



FTTH APAC Panorama 2020

Fiber (FTTH/B) deployment trend in Asia-Pacific

Markets at December 2019

Study Background

Methodology

Actions

Scope



- Analysis of 21 countries*
- Data per player for FTTH/B and other fibre-based architectures
- Distinction between architecture: FTTH/B vs FTTx (FTTN/C+VDSL, FTTx + Docsis 3.x)
- Key parameters study: technical, financial, business models, figures

Bottom-up methodology



- Desk research
- Direct contacts with leading players and IDATE partners within countries
- Information exchange with the FTTH Council APAC members

Results



- Both quantitative and qualitative data
- Market status in the country
- Strategic approach of involved players

* Australia, Bangladesh, Cambodia, China, Hong Kong, India, Indonesia, Japan, Kazakhstan, Laos, Malaysia, Myanmar, New Zealand, Pakistan, Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Thailand, Vietnam

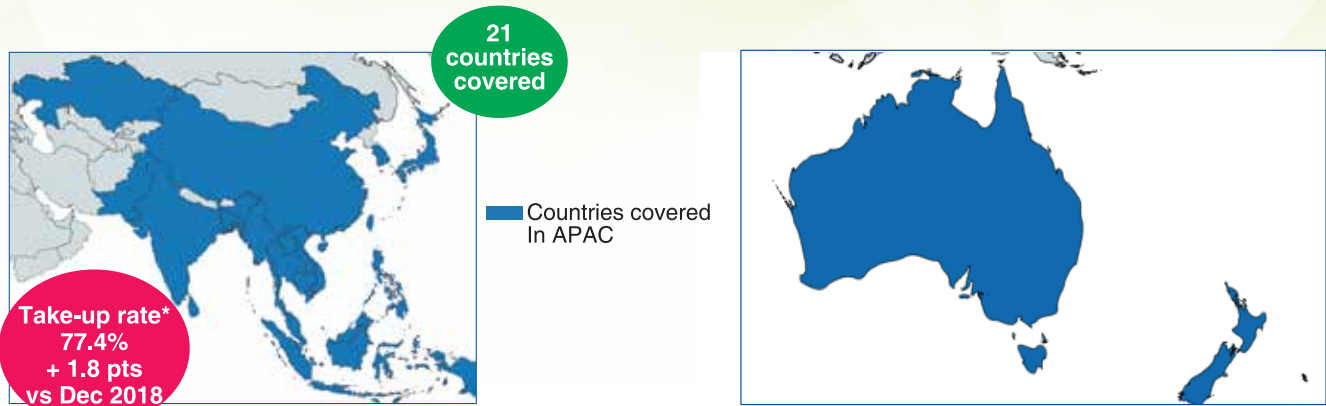
General Overview and Main Trends

FTTH/B figures as at December 2019

As at December 2019 in Asia Pacific (*)

- 459 million FTTH/B subscribers
- More than 593 million FTTH/B Homes Passed

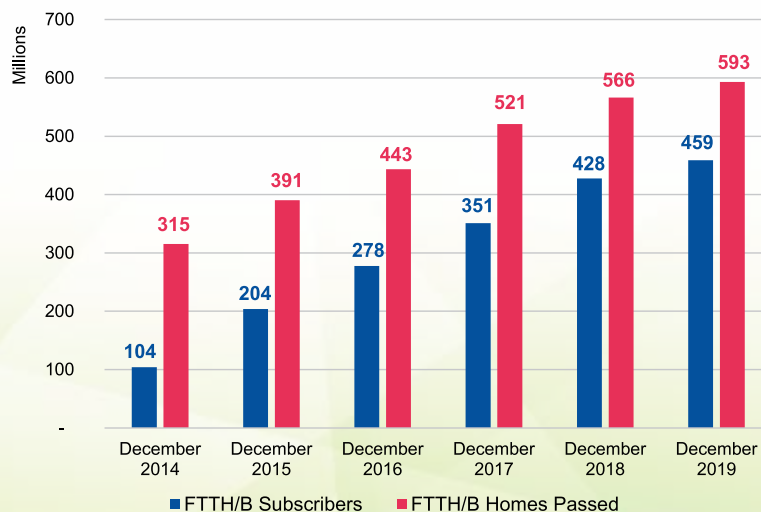
FTTH Council Asia-Pacific scope at December 2019



