

THE STATE OF FINTECH



Executive Summary

FinTech has transformed our daily lives thanks to personalised access to robo-advisors, innovative mobile payment solutions, instant cross-border transactions and many other applications. The evolving trend of FinTech products and services empower consumers and small businesses in ways that were unimaginable in the past. The potential disruptive innovation FinTechs bring in turn attracts significant funding from investors seeking the next BIG thing.

This report draws out parallels seen between general tech trends on a macro scale and correlates them to the impact on FinTech. One highlight shows how China and India are spearheading the advancements that are shaping global trends in this sector. The cumulative total of FinTech investments in China alone outweighs all FinTech investments made in the entirety of the rest of the Asia Pacific region. The East is now in a position to innovate and not just adopt ideas coming from the west.

FinTech might already seem mature, given the vast amount of funding poured into it, the increasing number of FinTech startups and corporate innovations being engineered today. Such a claim may have seemed farfetched 5 years ago when the level of funding in the FinTech industry stood at a meagre US\$3.1m! Fast-forward to 2017, and in the first quarter alone, US\$1.8bn has already been injected into the sector globally.

The future of FinTech remains bright, in spite of claims that the current upward trend is a bubble. The World Bank Group (WBG) estimates that 42% of the global population still do not have access to a formal financial system. This presents a huge opportunity to be tackled by FinTechs that cannot be addressed by traditional Financial Institutions. There are still untapped or new emerging markets waiting to be discovered. Asia has the largest percentage of the under-banked population and a large growing middle class who will soon need new solutions to address their wealth management and banking needs.

Together, Startupbootcamp and PwC have put together this report to provide a holistic view of the FinTech industry, starting from its current state, discussing where FinTech is headed, and the technological advances and geographical context that will lead it there.

Content

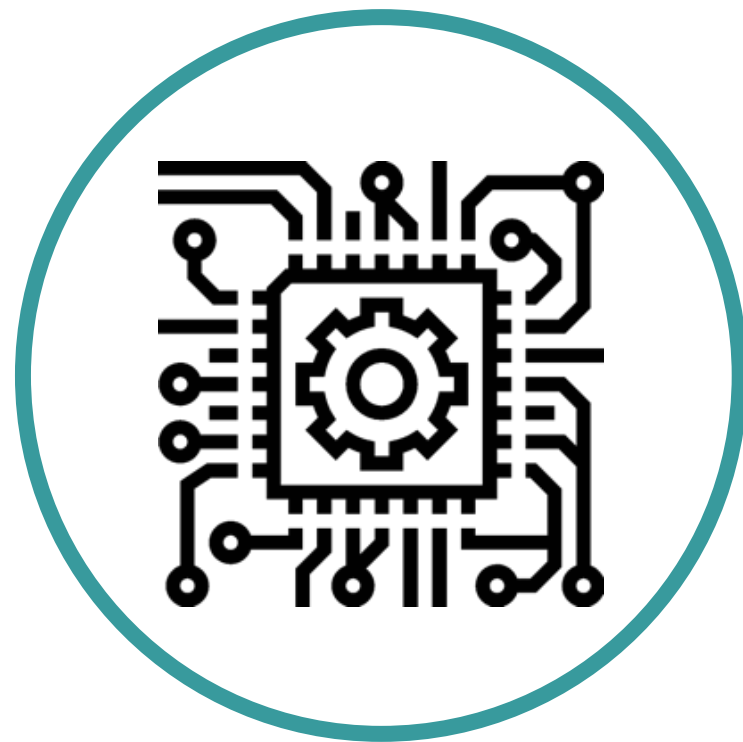
- 01 Global Tech Trends
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GLOBAL TECH TRENDS



Global Tech Trends

The top three global Tech Trends in 2017:



**Artificial
Intelligence & Advanced
Machine Learning**



Cybersecurity



Mobile Payments

Artificial Intelligence & Advanced Machine Learning

“We’re at an inflection point where artificial intelligence can help business make better and faster decisions. It requires an open mind—and a willingness to change—to take advantage of it.”

