

e-Conomy SEA 2019

Swipe up and to the right:
Southeast Asia's \$100 billion Internet economy

Google

TEMASEK

BAIN & COMPANY



Reference

e-Conomy SEA is a multi-year research program launched by Google and Temasek in 2016. Bain & Company joined the program as lead research partner in 2019. The research leverages Google Trends, Temasek research, Bain analysis, industry sources and expert interviews to shed light on the Internet economy in Southeast Asia. The information included in this report is sourced as “Google & Temasek / Bain, e-Conomy SEA 2019” except from third parties specified otherwise.

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Introducing e-Economy SEA 2019

4th edition of e-Conomy SEA by Google, Temasek, Bain Southeast Asia's Internet economy research program



e-Conomy SEA
2015–2025

“Unlocking the \$200B
digital opportunity
in Southeast Asia”

e-Conomy SEA
Spotlight

“Unprecedented growth for
Southeast Asia's \$50B
Internet economy”

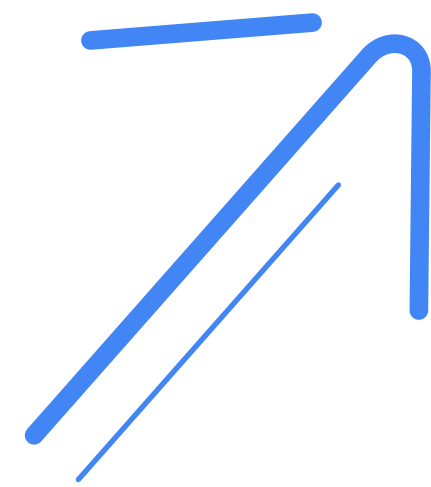
e-Conomy SEA
2018

“Southeast Asia's
Internet economy hits
an inflection point”

e-Conomy SEA
2019

“**Swipe up and to the right:**
Southeast Asia's
\$100B Internet economy”

e-Conomy SEA research methodology



Google Trends



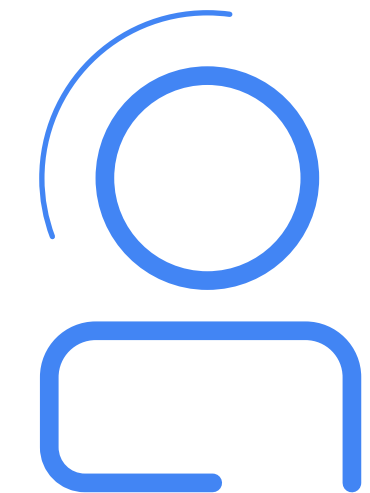
Temasek Research



Bain Analysis



Industry Sources



Expert Interviews

In partnership with

App Annie



Hootsuite

jungle ventures

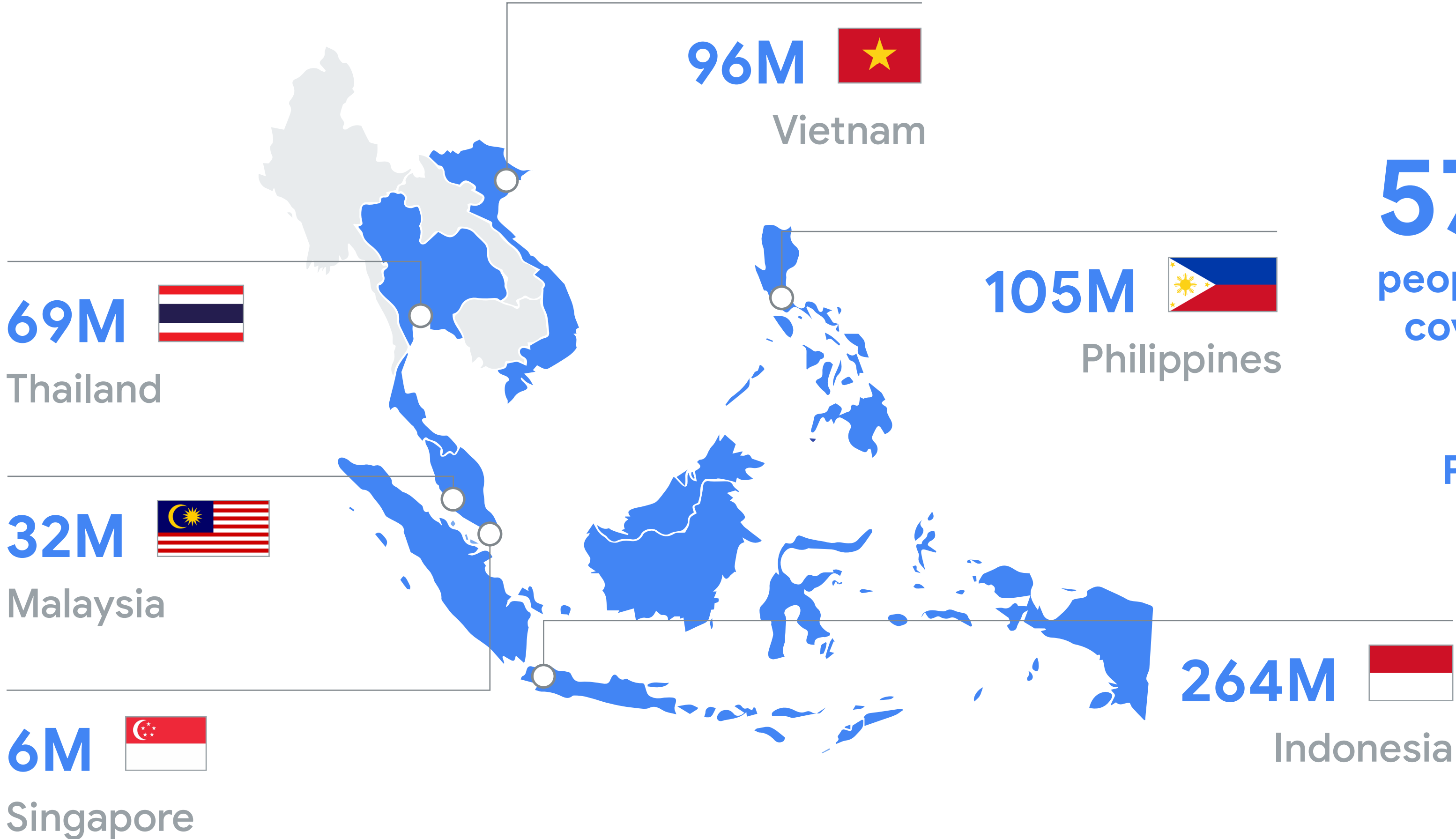


openspace VENTURES

vertex VENTURES



e-Conomy SEA covers 6 countries in Southeast Asia



570 million

people across the 6 countries covered by e-Conomy SEA

Indonesia, Malaysia, Philippines, Singapore, Thailand, Vietnam

Source: World Bank

5 sectors of the Internet economy covered

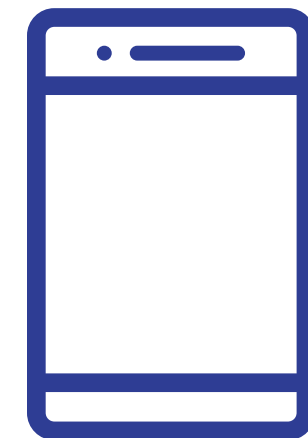
Financial Services included amidst increasing adoption

e-Commerce



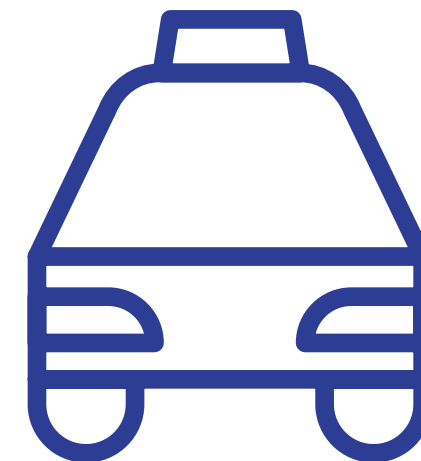
Marketplaces
(SMB2C)
Malls (B2C)
“Brand.Com”

Media



Advertising
Gaming
Video on Demand
Music on Demand

Ride Hailing



Transport
Food Delivery

Travel



Flights
Hotels
Vacation Rentals

Financial Services

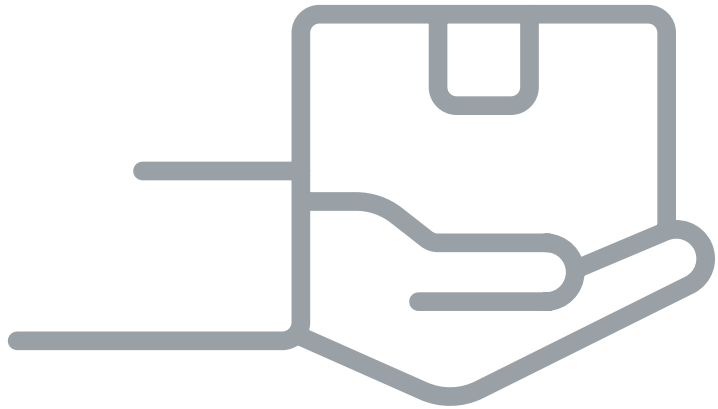


Payments
Remittance
Lending
Investing
Insurance

Other sectors of the Internet economy not covered due to lack of reliable data or still nascent adoption

Lack of reliable data

Social Commerce



Still nascent adoption

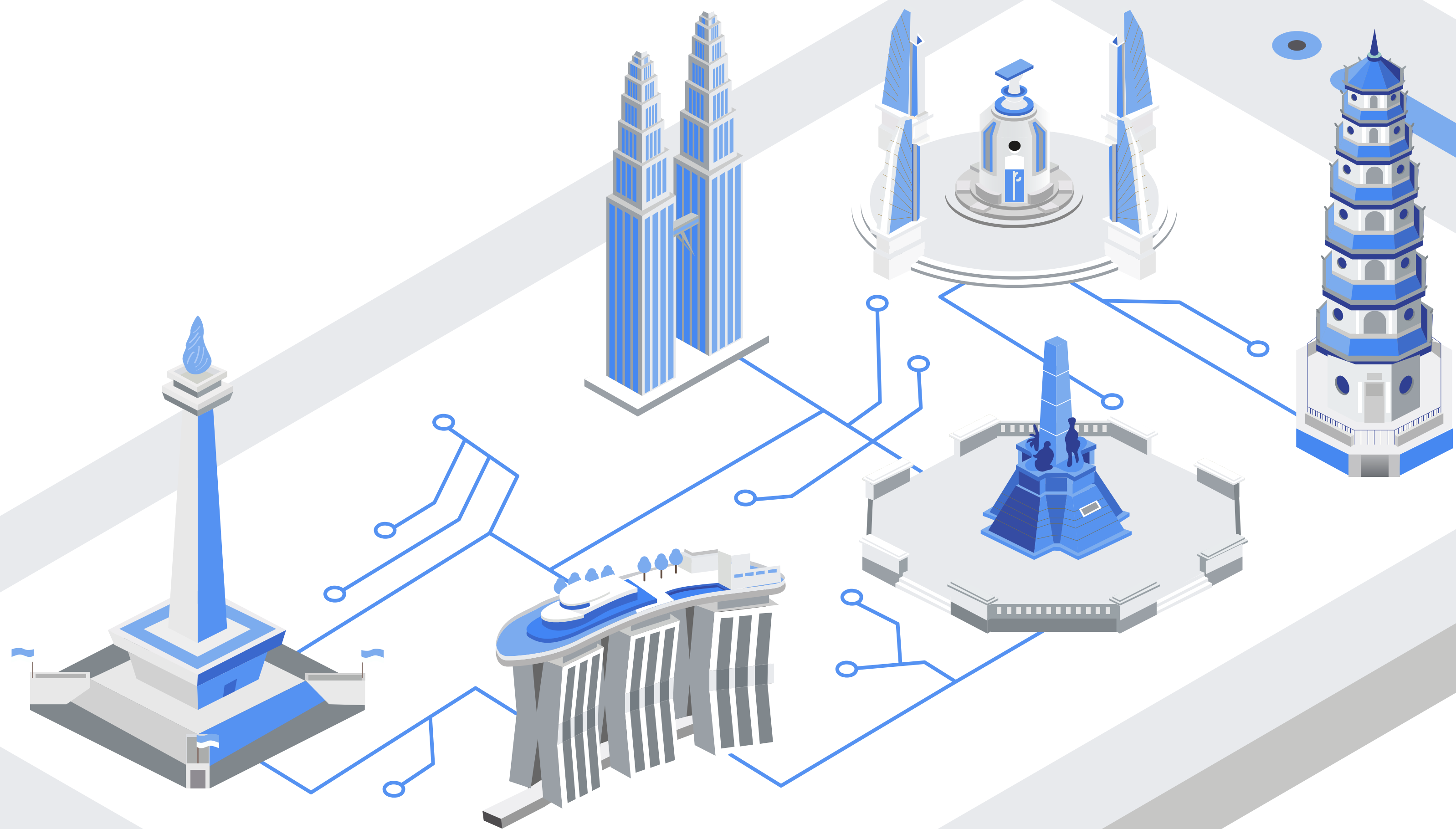
Healthcare



Education

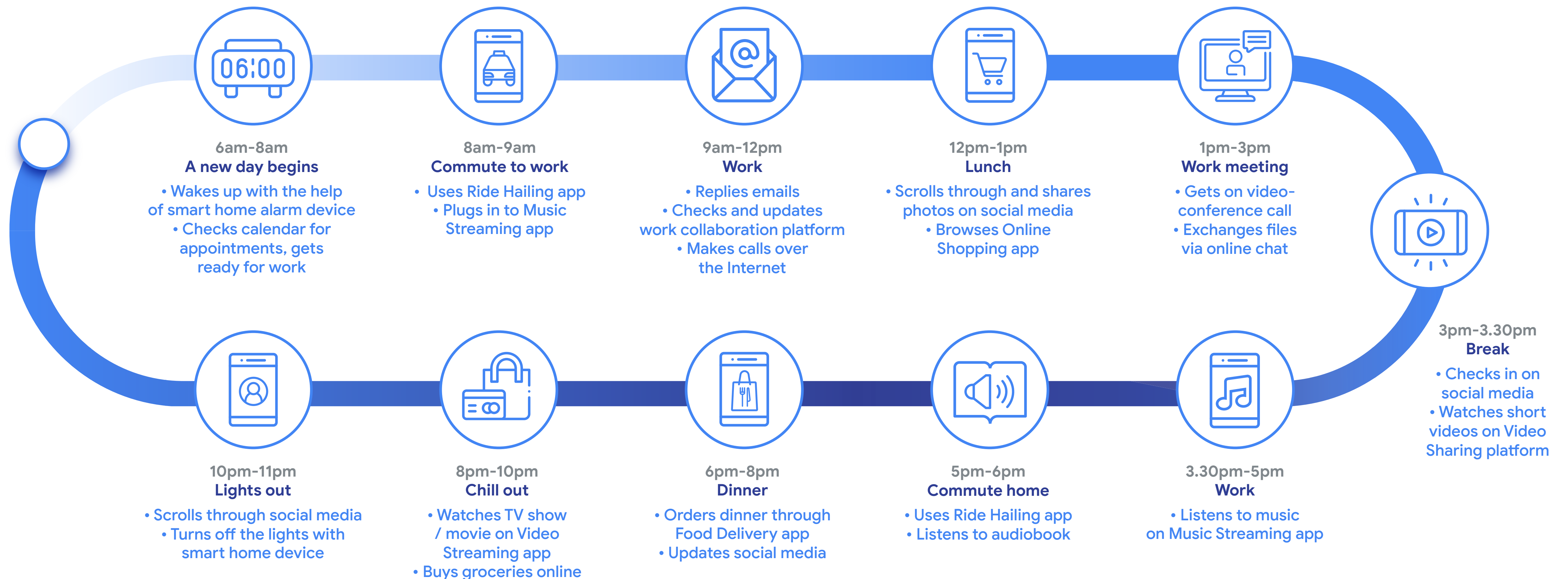


Mobile Internet transforming Southeast Asia



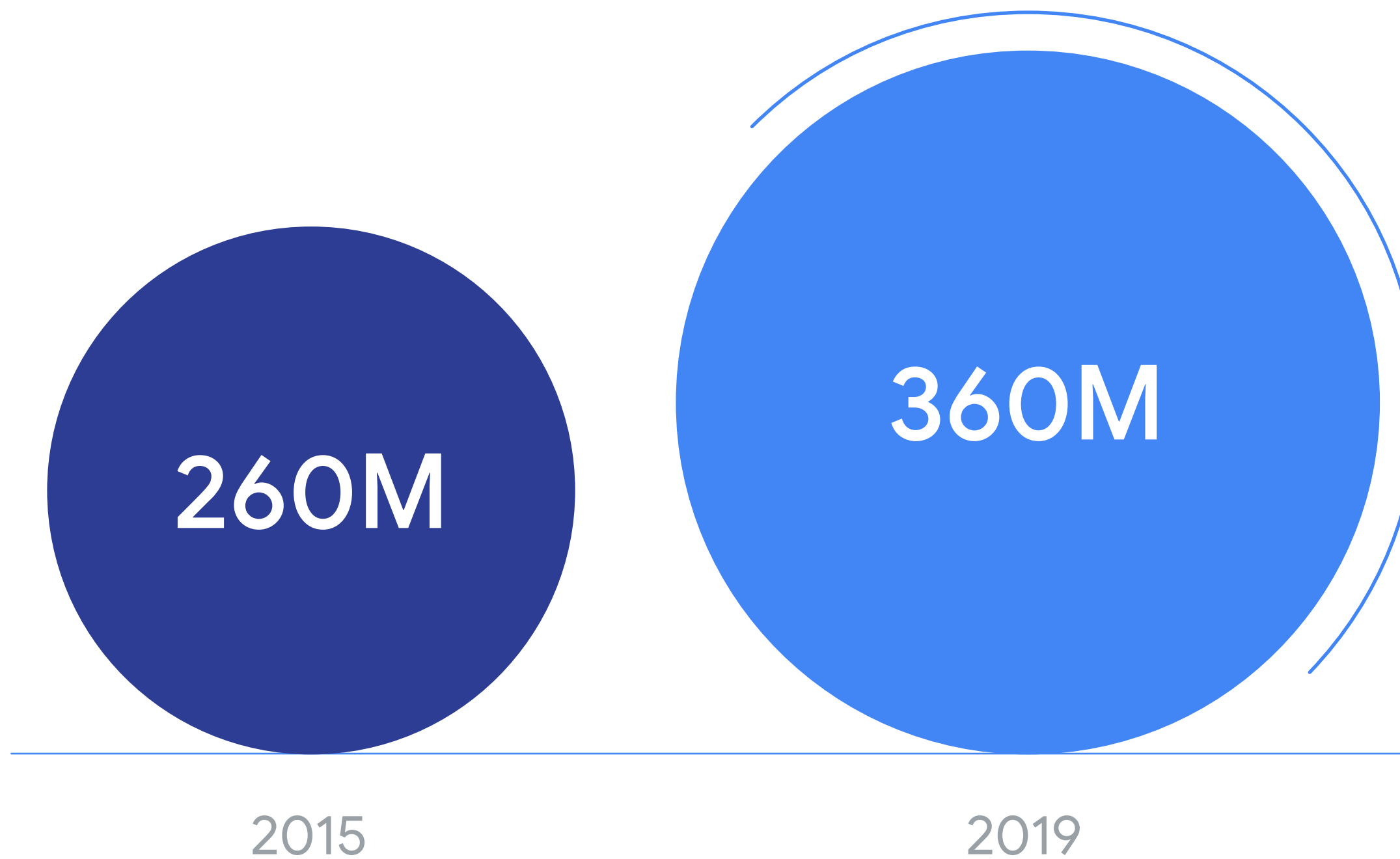
Mobile Internet transforming lives of Southeast Asians: unprecedented access to people, information, services

“A day in the life” of a Southeast Asian mobile Internet user



There are 360 million Internet users in Southeast Asia, the most engaged mobile Internet region in the world

Southeast Asia Internet users

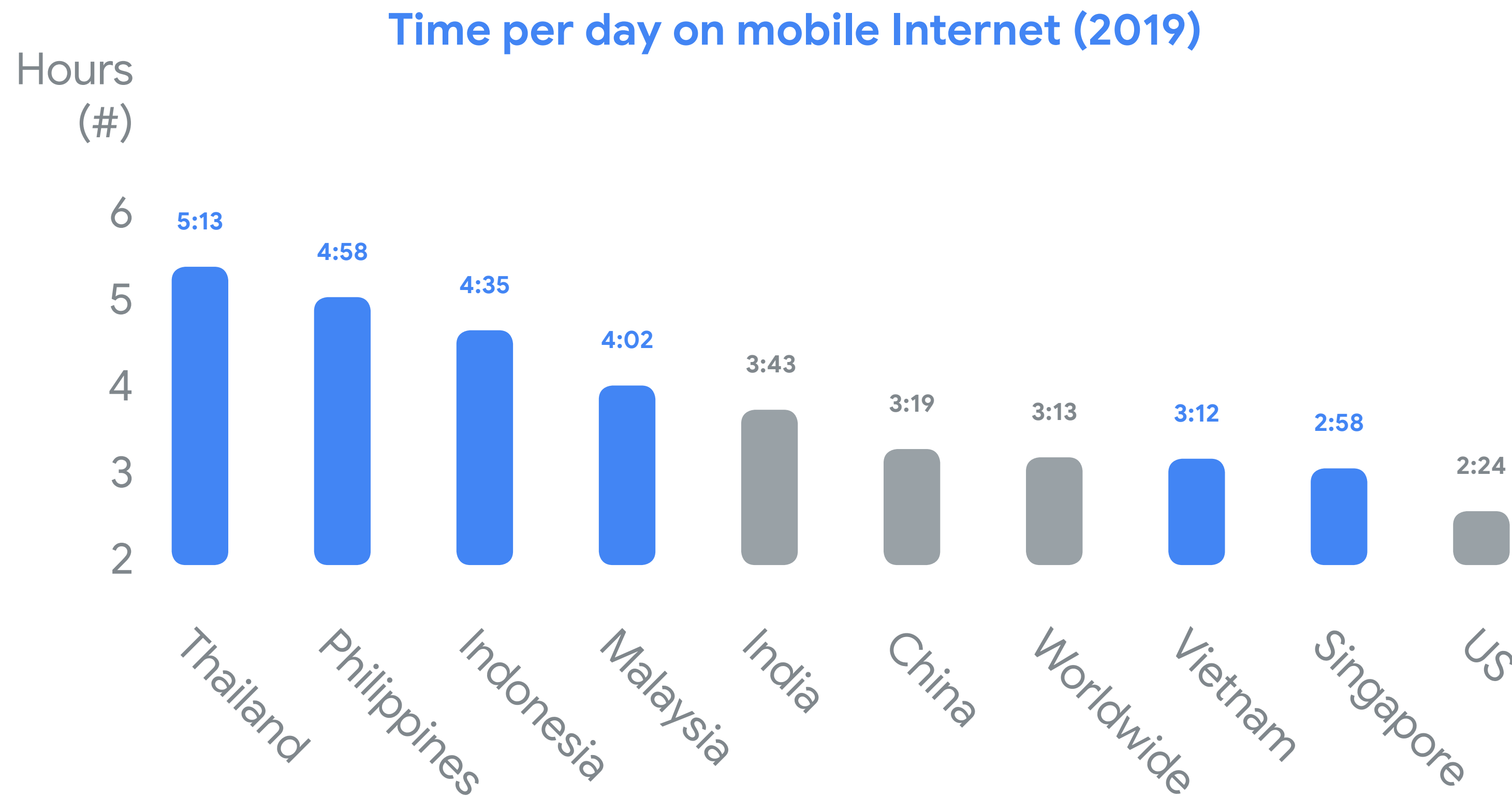


100 million more Internet users in the last 4 years

The most engaged mobile Internet region in the world¹

Source(1): Hootsuite "Digital in 2019"

The most engaged mobile Internet region in the world

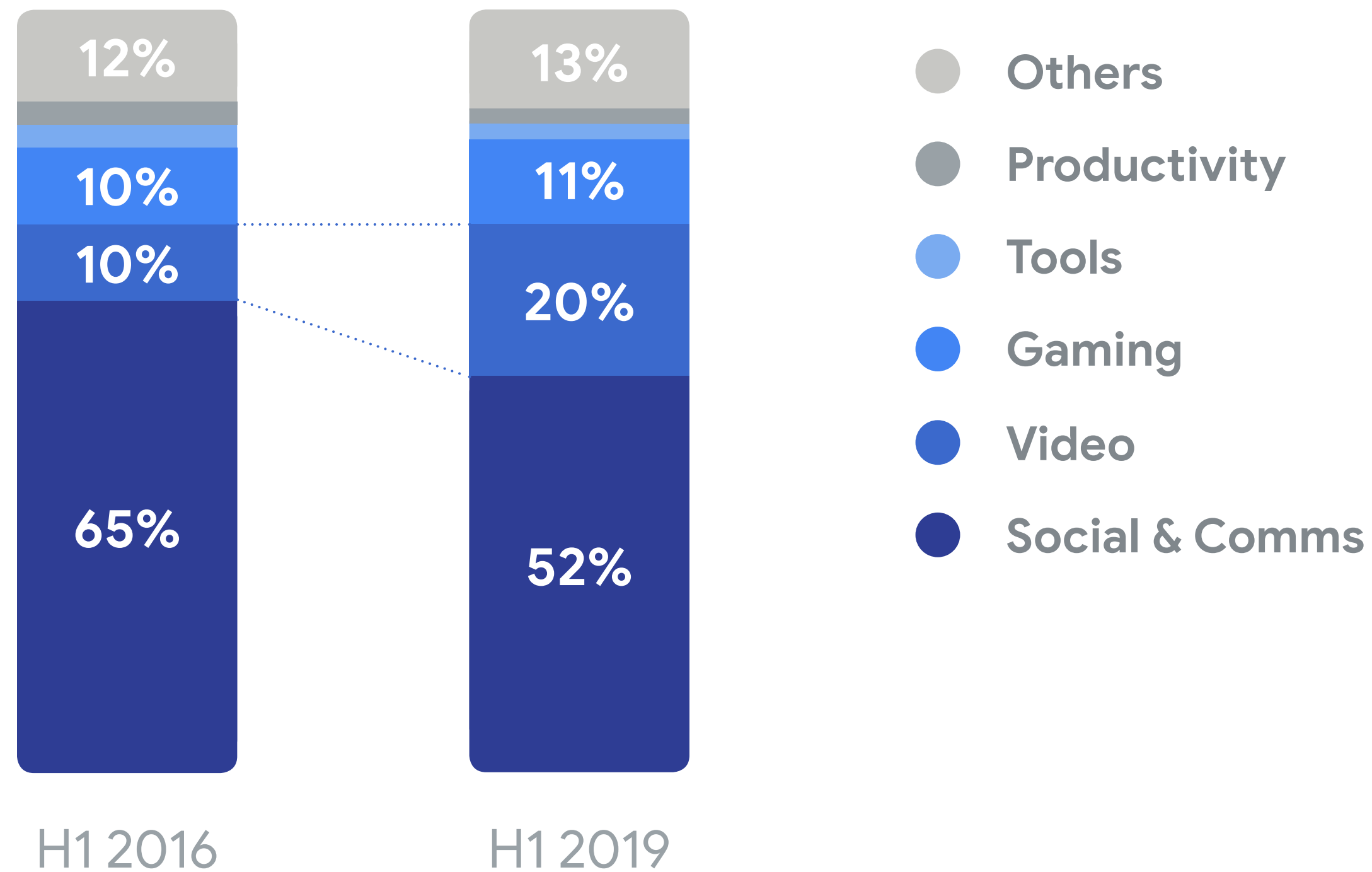


4 Southeast Asian countries rank in the Top 10 globally by mobile Internet usage (Indonesia, Malaysia, Philippines, Thailand)

Source: Hootsuite "Digital in 2019"

Video apps gaining share of mobile Internet engagement

Share of time spent (Apps by category, %)



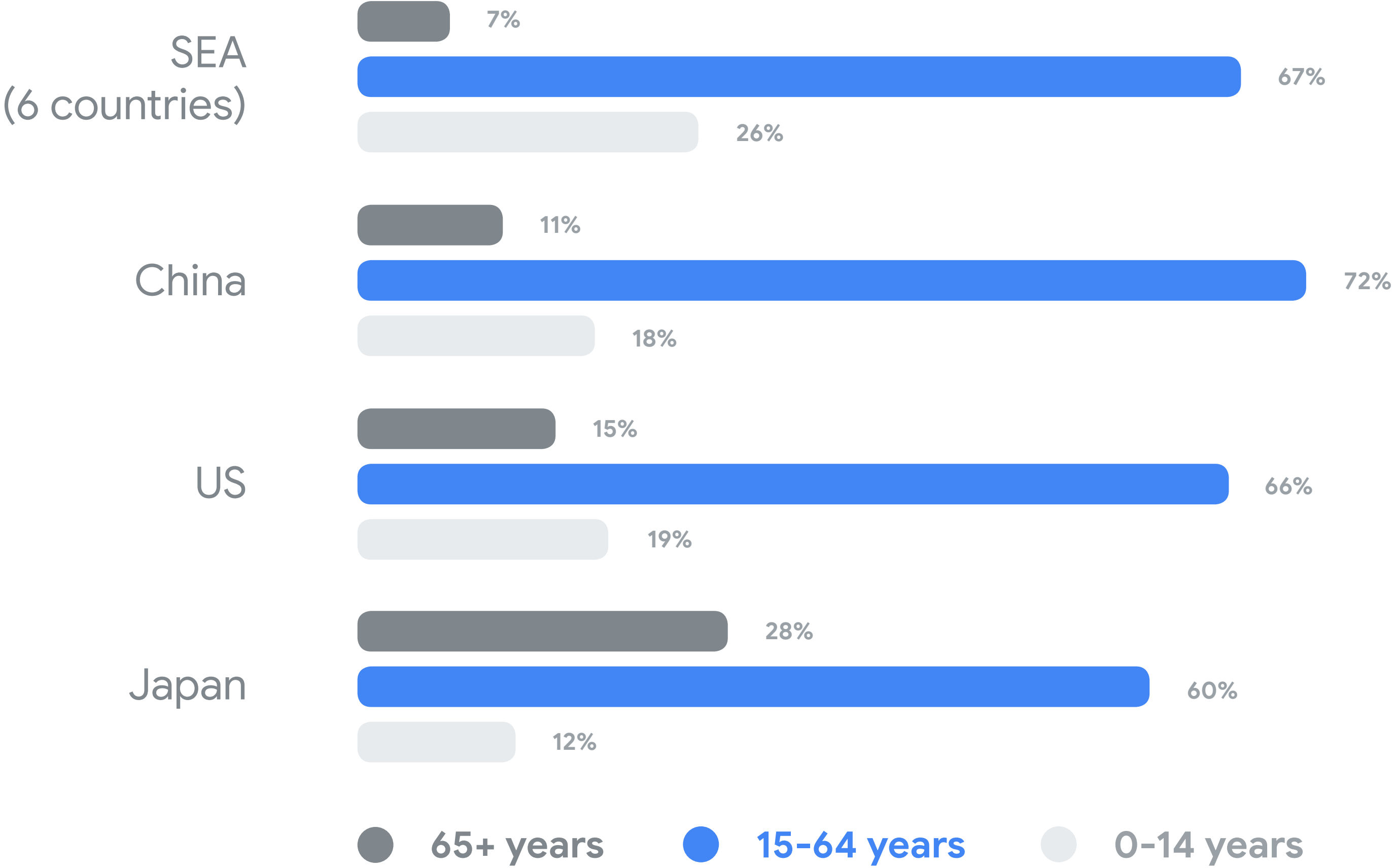
Social & Comms remain the most engaged apps despite share-of-time decline

Engagement on Video apps has doubled in 3 years with live streaming and short form

Source: App Annie analysis for e-Economy SEA

Favorable demographics behind Internet growth

Population by age group (2019)