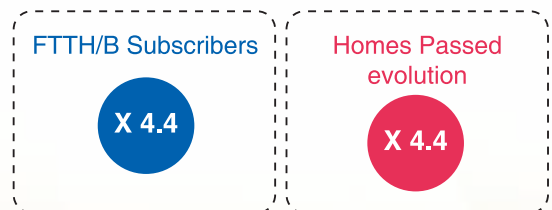
(*) APAC - 21 = Australia, Bangladesh, Cambodia, China, Hong Kong, India, Indonesia, Japan, Kazakhstan, Laos, Malaysia, Myanmar, New Zealand, Pakistan, Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Thailand, Vietnam

FTTH/B market evolution in Asia-Pacific (APAC-21)

In terms of Homes Passed and Subscribers (2014-2019)



Trends from 2014 to 2019



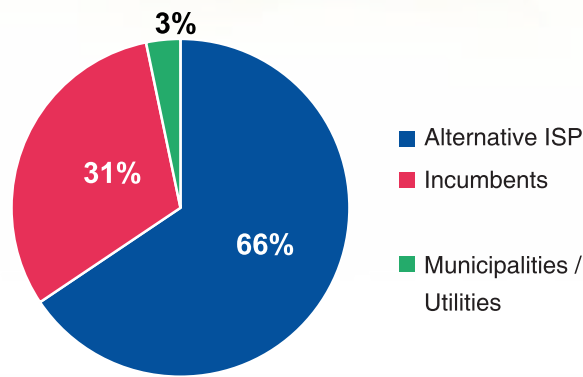
*Take-up rate = FTTH-B Subs / FTTH-B Homes Passed

Private players are taking a leading role in FTTH/B initiatives

- The region has increased the number of FTTx initiatives. During 2019 it was counted more than 120 initiatives in the 21 APAC countries under study.
- Two thirds of fiber deployments have been performed by Private players, while 31% by public telecom players and 3% by utilities.
- Local Authorities are working with private players also in order to deploy and to reach with fibre more home in isolated areas.

Breakdown of FTTH/B Homes Passed by type of player (%)

