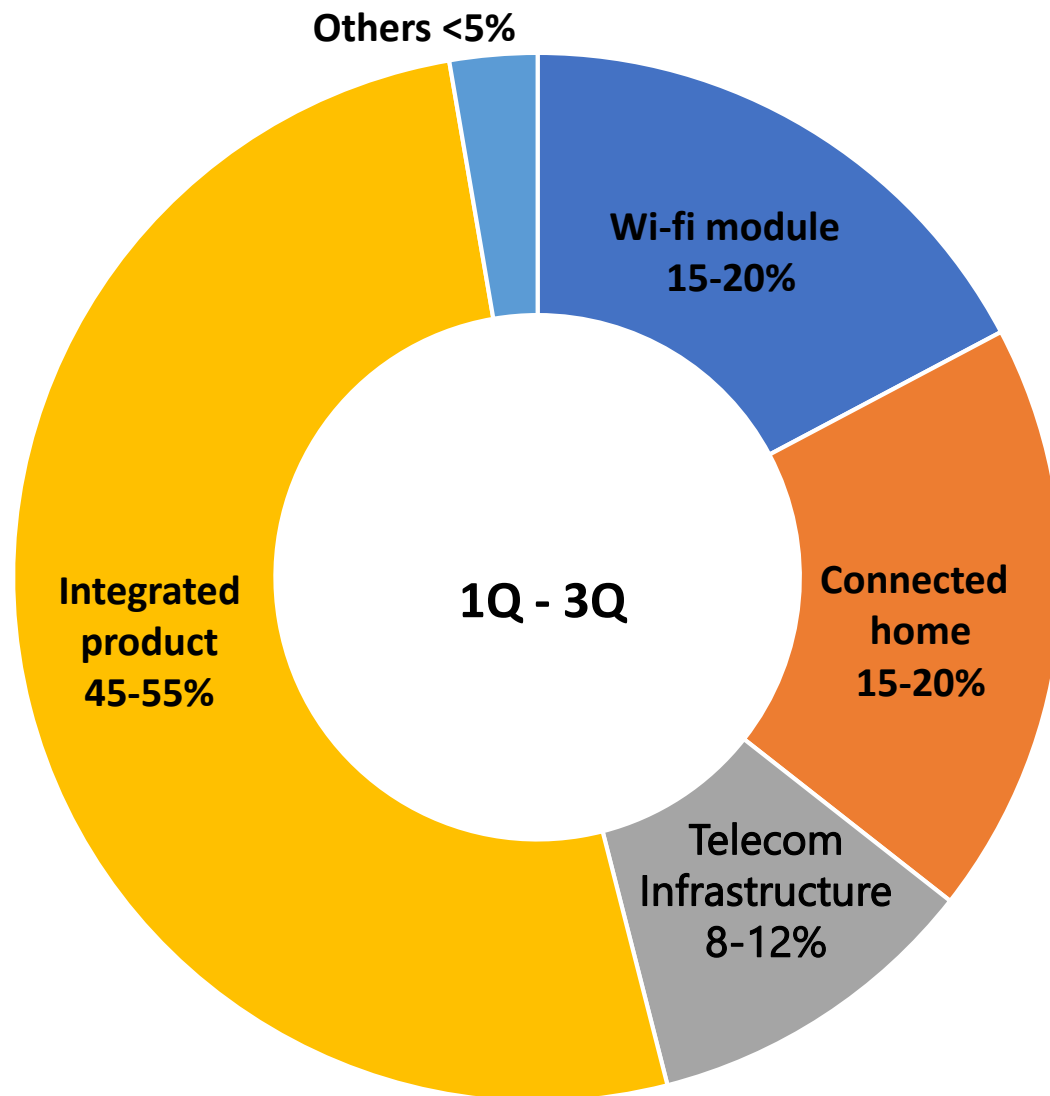
<sup>\*\*</sup> Includes recent acquisitions and LRG pro forma estimates of net adds