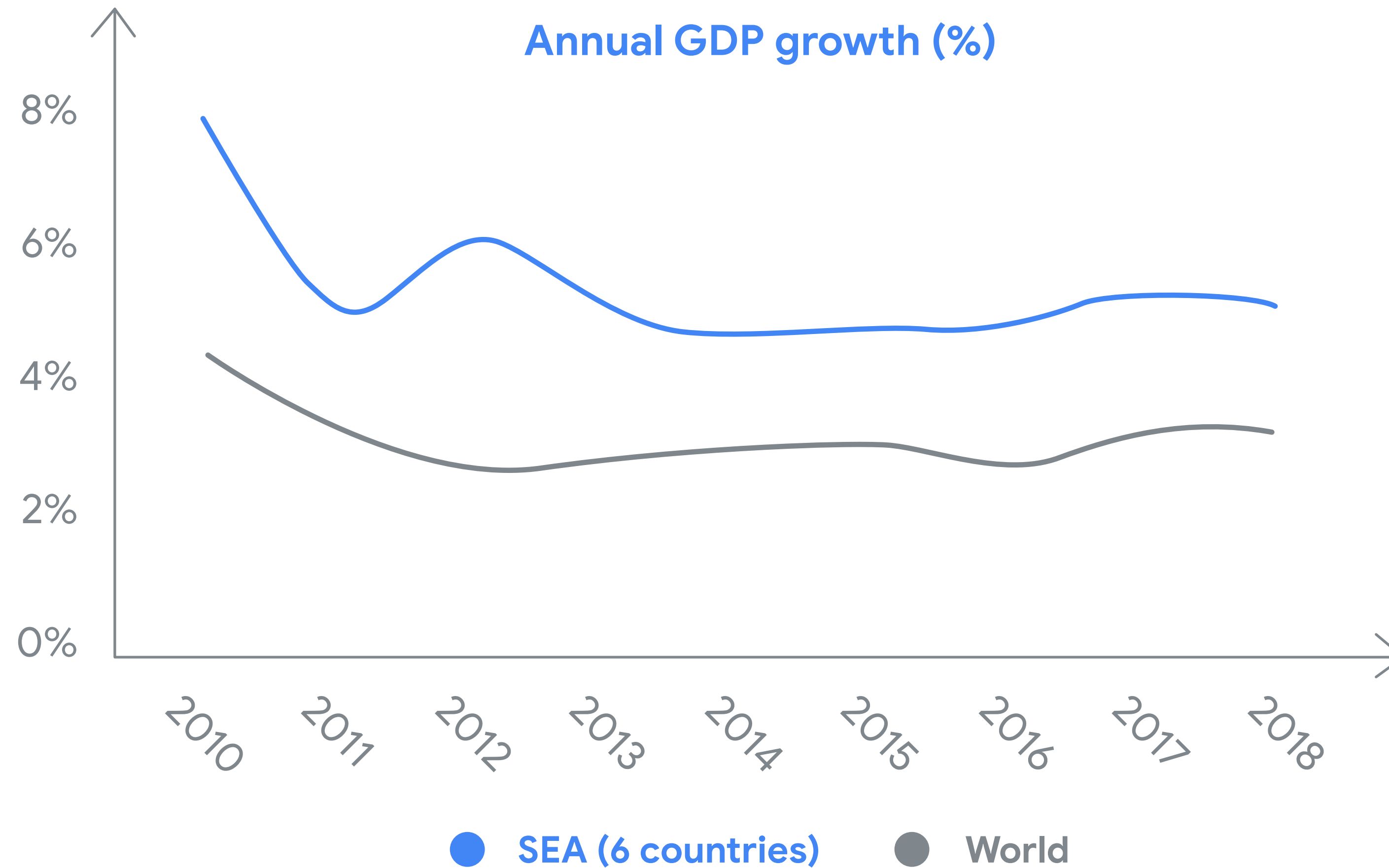


Southeast Asia has one of the youngest populations among major world regions

10 million Southeast Asians enter the “mobile age” every year

Source: World Bank

Steady economic growth uplifting living standards



Southeast Asia has had higher GDP growth compared with the global economy by ~2 percentage points since 2010

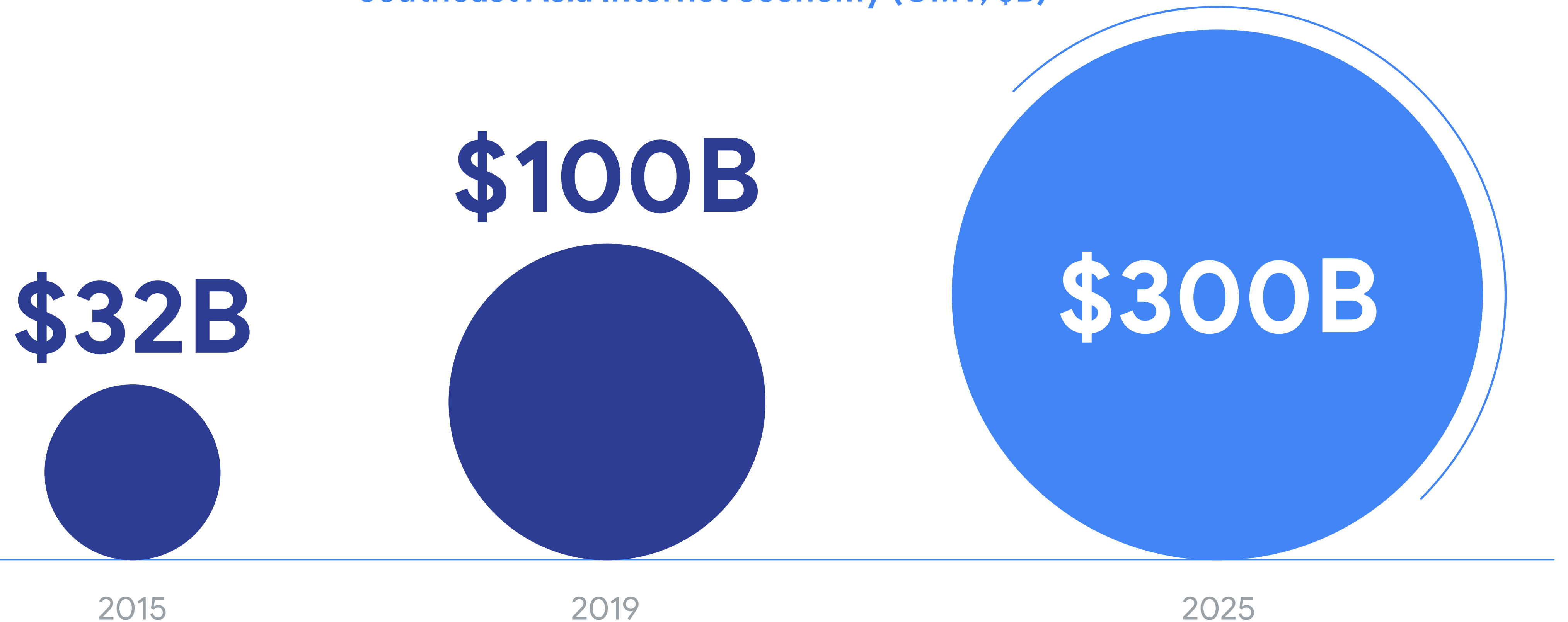
GDP: Gross Domestic Product
Source: World Bank

The Internet economy
hits \$100 billion



Southeast Asia Internet economy hits \$100B in 2019, exceeding all expectations on track to \$300B by 2025

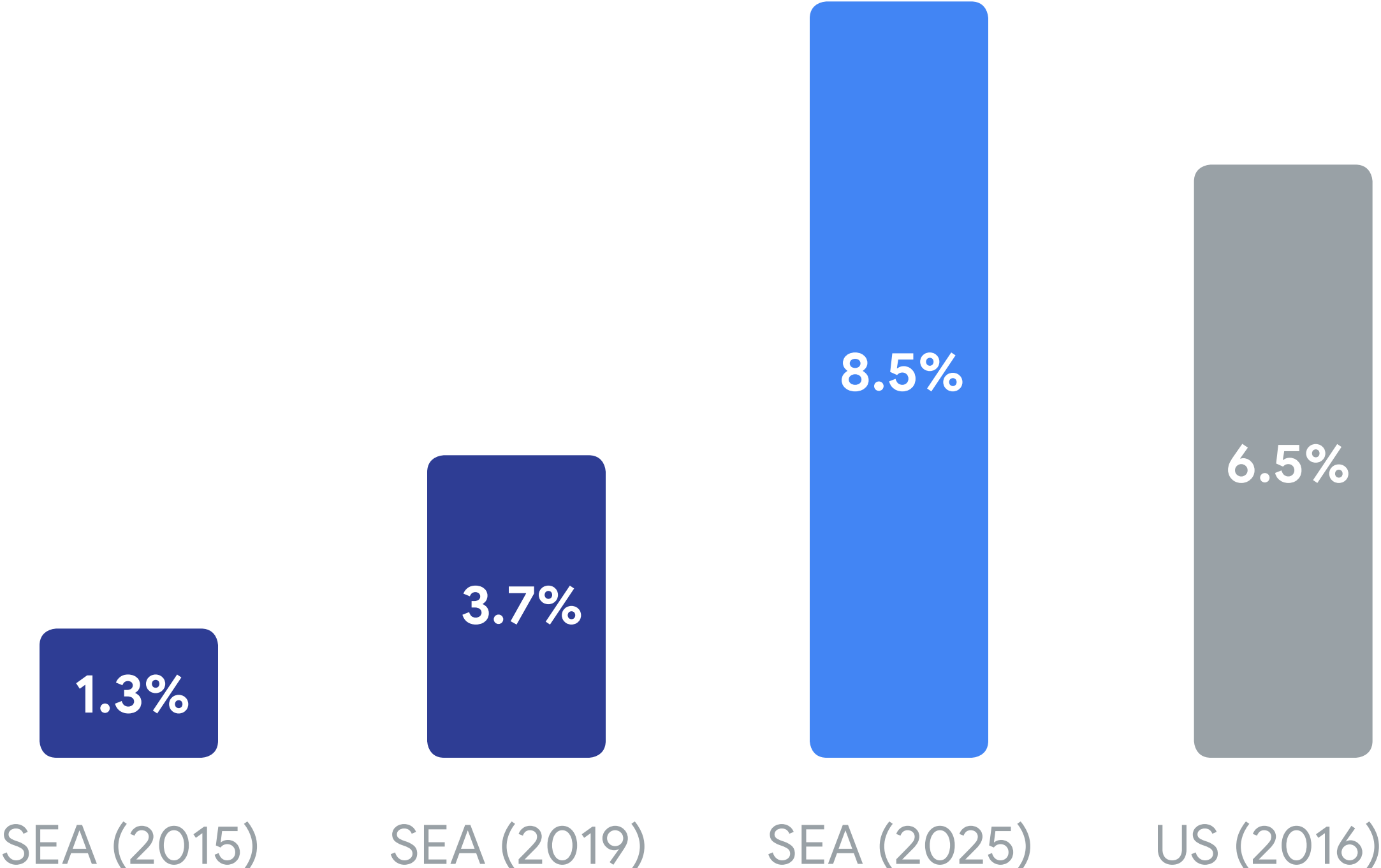
Southeast Asia Internet economy (GMV, \$B)



GMV: Gross Merchandise Value

Southeast Asia is closing the gap with developed markets

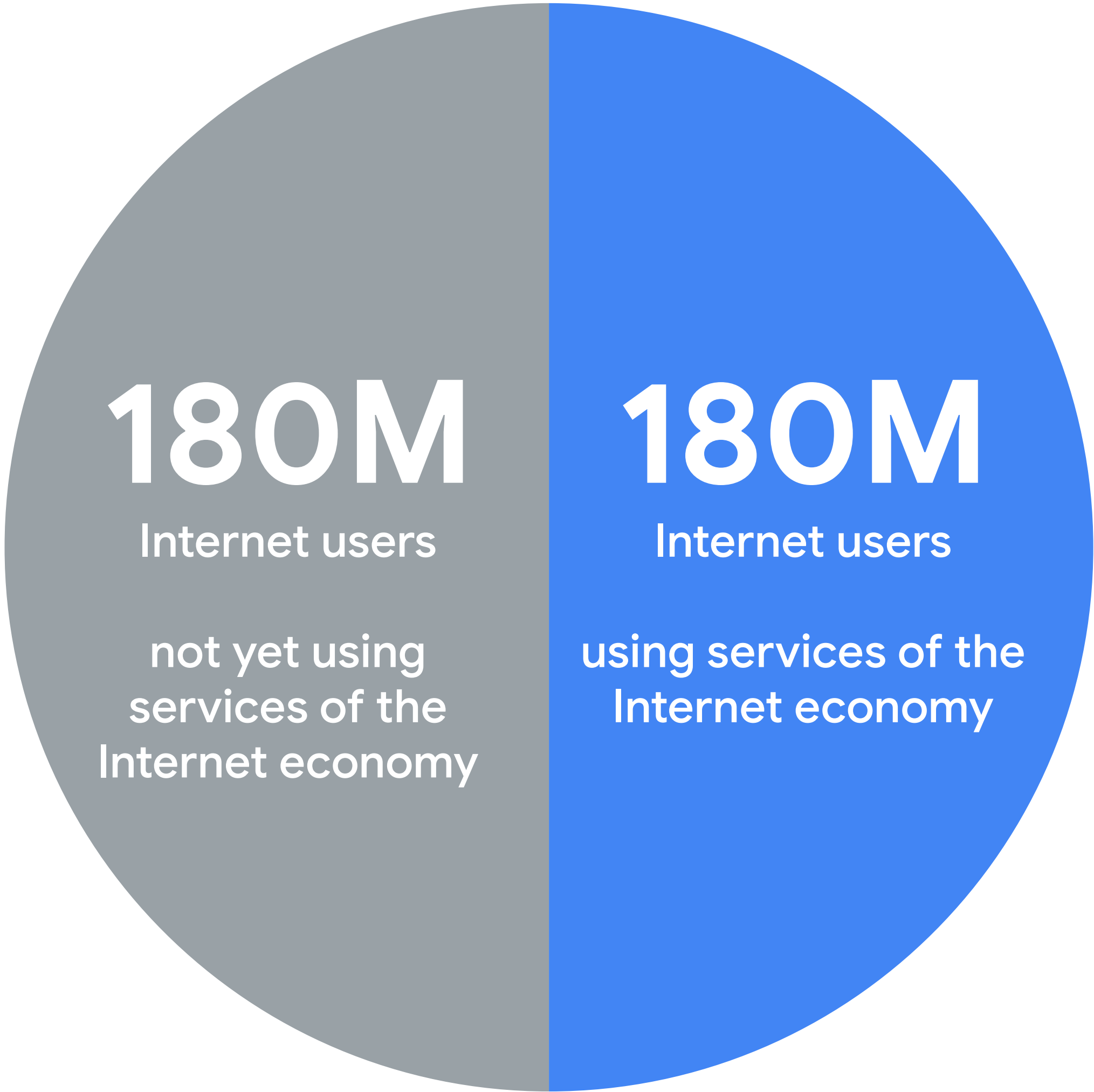
Internet economy GMV as % of GDP



GMV: Gross Merchandise Value; GDP: Gross Domestic Value
Source: World Bank (GDP); US Bureau of Economic Analysis (US)

1 in 2 Internet users engage in the Internet economy

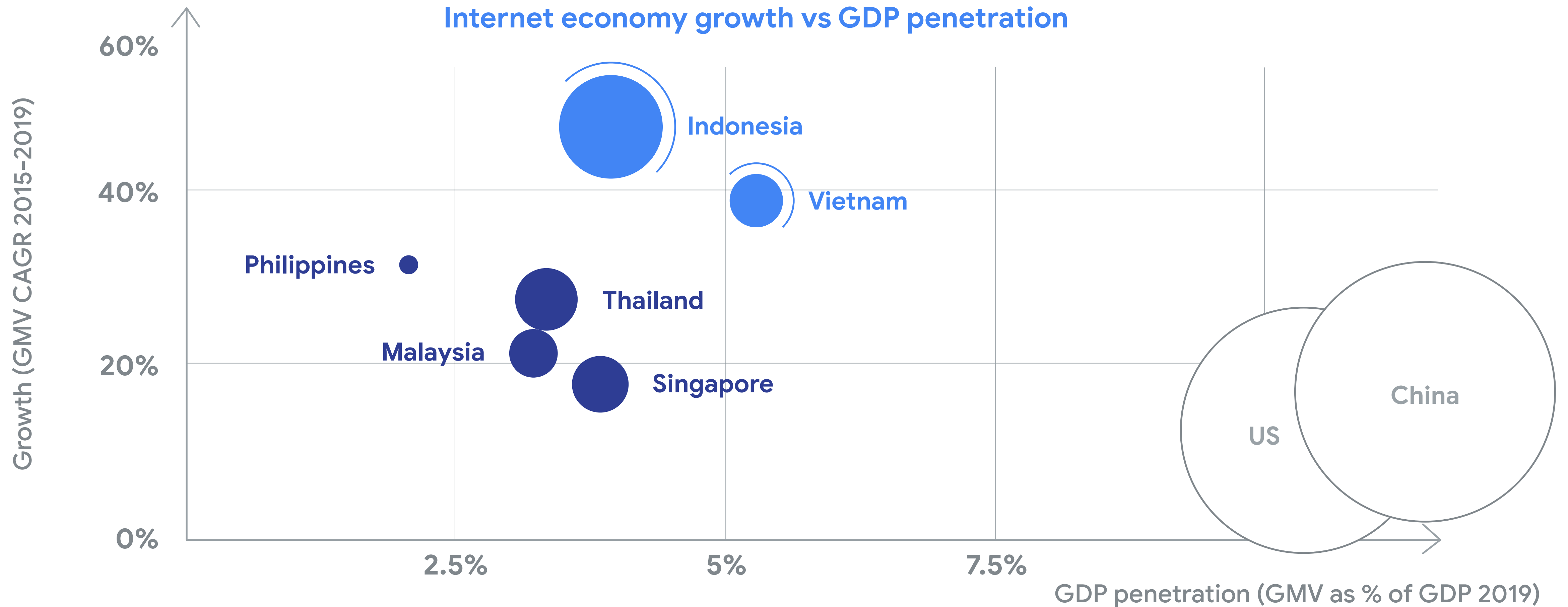
360 million
Internet users



Fast and faster two-speed Southeast Asia



Among fast-growing Southeast Asian countries, Indonesia and Vietnam pull away from the pack

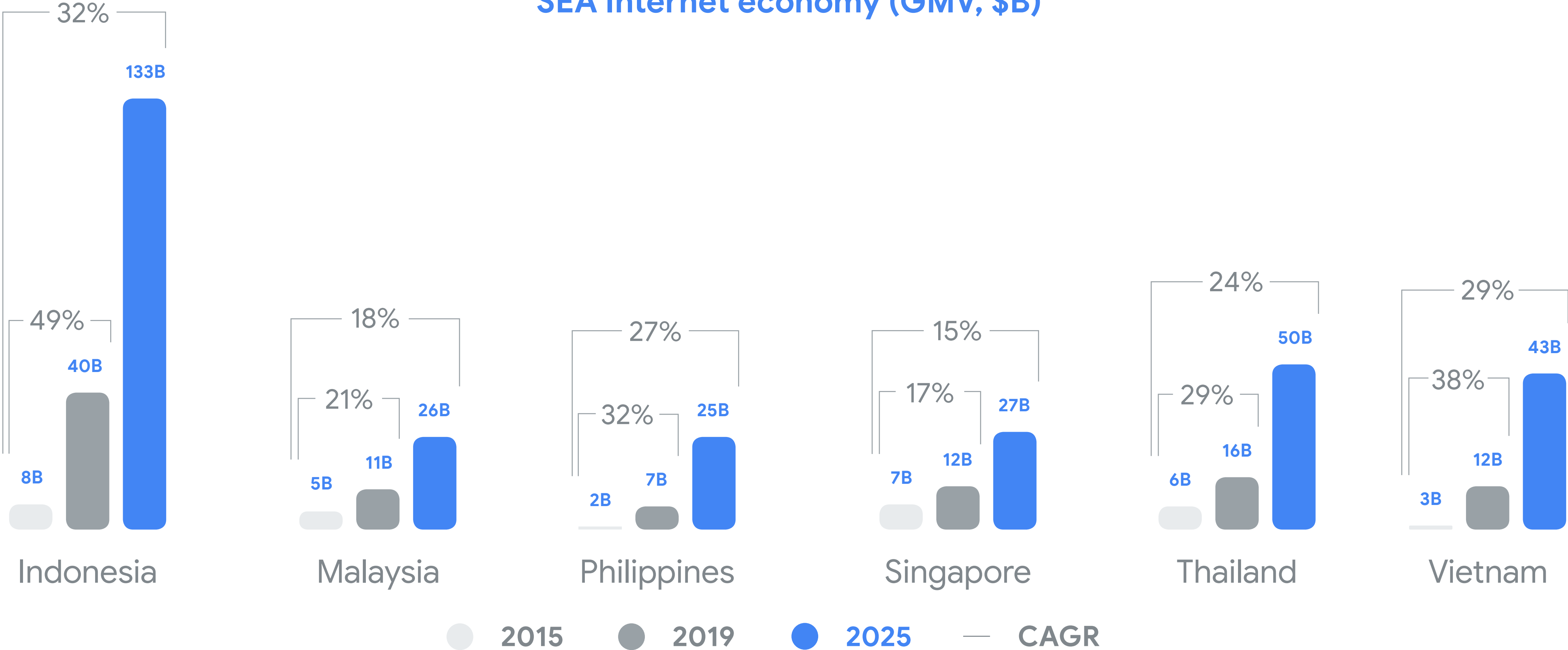


GMV: Gross Merchandise Value; GDP: Gross Domestic Product

US and China are included for illustrative purposes and not drawn to scale as definitions of Internet economy sectors and metrics vary

Indonesia is the largest and fastest growing Internet economy in the region at \$40B @ 49% CAGR

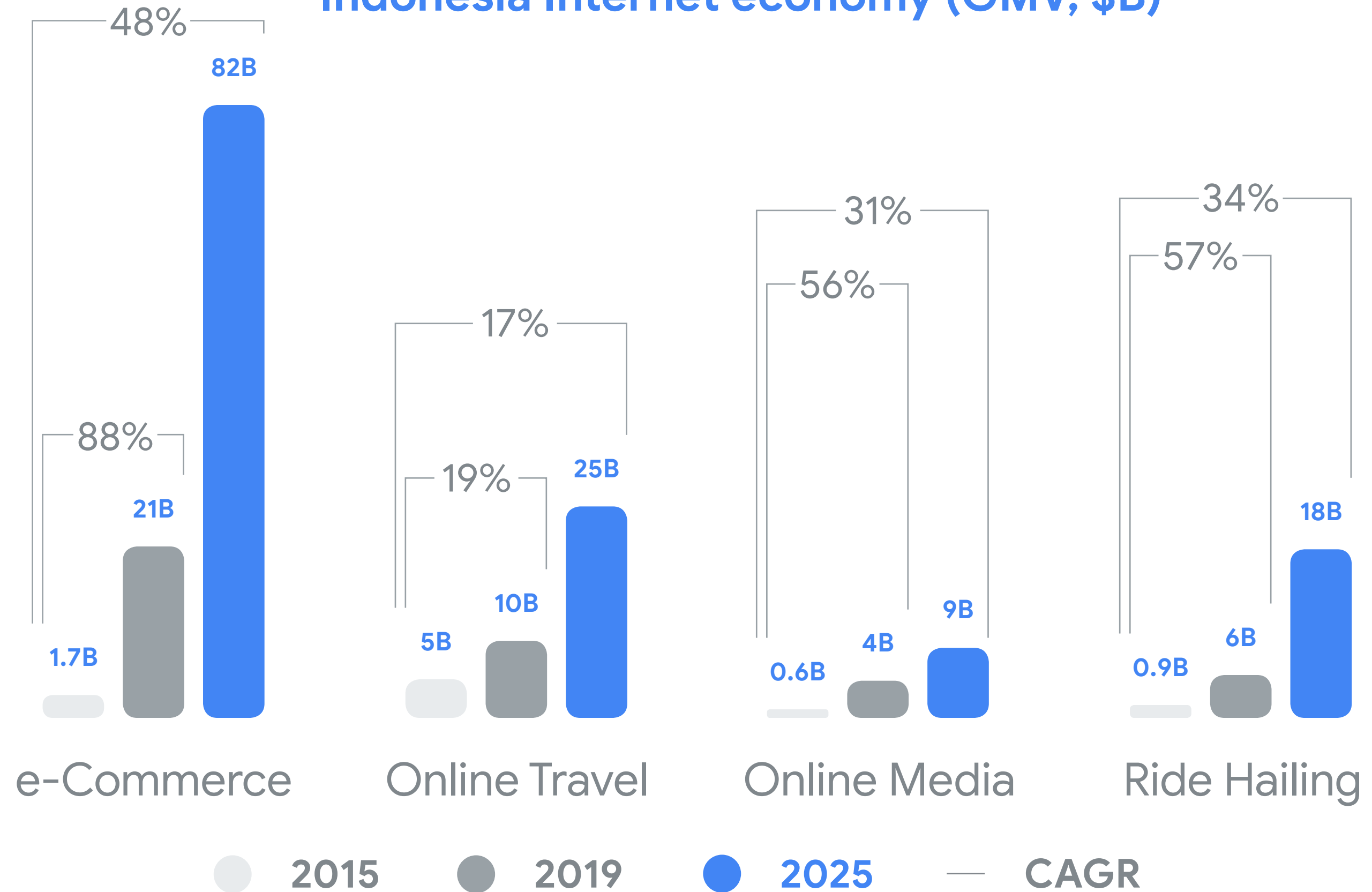
SEA Internet economy (GMV, \$B)



GMV: Gross Merchandise Value; CAGR: Compounded Annual Growth Rate

Indonesia is firing on all cylinders, fueled by competition between local and regional players

Indonesia Internet economy (GMV, \$B)



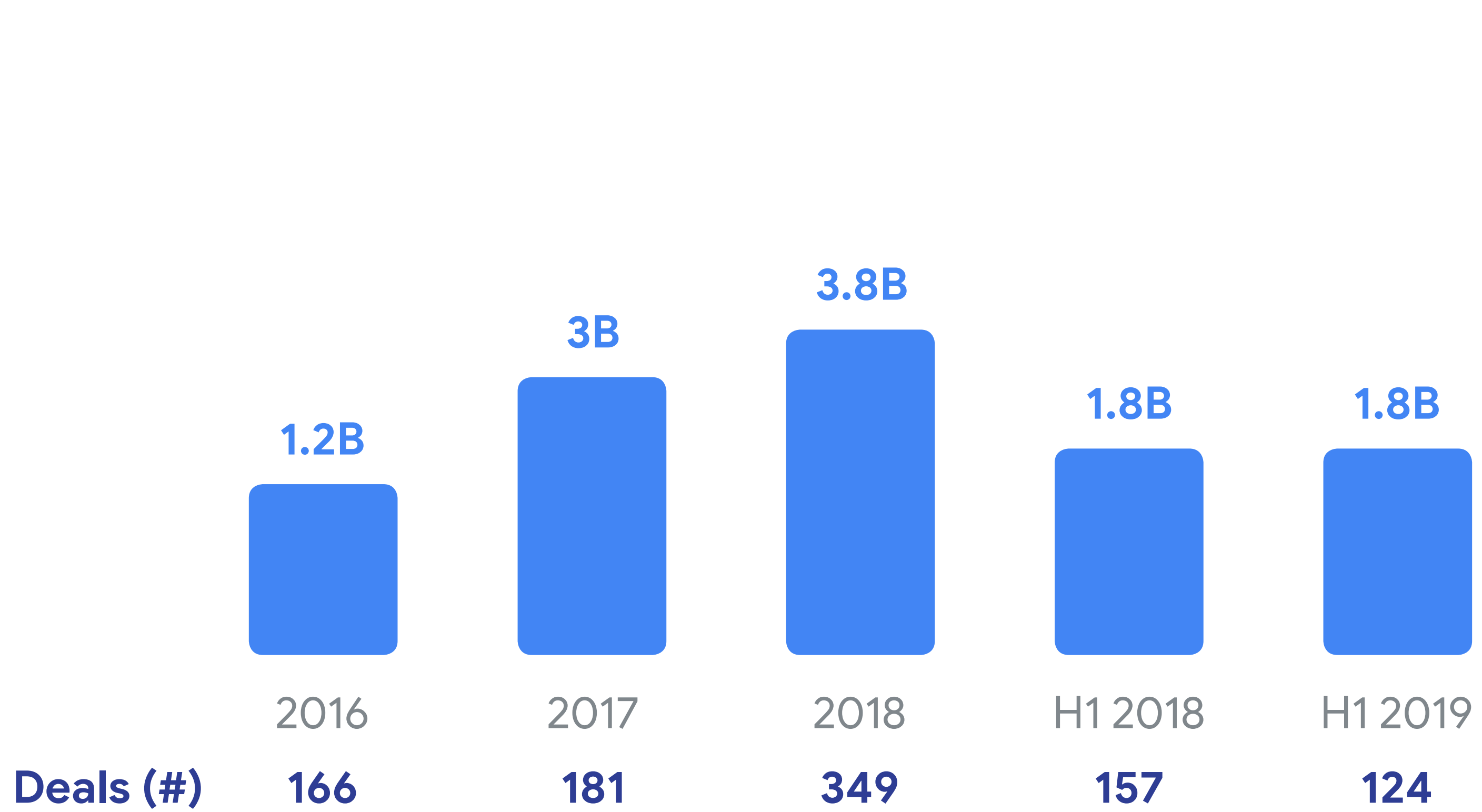
e-Commerce (12x in 4 years) and Ride Hailing (6x in 4 years) fueled by competition between Indonesian and regional players

All sectors benefit from growing adoption of Digital Payments

GMV: Gross Merchandise Value; CAGR: Compounded Annual Growth Rate.

Funding in Indonesia is on track to match 2018 record

Funding in Indonesia Internet economy (\$B)



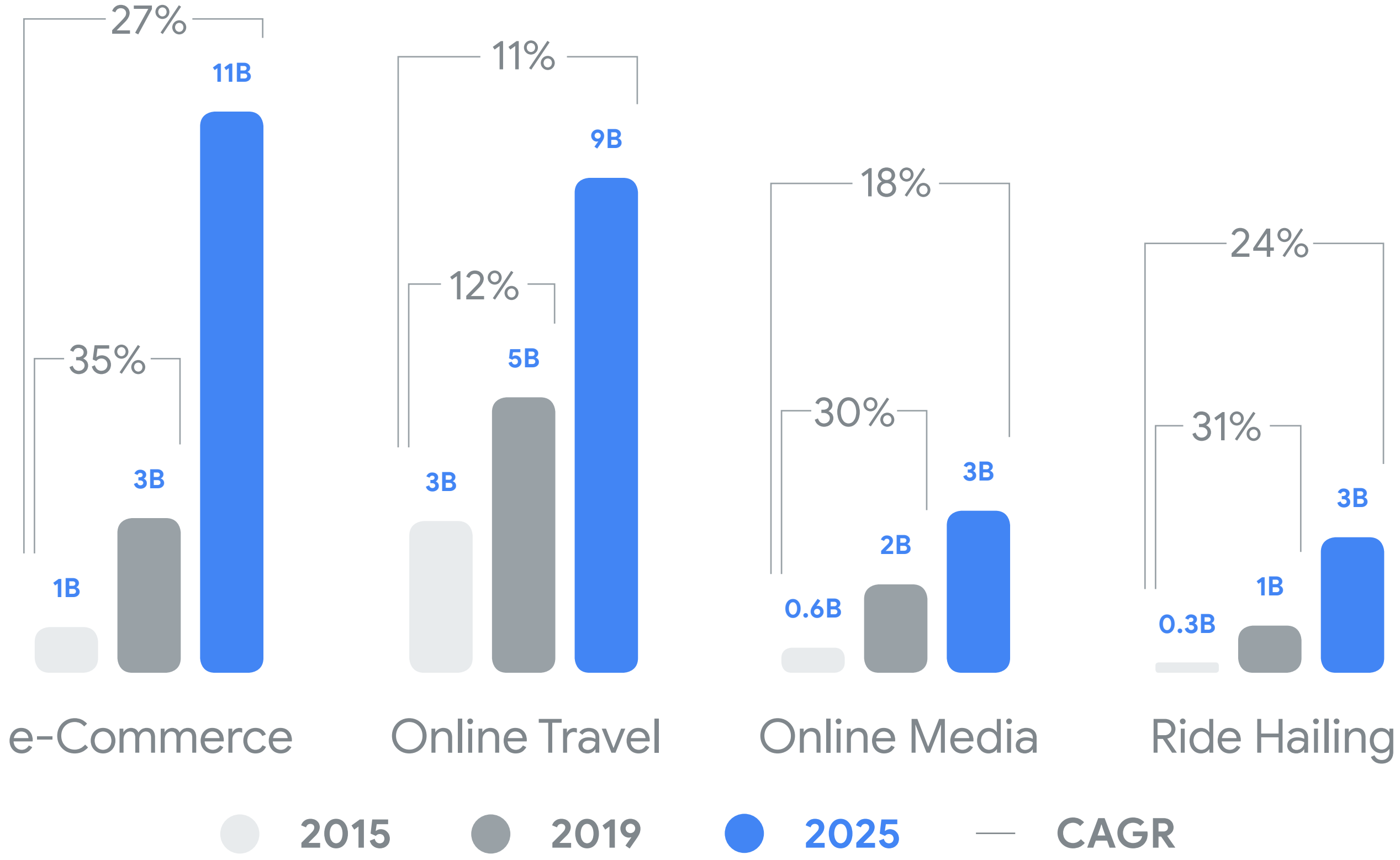
Large funding rounds completed by Indonesian unicorns Bukalapak, Gojek, Tokopedia and Traveloka

Grab announced multi-billion dollar commitment to invest in Indonesia

Fewer but larger deals in 2019

Malaysia's Internet economy continues to grow steadily

Malaysia Internet economy (GMV, \$B)