Data by December 2019



Source: IDATE for FTTH Council Asia-Pacific

Breakdown in terms of FTTH/B Homes Passed Top 5 Asian countries

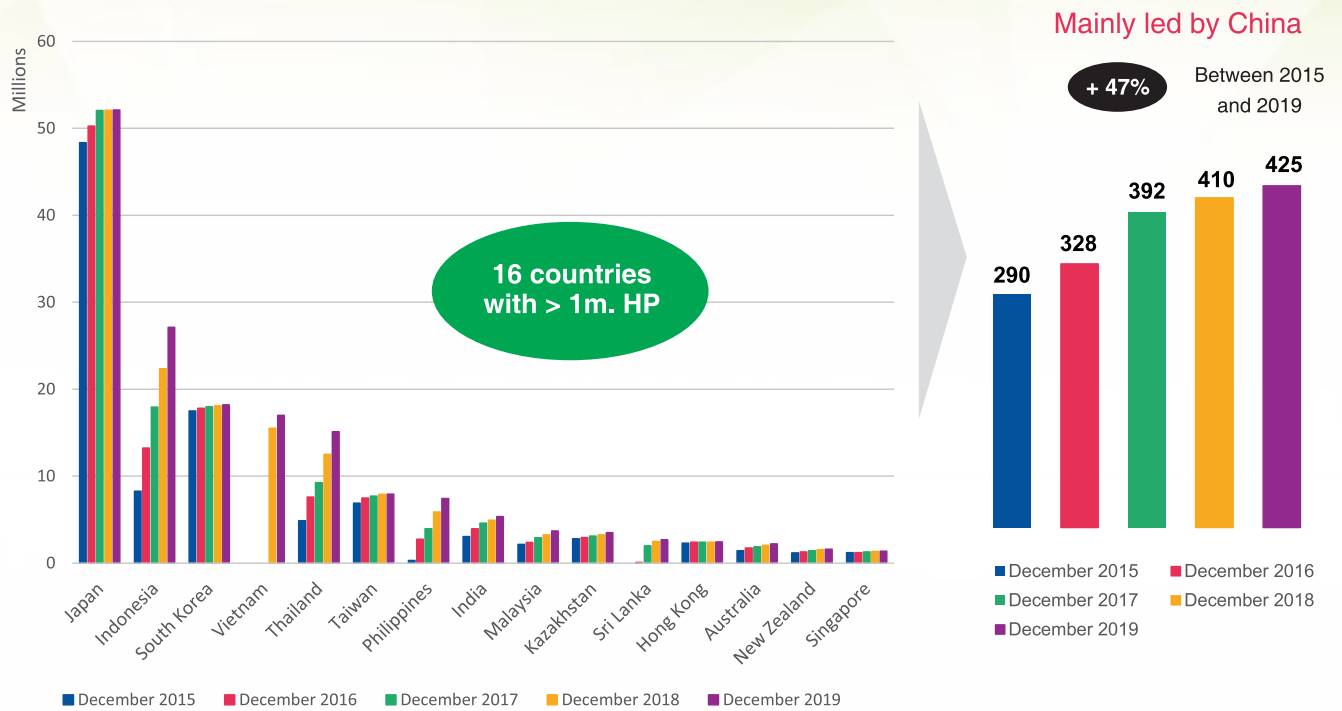


APAC : Leading Countries

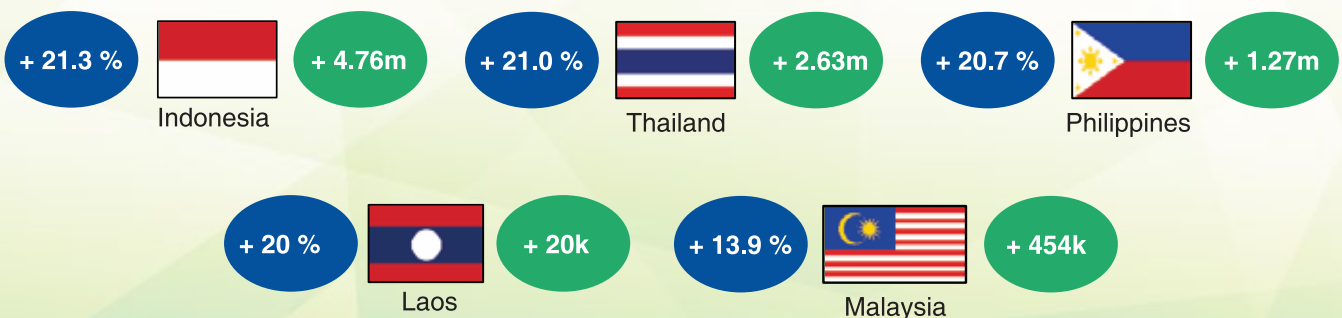
General Ranking: FTTH/B Homes Passed

China accounting for around 72% of total FTTH/B Homes Passed in APAC-21

Asia Pacific ranking in terms of FTTH/B Homes Passed over time (in million homes)
Data comparison between Dec. 2015 and Dec. 2019



Top 5 annual growth rates (in %) FTTH/B Homes Passed Growth and additional Homes Passed from Dec. 2018 to Dec. 2019

