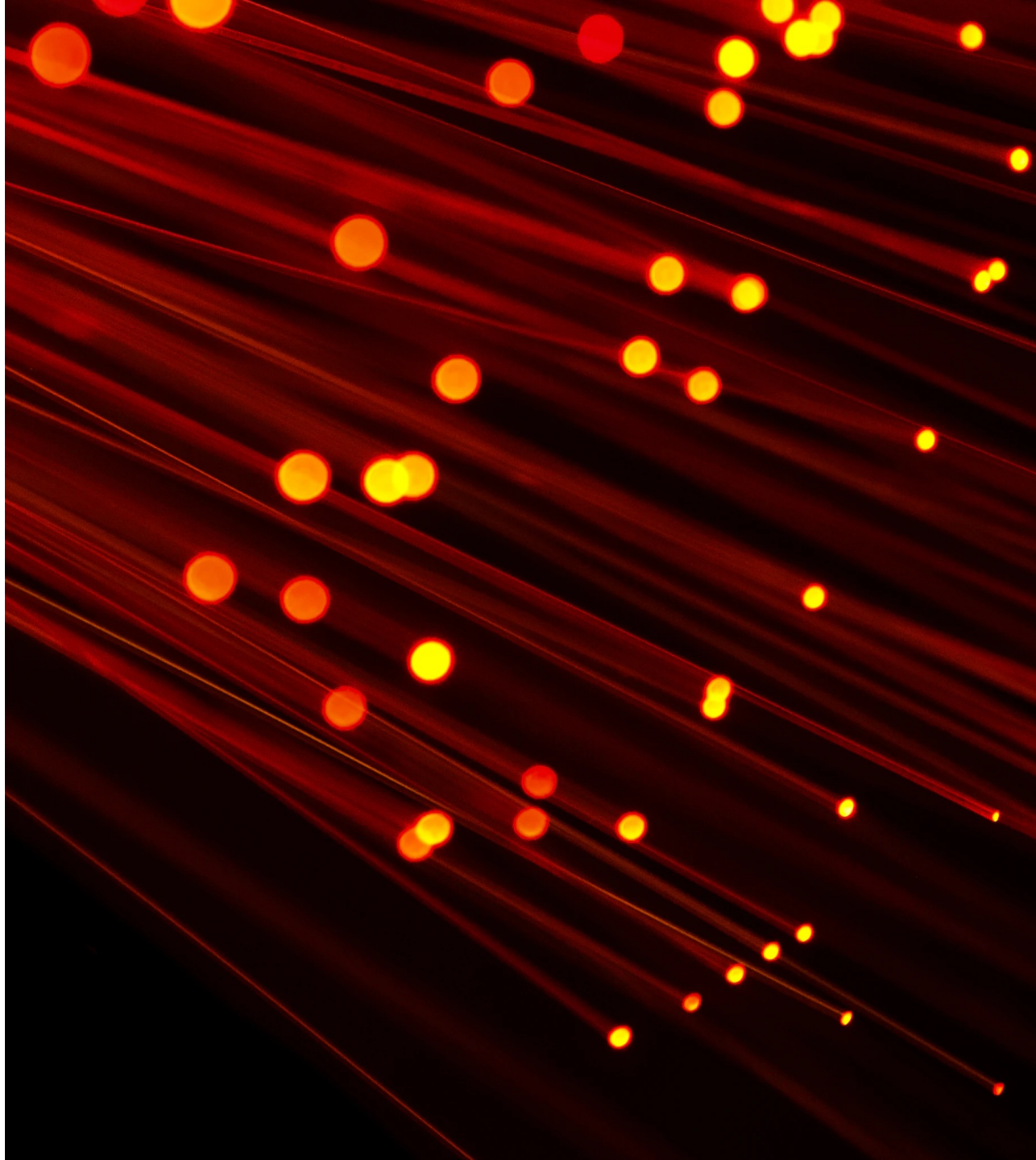
Wellington Perspective

Fixed Mobile Convergence (FMC) in Indonesia

September 2023



Wellington Capital
Advisory

Industry Overview and Current Trends



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Fixed Mobile Convergence (FMC) is currently at the nascent stage in Indonesia

Substantial growth potential is available, driven by rapidly-evolving and pervasive market dynamics

The surge in data demand, cross-industry digitalization and the impact of the COVID-19 pandemic are driving demand for optical fiber services (FTTx). Fiber-based transmission is a strategic imperative for all major telecoms network operators - in line with the growth of the FMC category.

XL Axiata

1st Mobile Operators to introduce FMC service in Indonesia

XL SATU

Subscriber Target: 30% of XL Home users

- XL is the pioneer MNO for FMC services in Indonesia having launched ***XL SATU*** in June 2021.
- XL SATU comprises two sub-brands, namely ***XL SATU Fiber*** (first introduced in June 2021) and ***XL SATU Lite*** *(Wireless Broadband)*.
- XL SATU Fiber is available only to those customers resident within the footprint of XL SATU's fiber optic network.

smartfren.

TRUE QUAD PLAY by oxygen.id

Subscriber Target: 30% of MyRepublic users

- Smartfren partnered with Oxygen.id (Moratelindo) in October 2021 to introduce a mobile/fixed broadband connectivity solution **- True Quadplay -** that integrates four services under a unified billing platform.
- Smartfren also entered into collaboration agreements with My Republic and Vidio in 2022

Telkom Indonesia

Telkomsel One

Subscriber Target: 5 Mn of Telkomsel & IndiHome users

- Telkomsel (TSEL) launched an integrated FMC proposition, ***Telkomsel One***, following the transfer of the IndiHome service into the TSEL portfolio in July 2023.
- Telkomsel One consolidates all related services i.e. Orbit, IndiHome, Halo, and Telkomsel Prepaid.

indosat OOREDOO HUTCHISON

indosat HiFi

Subscriber Target: 20% of HiFi users

- Indosat Ooredoo Hutchison (IOH) is set to expand the existing fiber optic network from 400,000 home passes to 1.5 million home passes by early 2024, thereby boosting the reach of the own-brand fixed-mobile product range, **Indosat HiFi**.