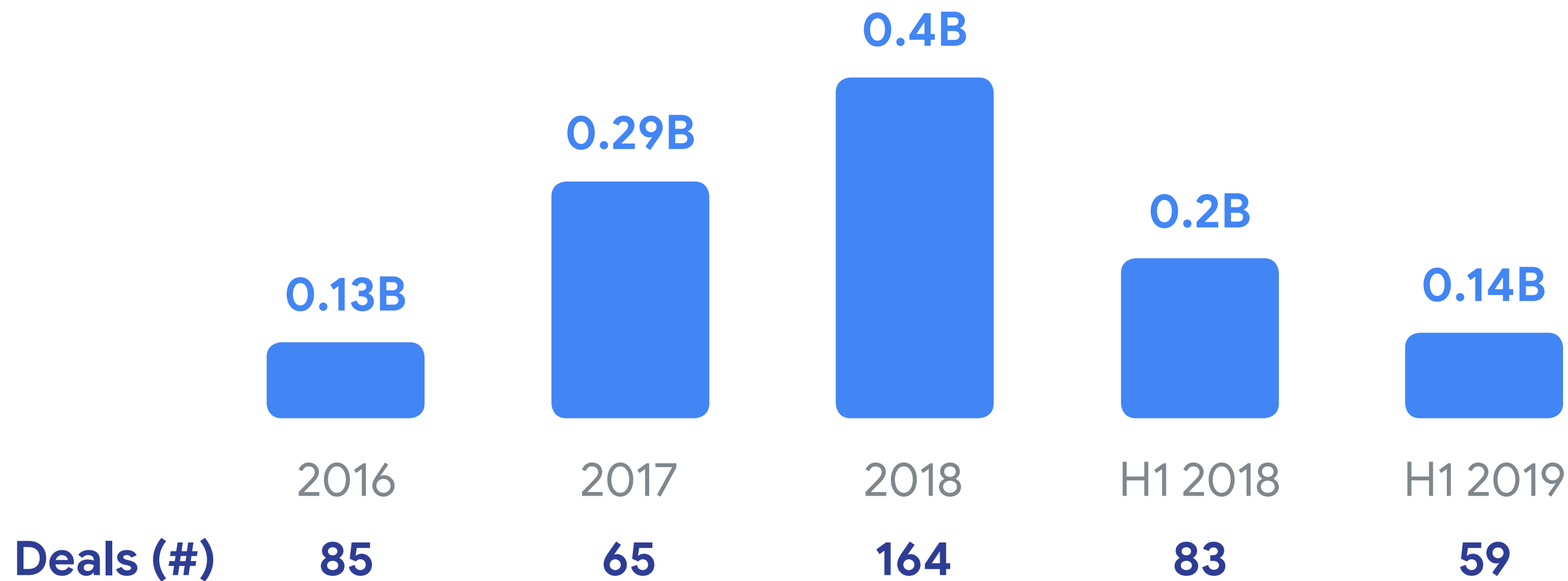
e-Commerce and Online Media keep growing @ over 30% CAGR led by regional and global players

Most mature \$5B Online Travel grows @ 12% CAGR driven by budget airlines and hotels

GMV: Gross Merchandise Value; CAGR: Compounded Annual Growth Rate

Investments in **Malaysia** slow down from 2018 record

Funding in Malaysia Internet economy (\$B)

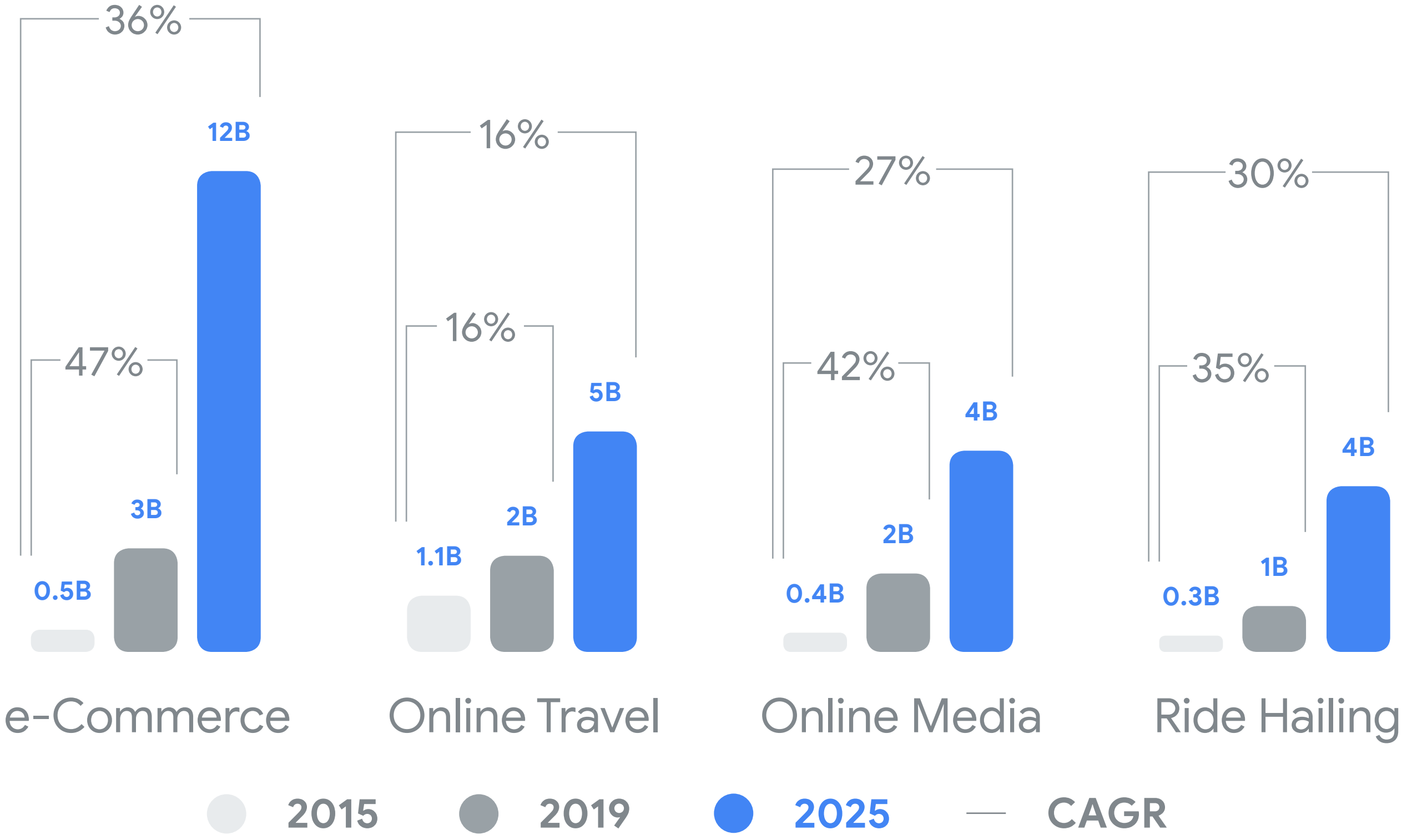


\$140M raised in H1 2019 down from 2018 record and back to 2017 levels

More late-stage funding needed to give rise to Malaysian Unicorns (Series C-D deals \$25M-\$100M)

Online Media keeps rising in English-speaking Philippines

Philippines Internet economy (GMV, \$B)



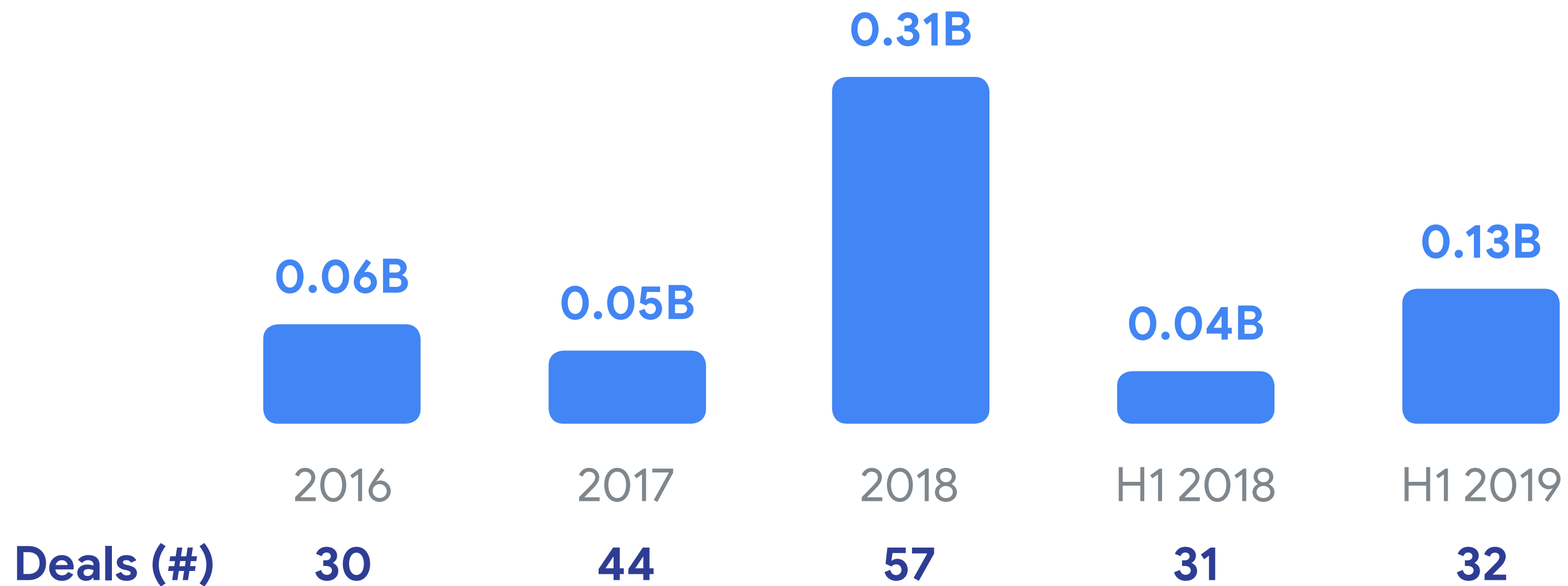
Social, Music, Video streaming and English-speaking Filipino youth drive 42% CAGR in \$2B Online Media

Ride Hailing faces headwinds amidst regulatory constraints, driver supply challenges and limited competition

GMV: Gross Merchandise Value; CAGR: Compounded Annual Growth Rate

Funding surge in the Philippines driven by landmark deals

Funding in Philippines Internet economy (\$B)

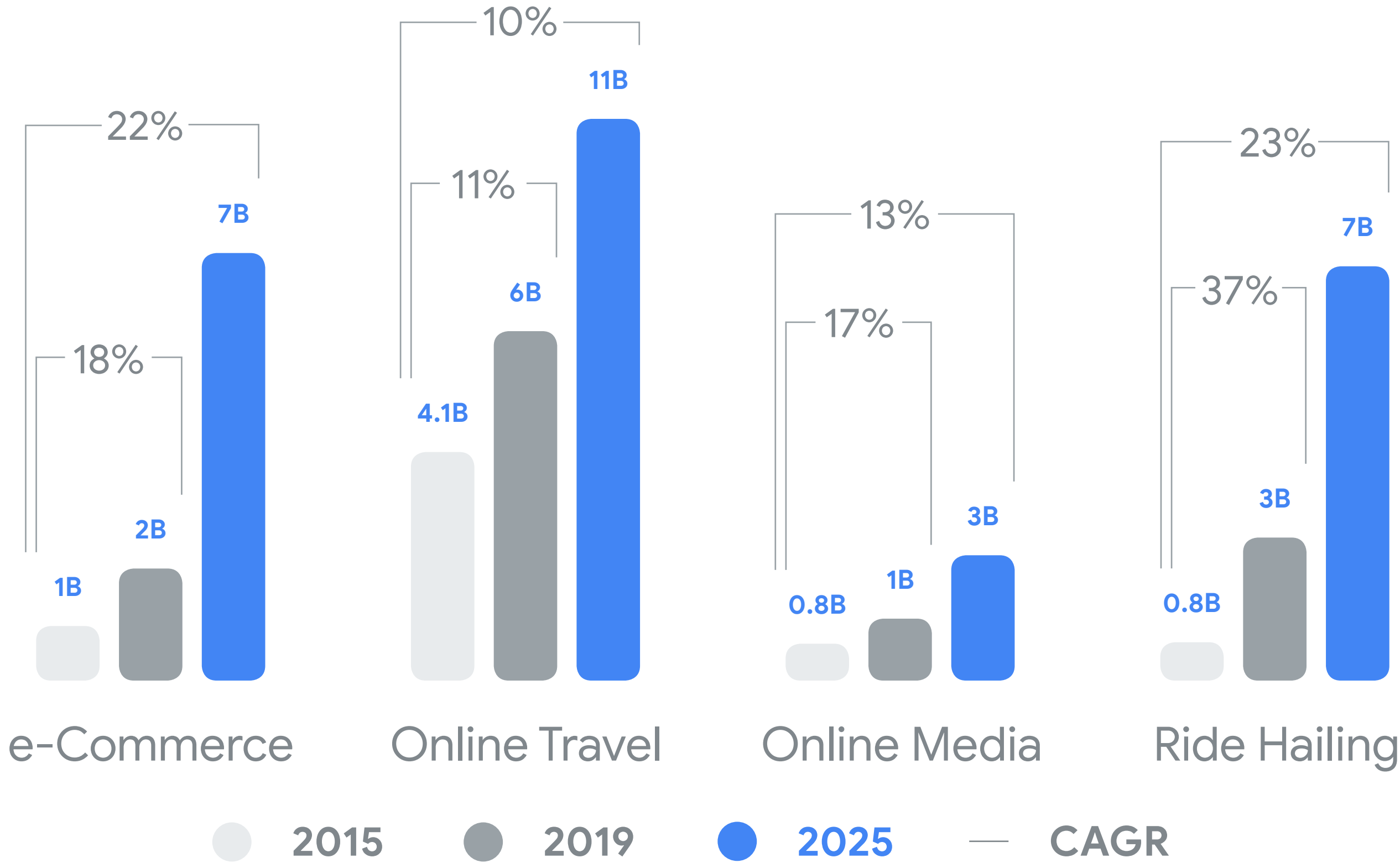


Landmark deals in digital financial services (Voyager Innovations Coins. ph-Gojek, First Circle) aided by supportive regulations

Healthy funding continues in H1 2019 with \$130M raised in over 30 deals

Singapore's Internet economy boosted by Ride Hailing competition and growing appetite for Food Delivery

Singapore Internet economy (GMV, \$B)



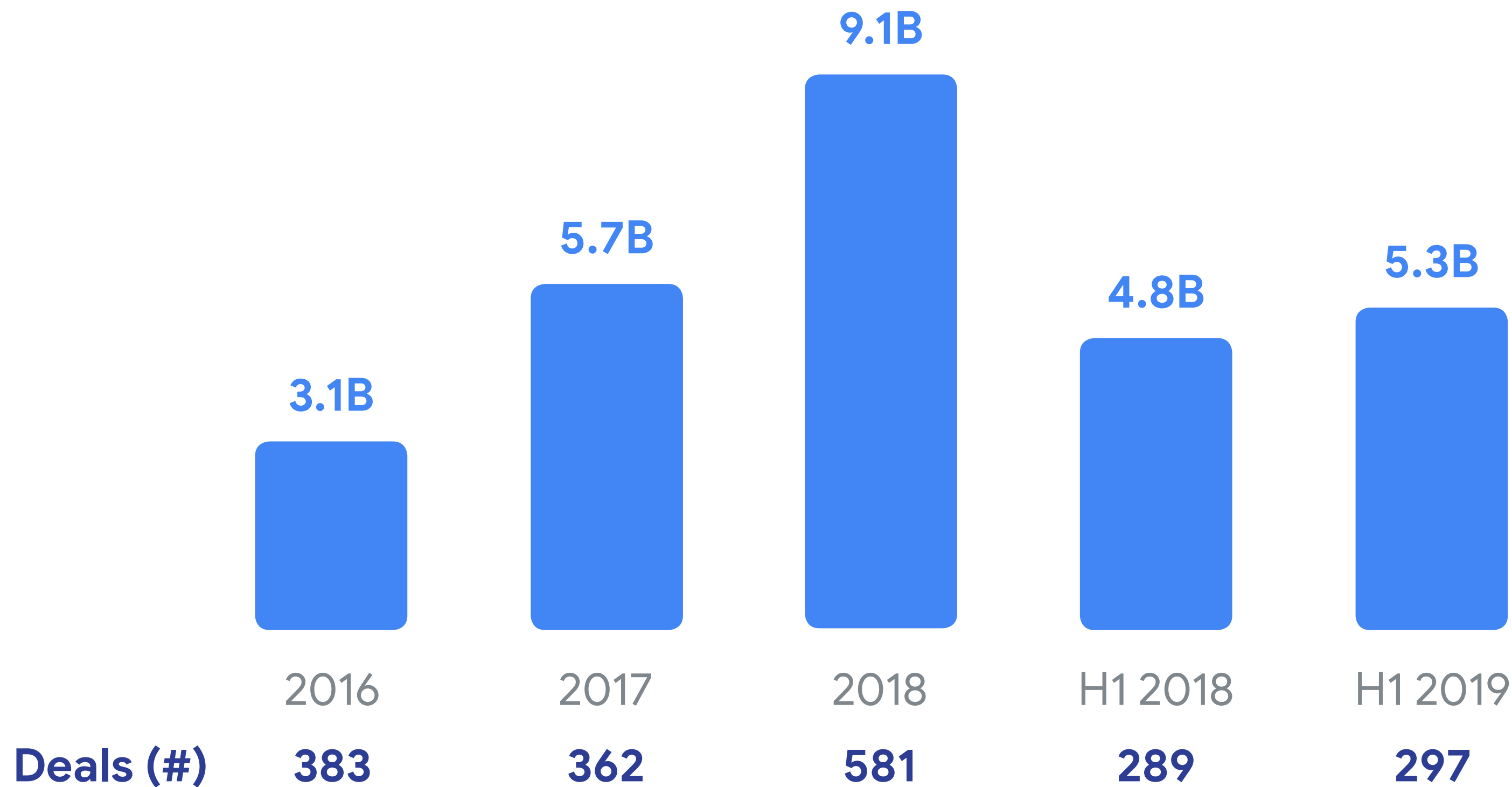
Food Delivery doubles year-on-year amidst heated competition between Deliveroo, Foodpanda, GrabFood

e-Commerce growing moderately @ 18% CAGR, not yet unlocked despite world-class payment and logistics

GMV: Gross Merchandise Value; CAGR: Compounded Annual Growth Rate

Singapore remains the gateway for regional funding

Funding in Singapore Internet economy (\$B)



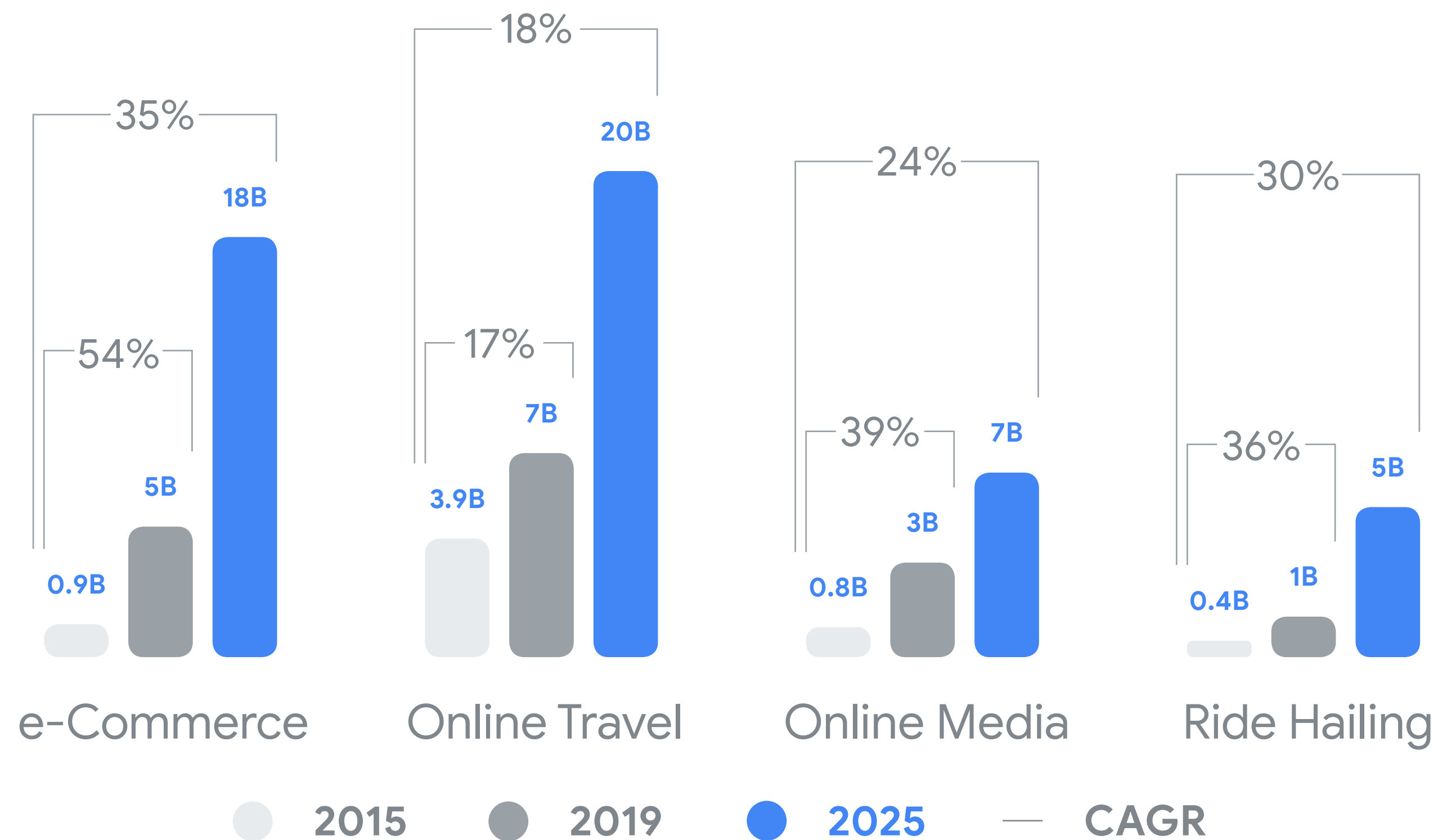
Funding in H1 2019 on track to match record deals and investments in 2018

Multi-billion dollar series raised by Grab and Sea Group

Sizable investments in Carousell, GoBear, ONE Championship, PropertyGuru, ShopBack, Zilingo

Large Online Travel and fast-growing Online Media are bright spots in Thailand's Internet economy

Thailand Internet economy (GMV, \$B)



\$7B Online Travel driven by developed Thai tourism industry

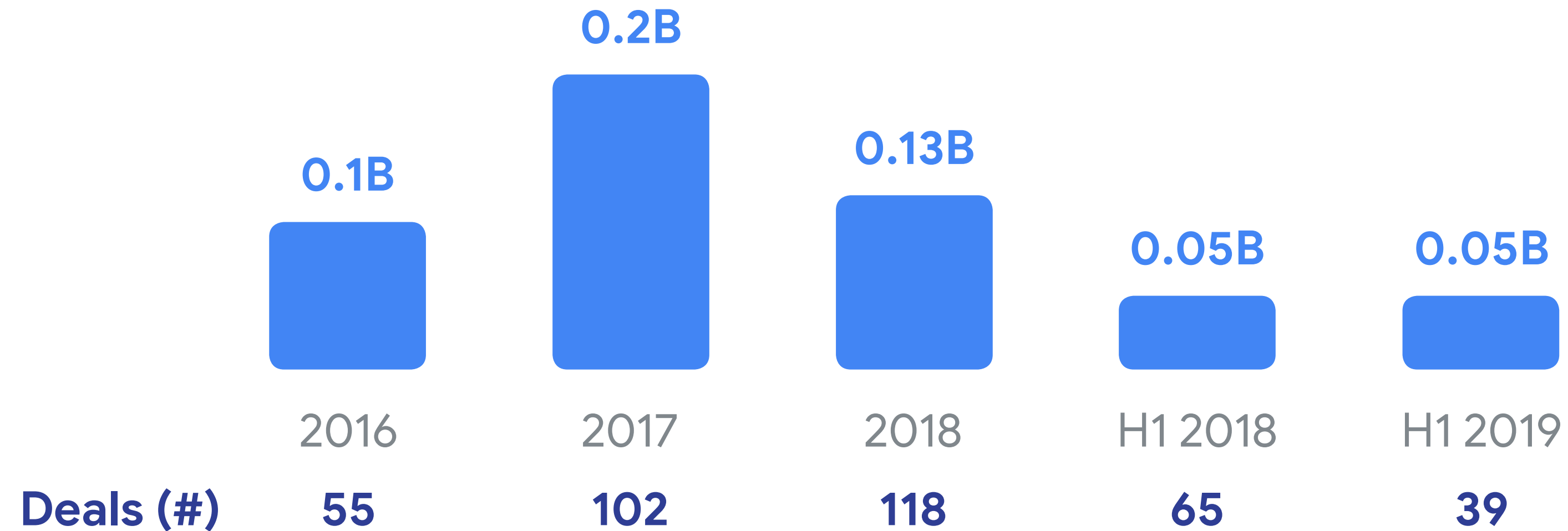
Online Media @ 39% CAGR boosted by Thais' engagement on Social, Video

Ride Hailing held back by restrictive regulations and limited driver base

GMV: Gross Merchandise Value; CAGR: Compounded Annual Growth Rate

Thai startups face challenges scaling and getting funded

Funding in Thailand Internet economy (\$B)

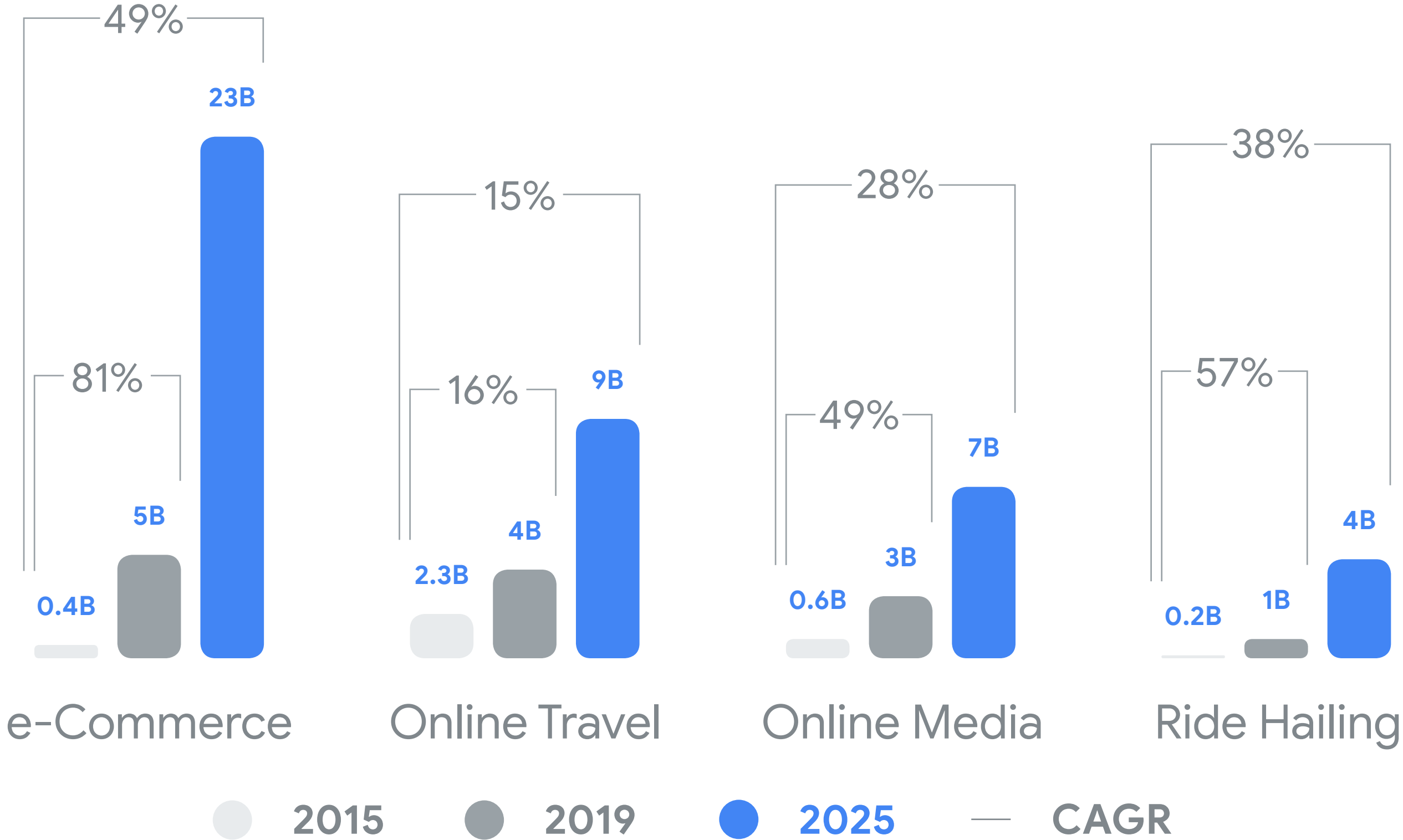


\$50M raised in H1 2019 lower than 2018 and far from 2017 peak

Thai startups face challenges scaling amidst lack of late-stage funding (Series C-D \$25M-\$100M)

Vietnam's e-Commerce boom drives growth

Vietnam Internet economy (GMV, \$B)



e-Commerce (12x in 4 years) unlocks opportunities for Vietnamese SMBs

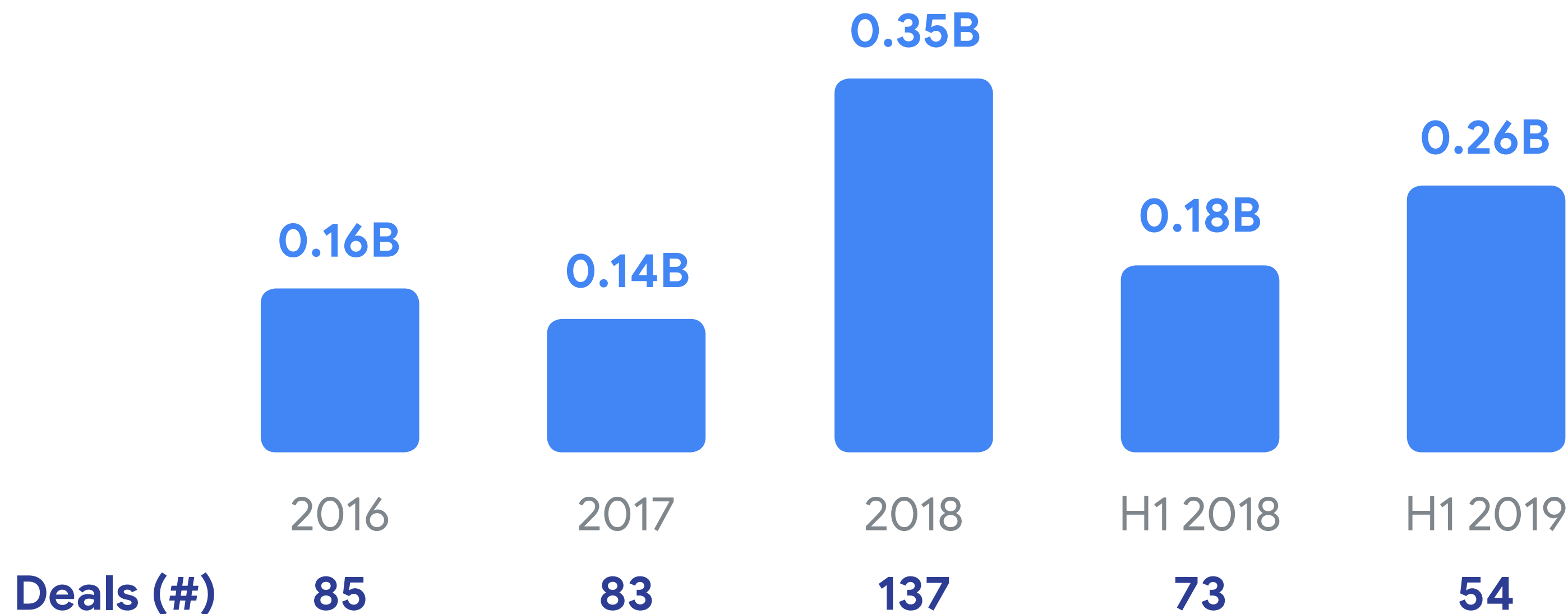
Heated competition between Vietnamese and regional players

Ride Hailing (57% CAGR) has ample headroom to grow beyond metro

GMV: Gross Merchandise Value; CAGR: Compounded Annual Growth Rate

Vietnam is the 3rd most funded country in the region

Funding in Vietnam Internet economy (\$B)