# 產品組合



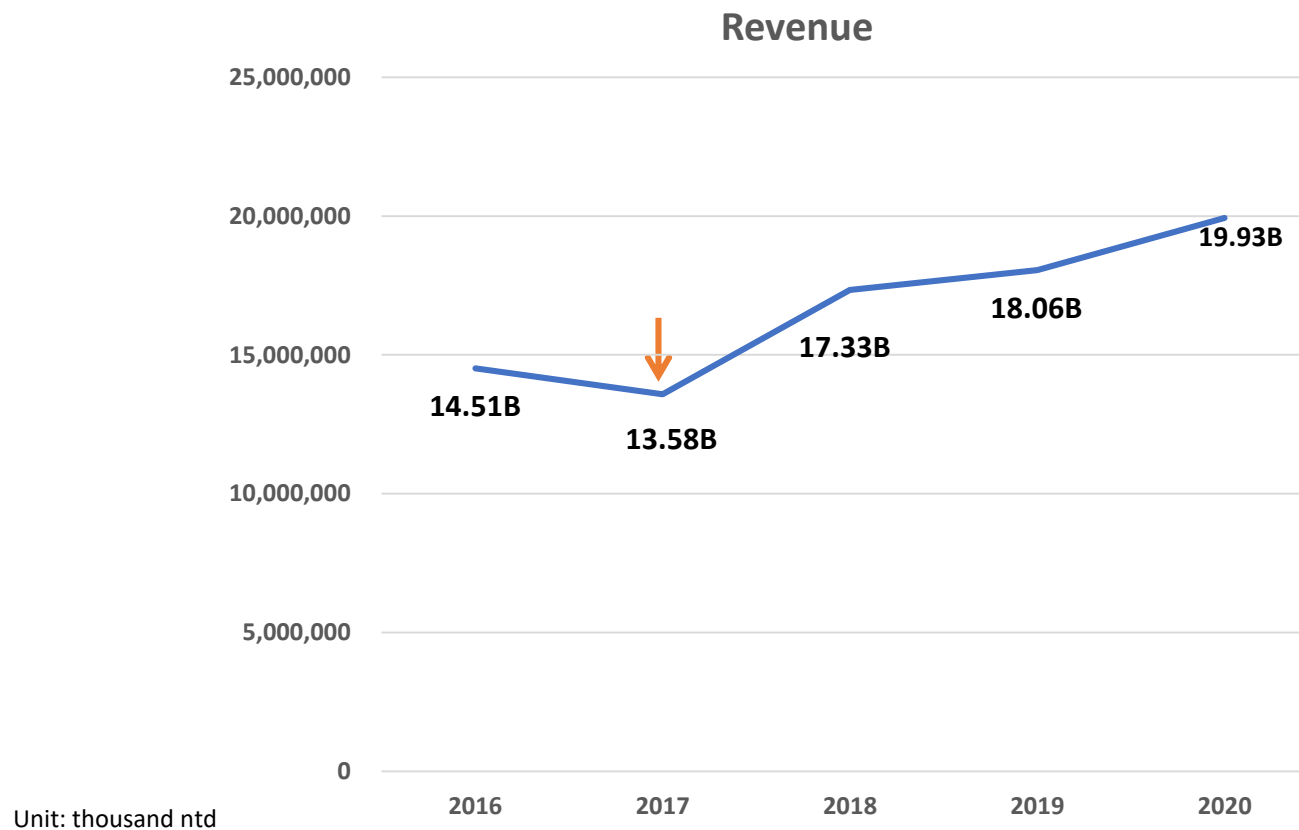


## 產品組合





## 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

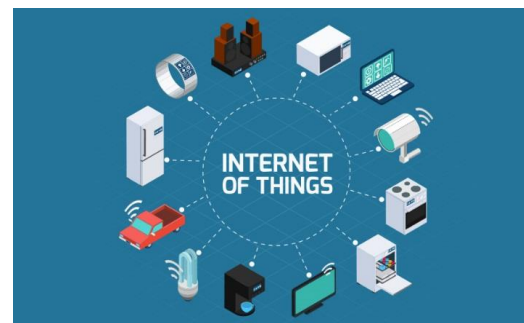
# 2022 展望



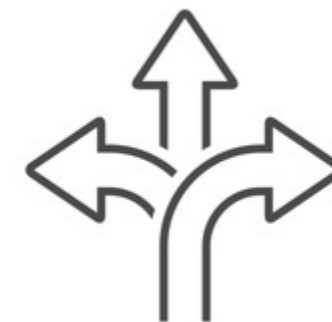
**New Technology**



**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 1<sup>st</sup> tier brand name.
- Direct supply to strategical operators.
- Global Distribution.
- Provide End To End Networking product.





## 市場趨勢

Founder & executive broader Dr. Young

100

Base station

Small Cell

## Mobile Terminal Equipment

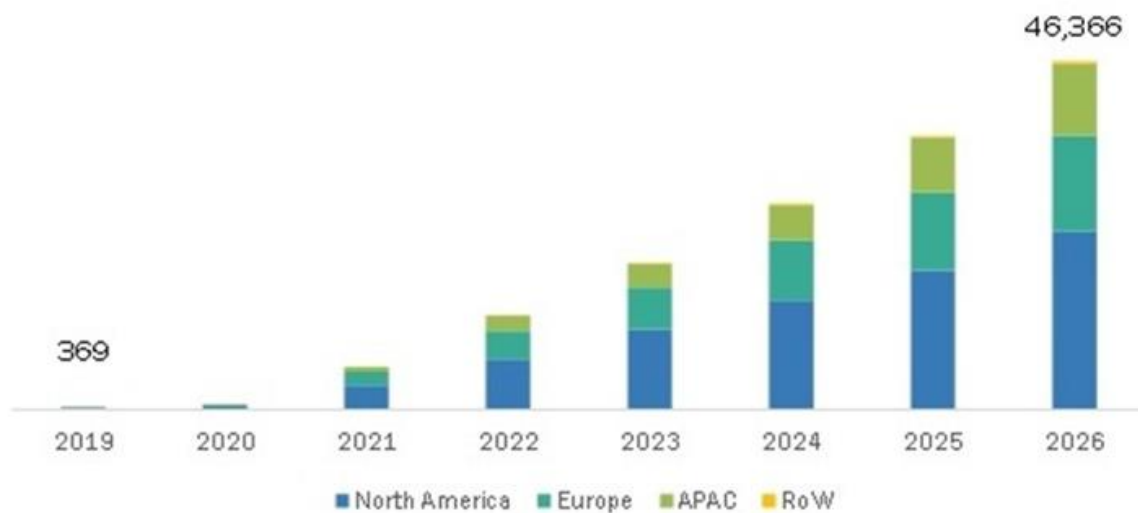
## Fixed Terminal Equipment

MERC

Switch

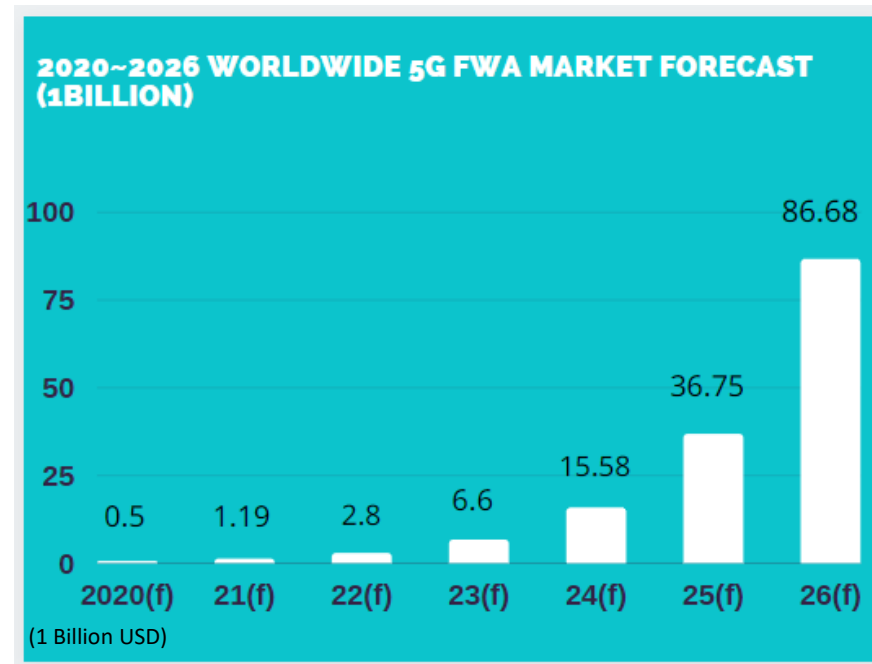
# 5G 市場予測

5G FWA Market by region (USD million)