Industry Trends for FMC

- **M&A Activities Telco x Fiber**
- **Partnership Deals**

Sources: *Company websites; CNBC; Investor.id; IDN Times; Tekno Bisnis; WCA analysis*

Growth Opportunity



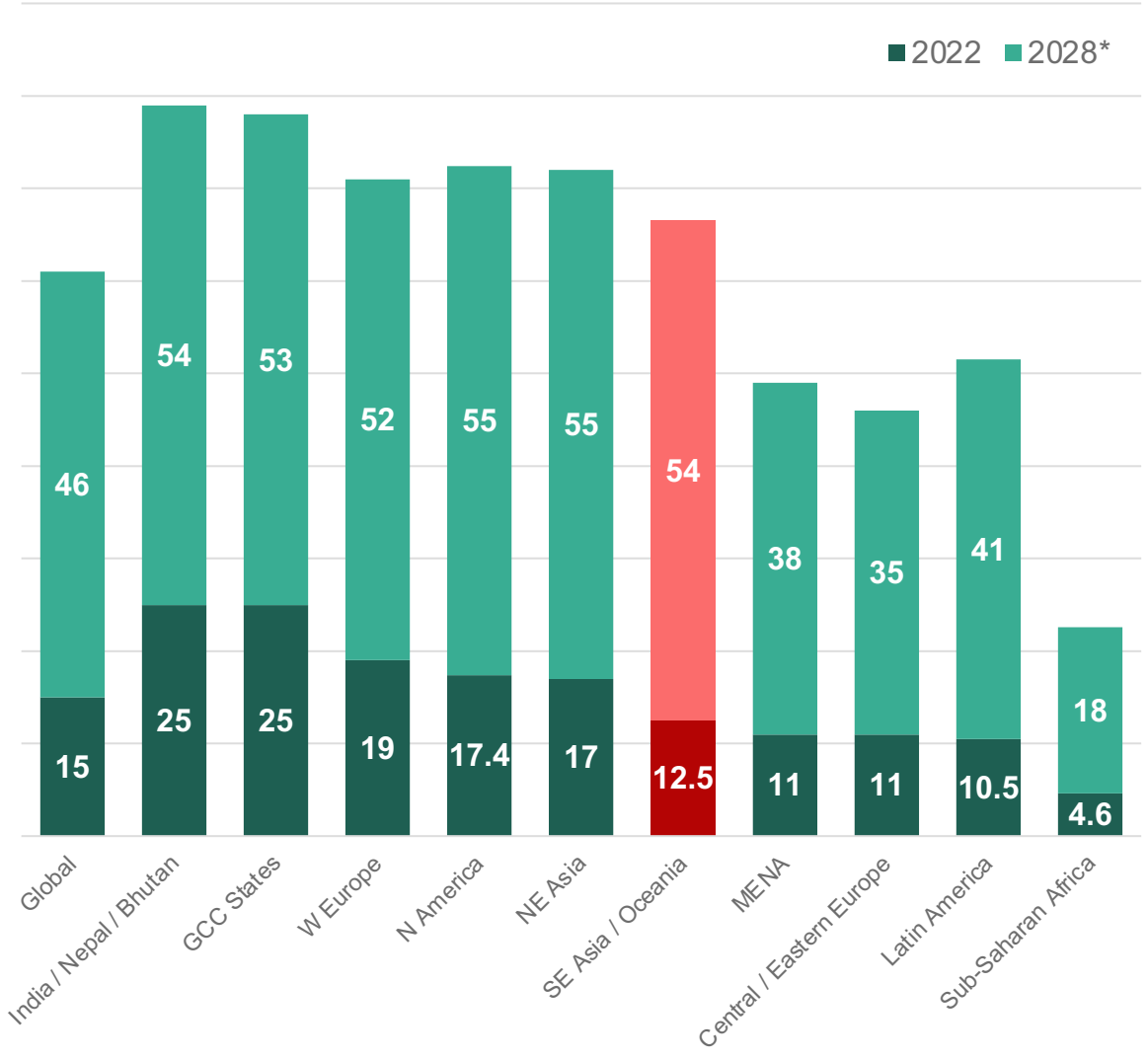
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The continuing digital transformation of all major economies is the driving force for data demand

