

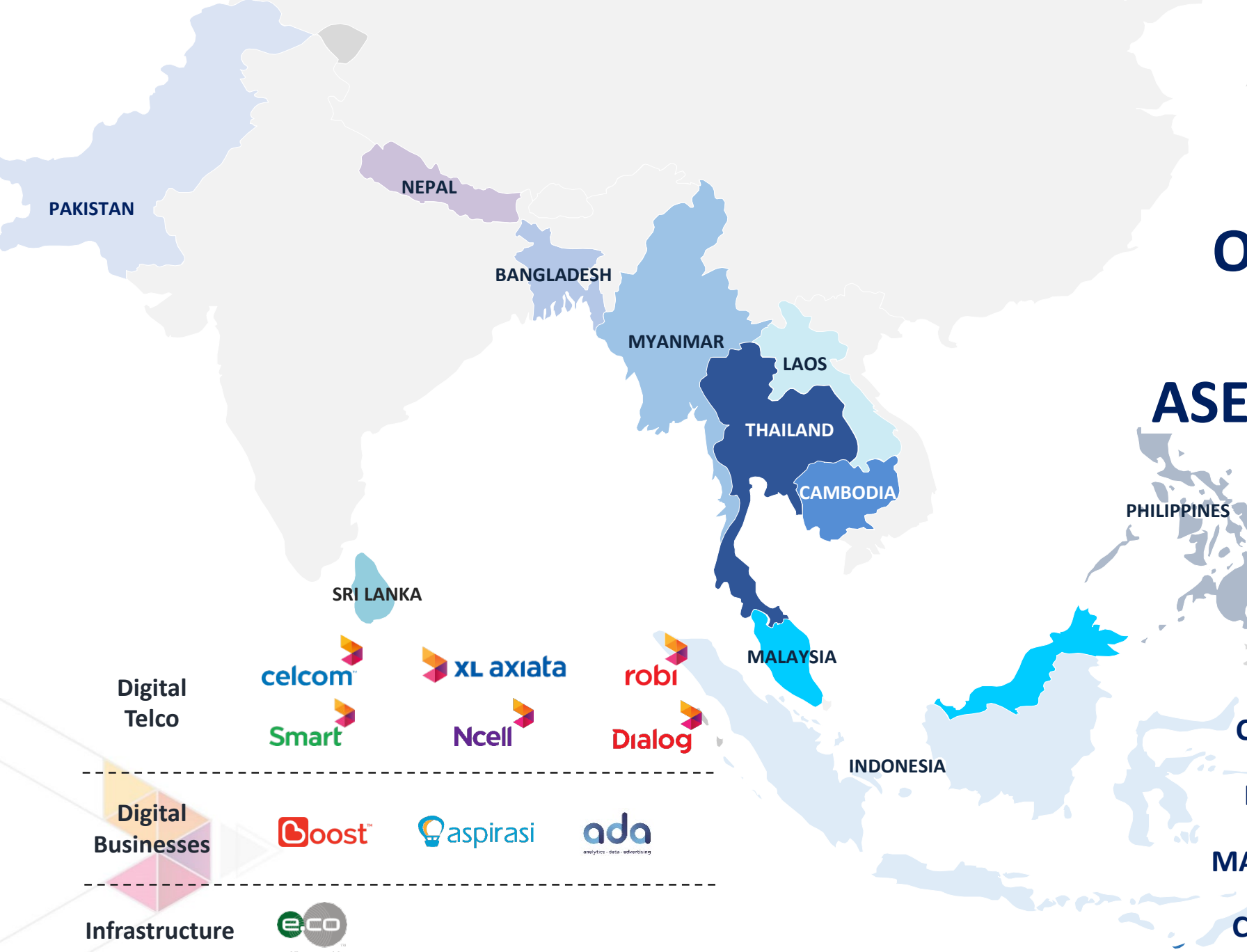
Future use of 6GHz in APAC

13th May 2021



axiata

One of the largest telco groups in ASEAN & South Asia



2020 RESULTS

REVENUE	MYR 24.2 B
PAT	MYR 0.6 B
CUSTOMERS	Over 155 M
EMPLOYEES	Over 12,000
MARKET CAP*	MYR 34.3 B