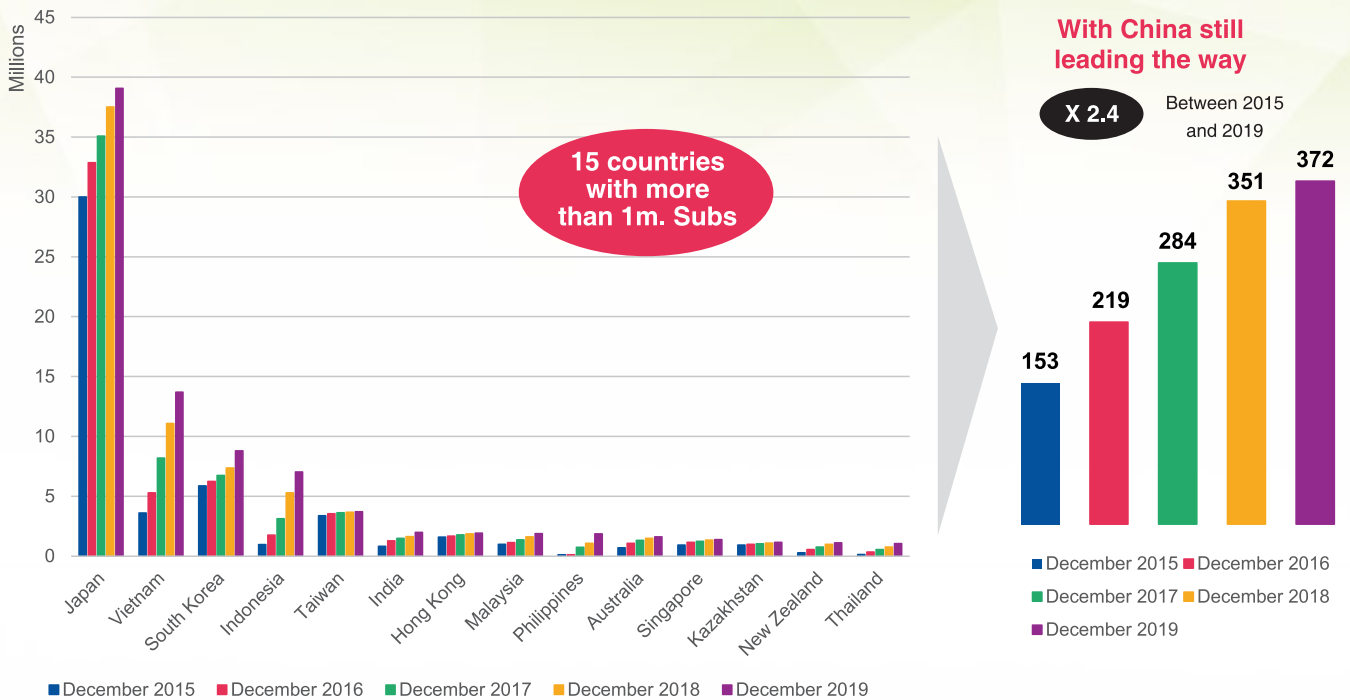


General Ranking: FTTH/B Subscribers

China accounting for around 81% of total FTTH/B Subscribers in APAC-21

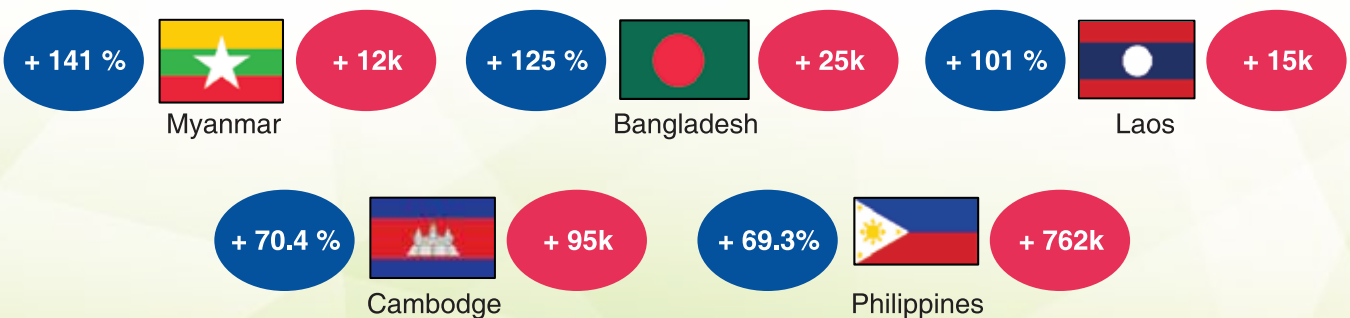
Asia Pacific ranking in terms of FTTH/B Subscribers over time (in million homes)

Data comparison between Dec. 2015 and Dec. 2019



Top 5 annual growth rates (in %)

Data from Dec. 2018 to Dec. 2019 (in terms of FTTH/B Subscribers)



APAC region progressively shifting towards fiber adoption: 31.2 million new FTTH/B subscribers and 27.1 million FTTH/B homes passed added by Dec. 2019 YoY

Trends in 3 main APAC markets



China

China is still moving towards a fiber migration of its fixed networks. The progression is covering more than 91% of the country flattening the fiber expansion curve.