Source: Market and market

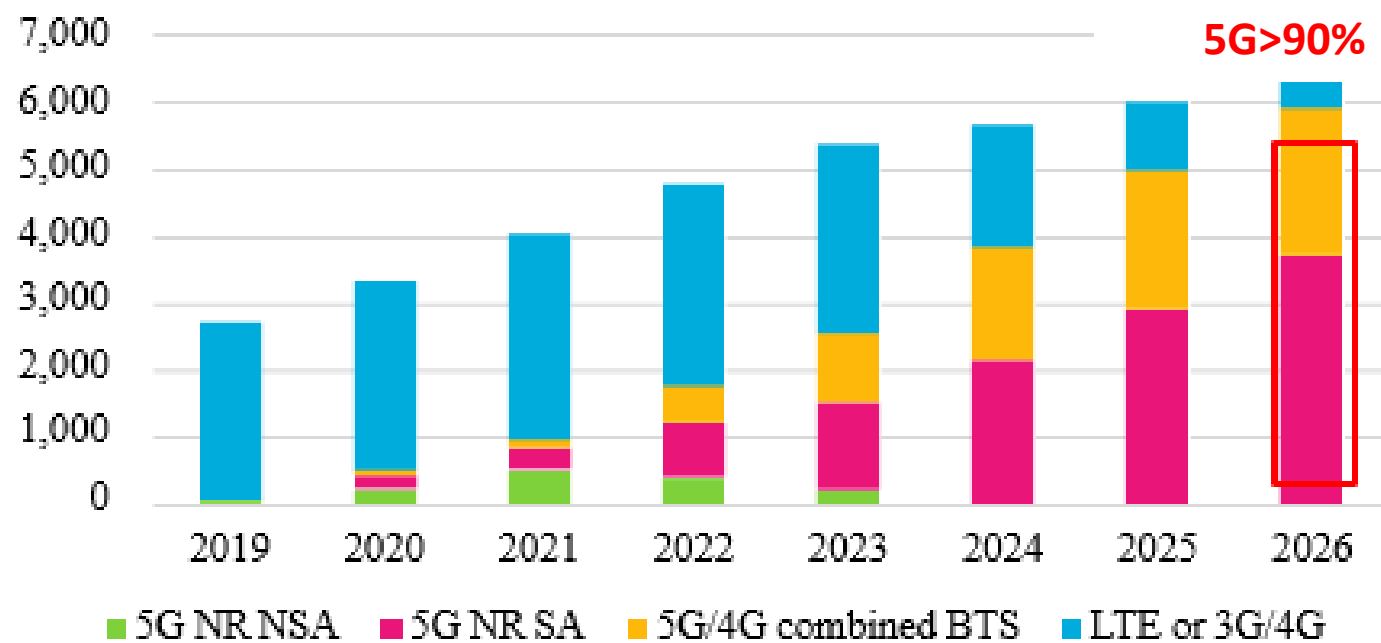
5G FWA: Game Changer for Fixed Broadband



Source: Digitimes

## 5G 市場預測

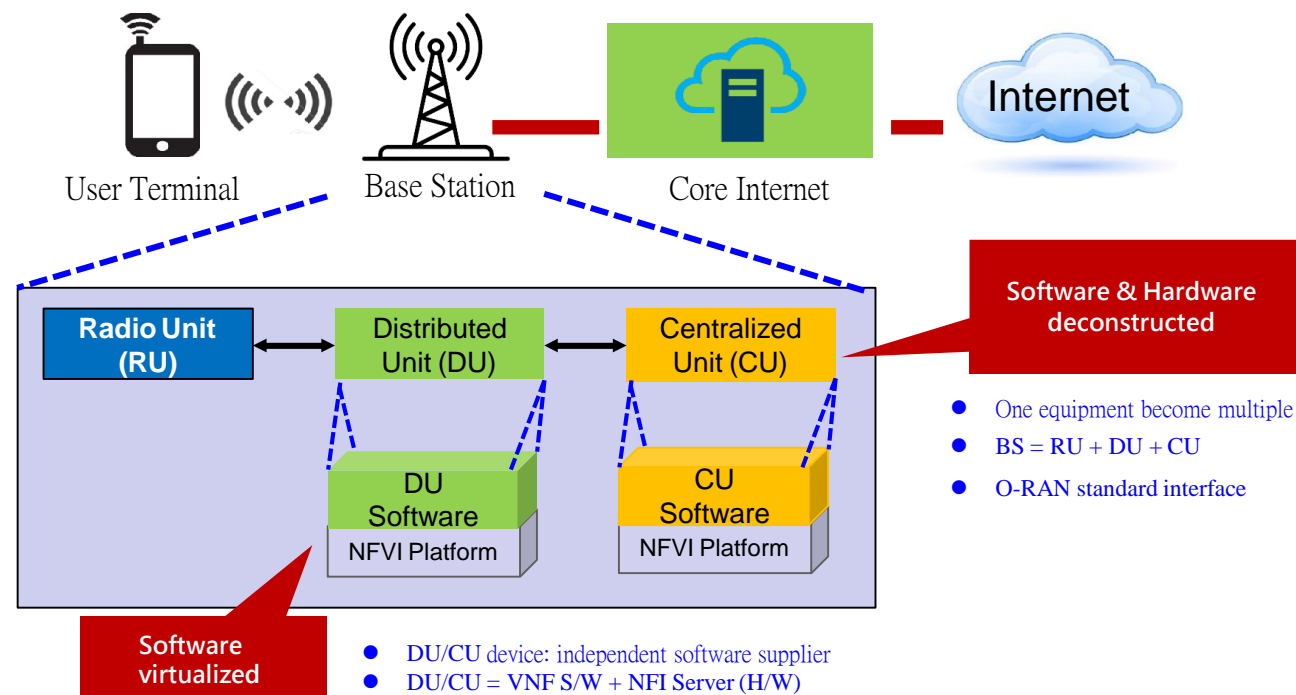
Global small base station market forecast