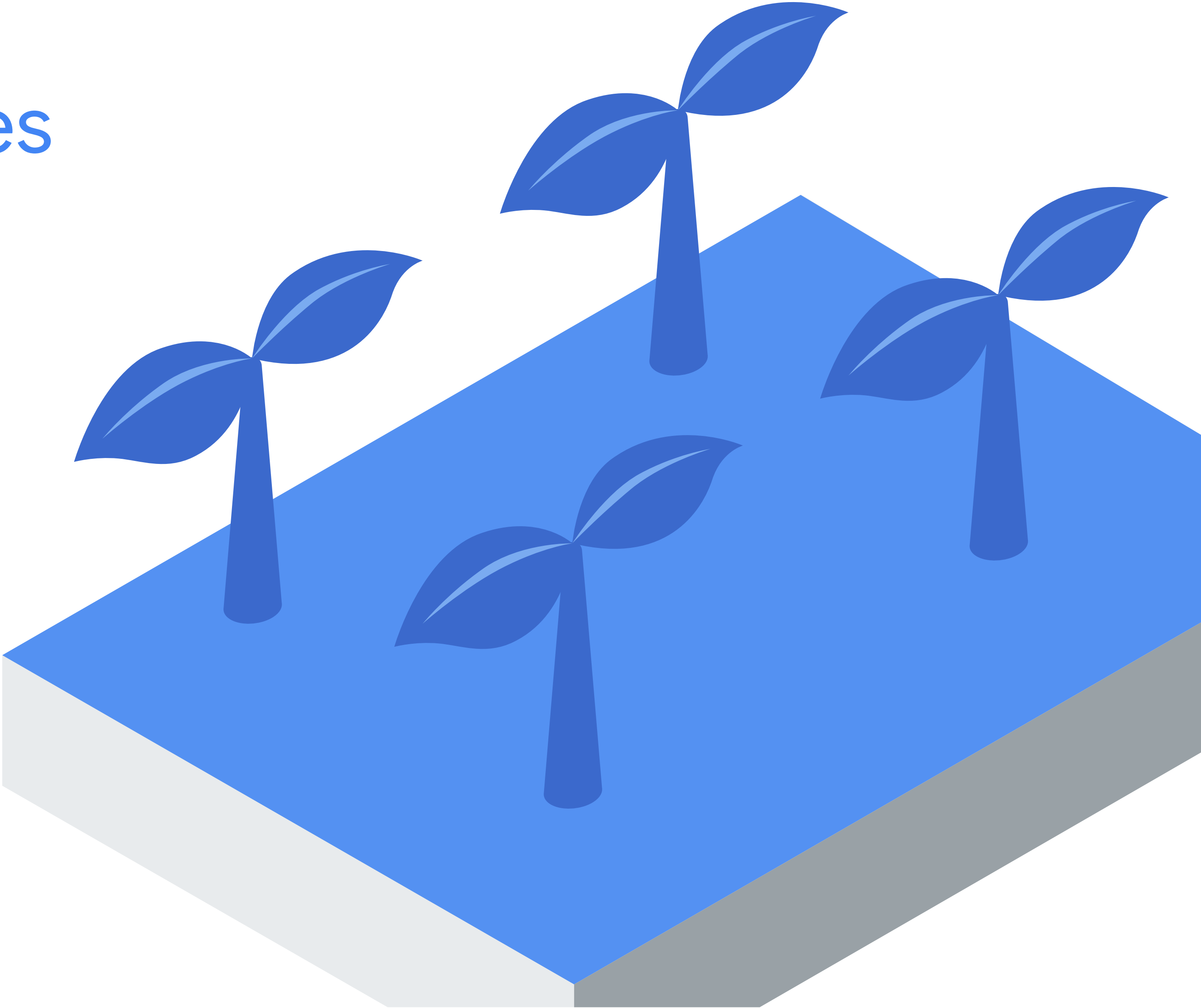


3rd most funded country in the region, \$600M raised in 2018 and H1 2019

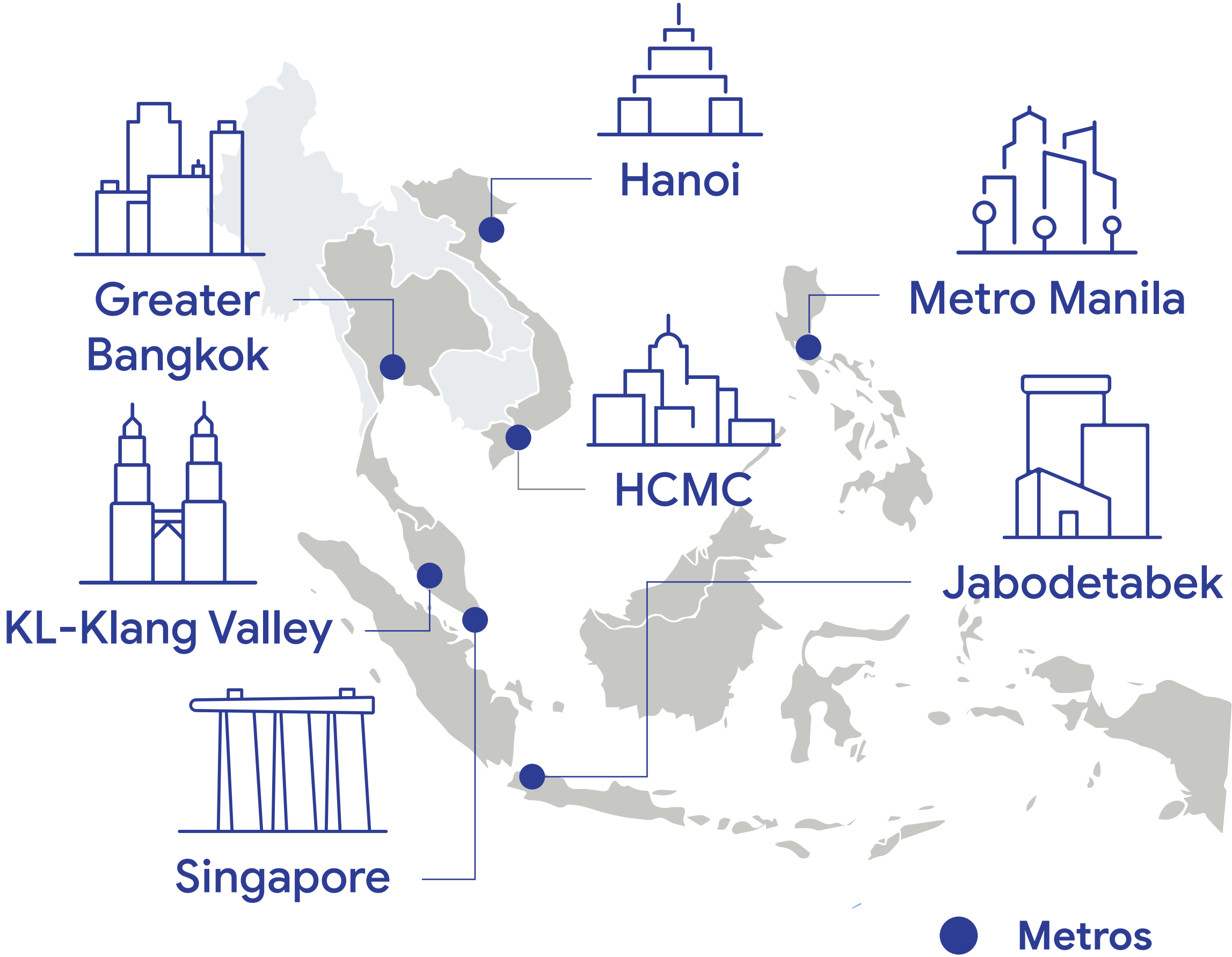
Investments in Momo, Sendo, Topica led by international players crown Vietnam as investment destination

Fewer but larger deals in 2019

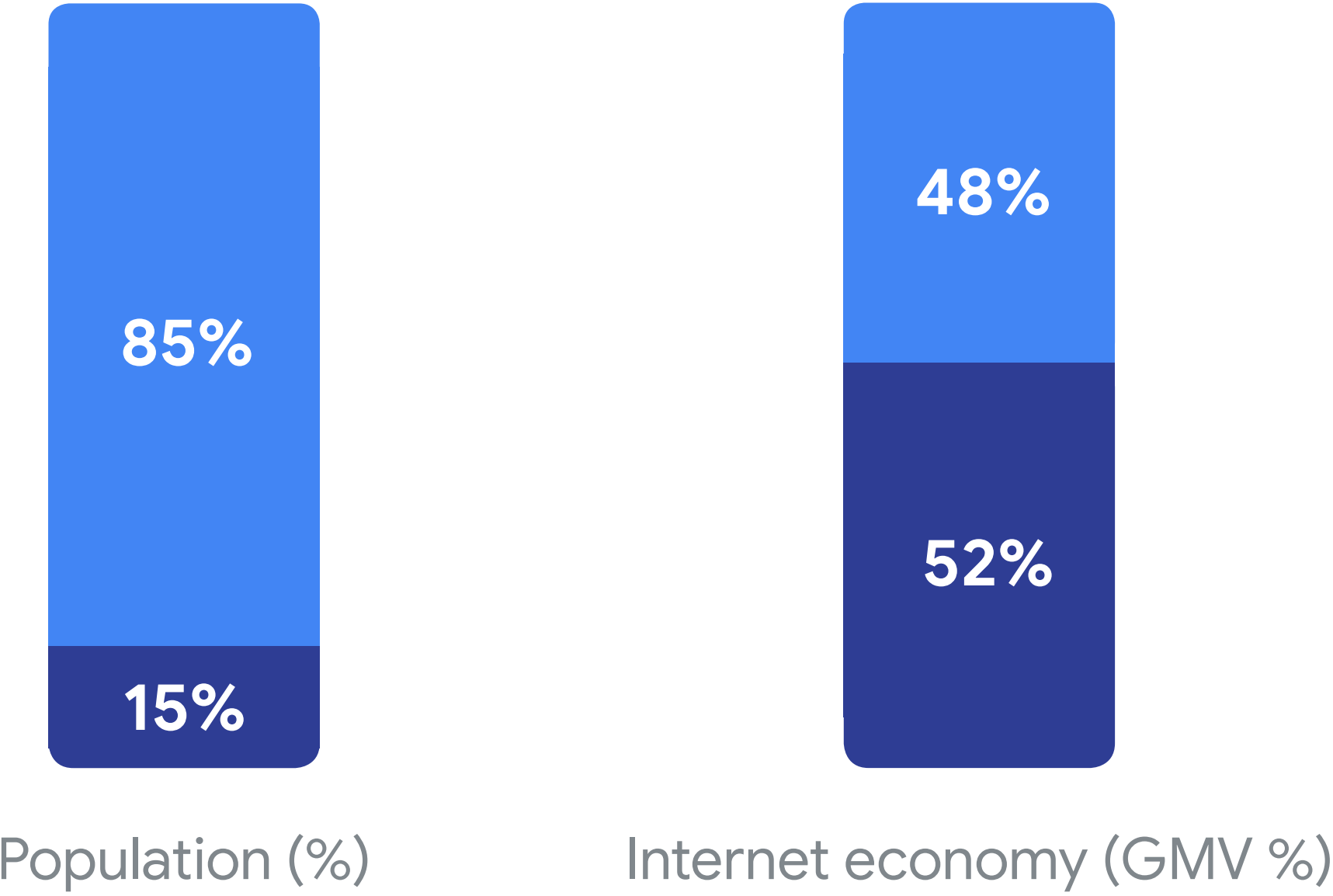
Growth opportunities
beyond Metros



7 Metros account for over 50% of the Internet economy

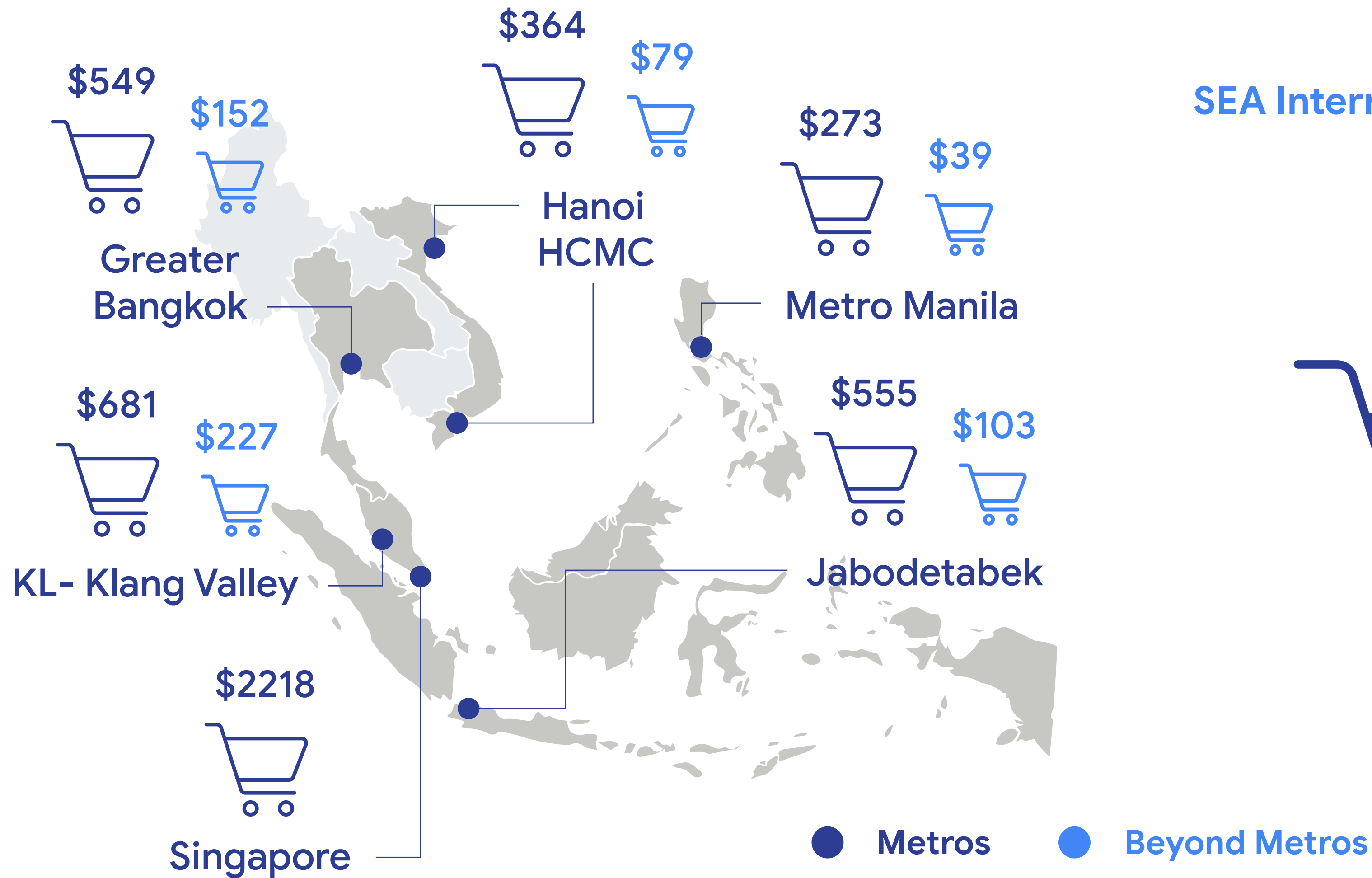


SEA Internet economy (2019)



GMV: Gross Merchandise Value

Users in Metros spend 6 times more than Beyond Metros

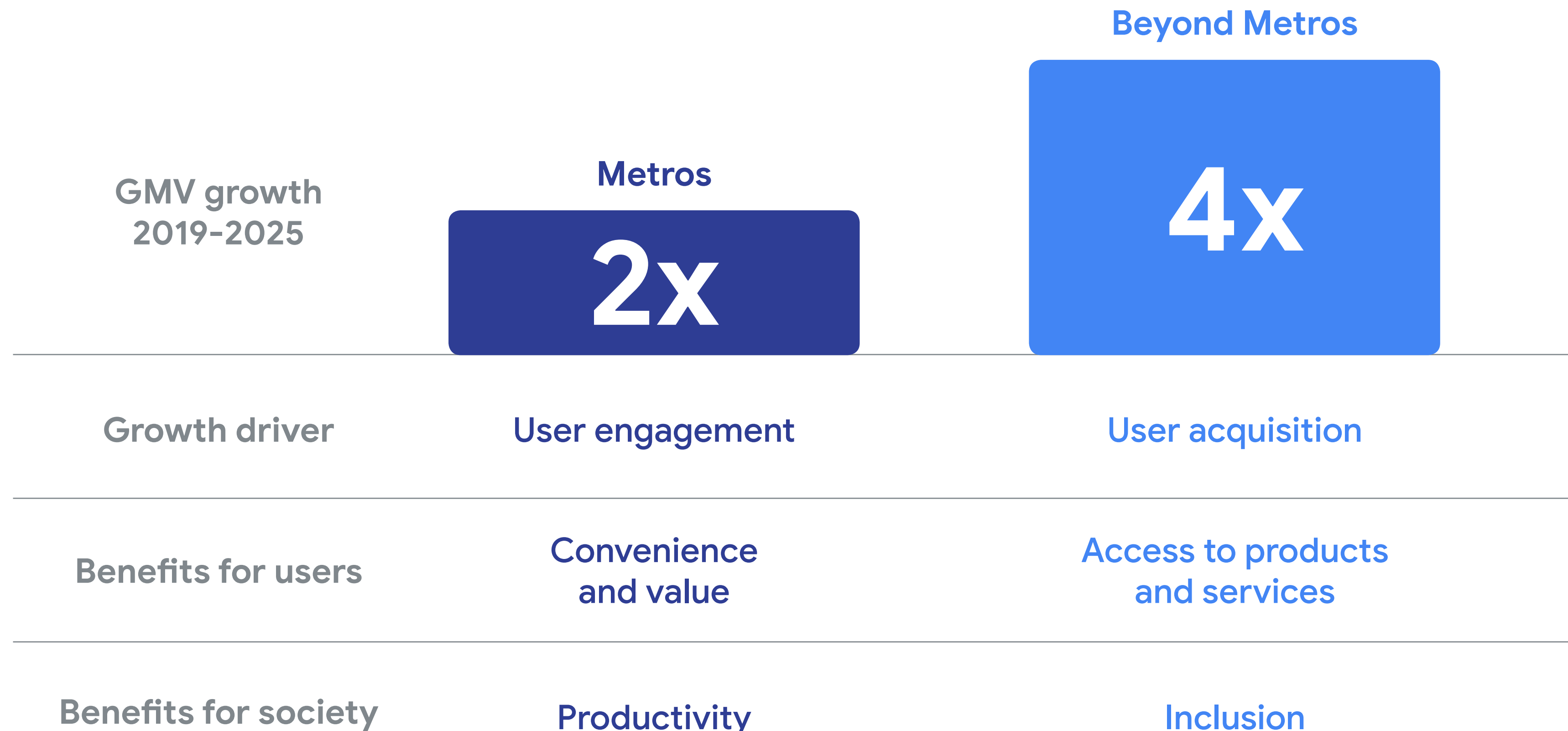


SEA Internet economy (GMV per capita, 2019)



GMV: Gross Merchandise Value

Beyond Metros poised to grow twice as fast as Metros

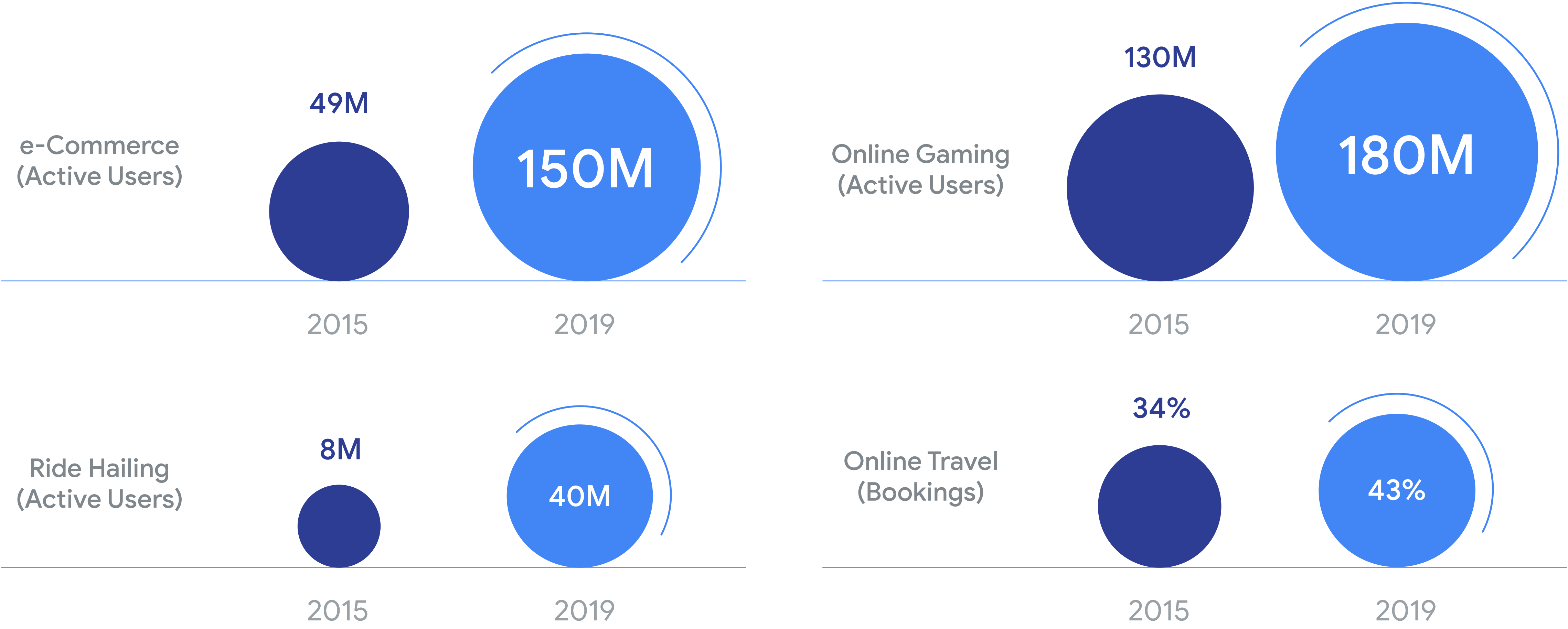


GMV: Gross Merchandise Value

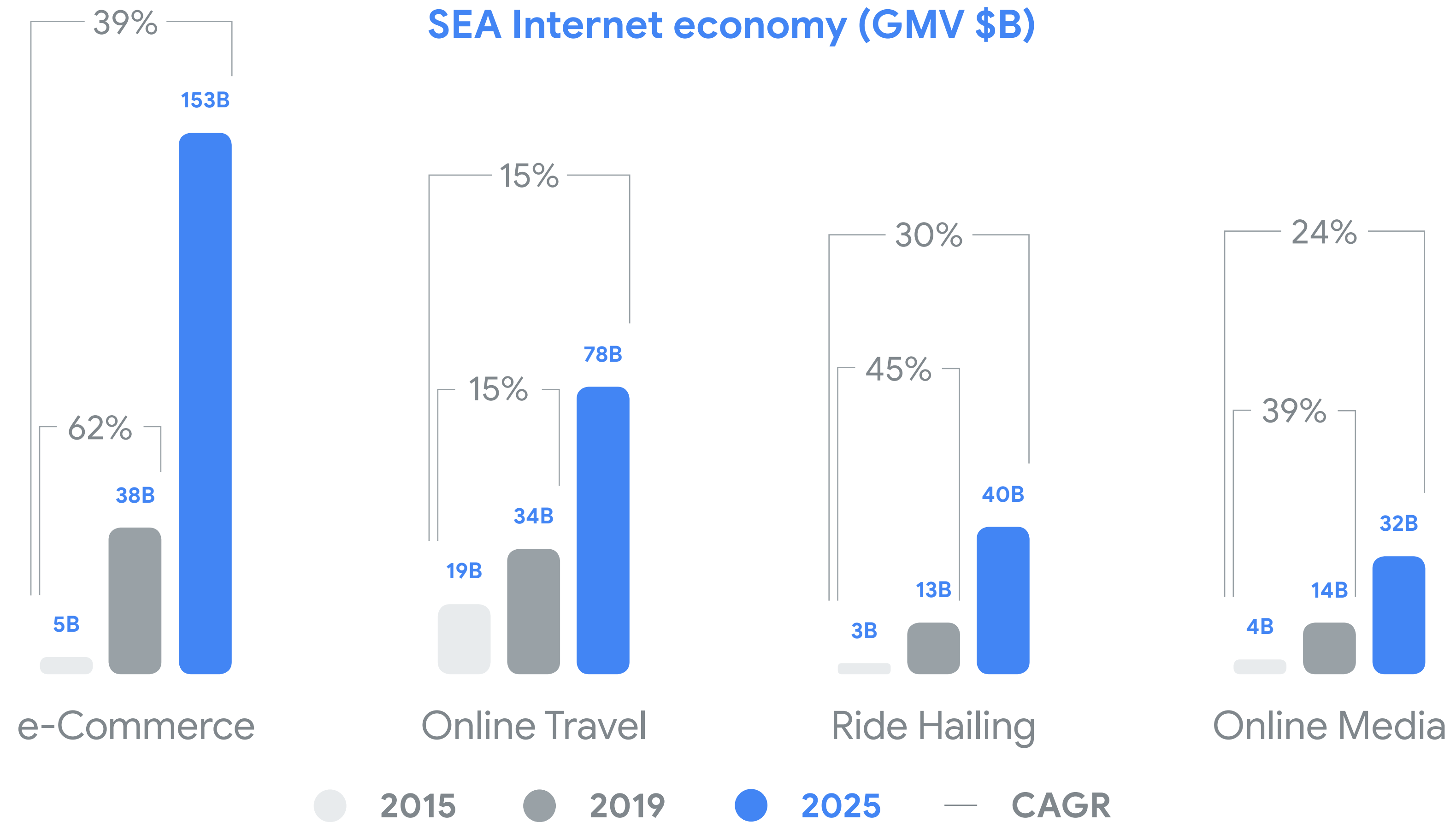
Fundamental changes in consumer behavior



All sectors experiencing active user growth

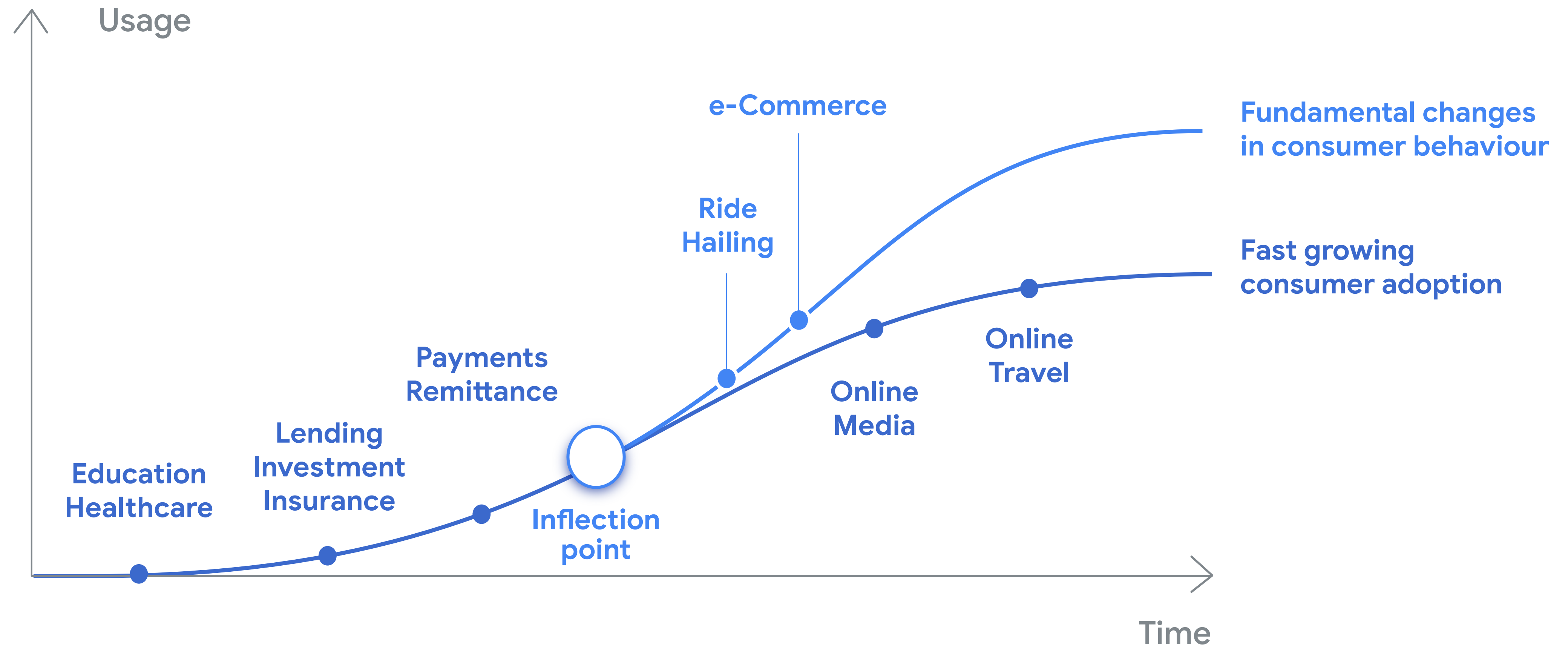


e-Commerce is the largest and fastest growing sector, Ride Hailing growth propelled by rising Food Delivery

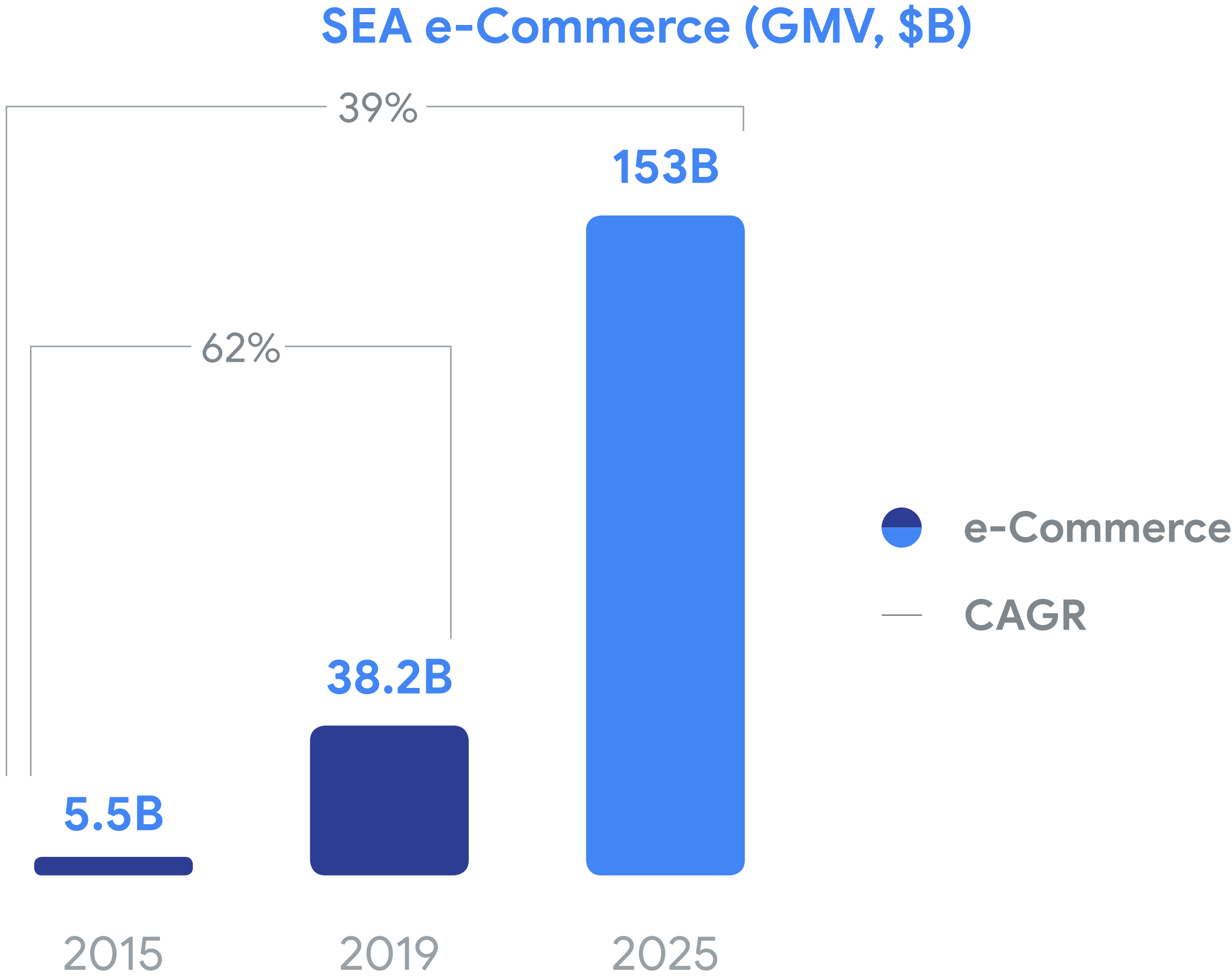


GMV: Gross Merchandise Value; CAGR: Compounded Annual Growth Rate

Growth of e-Commerce and Ride Hailing powered by fundamental changes in consumer behavior



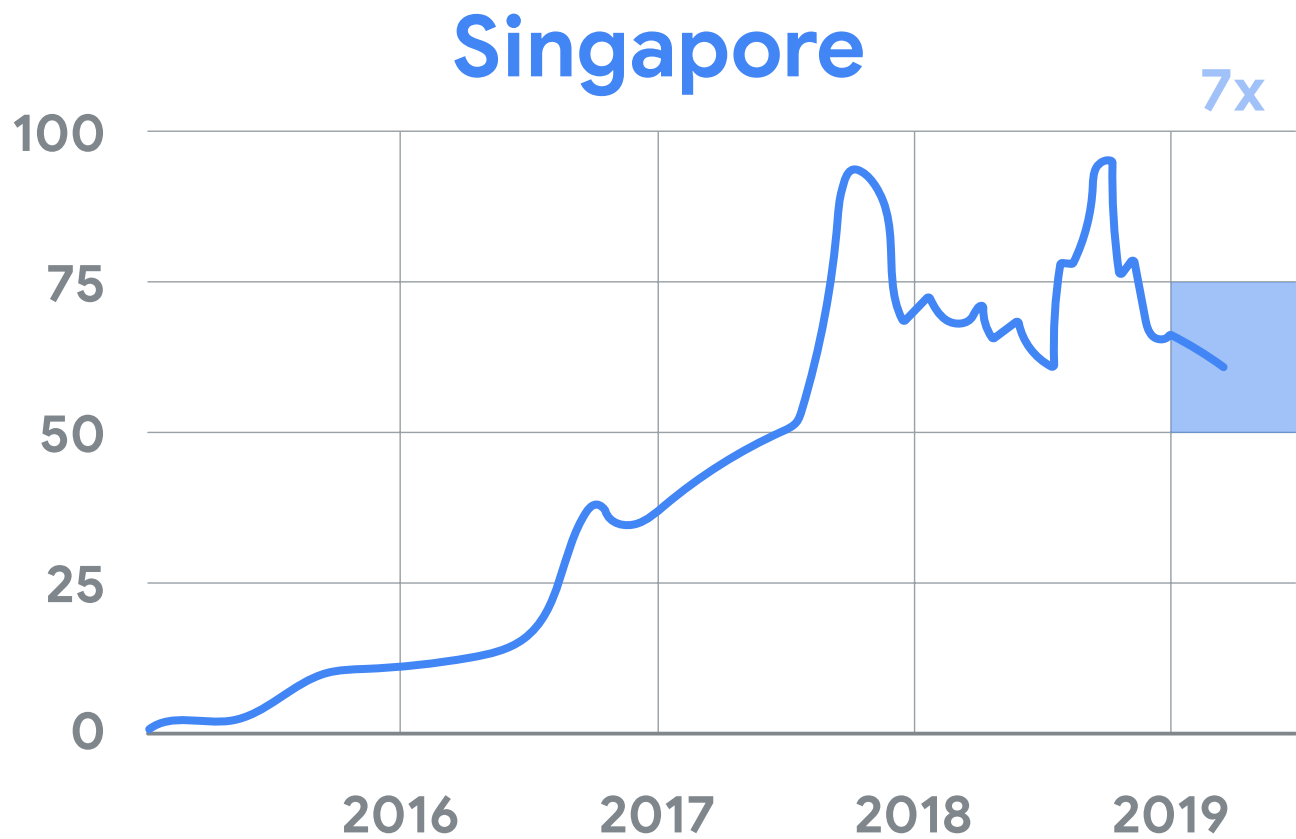
e-Commerce growth turbocharged by shopping festivals, reaches \$38B in 2019 and may exceed \$150B by 2025