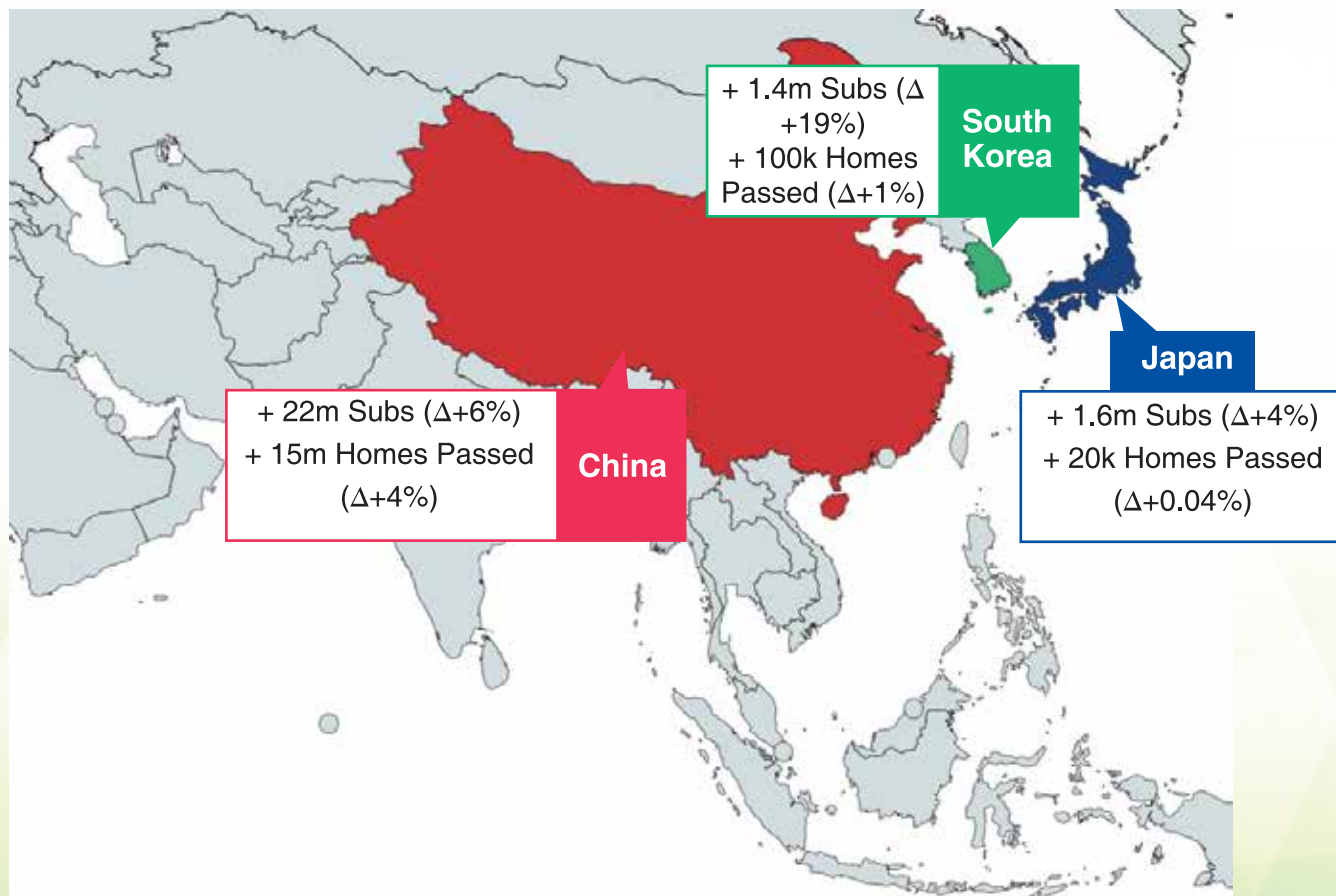
Japan

Japan has a consolidated fibre market and is still trying to increase its take-up rate with better value propositions for final users.