Source: MIC

# Open-RAN

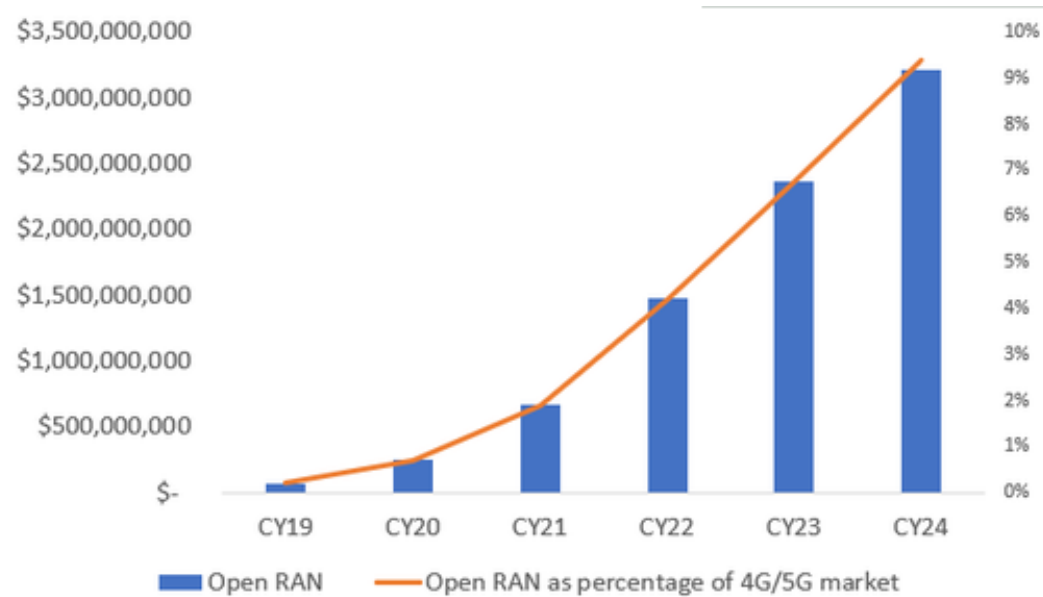
One base station supplier become multiple.