Global data volume acceleration will continue on the current growth trajectory

Average Monthly Data Traffic per Smartphone User

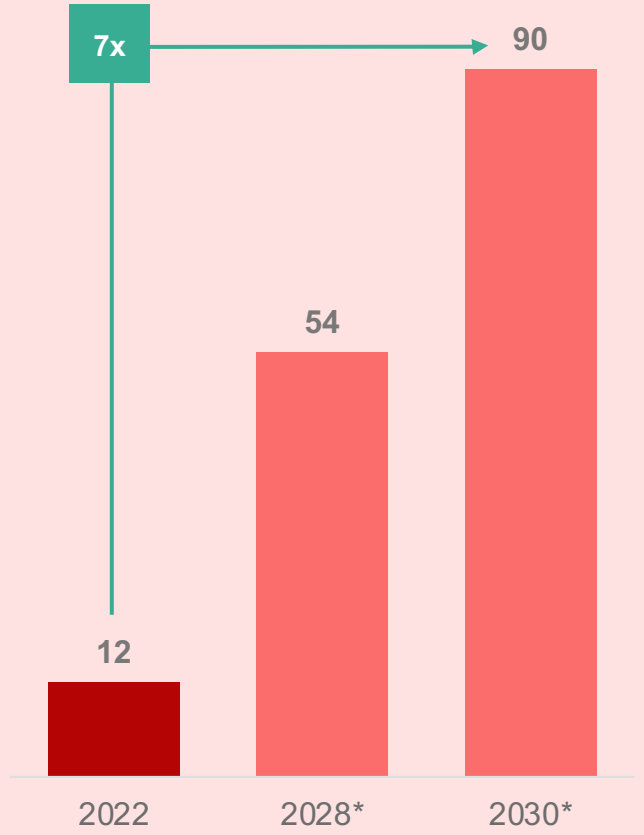
2022 to 2028 | in Gigabytes



In SE Asia, the expansion in data consumption will be sustained through 2030

Average Monthly Data Traffic per User

2022 to 2030 | in Gigabytes



Sources:

Statista; Ericsson Mobility Report; WCA analysis

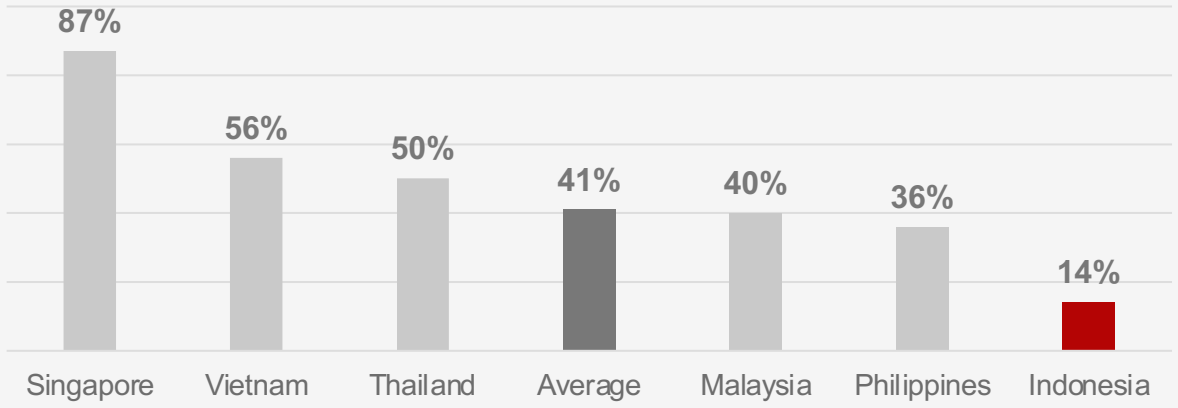
The continuing surge in data demand will underscore the need for faster and more robust connections

- In turn, the deployment of fixed broadband services - coupled with 5G network rollout - will be critical success factors.

The market for fixed services connections in Indonesia offers significant upside potential due to the relatively low penetration rate

Fixed-line Internet Penetration

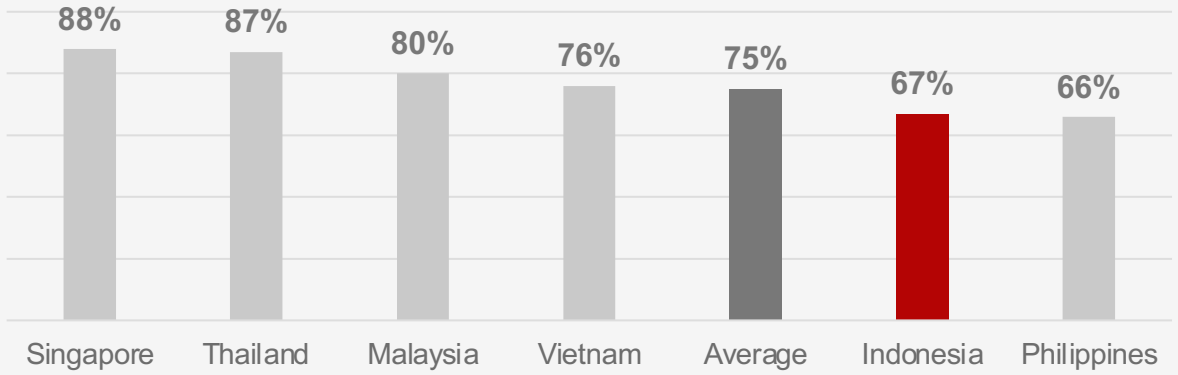
2022 |



Mobile services markets are approaching saturation, due to the availability of affordable devices and low data tariffs (by comparison with fixed broadband services)

Unique Subscriber Penetration

2022 |



10-20%

Of fixed broadband connections are expected to form part of the FMC category

- Indonesia's geographic size and diversity presents both **technical challenges and increased costs** in deploying fiber networks for fixed broadband services.
- The anticipated growth in fixed-line broadband penetration through 2030 will still likely be **concentrated within urban areas**. The rollout costs for new wireline infrastructure within rural geographies are still deemed to be prohibitive