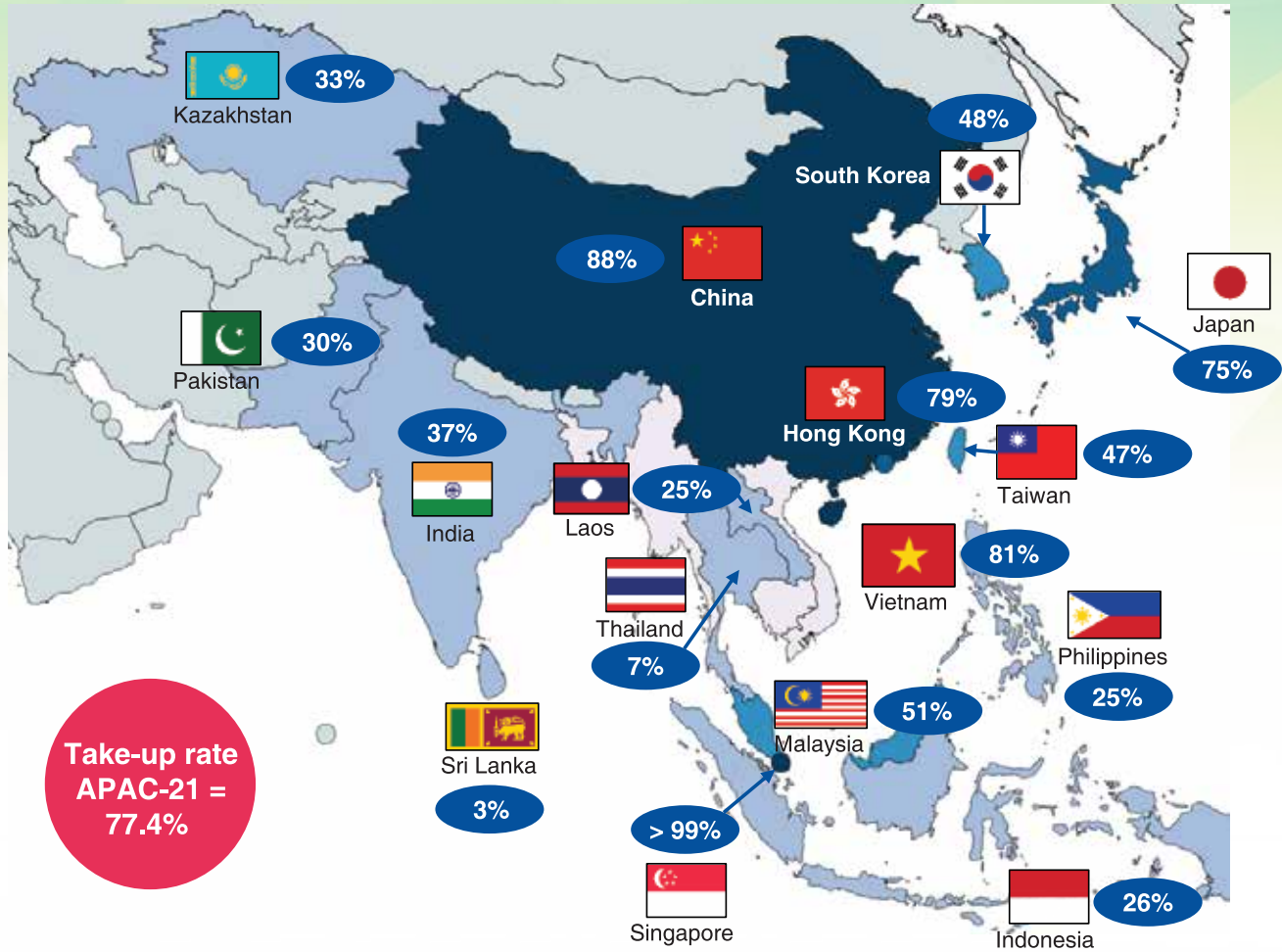


South Korea

South Korean Government is encouraging to migrate 1G solutions to 10G access (10GPON) and to promote fiber adoption to its final users.