- Growth drivers**
- Online shopping festivals
 - In-app entertainment
 - Seller development
 - Next-day delivery
 - Monetization

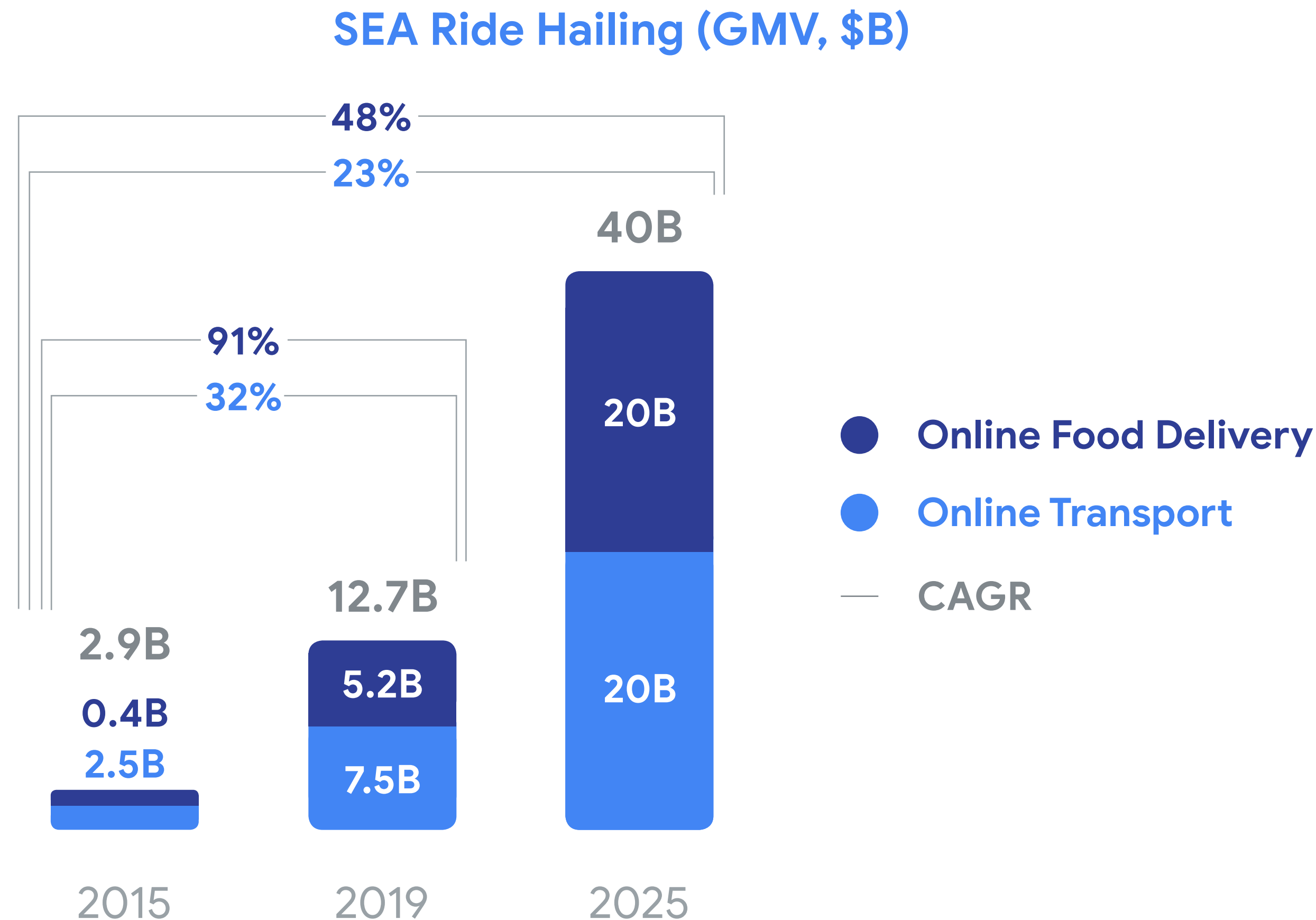
GMV: Gross Merchandise Value; CAGR: Compounded Annual Growth Rate
 e-Commerce GMV estimates include sales from businesses to consumers (B2C) and marketplaces where first-hand goods are sold by SMBs to consumers (SMB-2-C). They do not include sales of digital goods, wholesale orders (B2B), sales of second-hand goods by consumers to consumers (C2C) nor sales completed on social media and messaging platforms (Social Commerce), for which estimates vary widely due to lack of reliable data sources

e-Commerce: search interest in coupons and vouchers growing across Southeast Asia in 2019



Google Trends for selected promotional terms (e.g. coupons, vouchers), 1/2015 - 4/2019 "Xx" indicates average search queries (2019) vs. average search queries (2015)

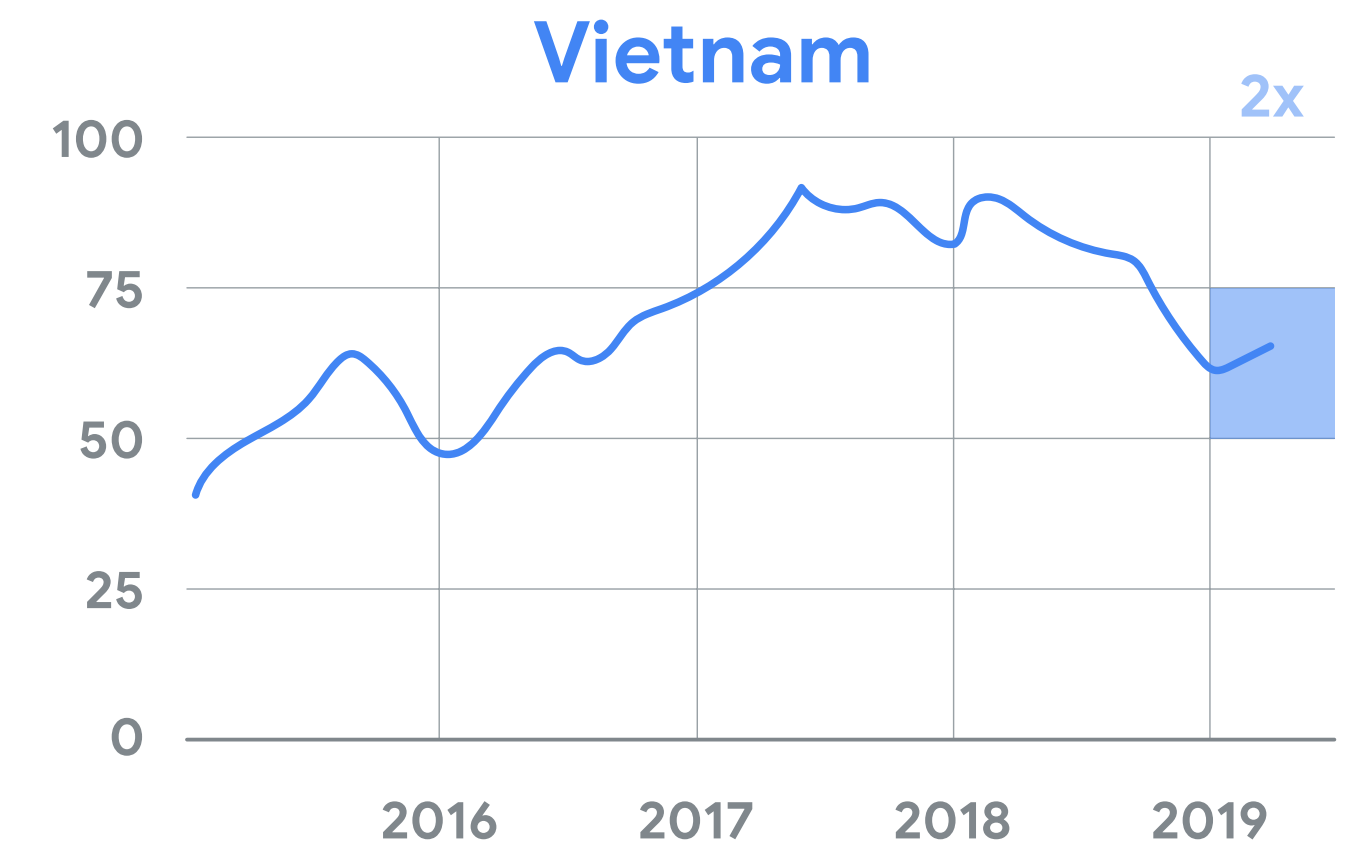
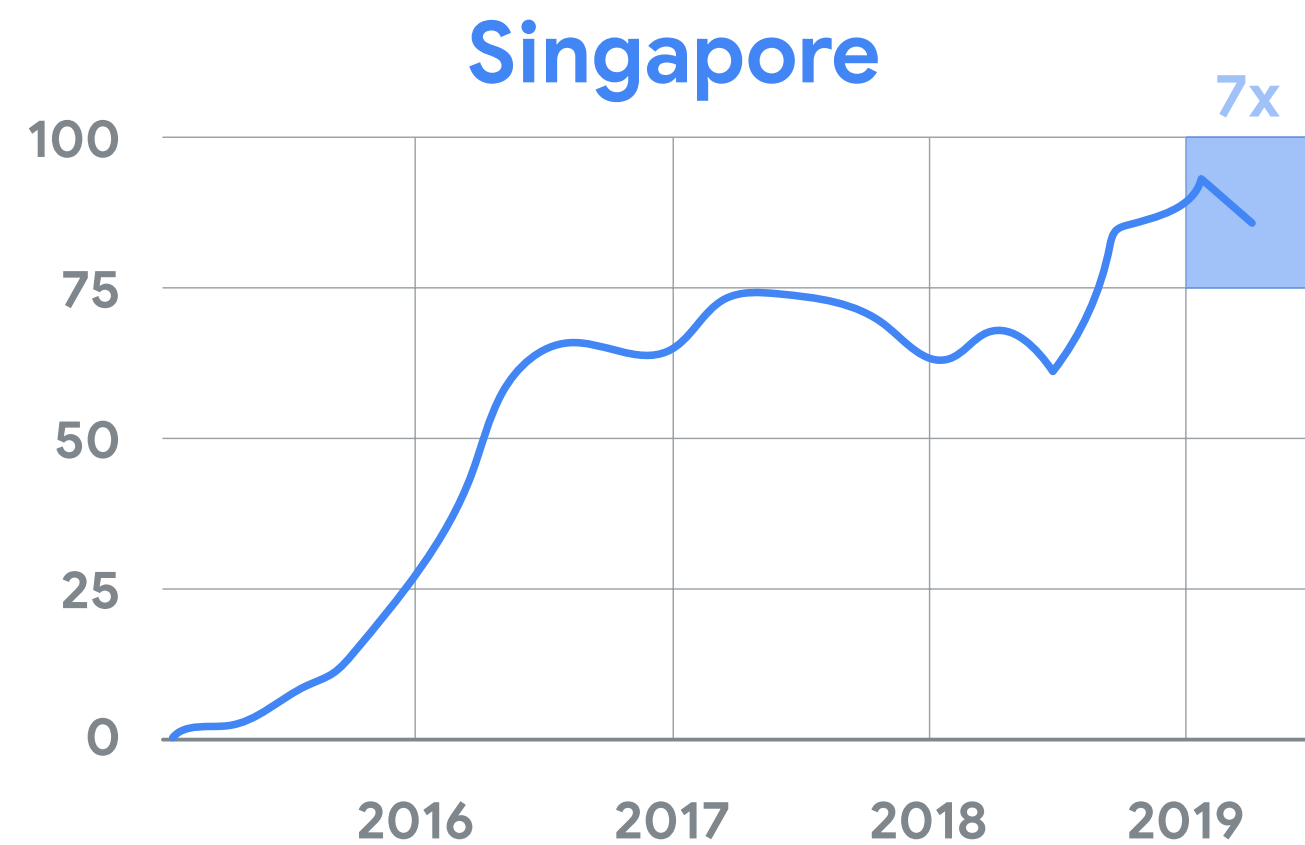
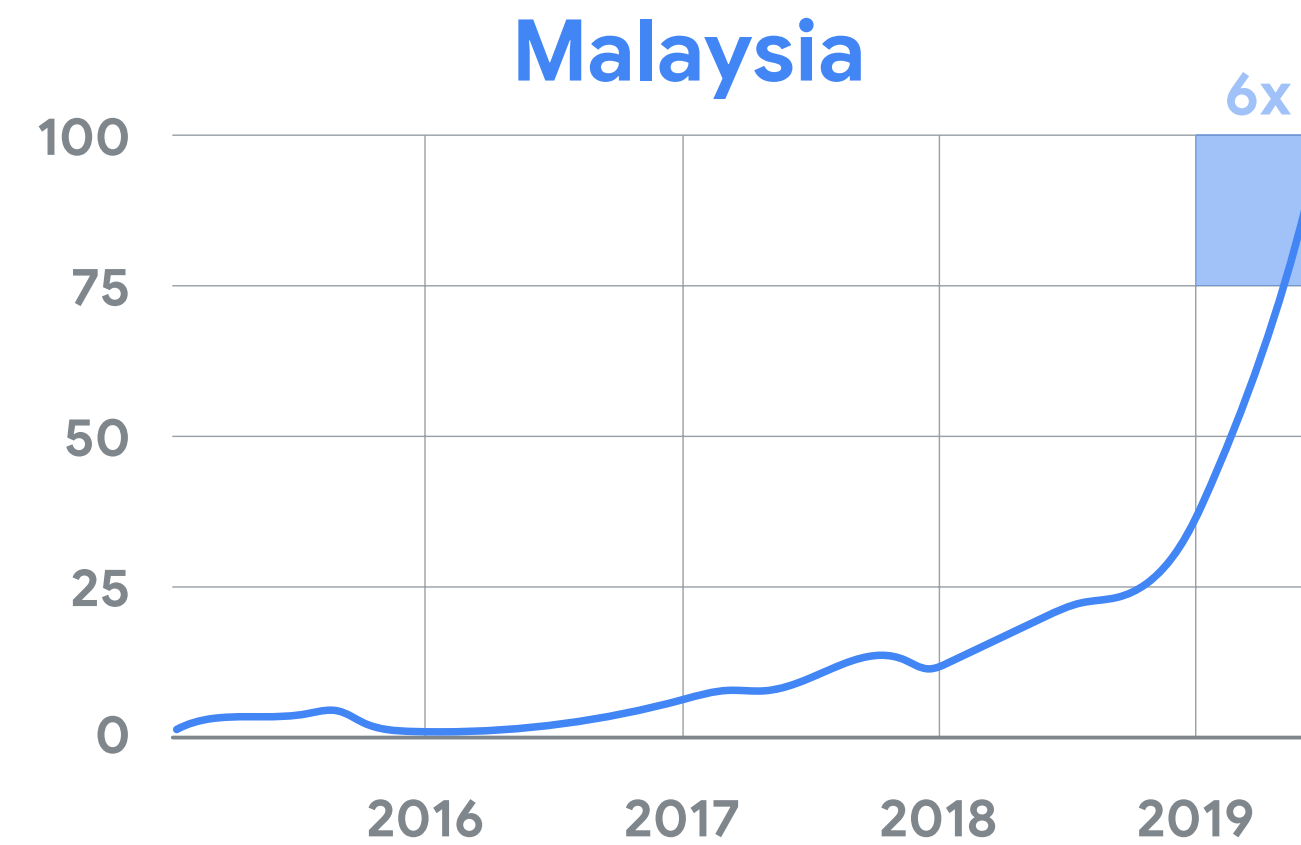
Ride Hailing opportunity to expand to \$40B by 2025, heated up by booming \$5B Food Delivery services



- Growth drivers
- Food delivery
 - Financial services
 - Loyalty & rewards
 - Driver development
 - Profitability

GMV: Gross Merchandise Value; CAGR: Compounded Annual Growth Rate

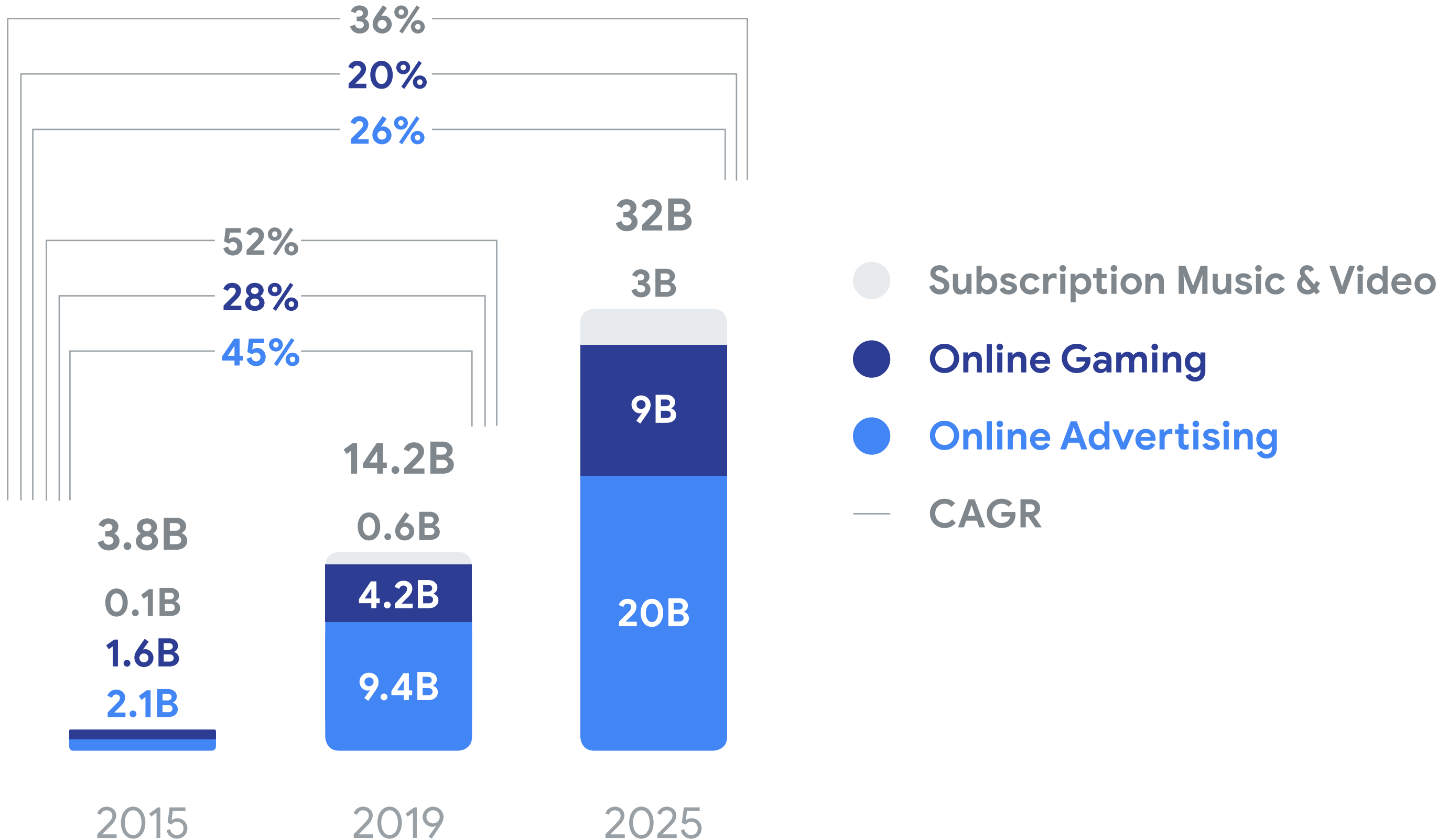
Search interest for Food Delivery surges across Southeast Asia in 2019



Google Trends for selected Online Food Delivery brands, 1/2015 - 4/2019. "Xx" indicates average search queries (2019) vs. average search queries (2015)

Online Media hits \$14B, powered by Ads and Gaming

SEA Online Media (GMV, \$B)

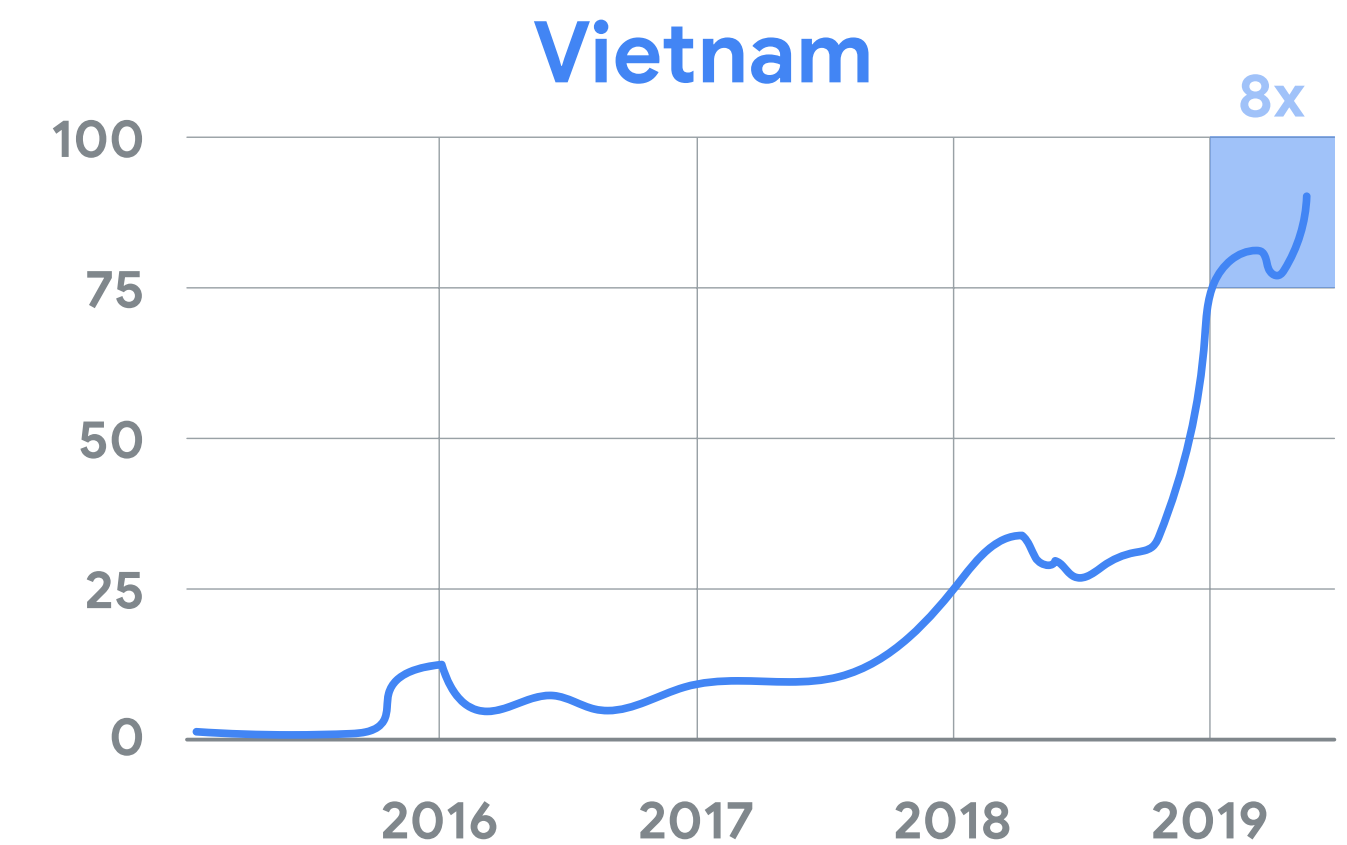
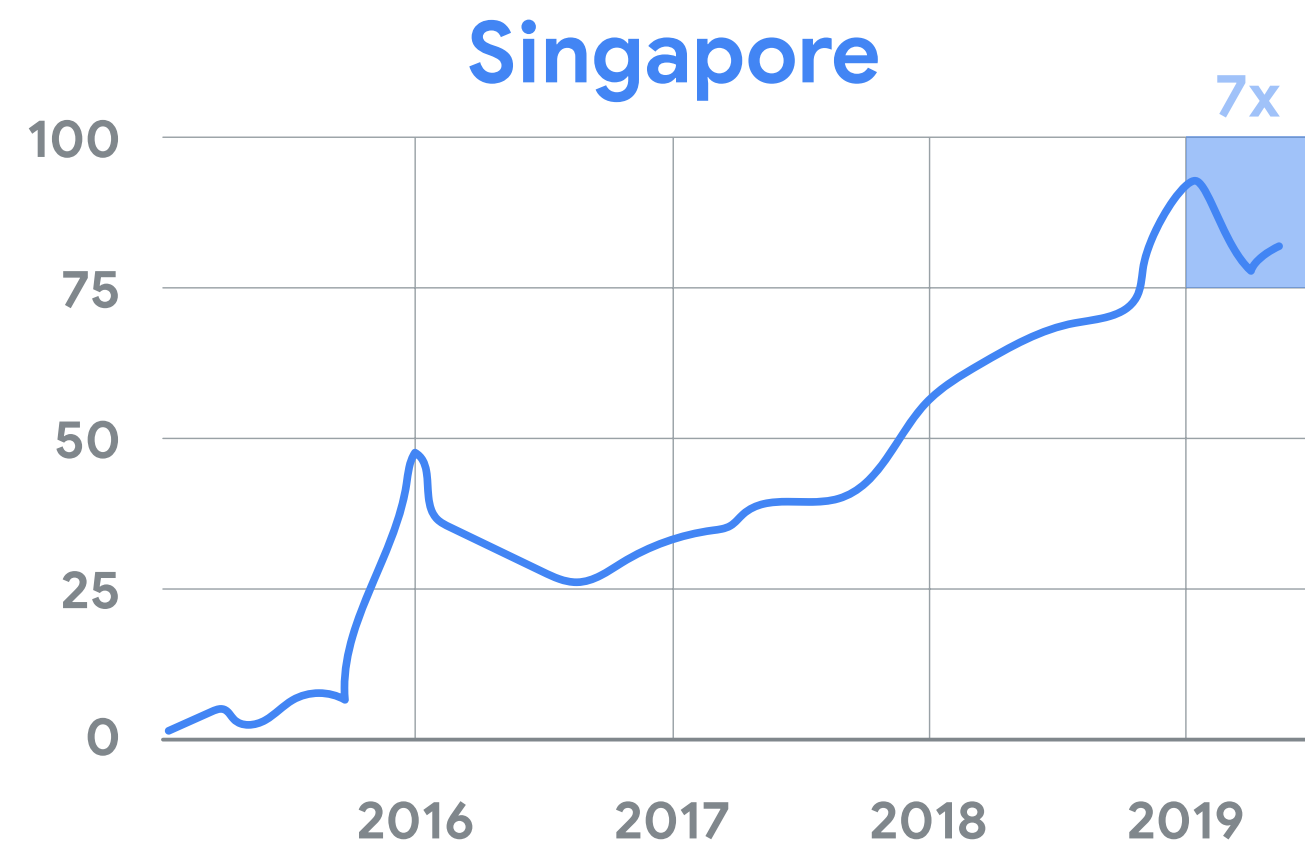


Growth drivers

- Internet user growth
- Mobile engagement
- Live & short-form videos
- Local content creators
- Lifetime value (LTV)

GMV: Gross Merchandise Value; CAGR: Compounded Annual Growth Rate

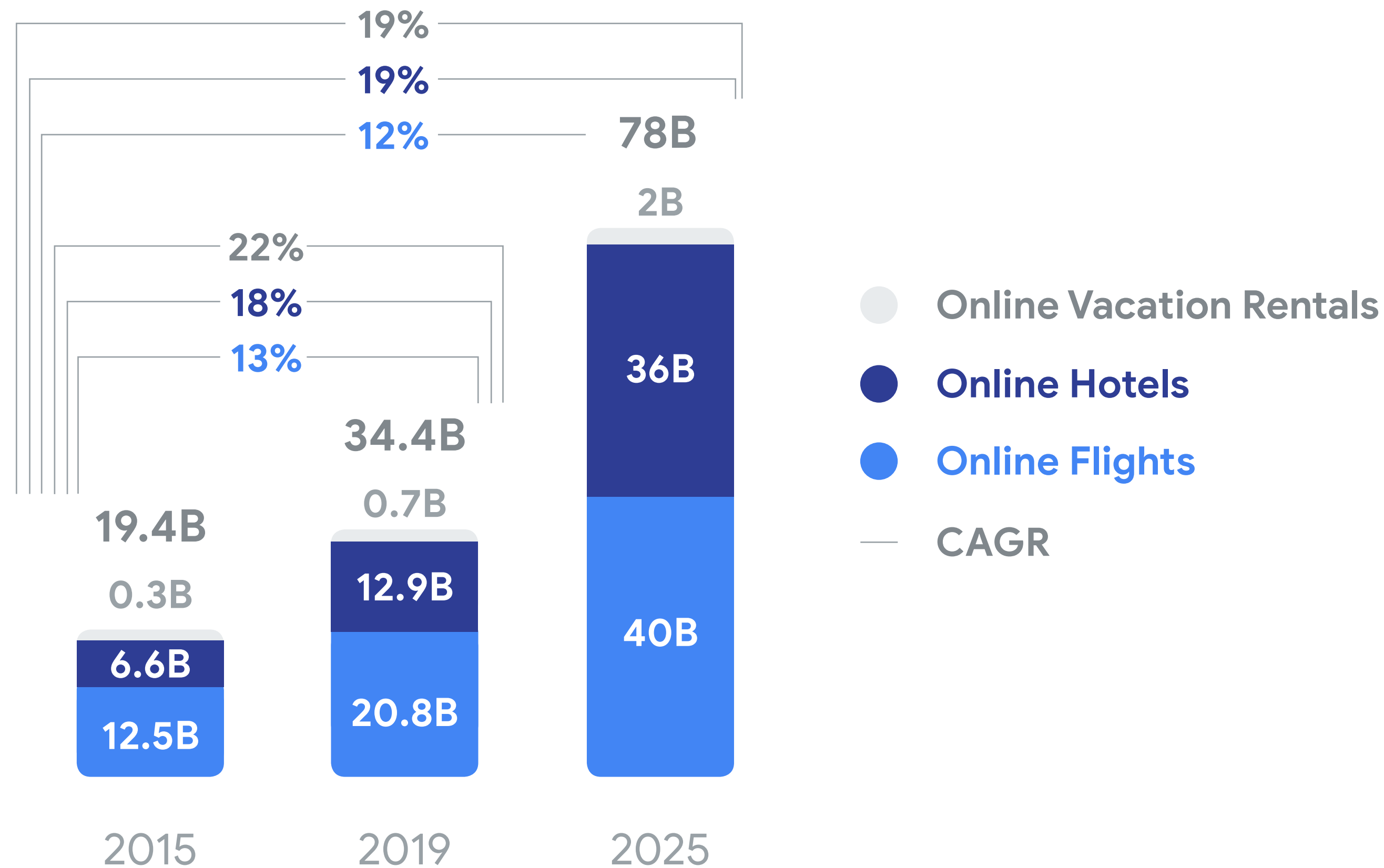
Subscription Video Streaming brands reached new peaks in search interest across Southeast Asia in 2019



Google Trends for selected Subscription Streaming Video brands, 1/2015 - 4/2019. "Xx" indicates average search queries (2019) vs. average search queries (2015)

Vacation Rentals and Budget Hotels most dynamic in \$34B Online Travel sector

SEA Online Travel (GMV, \$B)