Fiber vs 5G

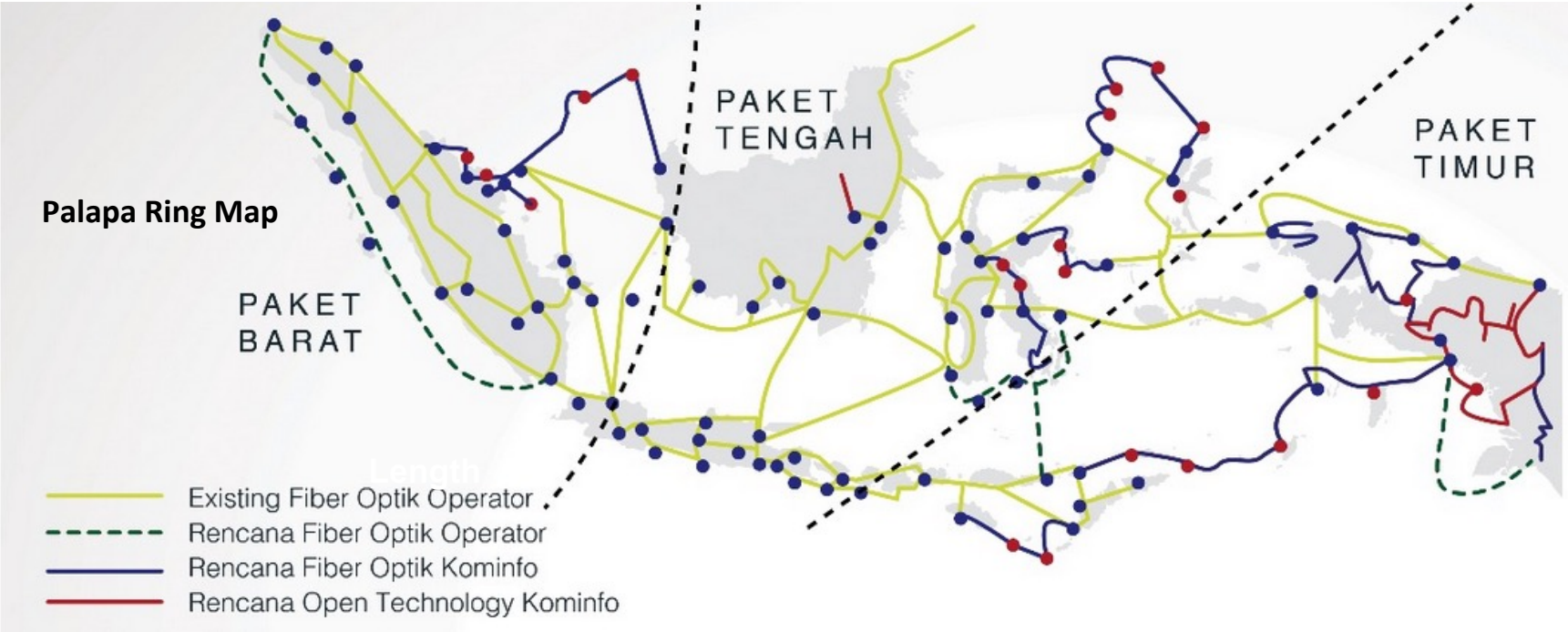
The lack of fixed-line broadband infrastructure is expected to stimulate the continuing growth in mobile data usage

- There is a substantial market growth opportunity, with the anticipation of an uplift in **Average Revenue Per User (ARPU)** - driven by increasing data consumption

Sources:
GSM Intelligence; Analysis Mason

The completion of the ‘Palapa Ring’ national infrastructure project constitute a major milestone

Bridging the geographical divide in digital services and facilitating the rollout of nationwide high-speed broadband services



Palapa Ring Section	West	Central	East
Length of Network	2,275 km	2,995 km	6,878 km
Municipal / City SLAs	5	17	35
Municipal / City interconnection points	7	10	16

- The Palapa Ring strengthens the backbone network infrastructure and inter-island connectivity in Indonesia.
- Consequently, the Palapa Ring provides an available source for the leasing of bulk network capacity by the incumbent MNOs and ISPs.
- The MNOs and ISPs are now focused on delivering local area network access for currently unserved and underserved communities (‘Middle-mile’ and ‘Last-mile’ connectivity).
- Over time, the availability of both 5G and satellite networks will give the MNOs additional options in offering FMC services to these outlying communities.
- The economics of delivering local area network connectivity to these ‘3T’ (i) locations will be evaluated on a case-by case basis by the MNOs.

(i) Frontier, Outermost and Least Developed areas

Sources: *Kominfo; Analysis Mason; Telkom*

The satellite-based transmission network Starlink - developed by Elon Musk's company SpaceX - has the potential to disrupt the FMC category in Indonesia

Overview

- Starlink offers the world's first and largest satellite constellation using a Low-Earth Orbit (LEO) to deliver broadband internet capability in support of video streaming, online gaming, video calls and cloud computing services.
- Leveraging advanced satellites, spacecraft operations and user hardware on-orbit operations, Starlink delivers high-speed, low-latency connectivity and equitable broadband access to a global user base.
- Starlink has identified Indonesia as a high potential market, with an initial focus on providing broadband access to remote geographic locations - prior to achieving widespread service utilization by end-2024.

Strategic Focus

Regulatory Approval

- Starlink is establishing an Indonesian legal entity prior to applying for an ISP license in order to serve the public directly or via business-to-consumer (B2C) channels.
- Under the regulatory framework, foreign telecoms providers seeking to establish operations within Indonesia are mandated to forge alliances with their domestic counterparts.
- The incumbent MNOs are lobbying the Indonesian Government to ensure that Starlink is not granted any exclusive regulatory privileges

Broadband Access

- Starlink is currently functioning as a backhaul provider for members of the Indonesian Internet Service Providers Association (APJII).
- As Starlink becomes established in Indonesia, closer broadband service delivery partnerships with the MNOs and ISPs will emerge
- Both Starlink and parent company SpaceX are prospective strategic partners for the provision of next-generation satellite infrastructure and key enabling technologies - such as interconnected laser mesh networks - within Indonesia.

Industry Collaboration

- Starlink has entered Indonesia via a partnership with PT Telkom Satelit Indonesia (Telkomsat) - a subsidiary of PT Telkom - for the delivery of business-to-business (B2B) services, whereby Telkomsat uses Starlink as a backhaul network.
- Smartfren sees an opportunity to utilize the Starlink network in remote areas where fiber optic connectivity is not available. Provision of enterprise-grade broadband access to corporate accounts (including those of parent company Salim Group) is the desired outcome.