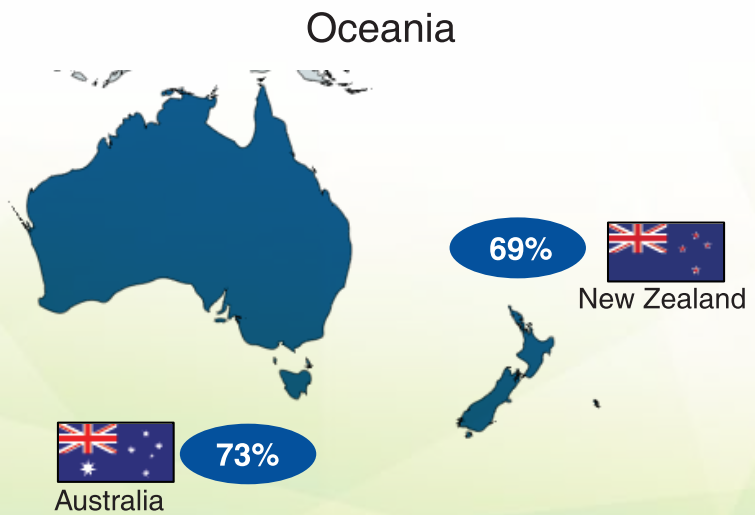


General Ranking: FTTH/B Take-up



FTTH/B take-up* as at December 2019

- FTTH/B take-up > 80%
- FTTH/B take-up 60 – 80 %
- FTTH/B take-up 40 – 60 %
- FTTH/B take-up < 40 %
- Data not available



*Take-up rate = FTTHB Subs / FTTHB Homes Passed

FTTH GPON maintained as the norm in APAC countries

FTTH vs FTTB

APAC has concentrated its consolidating its efforts to deploy full fiber solution the end user. More countries are migrating legacy networks towards full FTTH solutions.



PON vs Ethernet P2P

APAC-21 countries are concentrated in the deployment of PON technologies. Now its observed the announcement of new XGPON projects to reach 10G services.



SDU vs MDU






Countries in APAC tend to have a highly concentrated population, thus explaining the predominance of MDU architecture in the region



APAC : FTTH/B Ranking





Indicators affecting the FTTH adoption

Positive criteria

1		Growth in data demand pushing the industry, with operators realizing that fiber is robust and scalable in time.
2		More governments in APAC-21 launching national broadband plans to promote fiber deployments and to reduce administrative barriers
3		Players shifting from copper-based and cable-based networks towards full fiber infrastructure
4		Fiber network sharing allowing telcos to put more efforts on underserved and isolated areas (Ex. Australia, New Zealand, Japan and China)
5		New business models towards fiber deployments adopted by utilities and local municipalities, as a way to diversify and to stimulate local economies