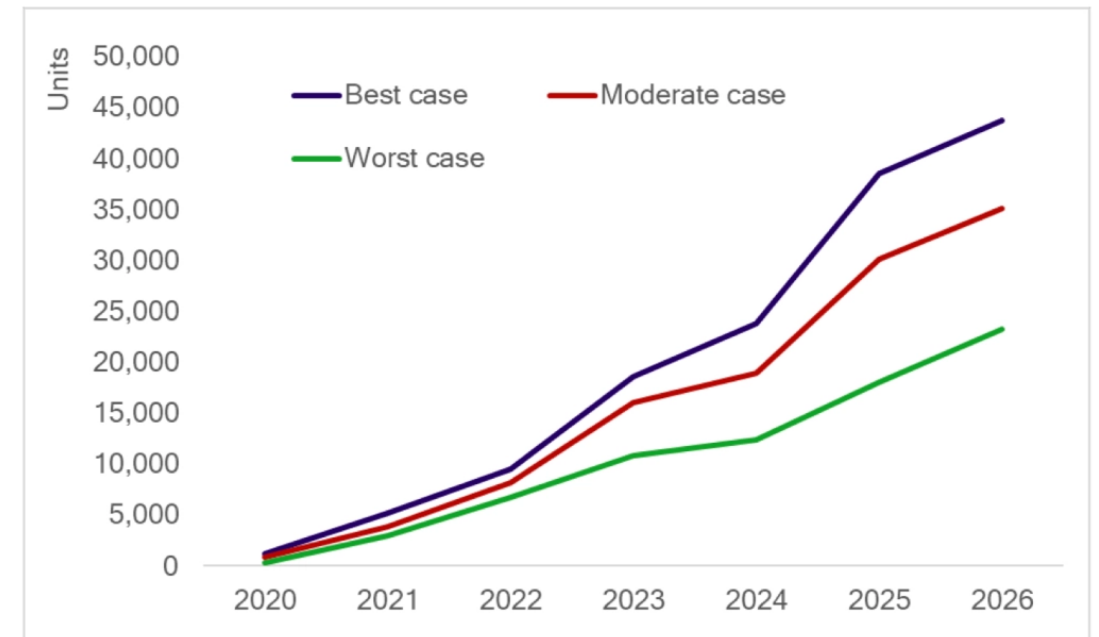
# Open-ran 市場預測

Open-RAN market will reach 3.2 Billion USD in 2024

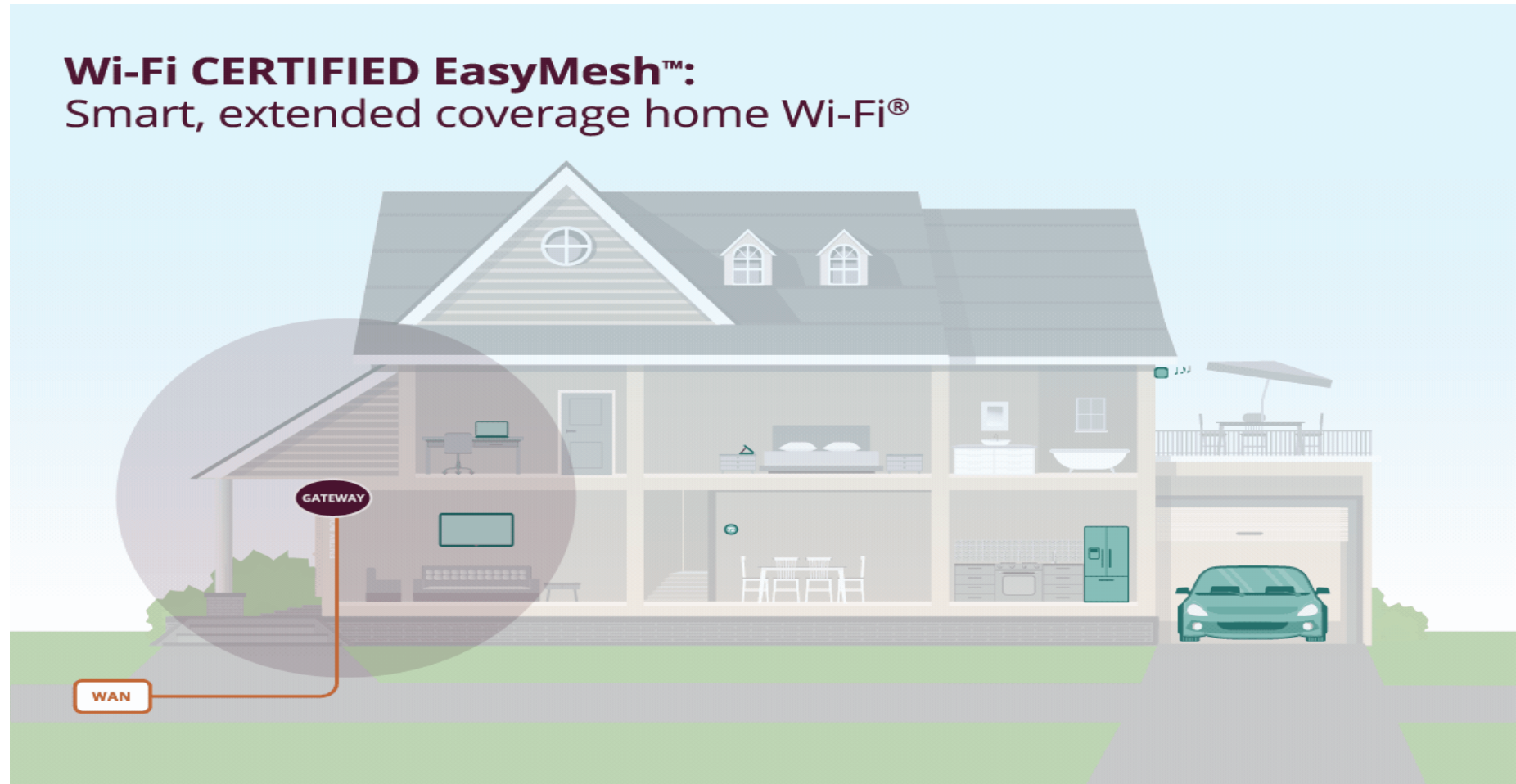


Source: Omdia

Open-RAN small cell infrastructure in different situation



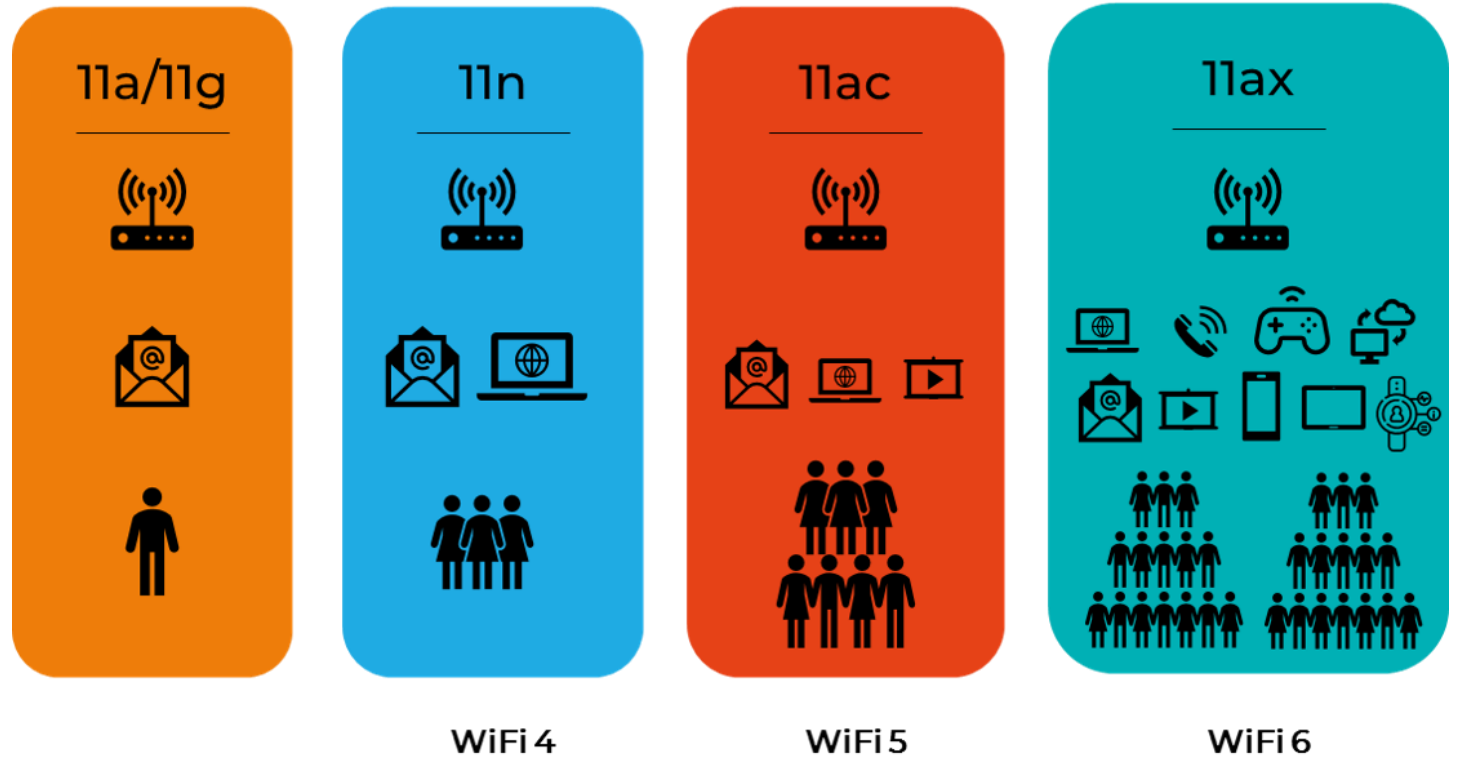
## Wi-Fi 技術 – Easy Mesh (Wi-Fi 6 / 7)



# Wi-Fi 技術 – Wi-Fi 6

## Strength of Wi-Fi 6

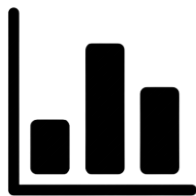
- **Efficiency upgrade**  
Wi-Fi ap/rt can communicate with multiple terminal equipment in the same time
- **Better performance**  
Transmission more data  
Internet speed get faster  
Lower power consumption



# 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)

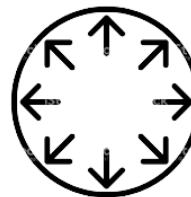
Multi-link operation  
Multi-AP operation  
Deterministic low latency