Government Programs

- The Indonesian government is intending to grant Starlink the status of an Internet infrastructure Provider – with a focus on serving the broad public interest.
- Priority programs include exploring the viability of deploying Starlink's internet services to bolster the operations of Community Health Centers (Puskesmas) and to provide reliable connectivity to educational facilities located in Frontier, Outermost, and Disadvantaged areas (3T).

In parallel with the negotiations regarding the establishment of an in-country EV ecosystem, the Indonesian Government is seeking to harness the latent potential of the Starlink network.

Sources:
Reuters; The Economic Times; Voi.id; Uzone.id

Differentiated incentives and smart discounting models are integral components of the marketing strategy for FMC services

- Customer acquisition and retention remain the key performance indicators

Incentives

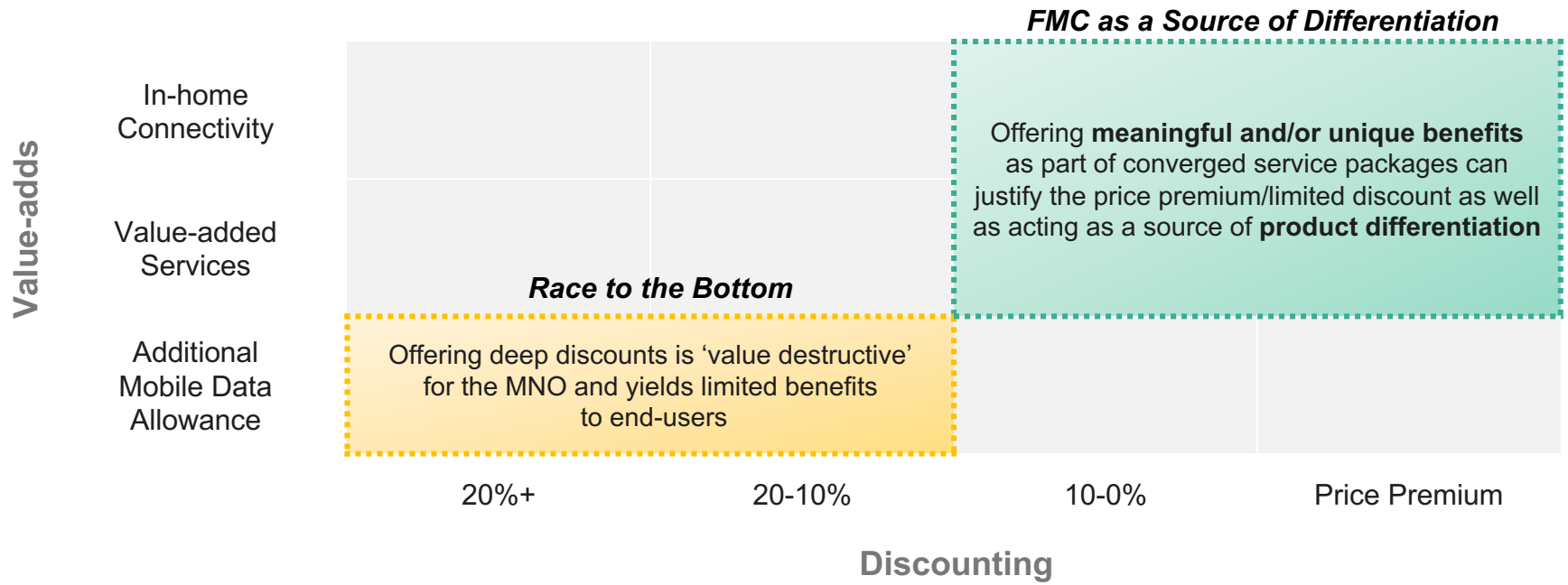
Value-Added Services

- Subscription Services
- Security
- Additional SIM
- Family Packages
- Priority Service
- Insurance

In-Home Connectivity

- Broadband Speed Boost
- Mobile Back-Up
- Wi-Fi Disc/Extenders

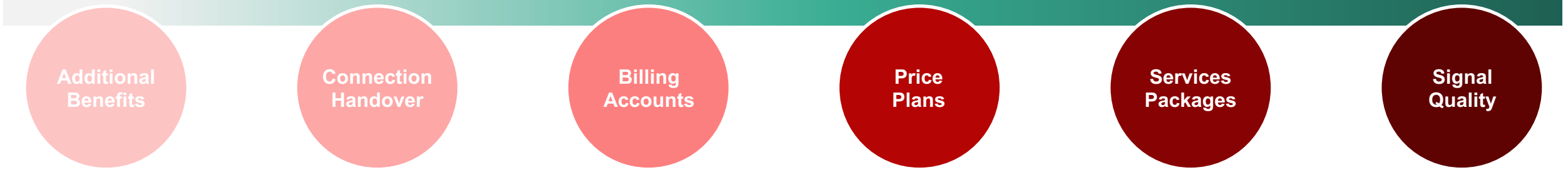
Discounting Model



Sources:
STL Partners

To address the challenges posed by convergence and to achieve market traction, it is critical to design service propositions and incentive programs that align closely with the preferences of Indonesian consumers

Least Appealing — *Most Appealing*



Additional Benefits

Consumers tend to prefer complementary additions such **as free calls as part of supplementary incentives** within FMC offering, rather than merely seeking discounted pricing

Connection Handover

Consumers **undoubtedly favor a seamless handover** between connections through fixed broadband or mobile networks, for a more convenient and uninterrupted experience

Billing Accounts

Among the offerings provided by FMC, the **single integrated billing system stands out** as being particularly favored by Indonesian customers – as opposed to multiple billing systems

Price Plans

Consumers tend to express a **stronger preference for fixed-rate pricing structures** in FMC offering, as opposed to usage-based billing, finding them more predictable in avoiding "bill shock".