COUNTRIES*	11

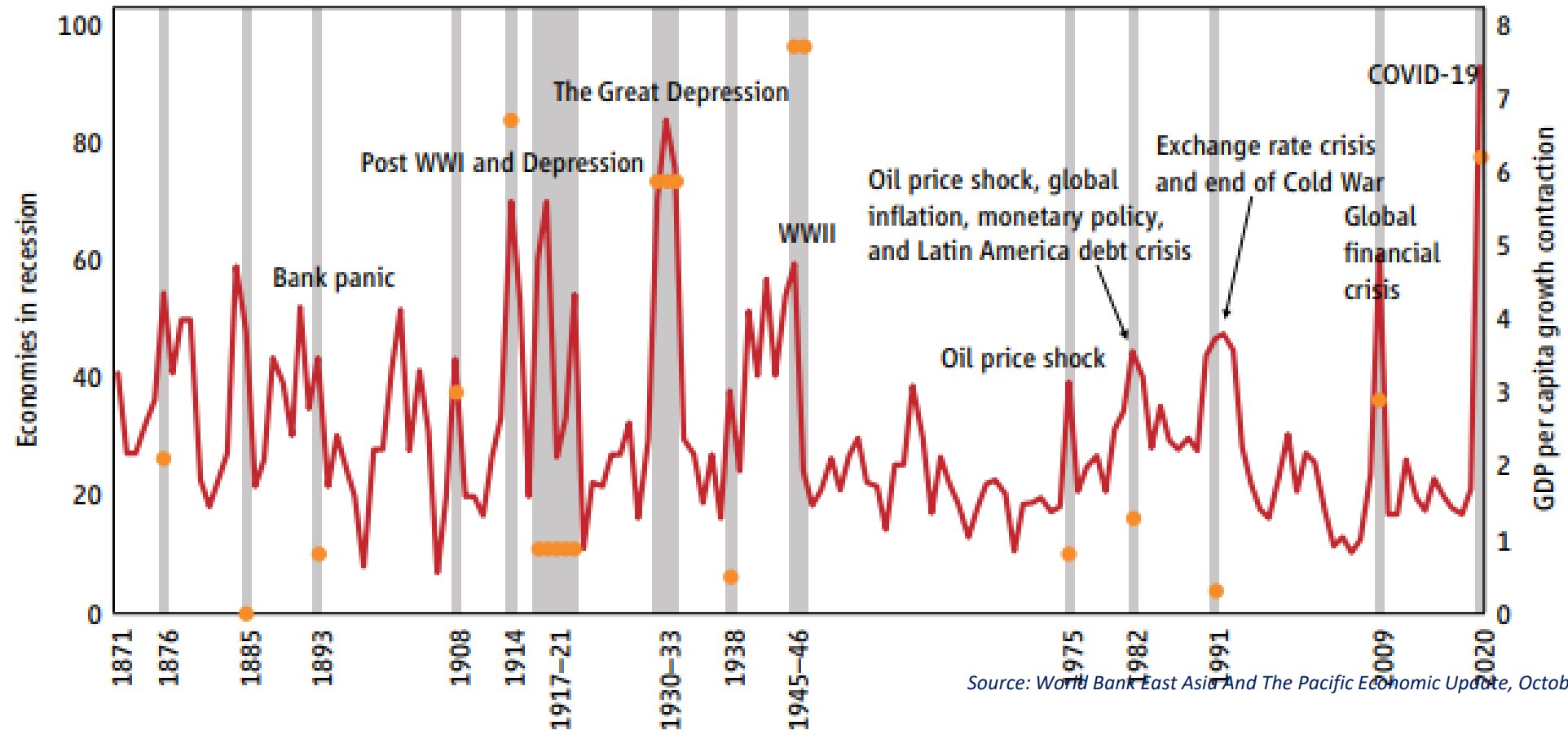
* As at 31 Dec 2020

The impact of the pandemic is as **devasting economically** as previous global crisis

Proportion of economies in recession and the contraction in GDP per capita growth