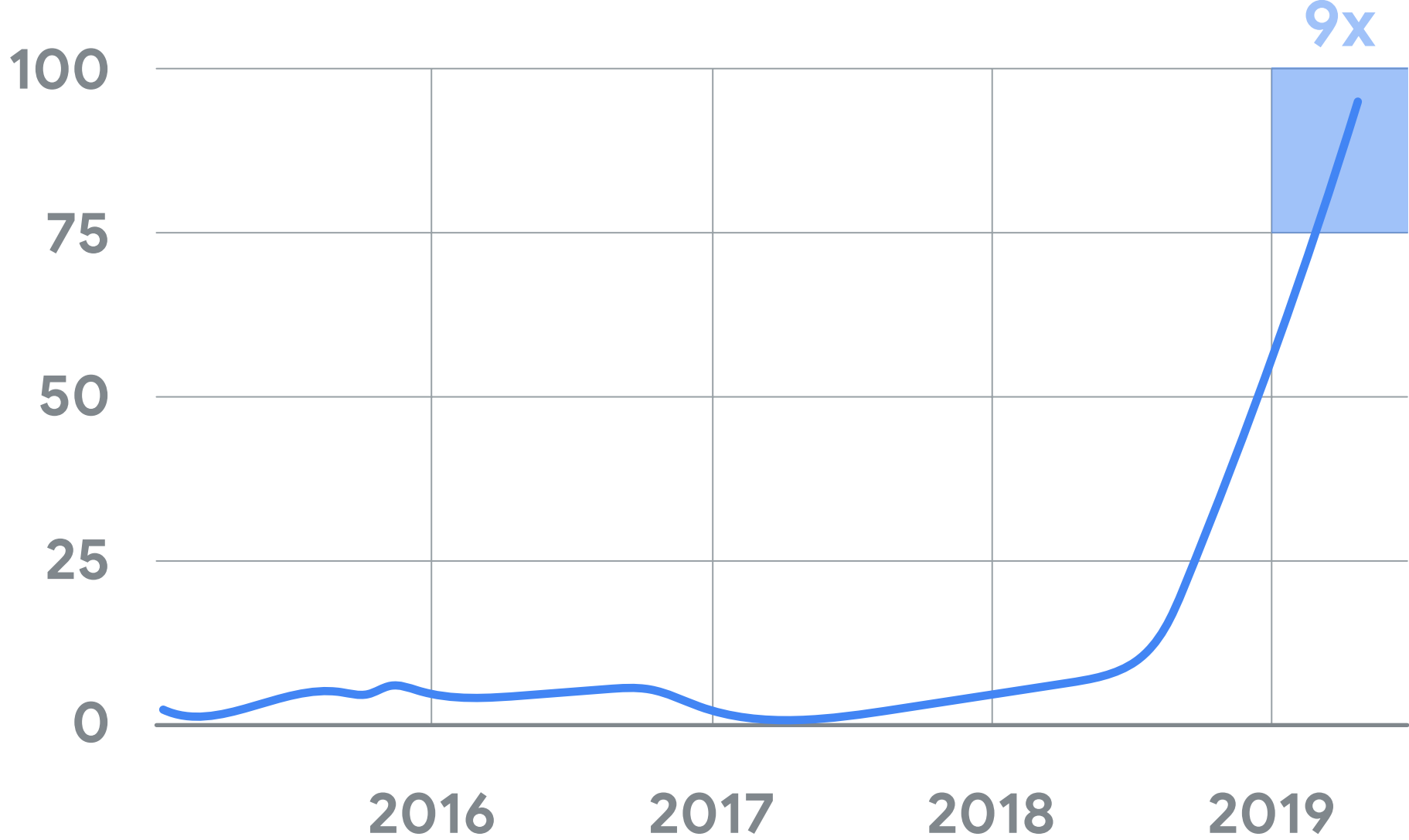


- Growth drivers**
- Vacation rental brands
 - Budget hotel chains
 - Experiences
 - Partnerships

GMV: Gross Merchandise Value; CAGR: Compounded Annual Growth Rate

Budget Hotels and Vacation Rentals grew steadily in search interest across Southeast Asia in 2019

Budget Hotel brands



Vacation Rental brands



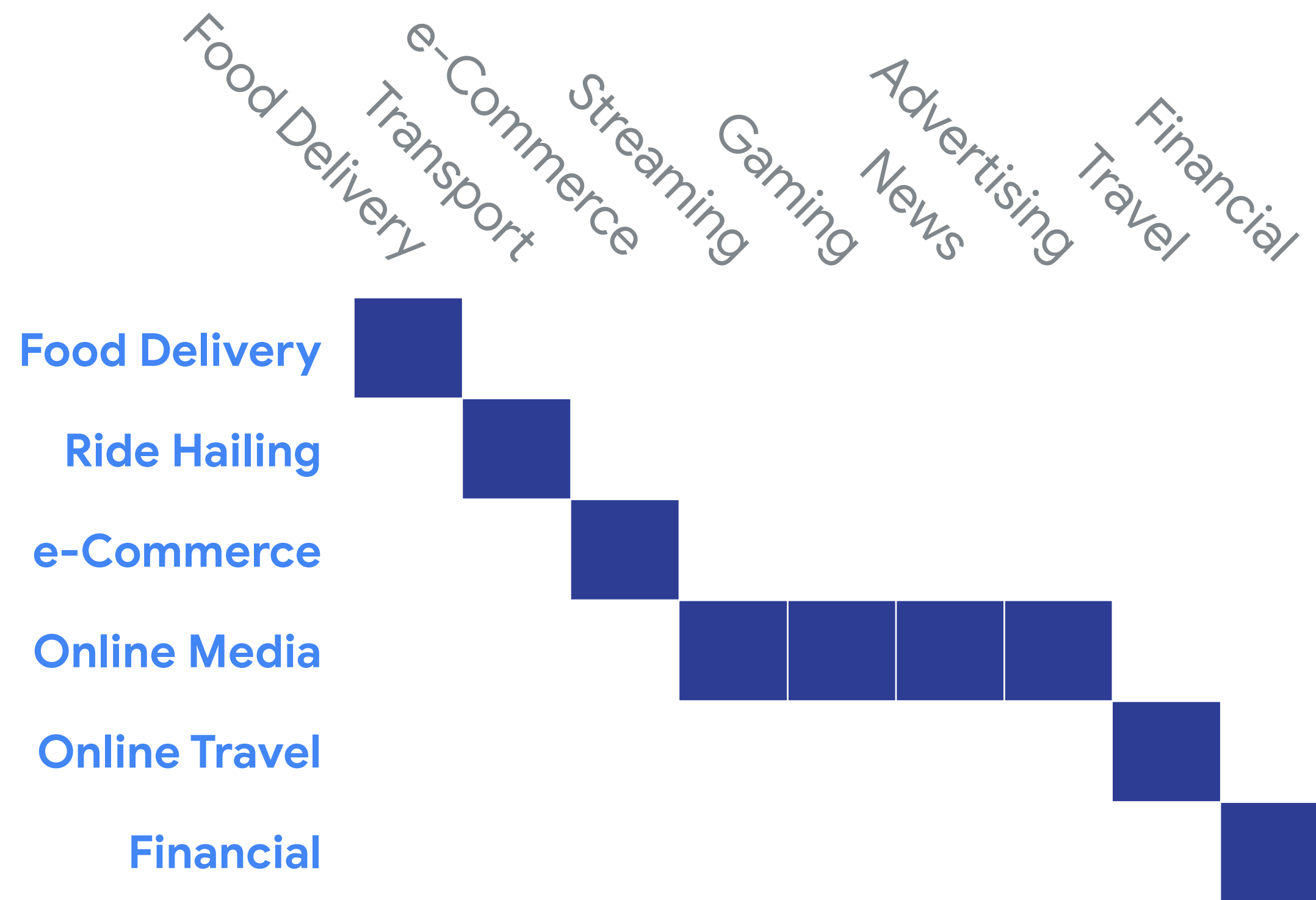
Google Trends for selected Online Budget Hotel brands (ID, MY, PH, SG, VN) and selected Online Vacation Rental brands (ID, MY, PH, TH, VN), 1/2015 - 4/2019
"Xx" indicates average search queries (2019) vs. average search queries (2015)



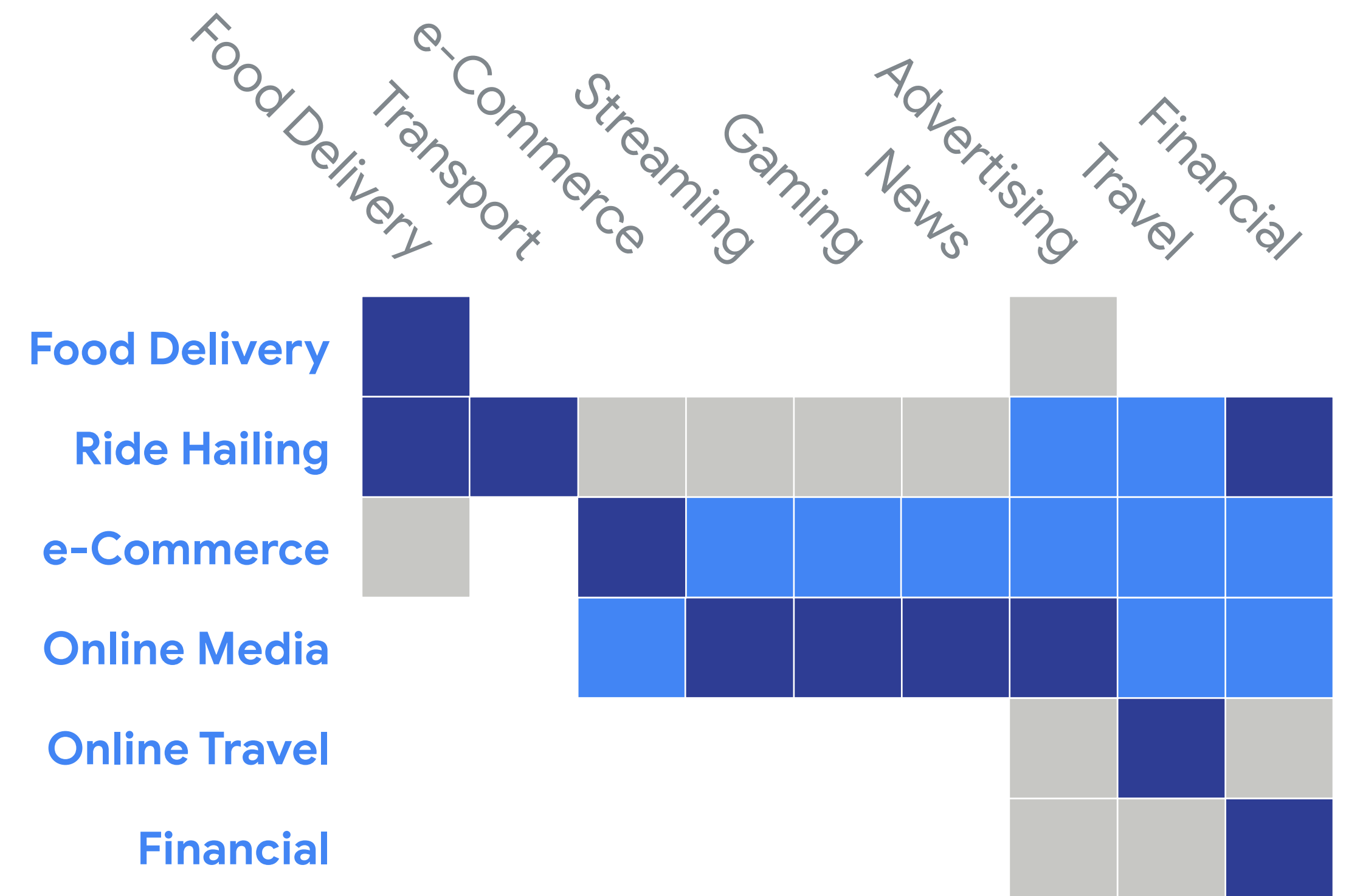
Time is money:
competing for
engagement

Consumers benefit from increased competition as players launch new services to drive engagement

“Heat map” (2015)



“Heat map” (2019)

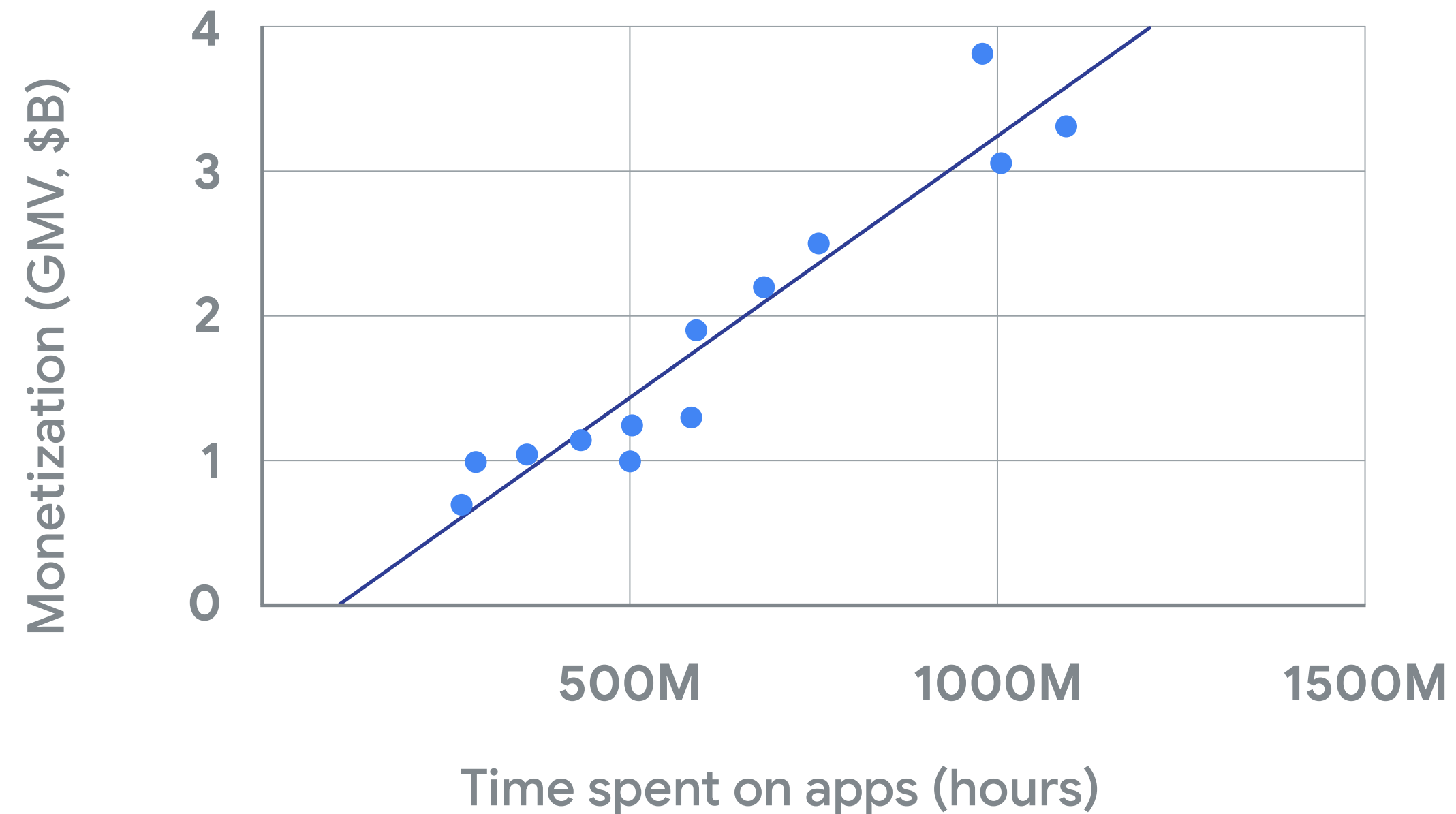


● Core Service ● Adjacent Service ● Nascent Presence

Increased user engagement strongly correlates with monetization through orders and bookings

e-Commerce - Monetization vs Time Spent

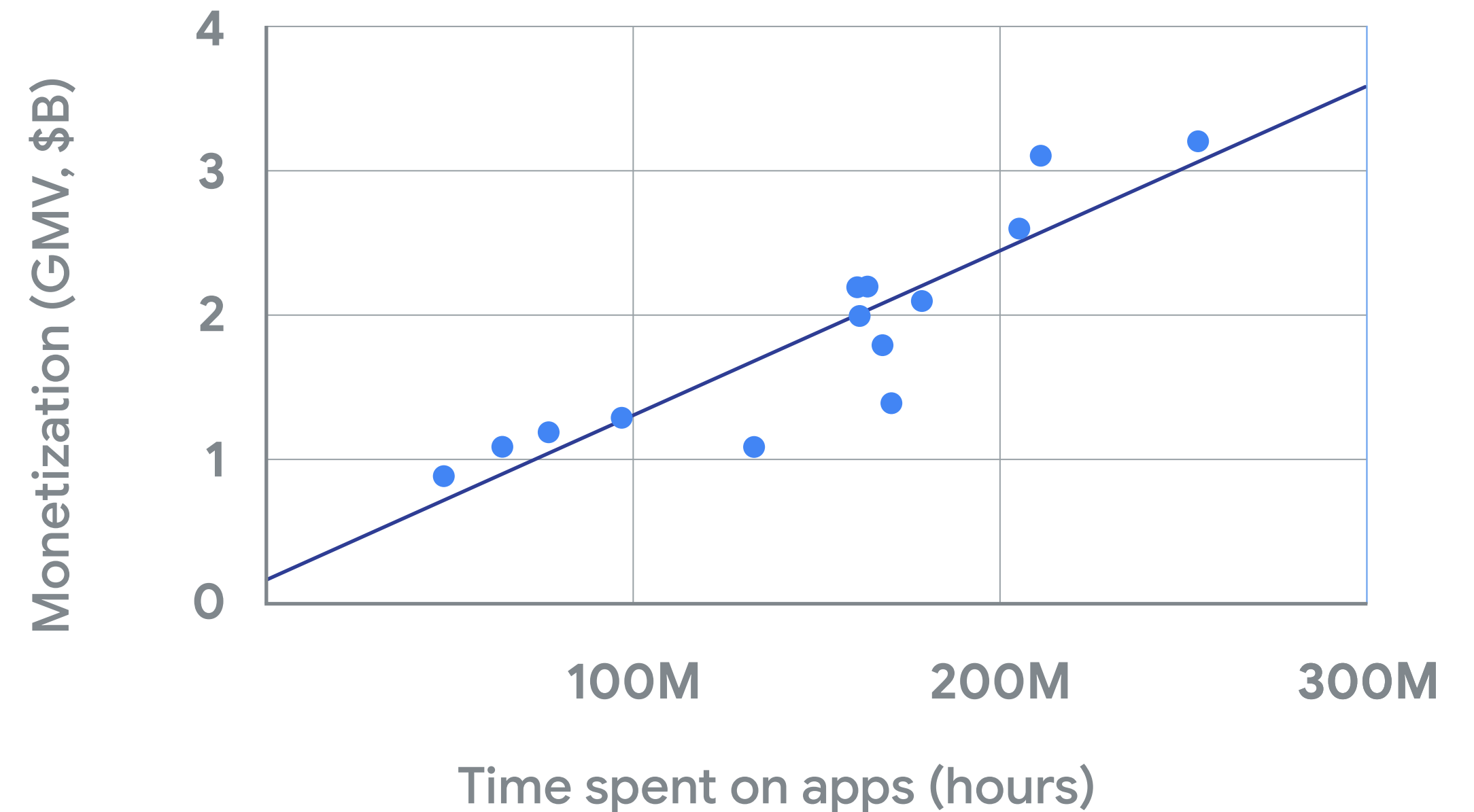
Southeast Asia, Q1 2016-Q2 2019



● GMV (\$B) — $R^2 = 0.904$

Ride Hailing - Monetization vs Time Spent

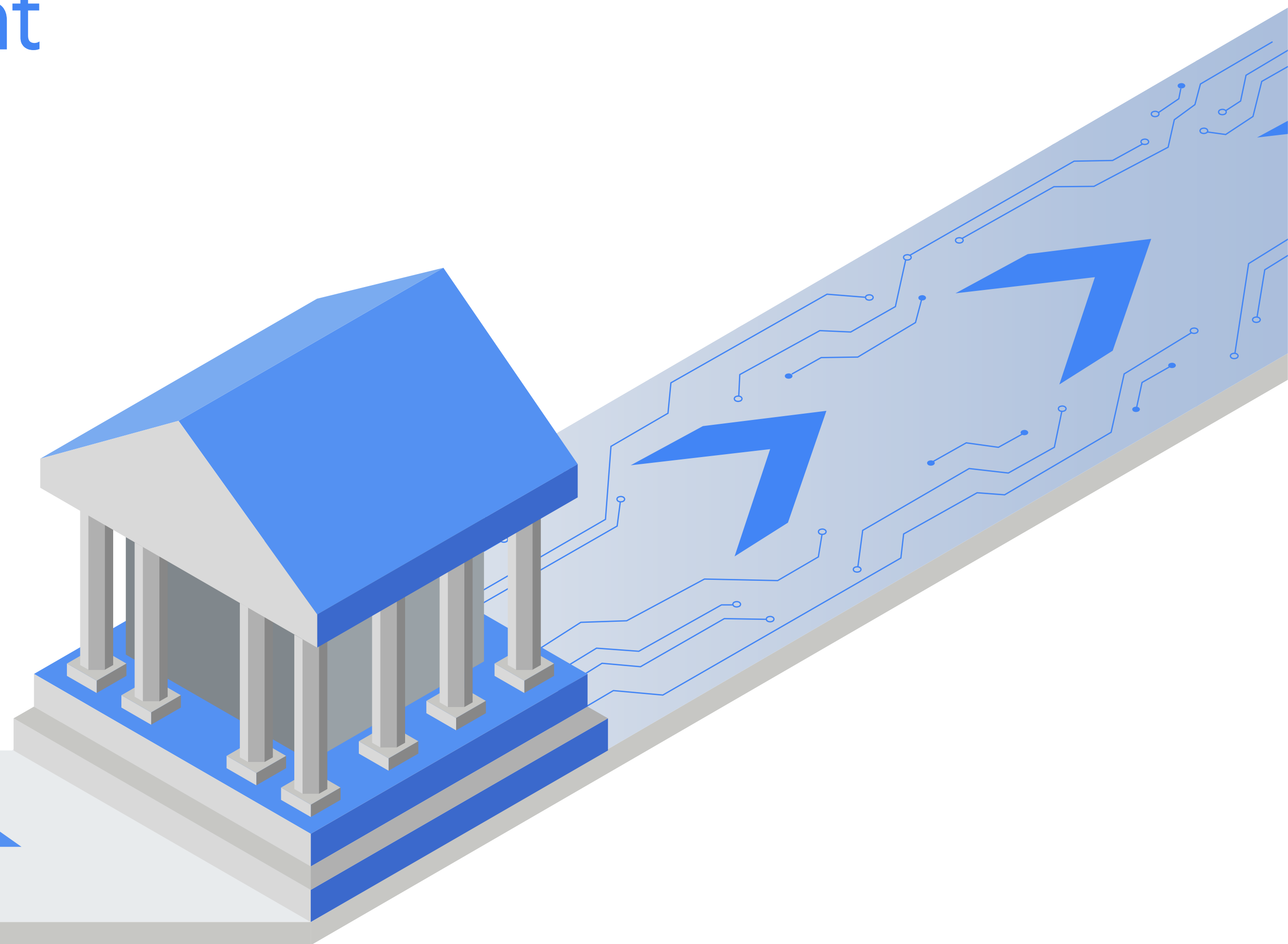
Southeast Asia, Q1 2016-Q2 2019



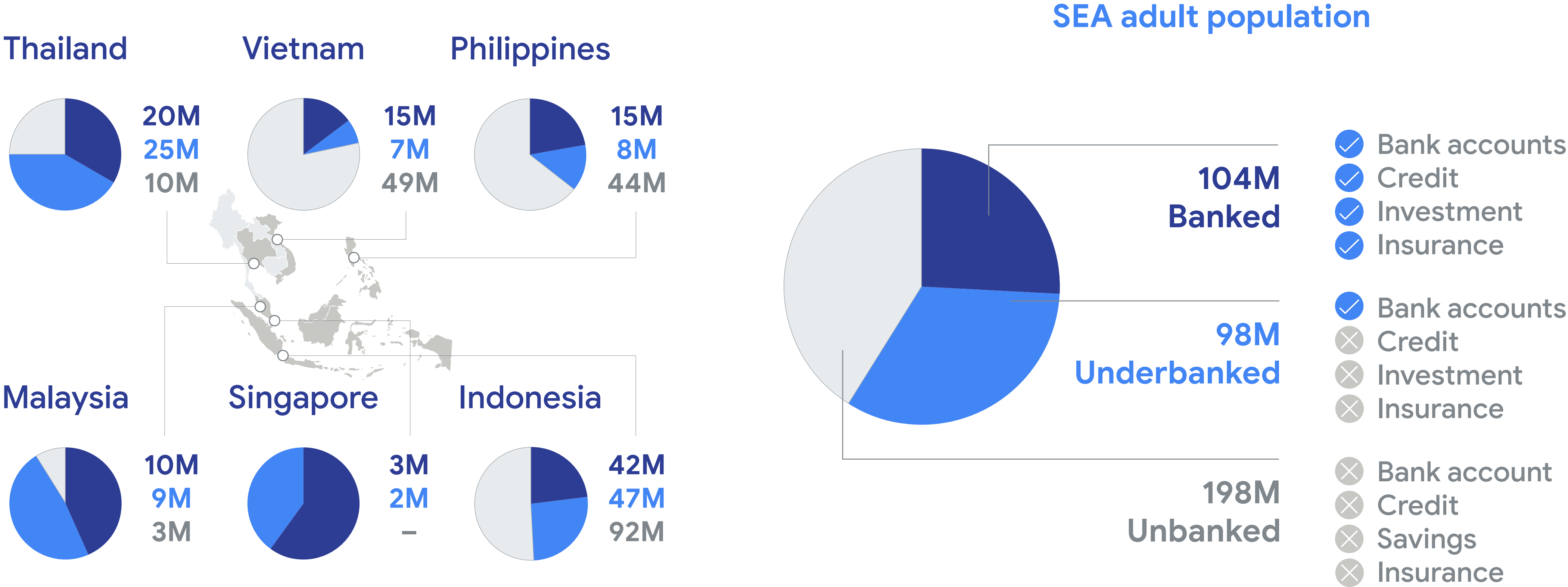
● GMV (\$B) — $R^2 = 0.806$

Source: App Annie analysis for e-Economy SEA

Digital Financial Services reach the inflection point

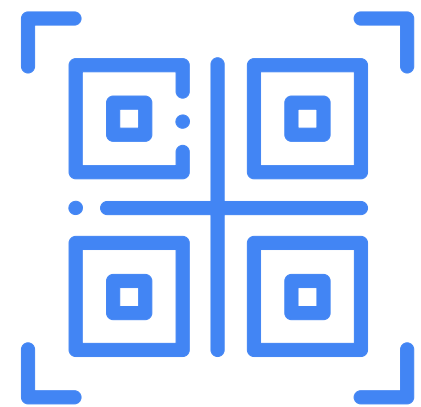


Today, 3 in 4 people in Southeast Asia have **insufficient access** to financial services



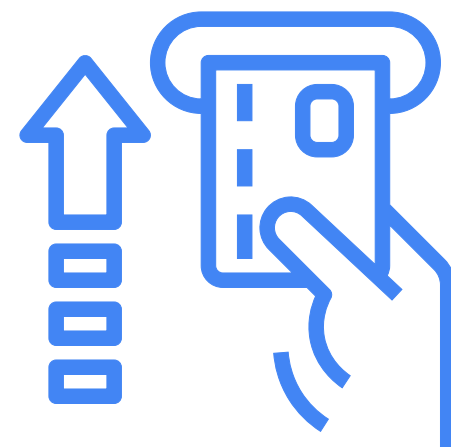
Source: "Fulfilling its Promise - The Future of Southeast Asia's Digital Financial Services"

Digital Financial Services can meet needs with products enabled by technology and data



Digital Payments

All form of payments
(account to account
cards, e-Wallets)
excluding cash



Digital Remittance

Remittance through
digital channels, no
in-person interactions



Digital Lending

Lending through
digital channels, no
in-person interactions



Digital Investment

Investments through
digital channels, no
in-person interactions



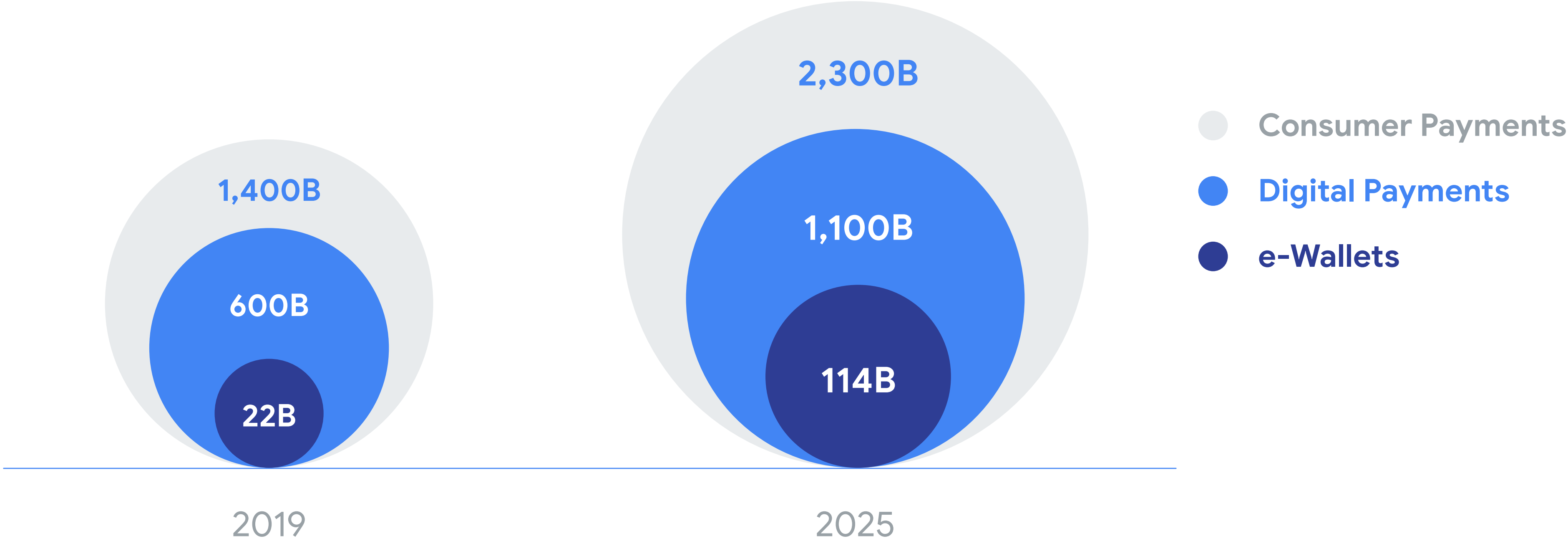
Digital Insurance

Insurance through
digital channels, no
in-person interactions

*Payments: Consumer to business (C2B) payments in cash, debit / prepaid / credit cards, e-Wallets, account-to-account; Remittance: Consumer to consumer (C2C) transfers across borders;
Lending: Consumer loans (excluding housing) and SMB loans (Small & Medium Business); Investment: Personal investments in mutual funds; Insurance: Life insurance, Health insurance, General insurance*

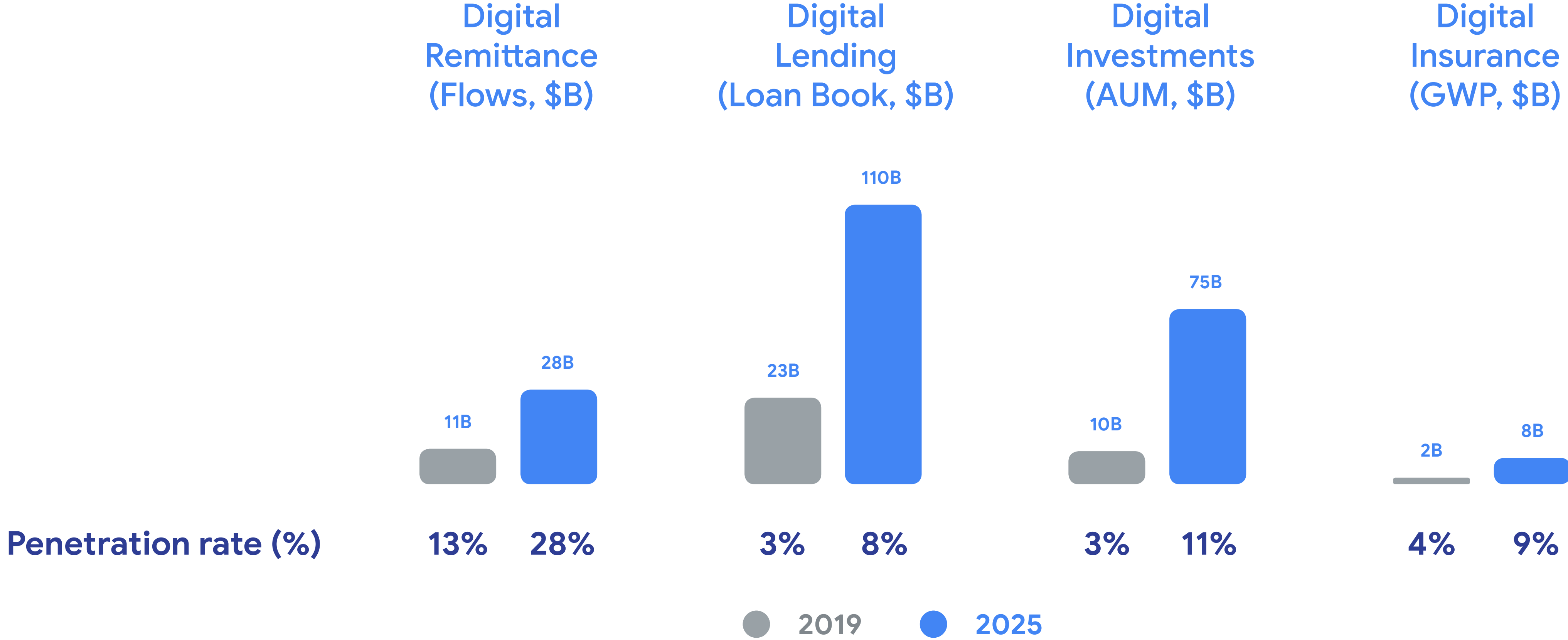
Digital Payments on track to exceed \$1 trillion by 2025

SEA Consumer Payments (GTV, \$B)



GTV: Gross Transaction Value
Source: "Fulfilling its Promise - The Future of Southeast Asia's Digital Financial Services"