Services Packages

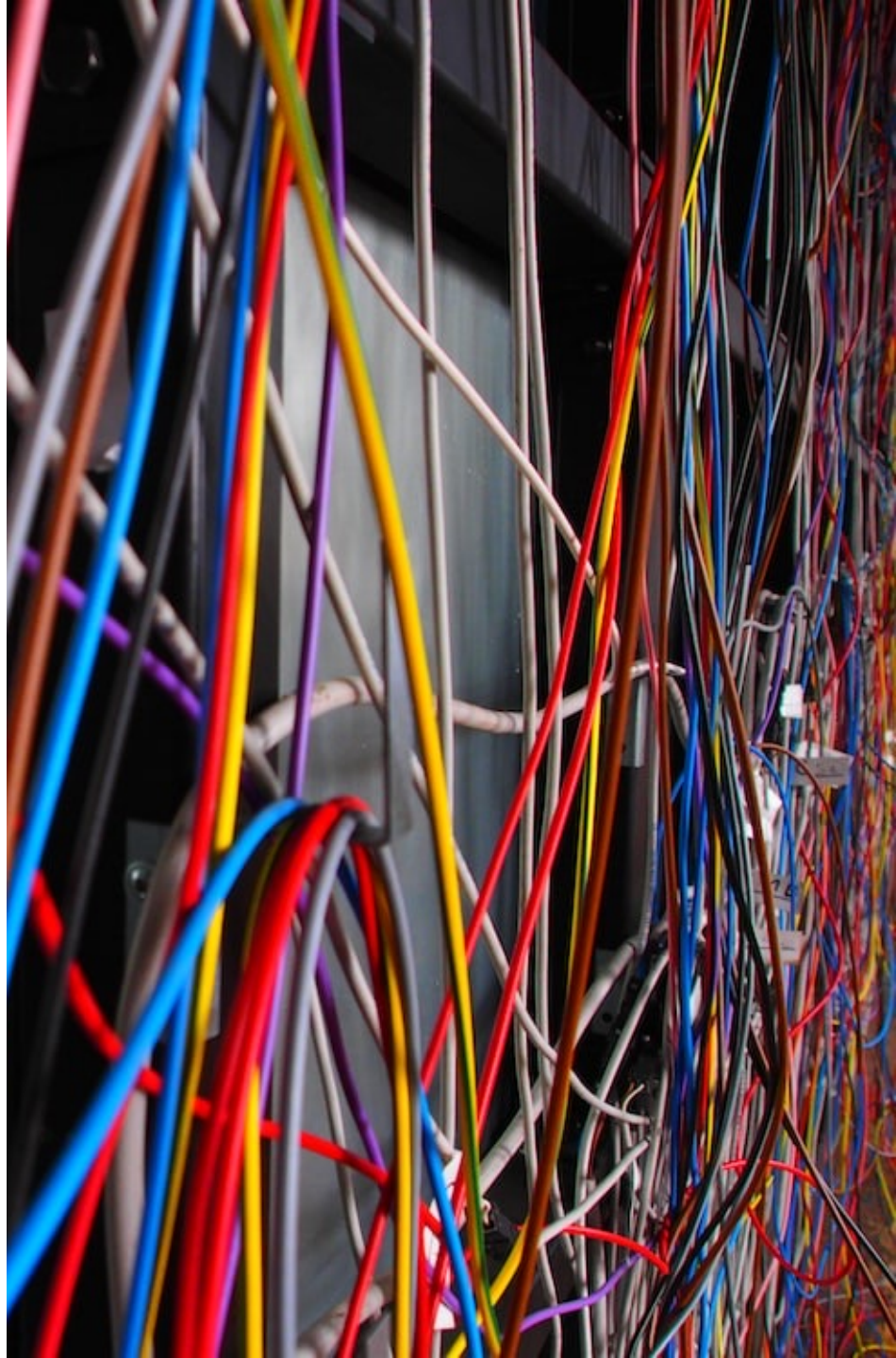
Consumer preferences tend to **lean significantly towards fixed and mobile HD and interactive TV services** compared to other services like smart home systems, fixed-line phones, and even Video on Demand (VoD) television

Signal Quality

Among the various benefits and packages available in FMC, it has been found that **ensuring a stable and reliable signal is one of the most crucial elements of the end-to-end service delivery**

Source: *A Conjoint Analysis of Customer Preference towards FMC services in Indonesia (Pahlevi & Suryanegara), n: 115 respondents*

FMC Market Comparison



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Comparing the experience of North American markets in the post-launch phase for FMC

While the US is still in the early-adoption phase for FMC services, Canada has been successful in driving value through high customer retention rates