Percent (red)

Percent (orange)



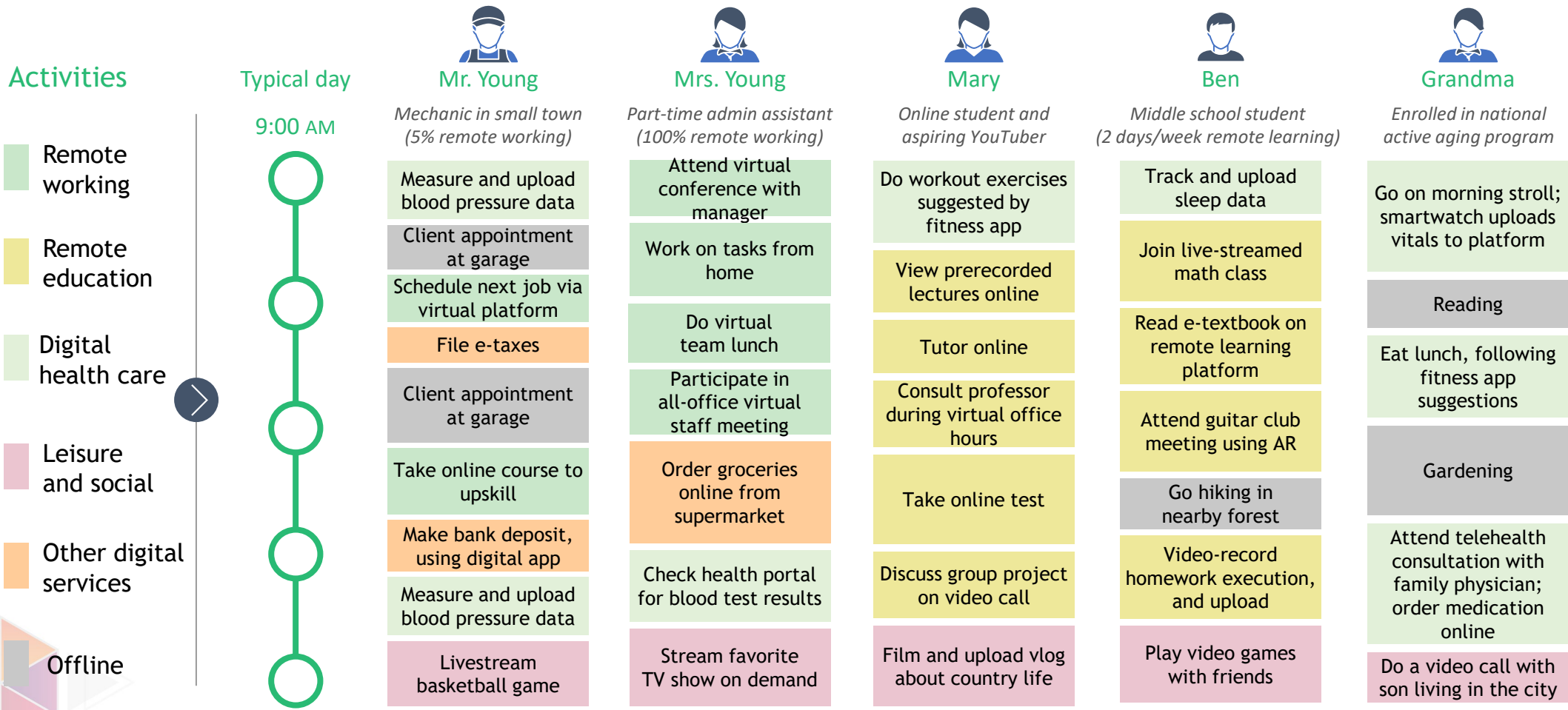
Source: World Bank East Asia And The Pacific Economic Update, October 2020

Sources: Authors' figure adapted from World Bank 2020a. Data from Inklaar et al. 2018; Kose et al. 2019, 2020.

Note: 2020 uses forecast data. Shaded areas refer to global recessions. Sample includes 183 economies though the sample size varies significantly by year. For crises that last for more than a year, the annualized average of the cumulative contraction of GDP per capita growth during the crisis is used.