Other Financial Services nascent but gaining adoption

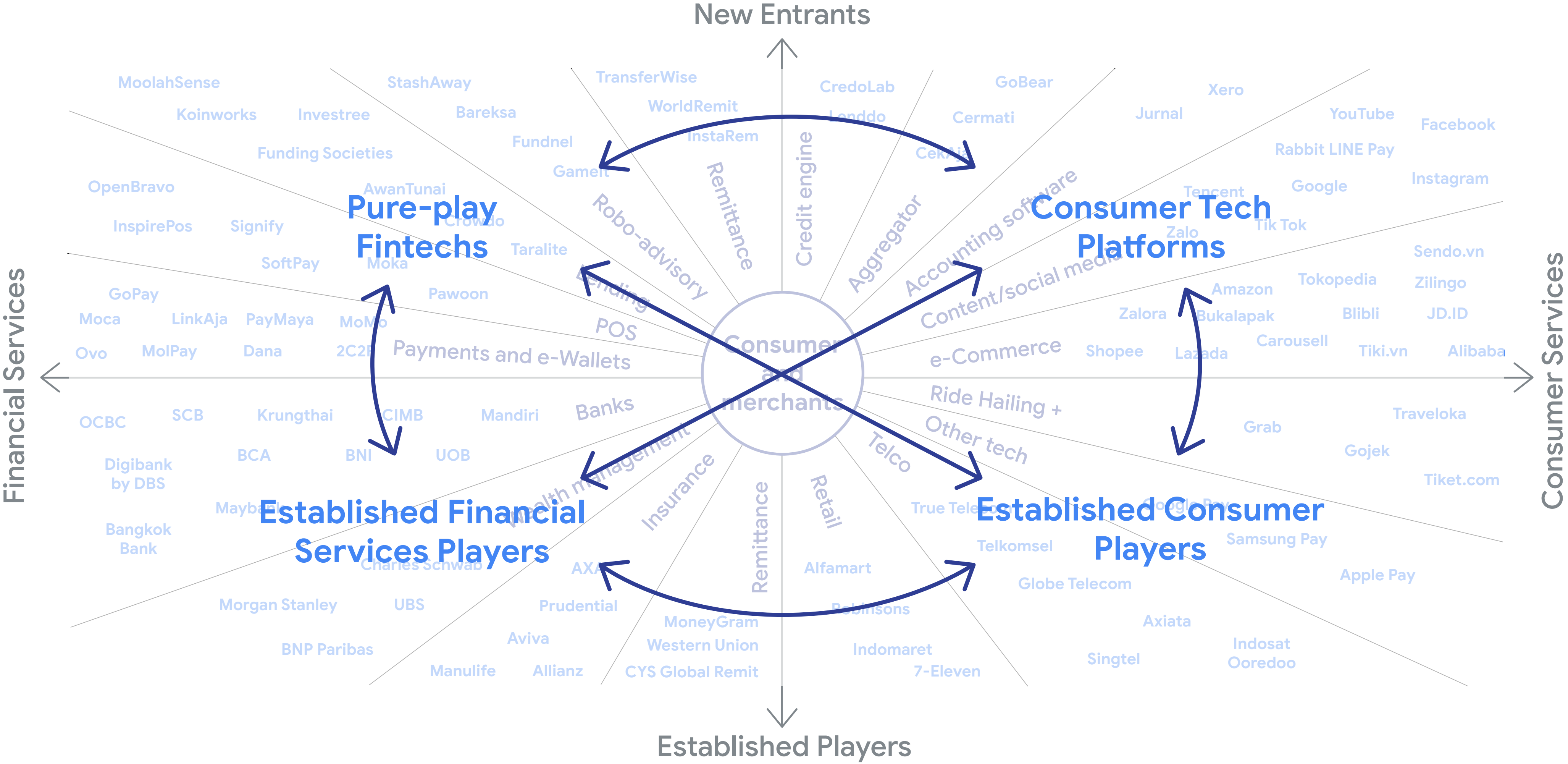


AUM: Assets Under Management; GWP: Gross Written Premiums
 Source: "Fulfilling its Promise - The Future of Southeast Asia's Digital Financial Services"

Clear leaders are yet to emerge in Southeast Asia's uniquely diverse and fragmented competitive landscape

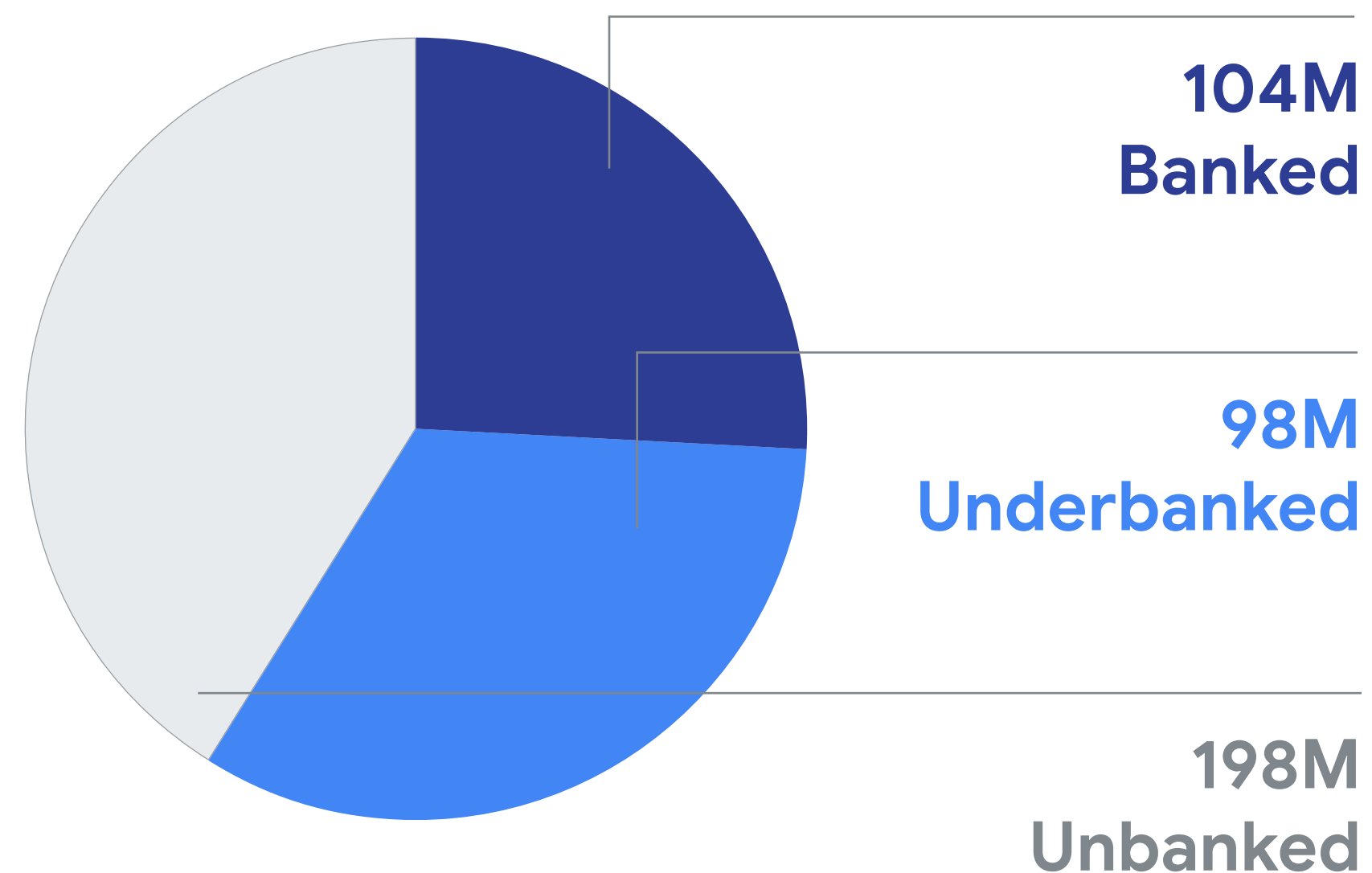


Established players and new entrants are competing and partnering



Different solutions to meet the needs of different consumer segments

SEA adult population



Stronghold of Established Financial Services Players that have customer relationships, expertise, balance sheet and trust
Established Players digitizing faster will have competitive advantage

Serving the Underbanked is the largest business opportunity
Technology can reduce cost to serve and solve for lack of data
Consumer Tech Platforms well positioned to serve the Underbanked

Fundamentally challenging to serve - high CAC, low LTV
Established Consumer Players have distribution access
Technology alone is not enough, affirmative policies required

CAC: Customer Acquisition Cost, LTV: Lifetime Value
Source: "Fulfilling its Promise - The Future of Southeast Asia's Digital Financial Services"

Key ingredients to unlock Digital Financial Services



Supportive regulations

Consistent
and predictable

Common standards

Regulatory sandboxes



Consumer trust

New Entrants partnering
with Established Players

World class cybersecurity
standards for all players

Treatment of Personally
Identifiable Information



Funding

Acquiring new customers,
promoting trial and usage

Investments to digitize
legacy IT systems

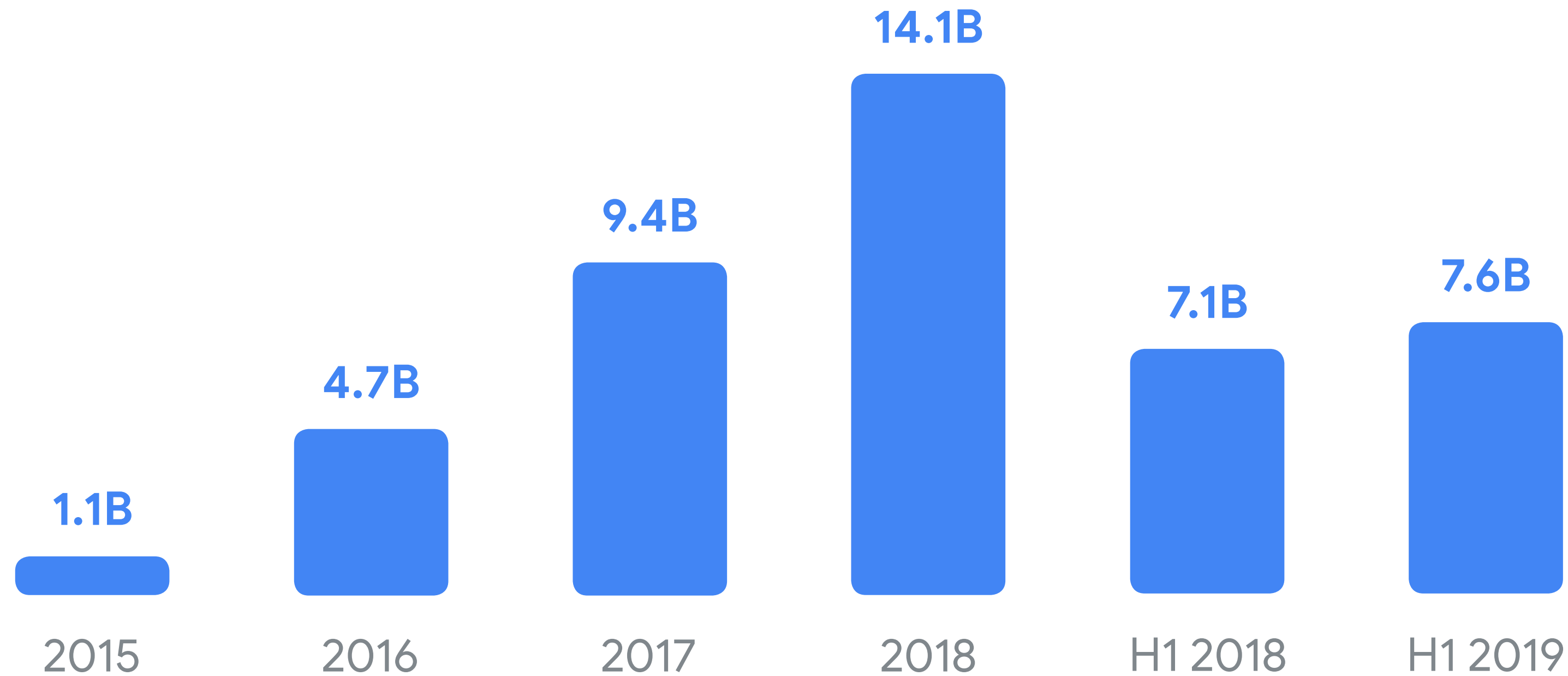
Balance sheet capacity
for banking and lending

Funding remains healthy
despite global headwinds



Funding remains healthy despite global headwinds

Funding in SEA Internet economy (\$B)



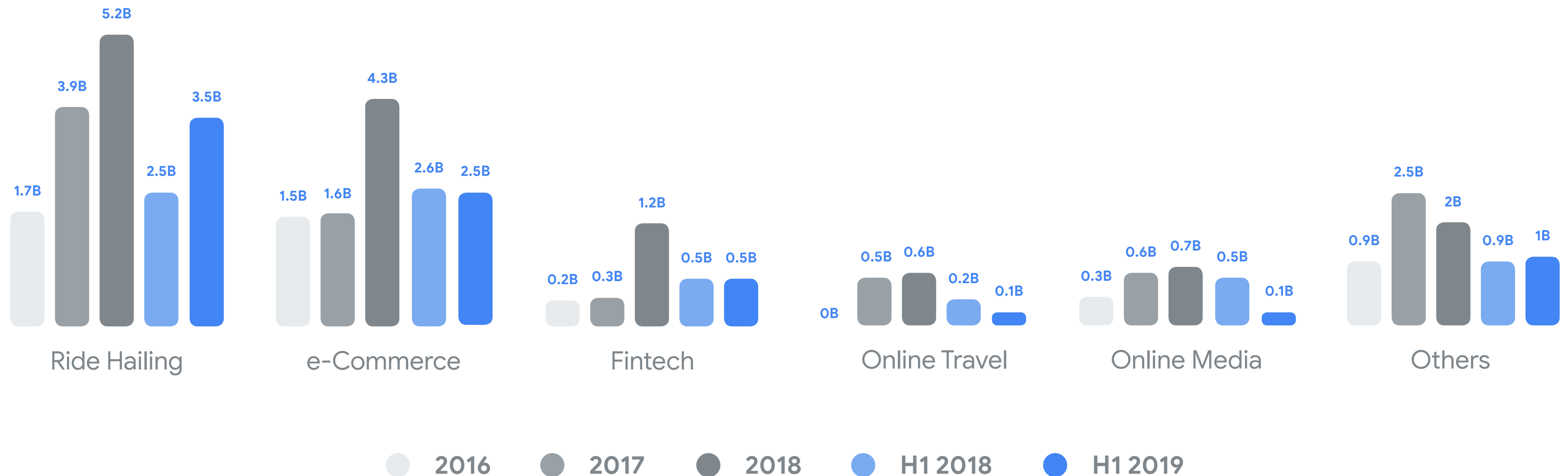
\$37 billion

raised by Internet economy companies in Southeast Asia between 2015 and H1 2019

Funding includes Internet companies operating in sectors covered by the e-Economy SEA research and other nascent Internet economy sectors

e-Commerce and Ride Hailing raised 2 in 3 dollars

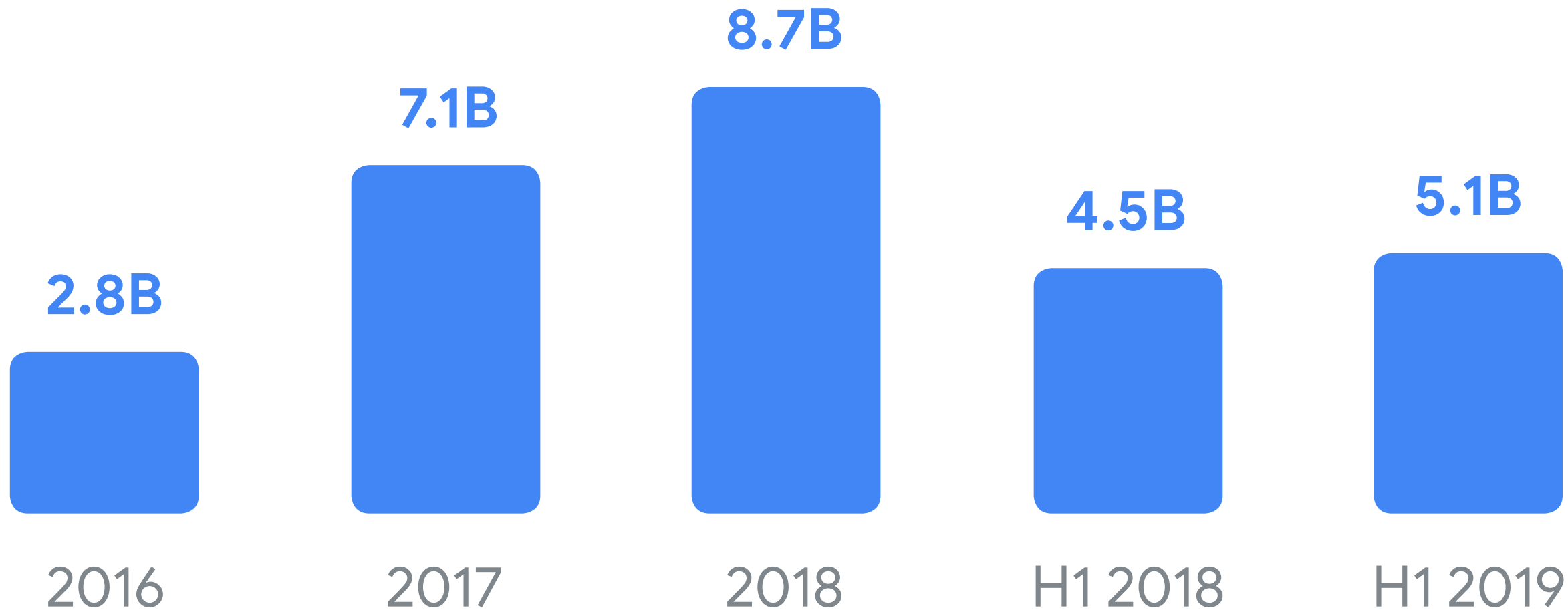
Funding in SEA Internet economy (\$B)



Funding includes Internet companies operating in sectors covered by the e-Conomy SEA research and other nascent Internet economy sectors

\$24B invested in Southeast Asia's 11 Unicorns

Funding for SEA Unicorns (\$B)



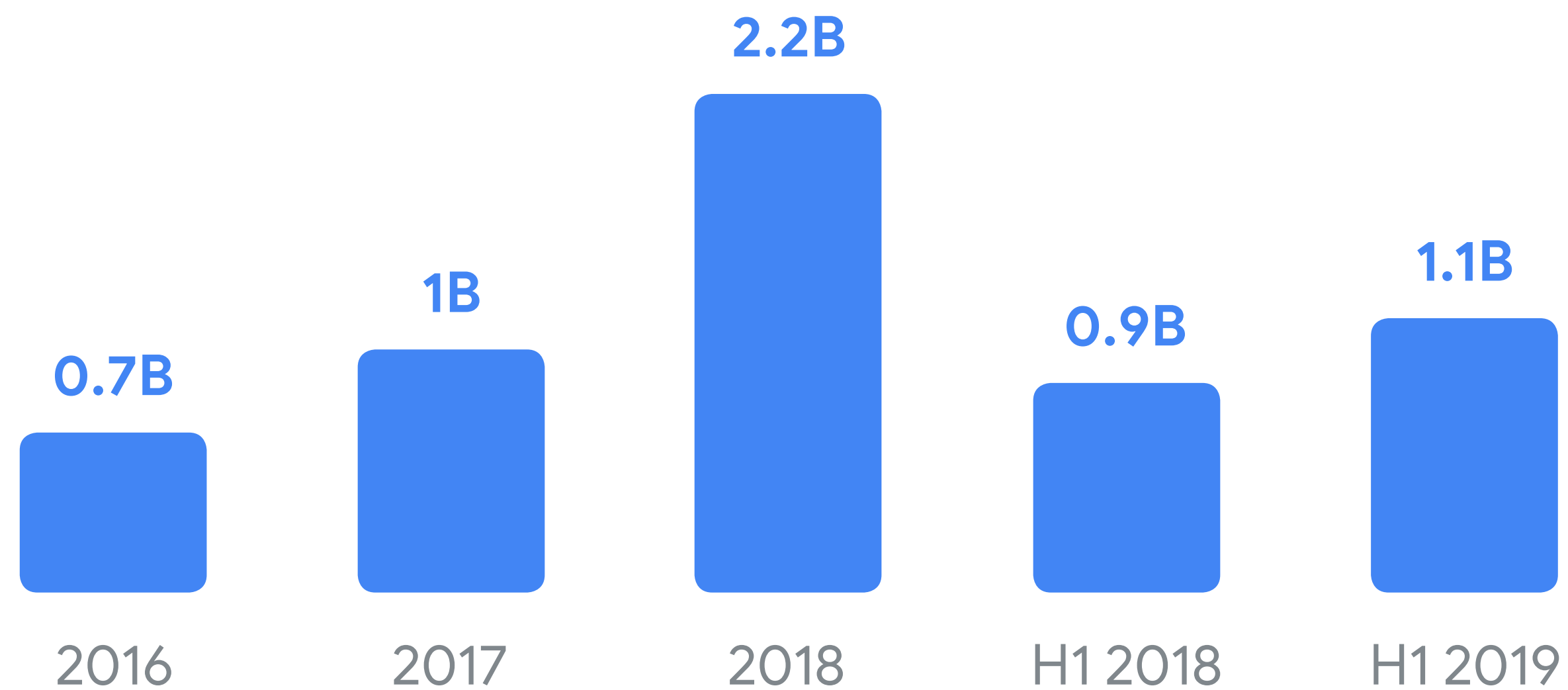
Unicorns



Unicorns refer to companies valued > \$1B. Definitions are based on information made publicly available by the companies and do not constitute a confirmation of the company valuations
Some of the Unicorns have since become public companies or have been acquired. We continue to refer to them as Unicorns for editorial purposes

\$5B invested in more than 70 “Aspiring Unicorns”

Funding for SEA “Aspiring Unicorns” (\$B)



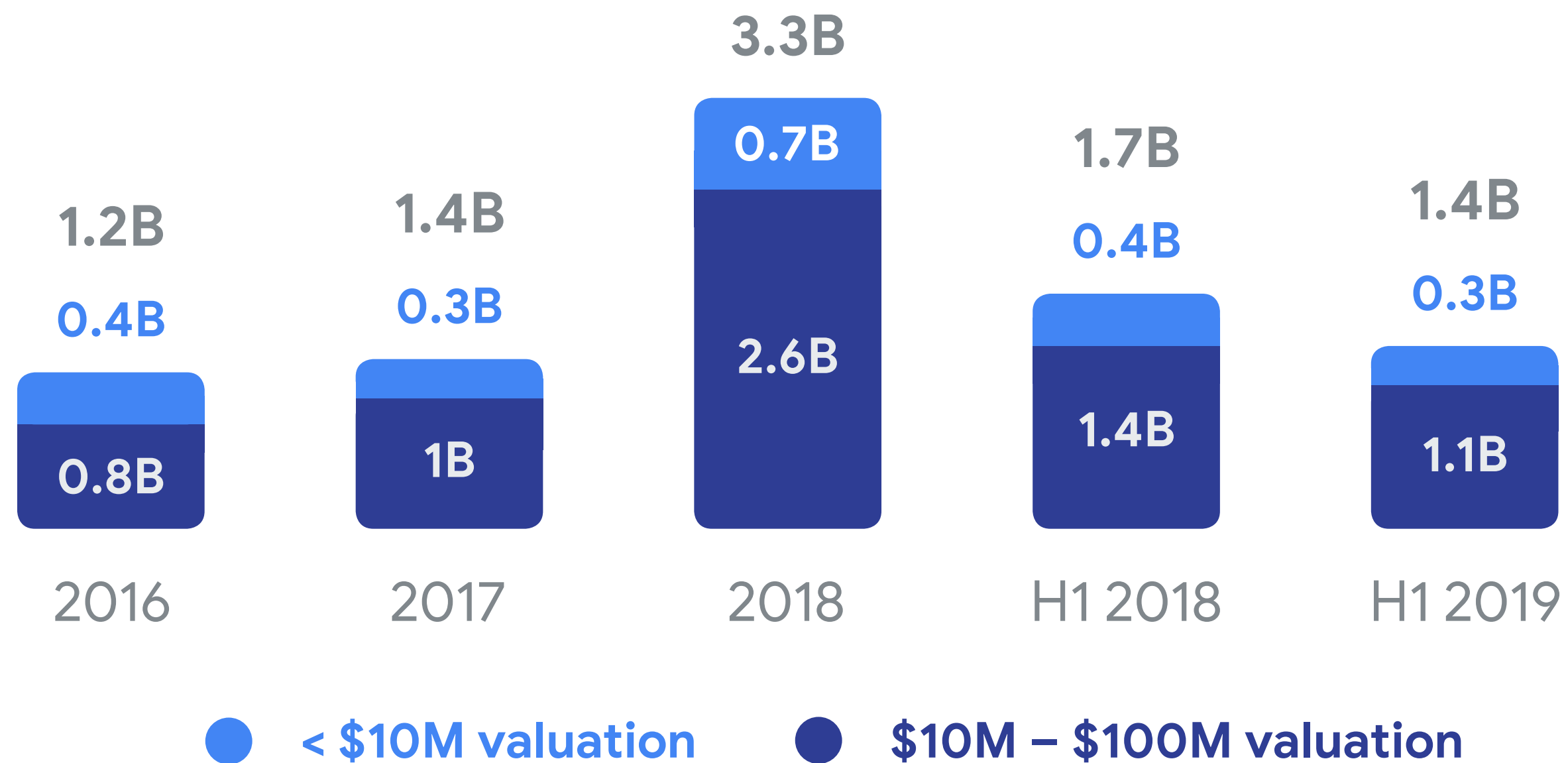
“Aspiring Unicorns” (not exhaustive)



“Aspiring Unicorns” refer to companies valued \$100M-\$1B. Definitions are based on information made publicly available by the companies and do not constitute a confirmation of the company valuations

\$7B invested in nearly 3,000 startups

Funding for SEA startups (\$B)

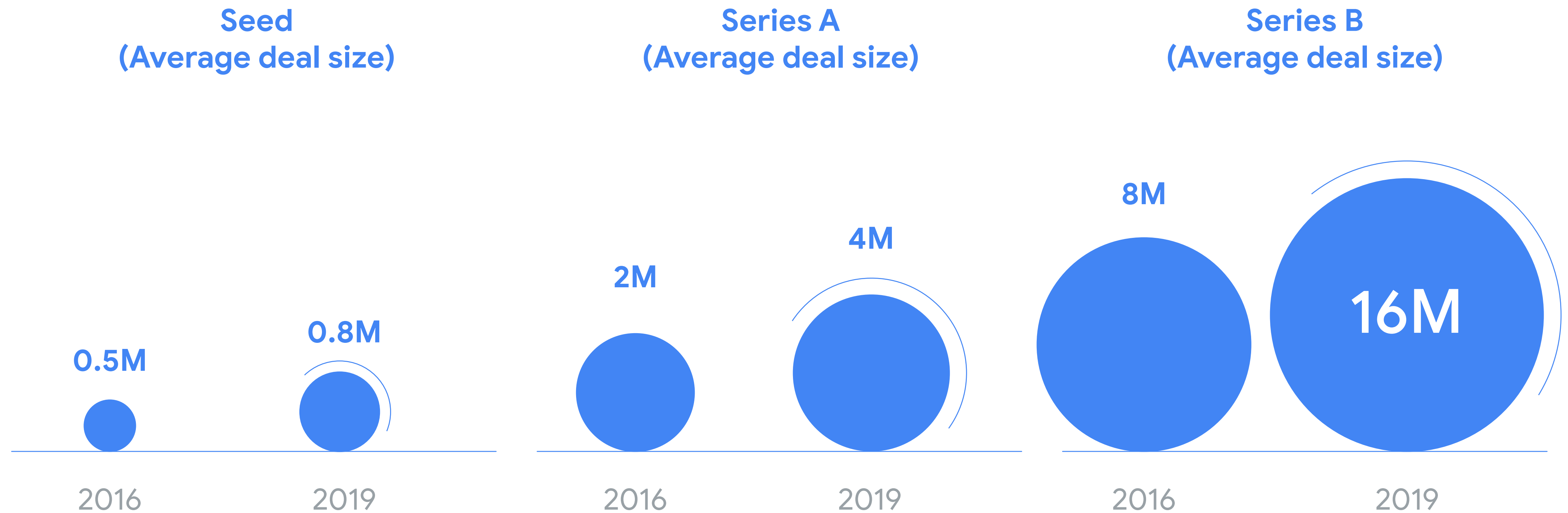


Average deal size doubled over the last 3 years in Seed, Series A, Series B

Most startups active in B2B, Edutech, Healthtech, e-Commerce services, Fintech

Startups refer to companies valued <\$100M, Definitions are based on information made publicly available by the companies and do not constitute a confirmation of the company valuations

Average deal size has doubled over the last 3 years



Average deal size is based on publicly available information on deals where both stage and round size were disclosed

Early stage funding on track to top 2018 record

Early stage funding (\$B) 2016-H1 2019



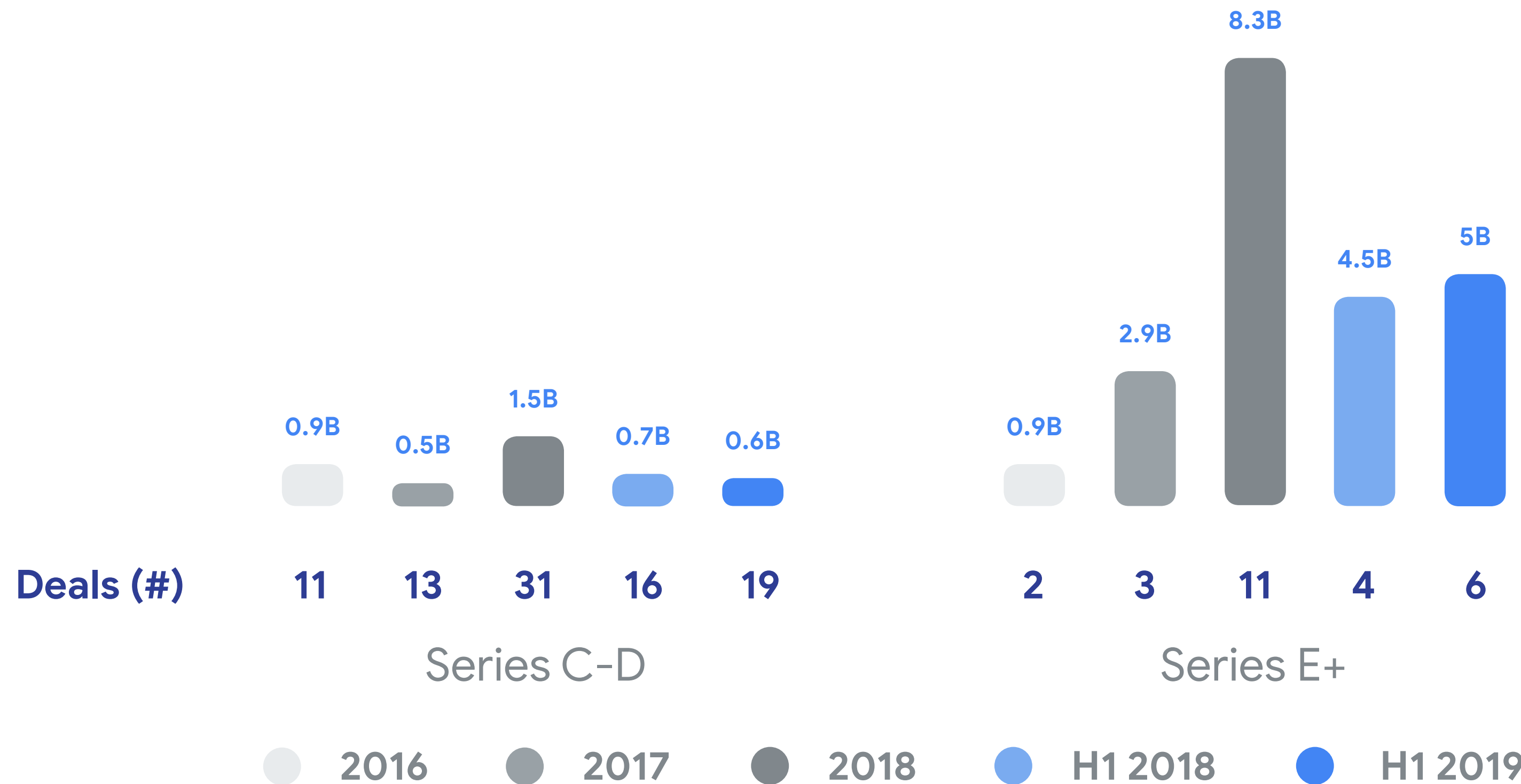
Funding in Seed-Series A and Series B tops 2018 record