	USA	Canada
Major Players	verizon, T-Mobile, COMCAST, Charter COMMUNICATIONS	Bell, TELUS, ROGERS, VIDÉOTRON
Take up of Fixed-Mobile bundles	❑ The FMC market in the US is characterized by discounted fixed-mobile bundles and price-led promotions. ❑ Fixed-mobile bundles offered by Verizon and T-Mobile: have encouraged customers to trial the newly-available 5G FWA services. *(Reference: 23% of T-Mobile FWA customers cited fixed-mobile bundling as their reason for switching).* ❑ Cable operators have acquired additional spectrum assets as a means of offloading traffic in high-density areas. They have bundled low-price mobile connections, thereby undercutting the incumbent telcos by 25 to 30 % for most single-line or dual-line price plans. ❑ This discount policy has been positive, as the mix of total subscribers with a mobile connection increased from 8% in 2019 to 15% in 2022.	❑ Historically full-service operators have not been incented to promote FMC propositions - due to the lack of 'National Challenger' providers and limited competition from independent service providers. ❑ To protect their market share position, full-service operators have promoted fixed broadband plans rather than FMC bundles. - with extended subscription periods (typically 24 months) and augmented with multi-SIM plans - ❑ As at January 2023, between 15% and 20% of Canadian households have taken up fixed-mobile packages ❑ Over time, FMC accounts are expected to reach ± 30% penetration of the aggregate customer base by 2026.
Implications	❑ The FMC category is still at a nascent stage by contrast withnear-neighbors Canada and the major EU markets. ❑ Both the telcos and the cablecos in the US will continue to compete aggressively for subscriber share - across the major metropolitan conurbations and the secondary market areas - with service switching and single-sourcing behavior becoming ubiquitous. ❑ 'Share of Wallet' and 'Customer Lifetime Value' - at the household level – will be the dominant KPIs as intense price competition and continuous service innovation continue to drive subscriber choices ❑ In turn, operating margin pressures will be an increasing focus for all service providers.	❑ Fixed-mobile bundling is used primarily to stimulate customer loyalty and retention performance. ❑ Mobile service is ranked as one of the most expensive in the world, hence the propensity of customers to seek savings through bundled offerings. ❑ A successful case of FMC since it has resulted in stable pricing, customer lock-in, and overall value creation for the telecoms sector. ❑ All major players achieved net positive customer growth in both mobile and fixed segments in 2022.

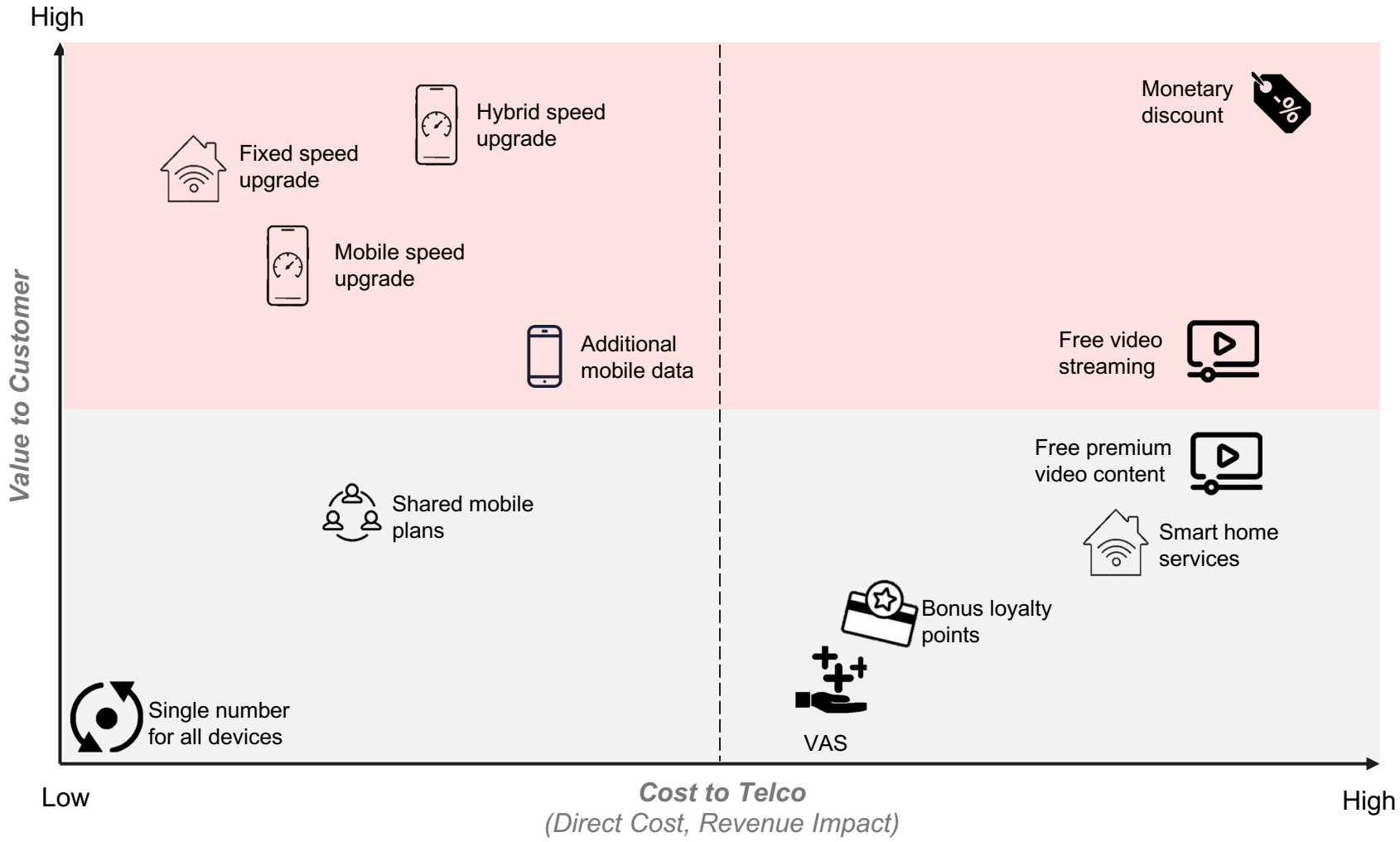
Sources: *Plum Consulting UK; BCG; Analysis Mason;*

FMC Incentives Case Study in USA

- Compared to EU market, USA lags in the marketing of Fixed-Mobile telecom bundles.
- In 2021, the percentage of fixed broadband HH with fixed-mobile bundles was only 15% in the US (cf. while in the EU is c. 40% on average.
- Targeted offers can attract customers. While EU companies have focused on discounts, US operators have the opportunity to use a wider array of more affordable packages.