Digital interactions will rise in the new reality as many daily routines move online.

Illustrative



Source: BCG analysis.
 Note: Some of the activities listed may take place only in the long run in the low-income countries. AR = augmented reality.

Source: Adapted from BCG, A \$2 Trillion Plan to Bring Two Billion More People into the Digital Age, Sept 2020

Good broadband connectivity is now seen as **essential** and **critical**

- Public and MSME's heavy reliance on uninterrupted broadband services is evident.
- Connectivity gaps include upgrading of last-mile network connectivity in semi-urban areas and new coverage to increase reach and footprint.
- In the 'new normal', broadband is essential and seen by policymakers as key enabler/foundation for digital societies.
- Renewed focus by policymakers on having a national digital infrastructure/ digital economy blueprint.
- Regulatory enablers: rationalize sector taxes, release more spectrum & reduce fees, remove constraints (dark fiber, infrasharing)



COVID-19 reinforces the need for connectivity

MAKHITAR DIOP | APRIL 29, 2020

STATEMENT | APRIL 21, 2020

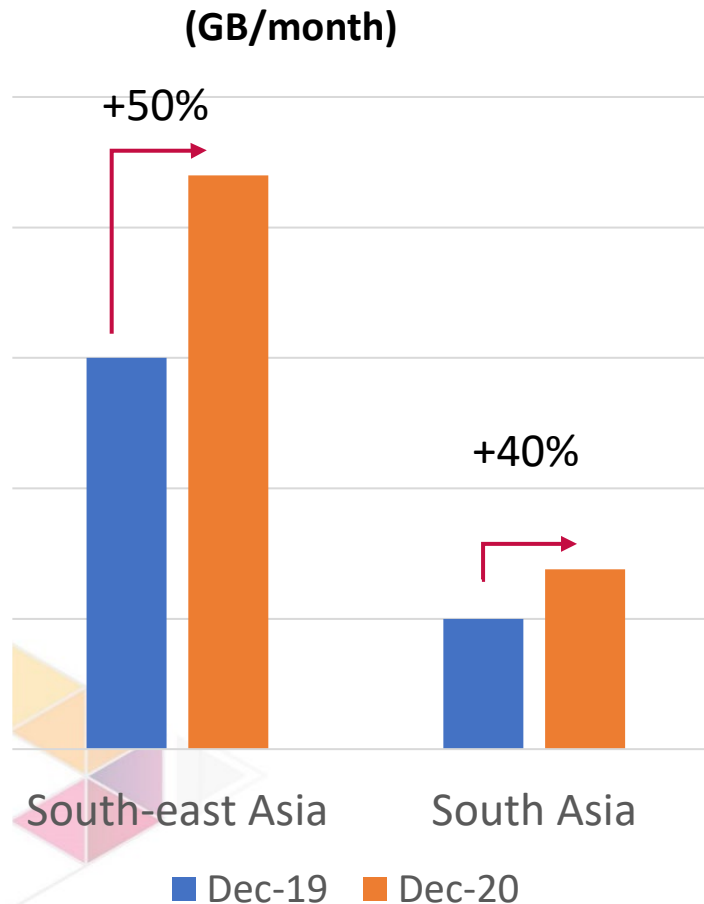
The World Bank, WEF, GSMA and ITU Mobilized in the Fight Against COVID-19