Peak Data Rate



Cost Effective

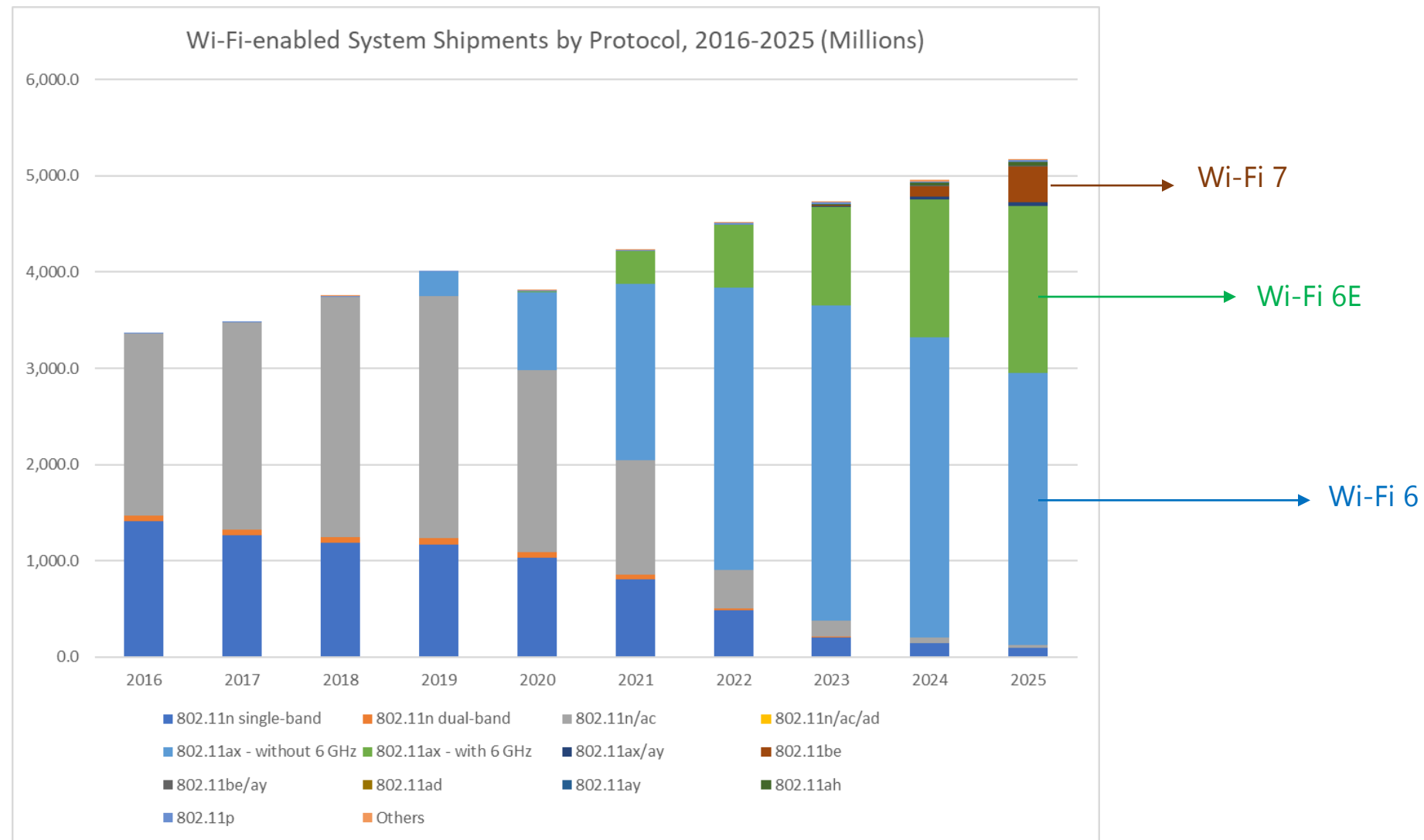


Area Capacity



Low latency

# Wi-Fi 市場予測

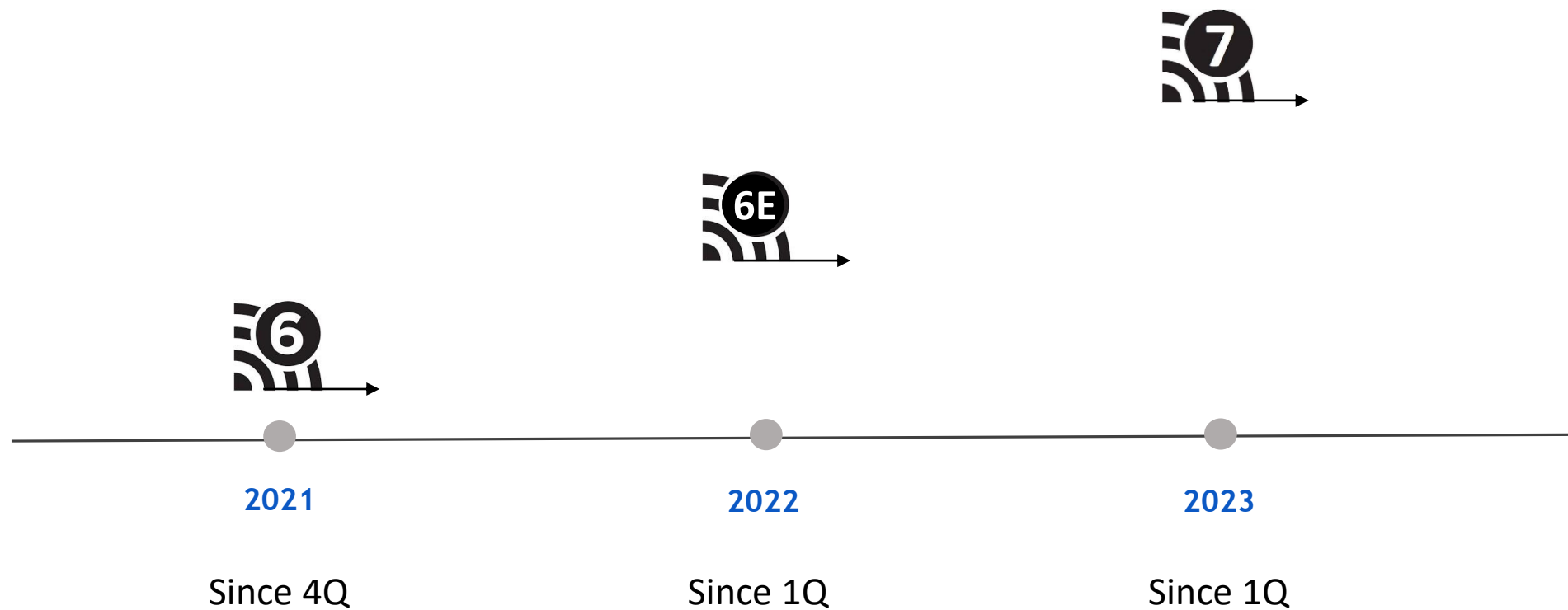


Source: IDC