FMC in the US is still at the nascent stage of development

CableCos hold a significantly stronger position in the market while FMC service pricing appears to deter existing customers from service switching - as reflected in the low subscriber churn rates of ±1% for Verizon and AT&T



Source: *Bain & Co*

Most suitable FMC strategies for achieving ‘Win-Win’ outcomes

Key Learnings from developed markets

‘More for More’	A “More for More” strategy would allow providers to leverage the customer-retention benefits of fixed-mobile bundles without sacrificing their ARPA (Average revenue per Account) by competing solely on discounts. According to OpenVault, US households have increased adoption of throughput speeds over 200 Mbps by 50% and Gigabit tier Internet by 35%. Hence, increased broadband speeds within the bundle could be a clear example to drive higher value and propensity-to-pay for customers.
Differentiate Mobile Services	Providers can also find innovative ways to differentiate their service and attract loyal customers. Optus, an Australian telecom provider, has found a way to stand out through the creation of their “Living Network” initiative. They created a unique in-app experience with features tailored towards specific customer needs. Standout features include the ability to choose “Unlimited Data Days”, donating data quotas to Australian citizens in need, an interactive map showing real time signal quality, and other such attention-grabbing feature-functionality. This differentiated, customer-centric approach has led to positive customer growth - a gain in mobile service revenue by 2% YoY, and the recognition for being one of the most innovative companies in Australia in 2022.
Create ‘Flanker Brands’ for price-sensitive customers	If discounted bundles prove to be effective in the market, operators can create a ‘Sub-brand’ layer in order to address the mid-tier and low-tier segments of the market with simple and flexible FMC service bundles. The creation of a brand hierarchy allows providers to test pricing options without compromising the integrity of the parent brand. Companies such as Masmovil in Spain have been successful with this strategy – through the creation of four different brands offering FMC services to address all customer segments across the base (delineated by ‘value-for-money’ sensitivities and channel preferences}. After the creation of this multi-brand structure, Masmovil increased mobile market share from 10% to 14% and broadband market share from 3% to 10% in the first three years of the program.

Sources: *Bain & Co; WCA analysis*

Indonesia Market Mapping for FMC:
Telecoms & Fiber Companies



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Telco Players in Indonesia

Operators	Telkom Indonesia	indosat OOREDOO HUTCHISON	XL axiata	sinarmas communication & technology
Mobile Services	Telkomsel + by.U **(153.3 Million users)**	im3 + 3 **(100.0 Million users)**	XL + AXIS **(58.0 Million users)**	smartfren. **(36.0 Million users)**
Fixed Services	IndiHome **(9.5 Million users)**	indosat HiFi **(400,000 homepasses)**	XL HOME + linknet **(154,000+ users)**	oxygen.id HOME **(120,000+ users)**
FMC Product	Telkomsel One	*not available*	XL satu	TRUE QUAD PLAY
Fiber Partnership	❑ Wholly-owned	❑ Nusanet	❑ Fiberstar ❑ iForte ❑ PLN ICON Net	❑ MyRepublic
CurrentoUpdates	❑ Telkomsel One as part of FMC initiative from Telkom Group has launched after the integration of IndiHome with Telkomsel, in July 2023.	❑ PT Indosat Tbk. is still focusing the fiber network expansion plan for the HiFi service. Targeting 1.5 million home passes by early 2024. ❑ Indosat intends to bundle FMC services after expanding its fiber network and acquiring a specific number of HiFi users onboard.	❑ FMC penetration rate is reported at 56% (as at Q2 2023) ❑ XL SATU Fiber available in 63 cities with 10 additional cities going live soon	❑ Smarfren (PT. Smart Telecom) has 18.32% ownership of Moratelindo, the parent company of Oxygen.id ❑ Sinarmas – parent company to Smartfren – offers an FTTH service, branded MyRepublic. ❑ However, the company is not yet able to confirm the potential for merging these services.

Sources: *Company Reports; Open Sources Research; WCA analysis*

Fiber-based Connectivity Providers for Residential Accounts in Indonesia

Operators	Telkom Indonesia	linknet	Biznet	MyRepublic	MVN	XL axiata	Moratelindo
Homepasses	37 Mn	2.98 Mn	2.33 Mn	2 Mn	1.5 Mn	900 K	515 K
Subscribers	9.2 Mn	838 K	300 K	350 K	301 K	120 K	111 K
Description	❑ Telkom is the largest player in residential segment for fiber connectivity	❑ Link Net assets comprise 18,000 Km (fiber) and 16,000 Km (HFC) ❑ XL acquired a controlling interest in Link Net in June 2022. ❑ Prior to acquisition, Link Net planned to collaborate with XL in order to build a network of 1 million hompasses	❑ Biznet is noted for the reach of the broadband network, with connections available in > 4,600 buildings across 184 cities in 21 provinces.	❑ My Republic is a subsidiary of Sinarmas Group - with a clear focus on the FTTH business ❑ My Republic plans to extend coverage to 60 cities in 2023.	❑ Since mid-2019, the company has shifted its business model by discontinuing the deployment of fiber optic cables and opting to purchase capacity from other fiber optic service providers.	❑ Following the acquisition of Link Net, XL Axiata is intending to develop FTTH business with service coverage access to circa 8 million homes within the next five years.	❑ Moratelindo offers FTTH services under the brand named Oxygen.id
Coverage	Nationwide	Regional	Regional	Regional	Regional	Regional	Regional

Sources: *Company Reports; Open Sources Research; Analysis Mason; WCA analysis*

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