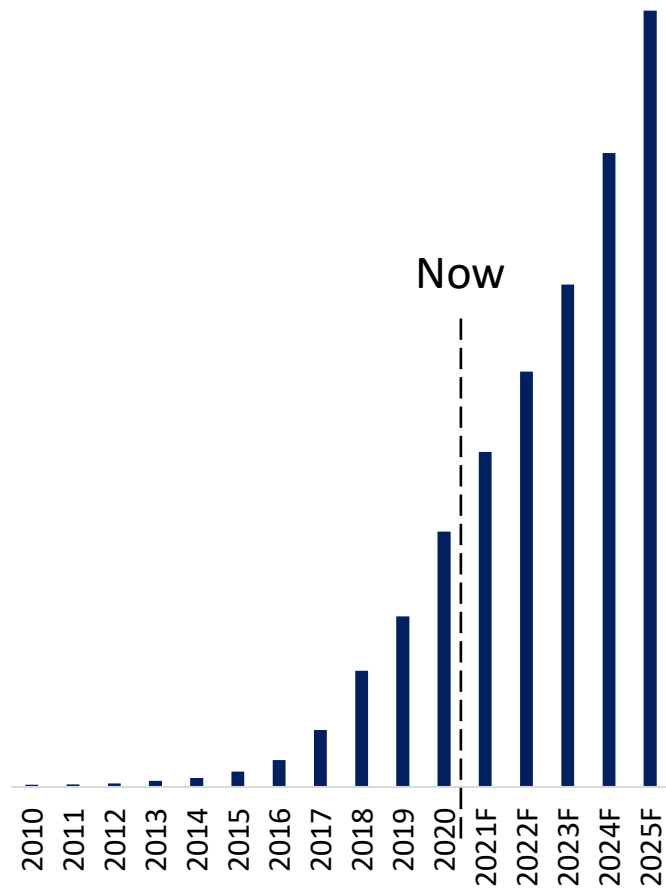
¹ Figures derived from 2016 AT Kearney study: ASEAN Digital Revolution, comprising of productivity interestec...

To cope with the exponential rise in demand for data, and yet ensure its affordability, **more spectrum is needed**

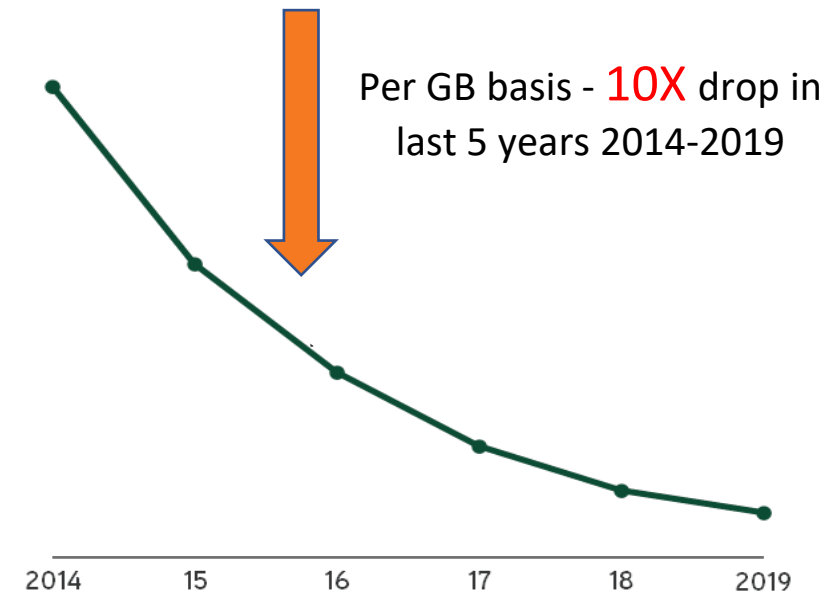
Since Covid-19, data demand has risen significantly



Data Usage/Sub/Month (GB/month) → 2025F



Rapid falling data prices to low levels, benefiting consumers



Source: Internal analysis, Analysys Mason

Though 6GHz opportunities is a medium-term issue, APAC should act now

Medium-term objective

- Potential 6GHz band **complements current 5G mid-band** spectrum identified for IMT2020.
- **Priority is to clear sufficient blocks in 3.5GHz** and ensure all **sub-6GHz bands are technology neutral**

Larger ecosystem

- WRC-23: While only 100MHz considered for global harmonization (7025-7125MHz), we have opportunity to join R1 to include wider (6425-7025MHz).
- **A larger ecosystem for 6GHz licensed 5G** will drive economy of scale for cheaper devices and equipment.

Act Now

- **Spectrum policy is a long, complex process**, hence the need to start the work as soon as possible.
- International coordination (~10 years) + national assignment
- WRC-23 – APAC region to **support wider 6GHz** or opt to be part of this by **adding names into the footnotes**.



Thank You

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