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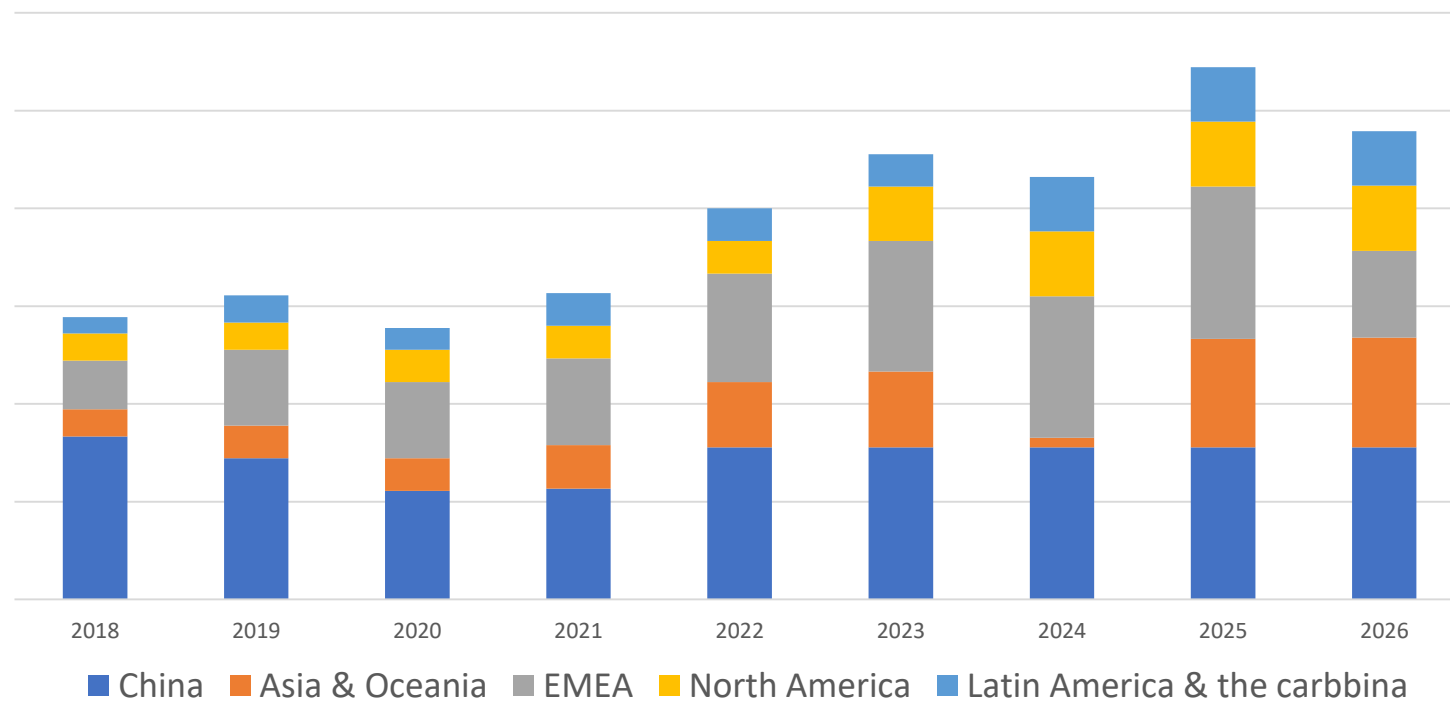


## Gemtek Wi-Fi 產品規劃



## G-PON 市場趨勢

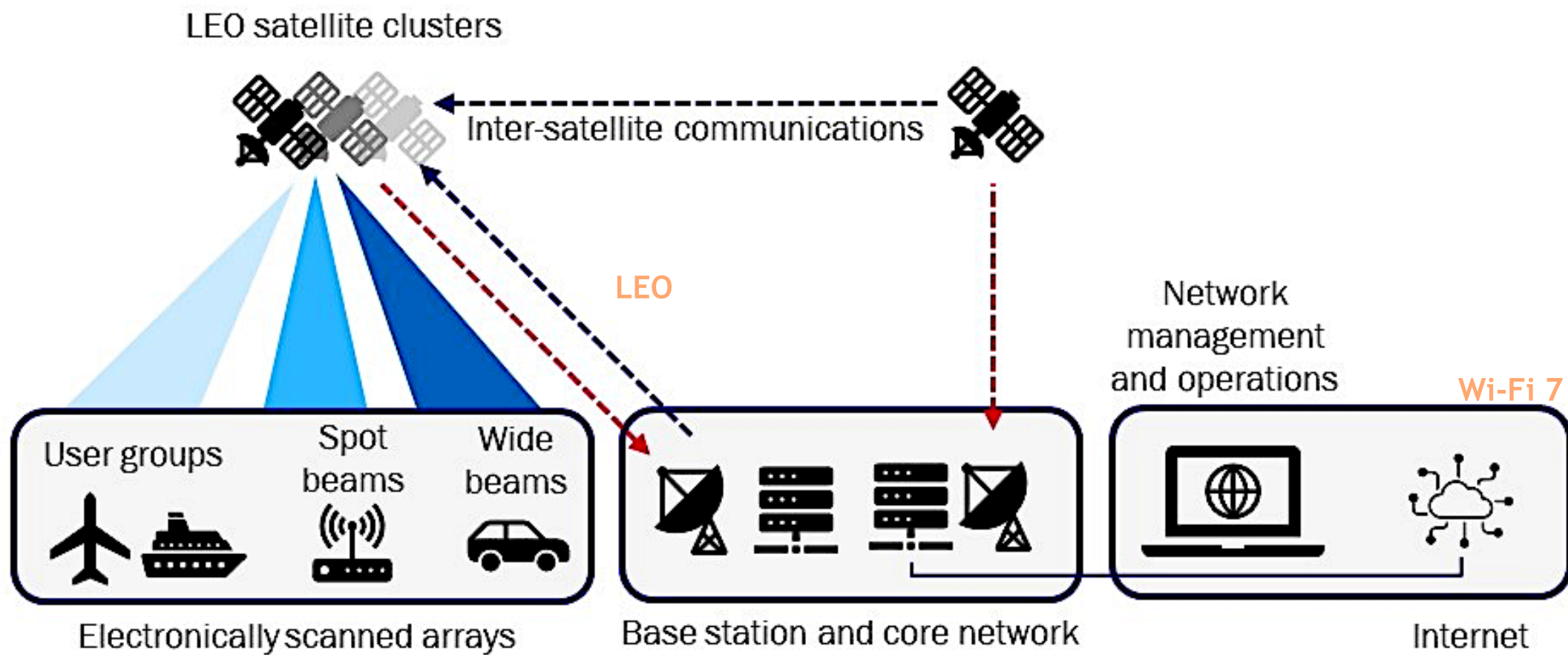
PON equipment revenue by region / country