Indicators affecting the FTTH adoption

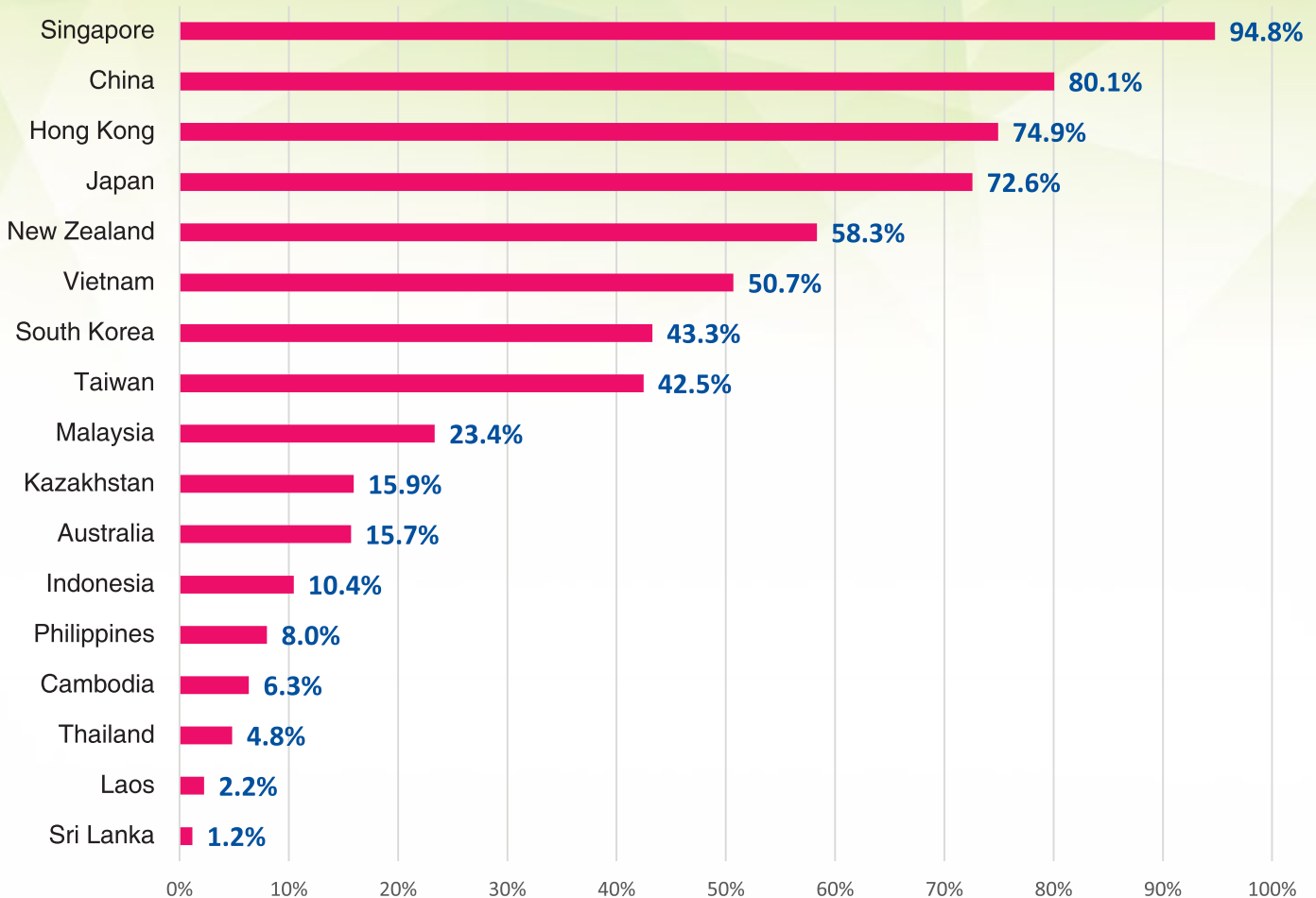
Negative impacts

1		Still no clear mass-market applications for telcos to monetize fiber-related investments in a fast pace
2		New mixed-build architectures (G.Fast or DOCSIS 3.1, or in the coming period DOCSIS 4) eventually delaying FTTH investments
3		Fixed-wireless and hybrid access becoming more common in isolated areas. This could interfere with fiber deployment in rural areas in underdeveloped countries
4		More interventions could be needed from public authorities to consolidate fiber deployments in APAC

Asia Pacific Ranking as at December 2019

Penetration rates in Asia Pacific as at December 2019

(FTTH/B Subscriptions / Households)



- Includes countries of +200k Households in which FTTH/B subscribers represent at least 1% of total households
- Countries like Singapore, China, Hong Kong and Japan are the 4 leaders in this ranking, mainly due to a proactive state intervention towards fibre expansion.
- The migration from legacy networks towards full fiber networks is starting to be evidenced in countries like Vietnam, New Zealand, Indonesia and Philippines.

Key Conclusions

FTTH ADOPTION

- By Dec. 2019, the 21 APAC countries under study have reached **more than 593 million homes** with FTTH/B networks reaching in average 56.7% of their homes.
- Countries like Indonesia, Thailand, Philippines and Laos have experienced **strong growth**, increasing their Homes Passed by **more than 20%**
- While countries like China and Japan have added more than 22 million and 1.5 million FTTH subscribers respectively in 2019, other countries like Philippines, Cambodia and Bangladesh have also moved more final users towards full fibre solutions.
- But the effort is now made on **fiber adoption** among Fixed Broadband subscribers in countries where coverage is almost complete nationwide (Japan, South Korea, Taiwan).

Emerging Technologies

- **5G implications:** 5G will be a key factor for the promotion of fiber edeployments and is encouraging strong investments from public and private players
- **Technological migration and evolution of business models:** Evolution from previous years have showed that cable-based and copper-based ISPs have started to diversify their core technologies towards full-fiber. In addition, utilities companies are taking advantage of its infrastructure to deploy fiber and to act as a wholesaler in areas not covered by traditional fiber players

This booklet is the brief version of the entire FTTH APAC Market Panorama & APAC 5G Mini Panorama 2020 research report. The entire detailed report is exclusively available for Council members only.

Research Partner



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