Fewer yet larger Seed-Series A deals as ecosystem matures

“Series B” funding gap solved

Late stage “funding gap” has shifted to Series C-D

Late stage funding (\$B) 2016-H1 2019

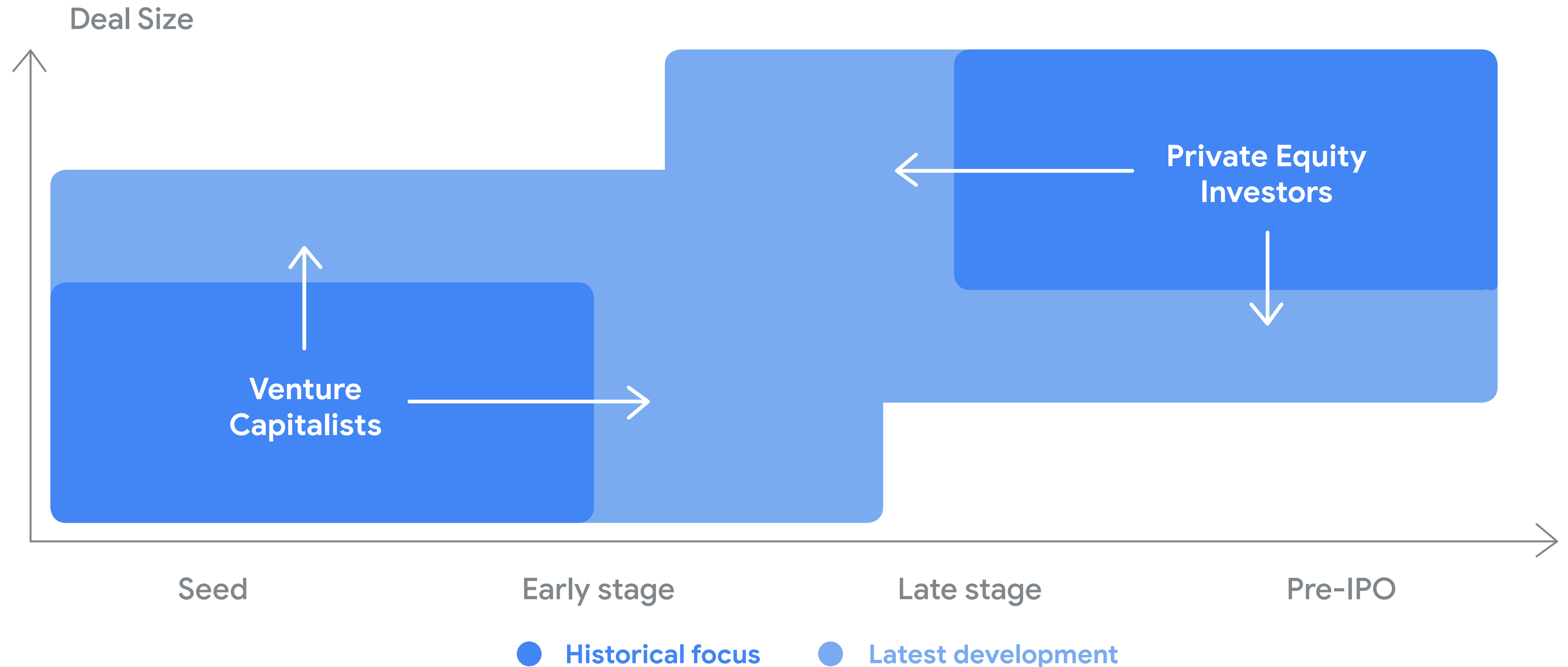


More and larger Series C-D investments needed for “Aspiring Unicorns” to scale

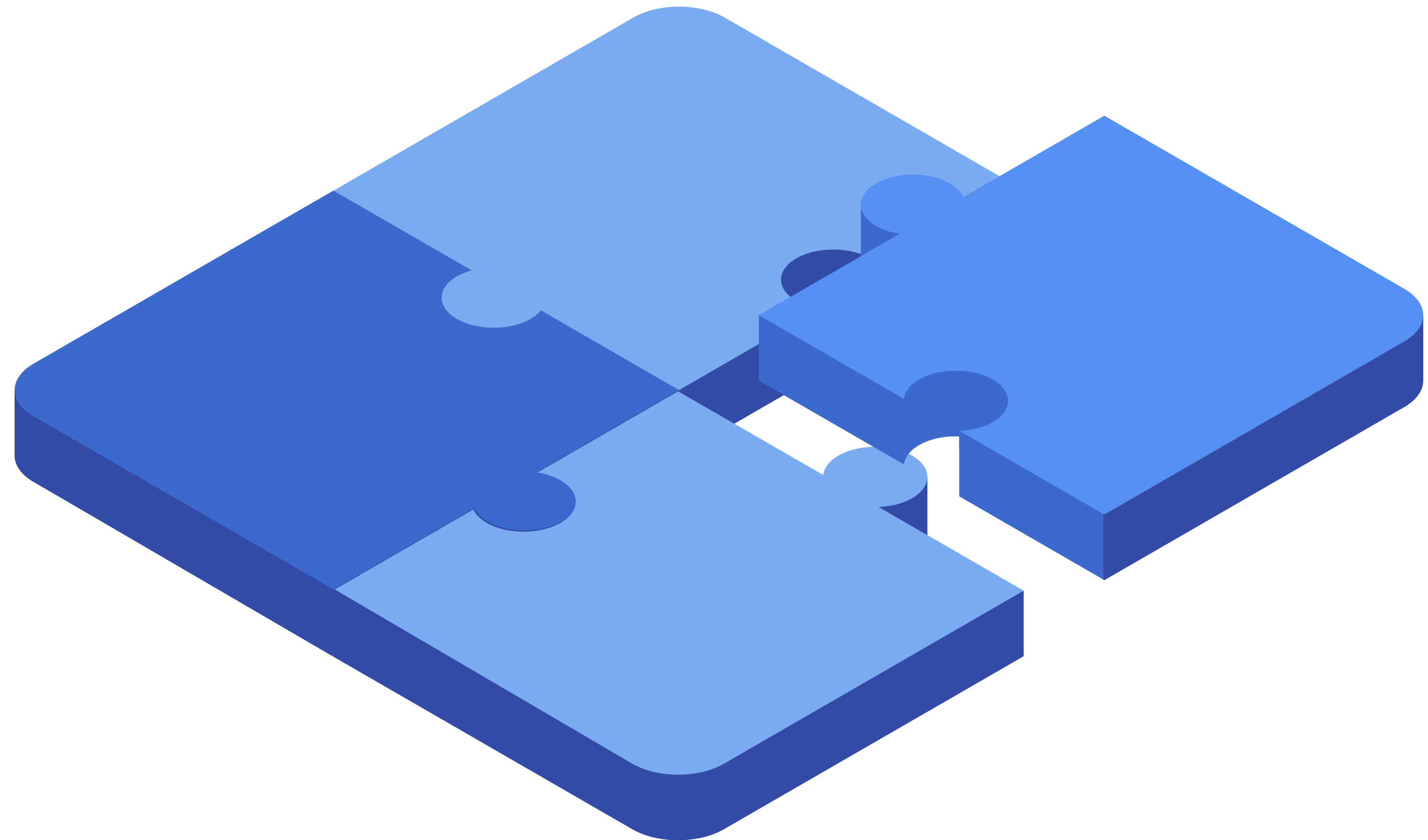
Series E+ boosted by Ride Hailing and e-Commerce mega-rounds (\$1B+)

Series E+ funding includes intermediate closing of open series as publicly disclosed by the companies

Venture Capitalists are raising larger growth funds, Private Equity funds are investing in earlier series



Ecosystem challenges
are being resolved



Ecosystem challenges are being resolved



Significant progress



Limited progress

Consumer Trust significantly improved across sectors



Improved consumer trust for e-Commerce, Ride Hailing, Media, Travel; still nascent for Education, Healthcare

Internet economy companies have become “household brands”

 Significant progress

 Limited progress

Efforts by tech and telco companies have made fast **Internet Access** more reliable and affordable



Launch of Mobile Virtual Network Operators (MVNOs) increased competition

Music, Video, Social apps bundled in zero-rated plans

Optimized apps for low data usage and patchy connectivity

 Significant progress

 Limited progress

Leading **Logistics** providers able to deliver nationwide, race is moving to next-day and same-day deliveries



e-Commerce players have started offering next-day and same-day deliveries

Logistics startups signed partnerships with leading e-Commerce and Ride Hailing players

 Significant progress

 Limited progress

Digital Payments gain both user and merchant adoption



Growing merchant acceptance online and offline

Consumer adoption focused on top e-Wallets in each country

Loyalty and rewards programs emerge as key drivers of usage

 Significant progress

 Limited progress

Talent remains a challenge despite efforts to “fill the gap”



Digital upskilling programs

Offshore engineering centers

Hiring experienced managers from other industries

“Reverse diaspora” of Southeast Asian talent

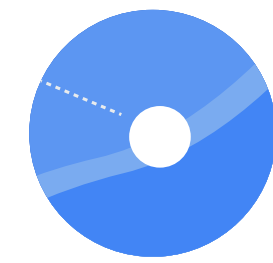
 Significant progress

 Limited progress



Key takeaways
e-Economy SEA 2019

e-Conomy SEA 2019 key takeaways



Southeast Asia's Internet economy hits \$100 billion



Indonesia and Vietnam pull away from the pack



Sizable growth opportunities Beyond Metros



Digital Financial Services reach the inflection point



Funding remains healthy despite global headwinds

e-Conomy SEA 2019

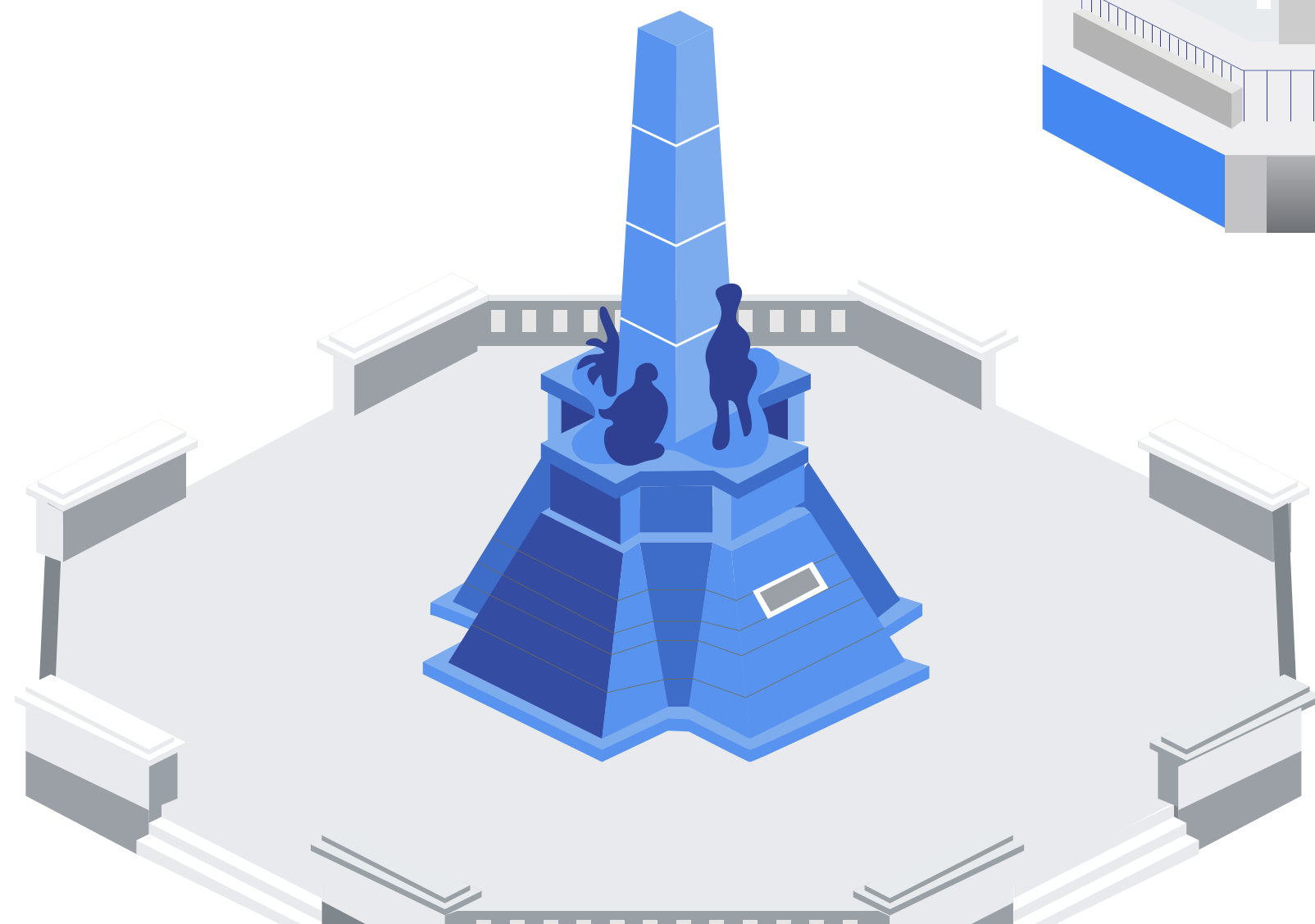
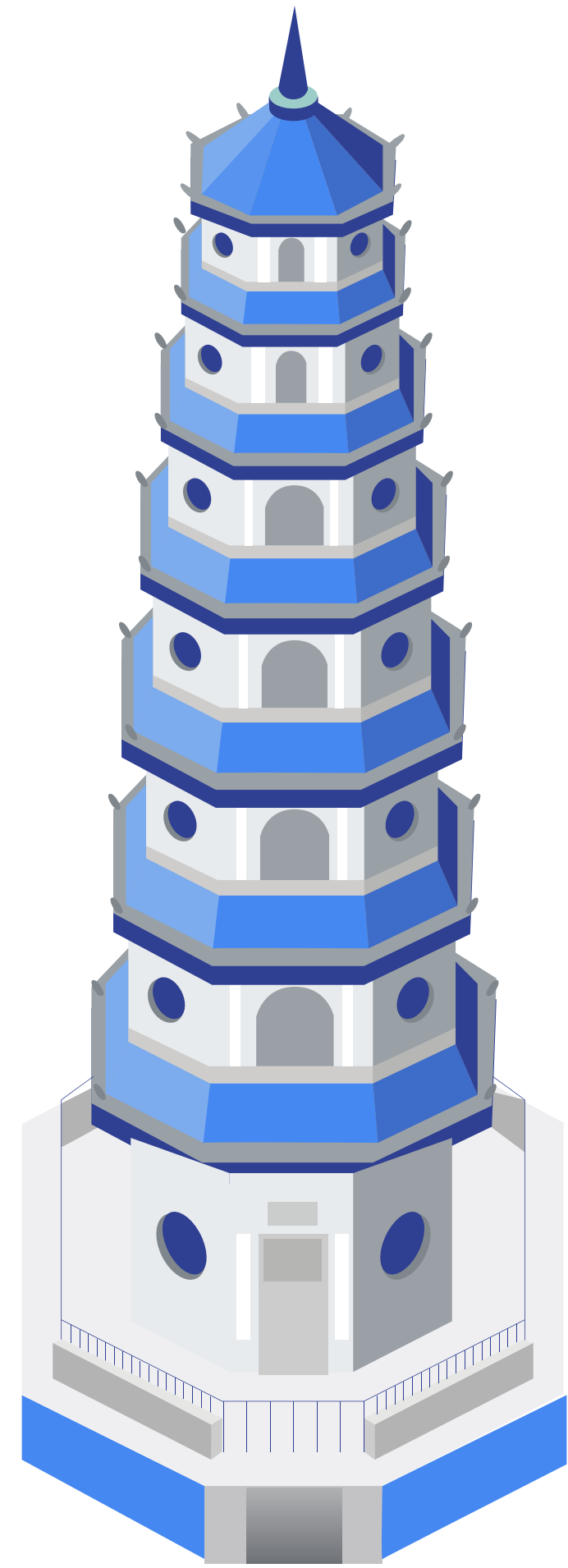
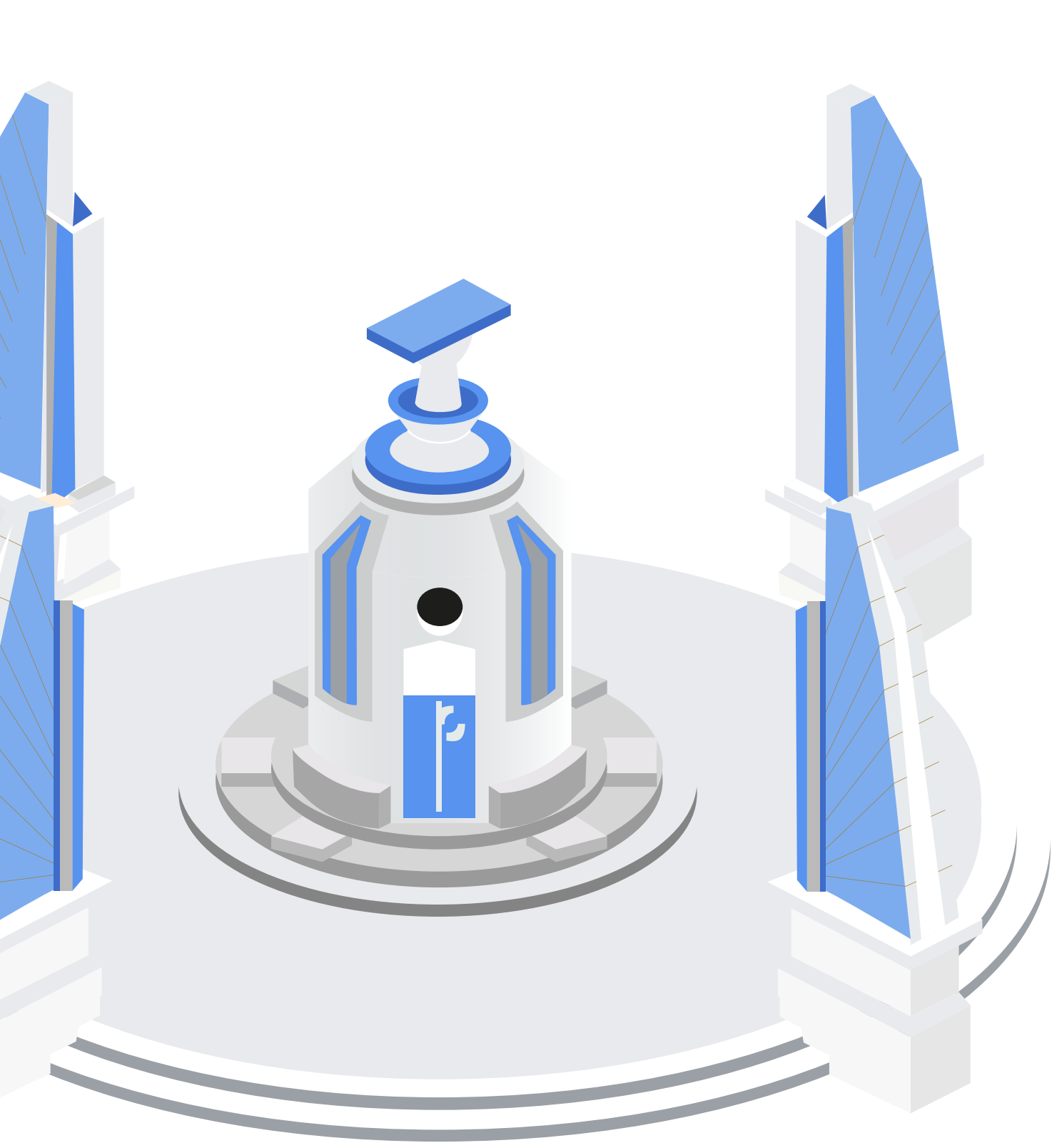
Swipe up and to the right:
Southeast Asia's \$100 billion Internet economy

Google

TEMASEK

BAIN & COMPANY

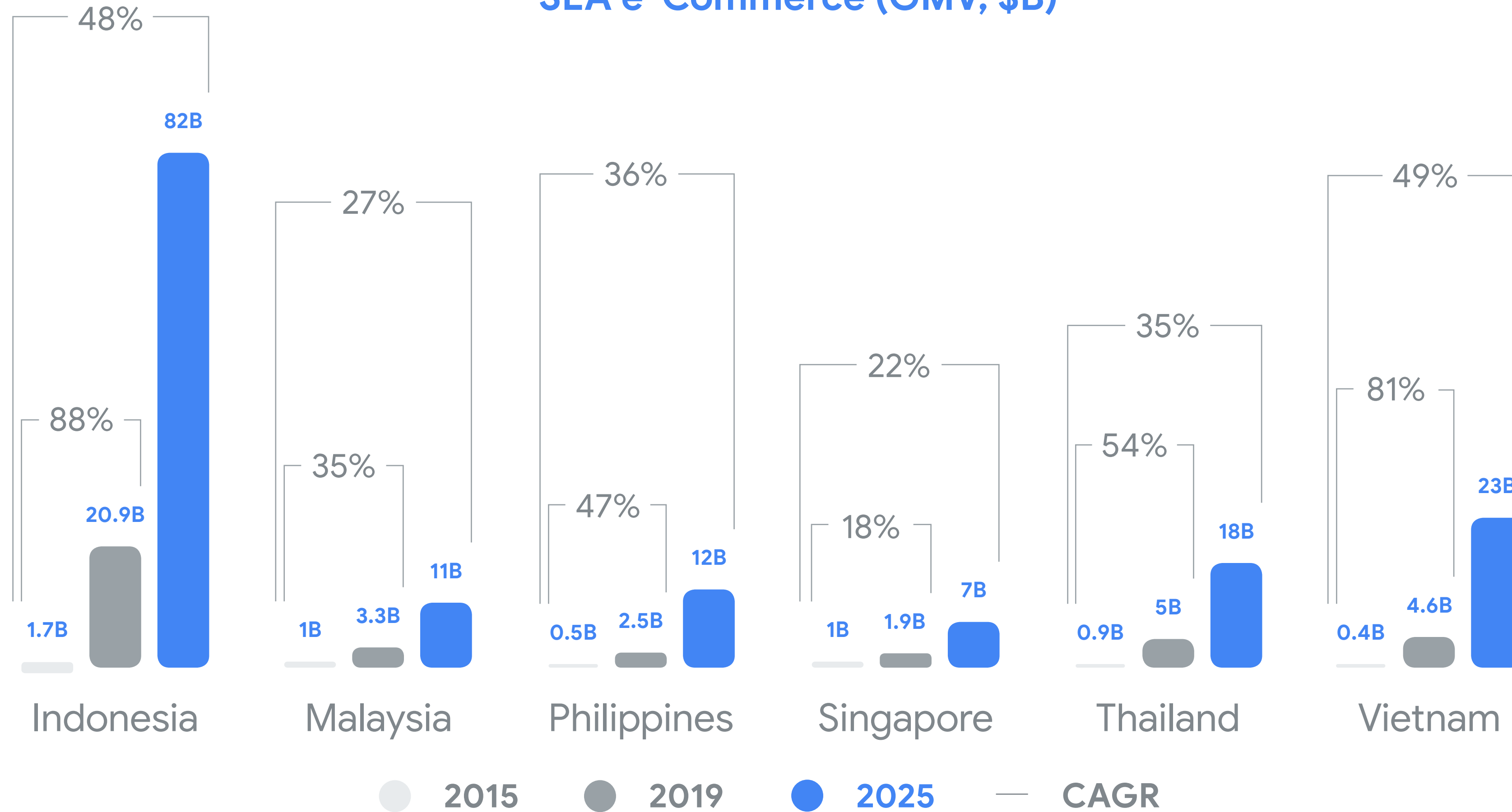




Appendix Sectors by country

e-Commerce reaches \$38B, growing at 62% CAGR

SEA e-Commerce (GMV, \$B)



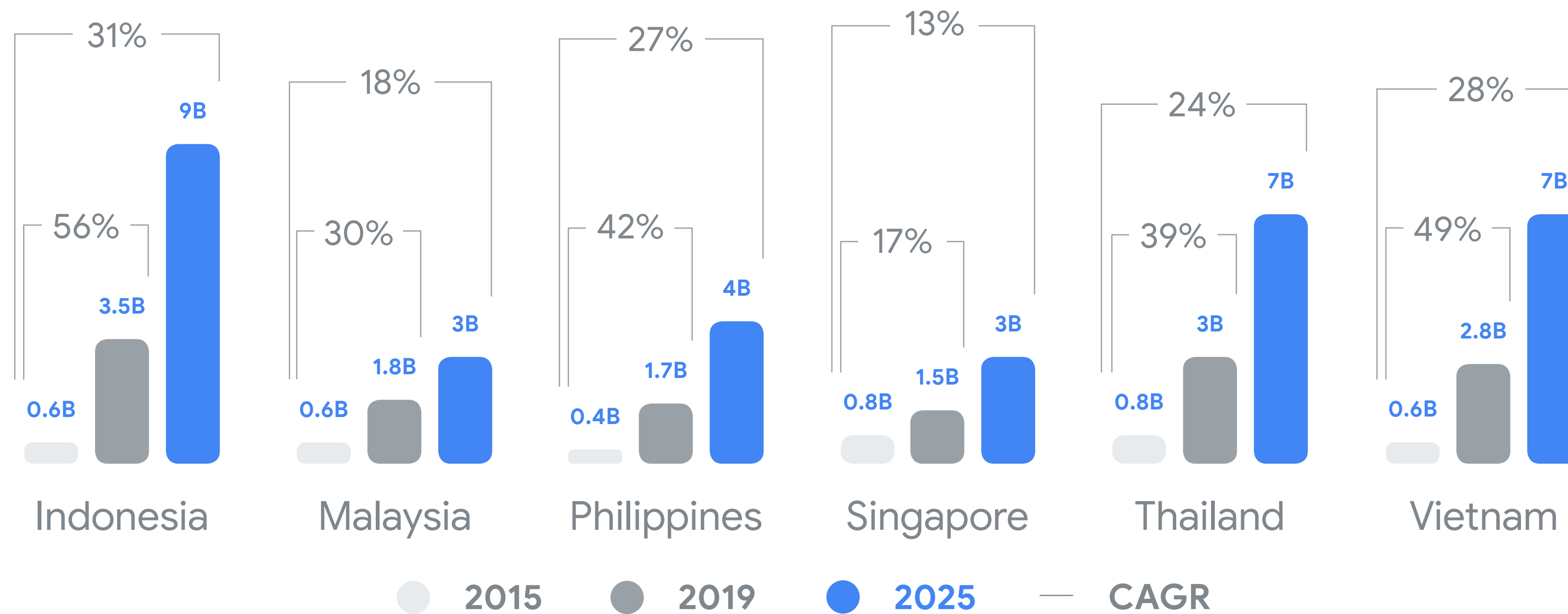
Growth drivers:

- Online shopping festivals
- In-app entertainment
- Seller development
- Next-day delivery
- Monetization

GMV: Gross Merchandise Value; CAGR: Compounded Annual Growth Rate

Online Media crosses \$14B, rising at 39% CAGR

SEA Online Media (GMV, \$B)



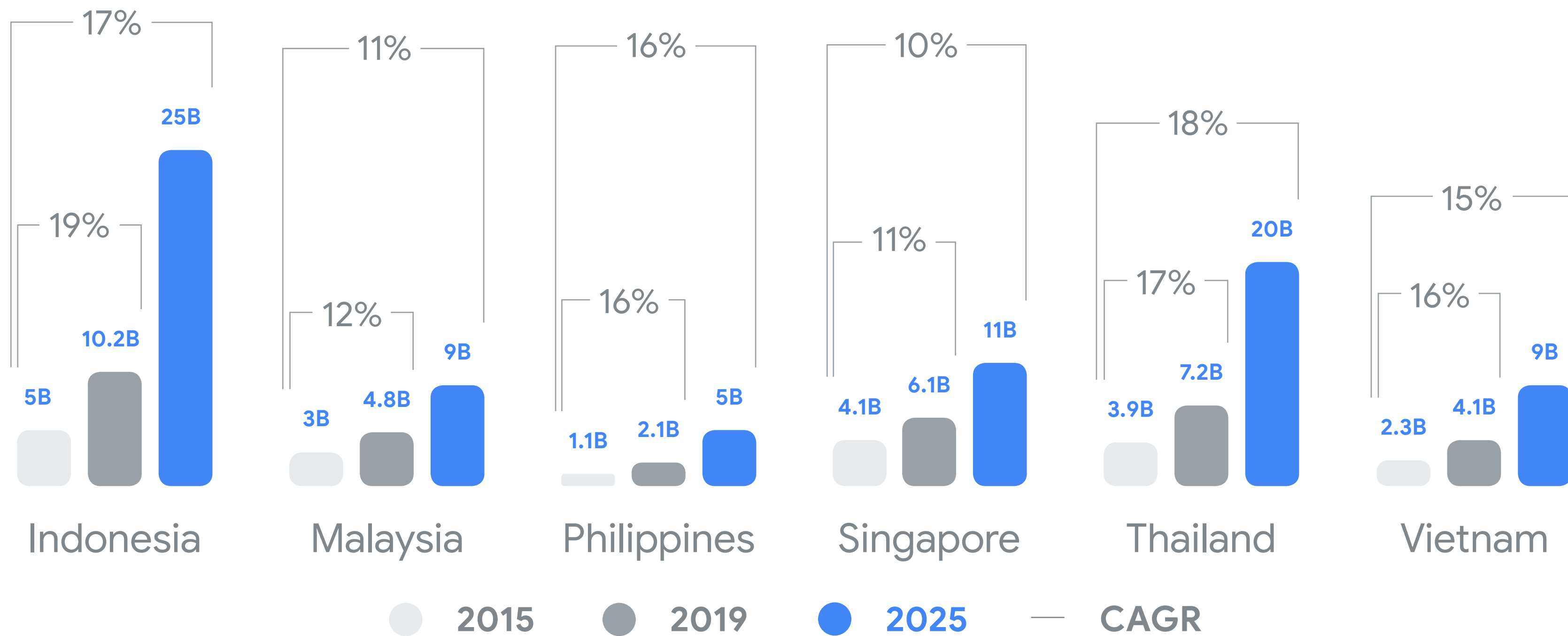
Growth drivers:

- Internet user growth
- Live & short-form videos
- Local content creators
- Lifetime value (LTV)

GMV: Gross Merchandise Value; CAGR: Compounded Annual Growth Rate

Online Travel exceeds \$34B, increasing at 15% CAGR

SEA Online Travel (GMV, \$B)



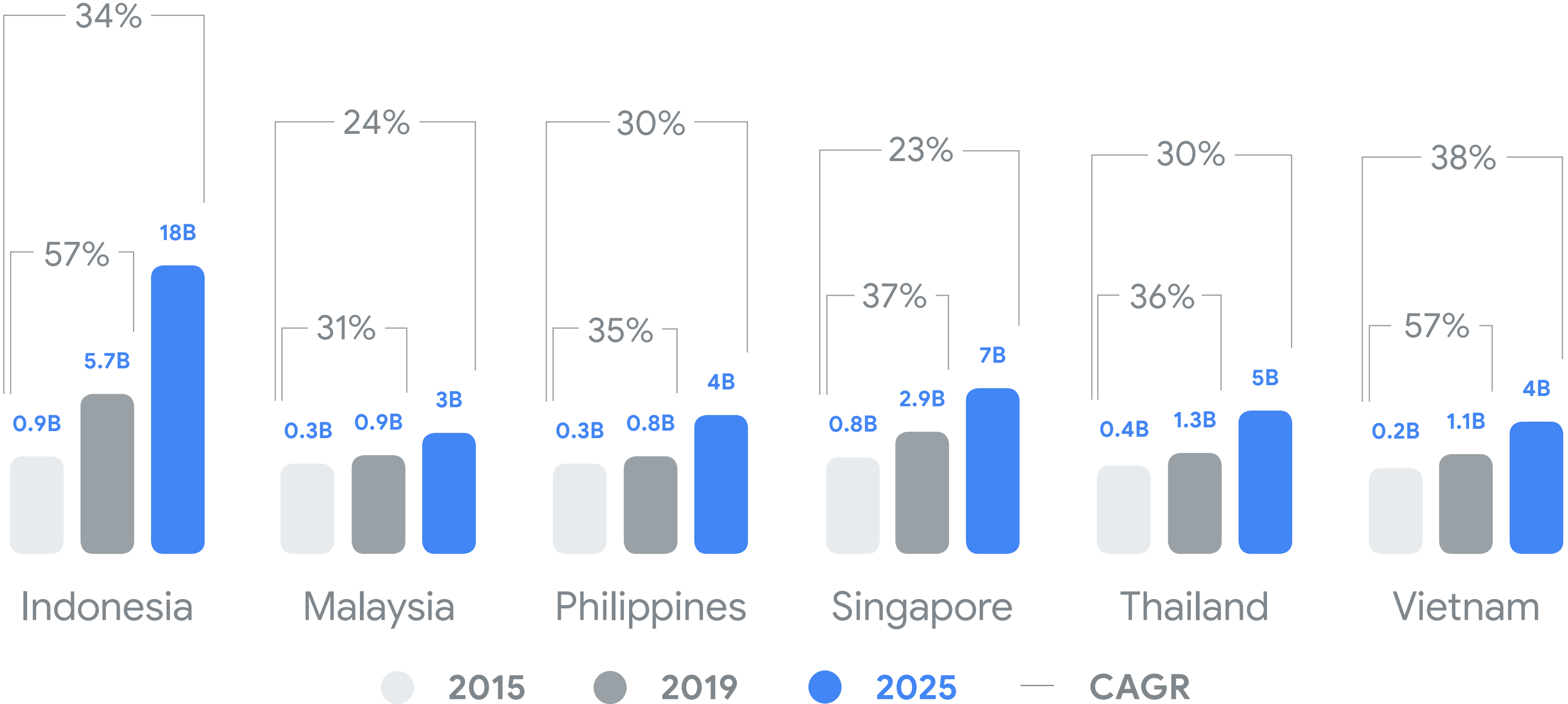
Growth drivers:

- Vacation rental brands
- Budget hotel chains
- Experiences
- Partnerships

GMV: Gross Merchandise Value; CAGR: Compounded Annual Growth Rate

Ride Hailing approaches \$13B, advancing at 45% CAGR

SEA Ride Hailing (GMV, \$B)



Growth drivers:

- Food delivery
- Financial services
- Loyalty & rewards
- Driver development
- Profitability

GMV: Gross Merchandise Value; CAGR: Compounded Annual Growth Rate

e-Conomy SEA 2019

Swipe up and to the right:
Southeast Asia's \$100 billion Internet economy

Google

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