Source: MIC

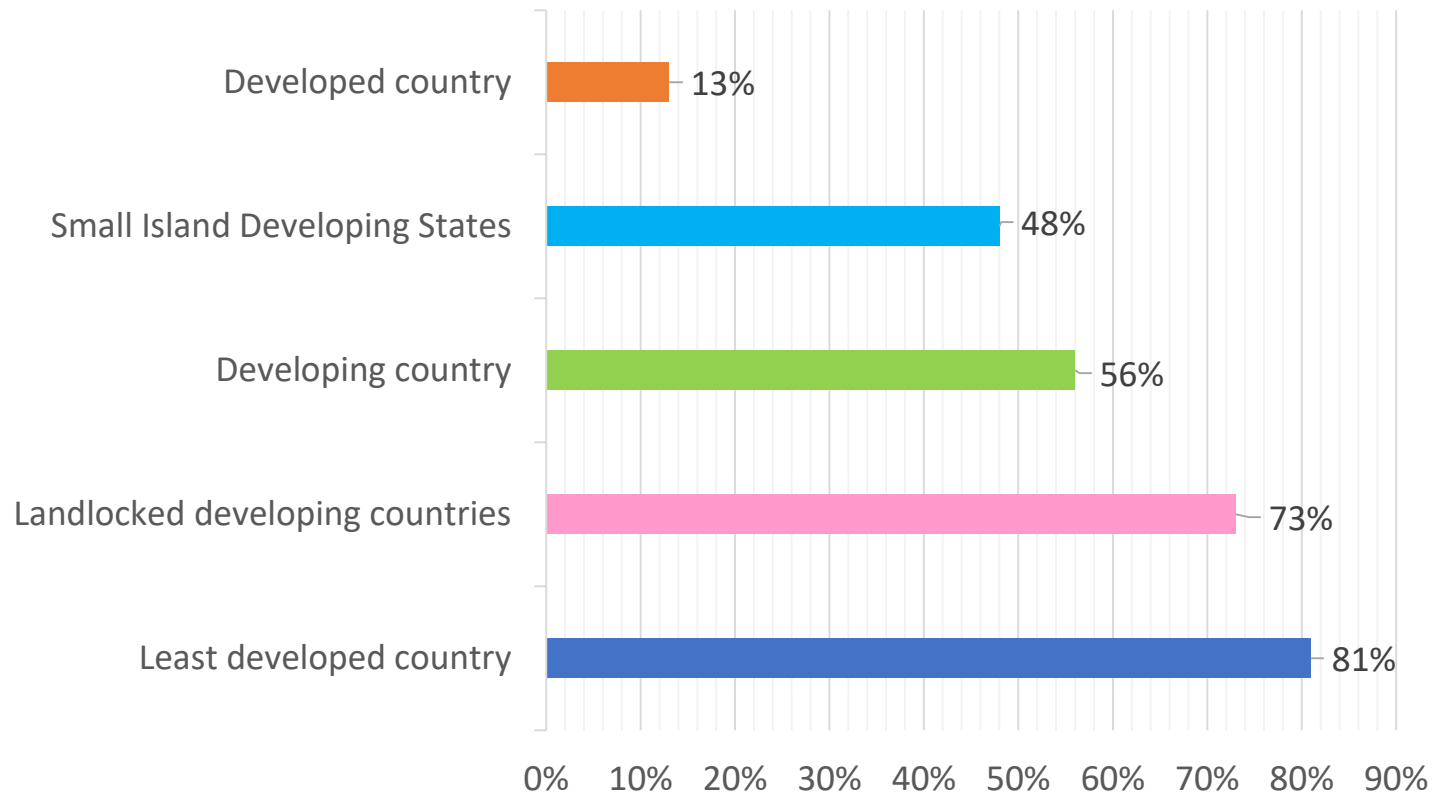
North America and EMEA represent Top2 world's fast growing PON markets

## 低軌道衛星 LEO



## 低軌道衛星 LEO

Potential market of LEO: Low internet coverage area

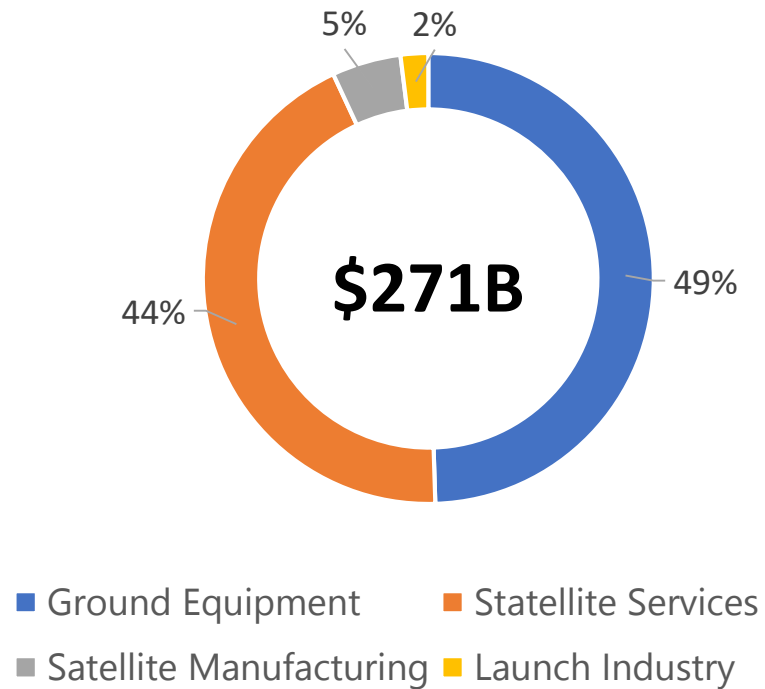


Source: MIC

- 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



Source: TIER

## Gemtek can do

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