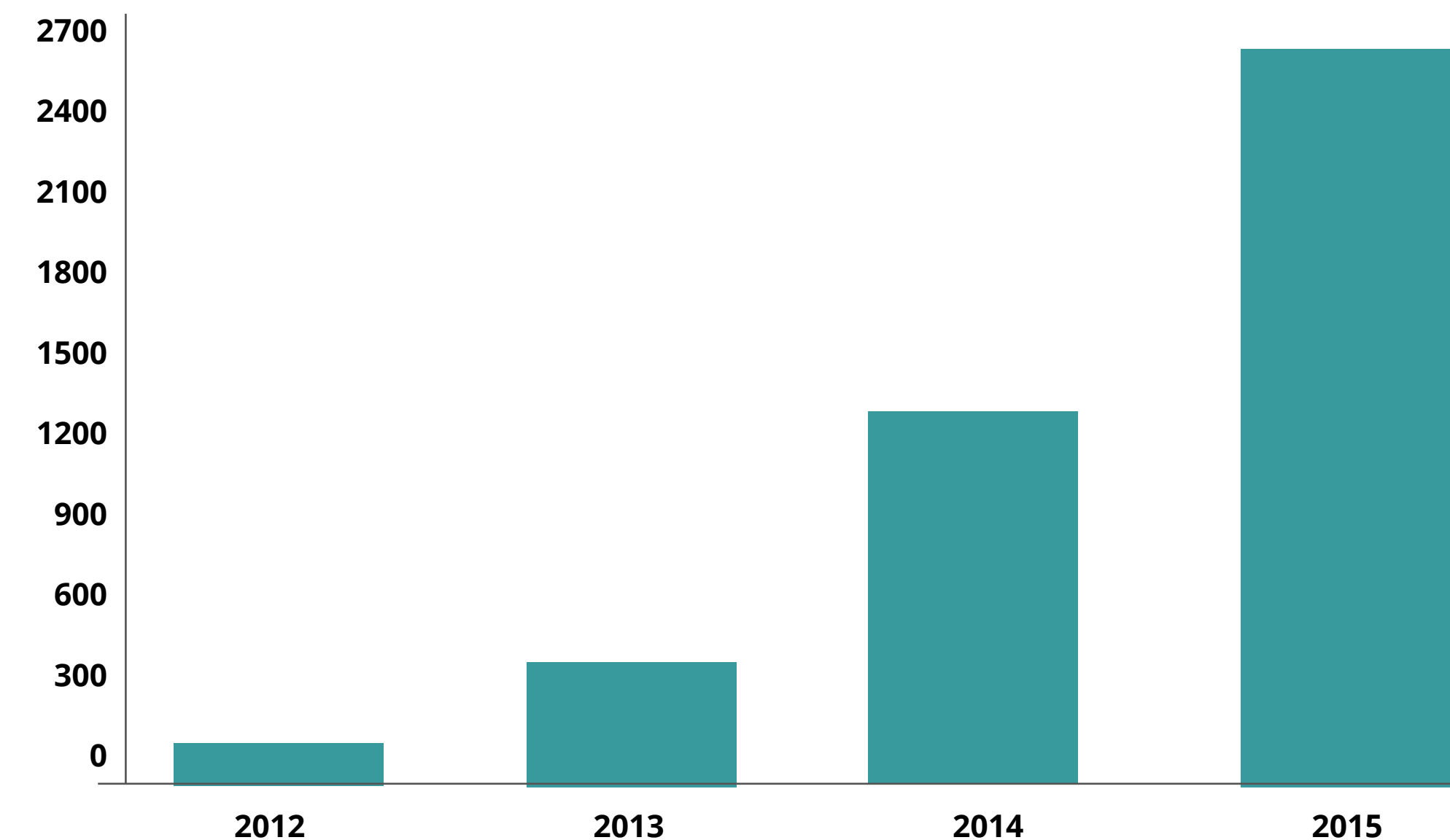
Source: The human factor: Working with machines to make big decisions – PwC

Data Abundance Fuels Powerful Machine Learning Models

The abundance of data has enabled platforms to scale and generate new models as shown by the exponential growth in number of AI related software projects being developed at Google.

At Startupbootcamp, we have noticed that an increased number of start-ups are putting data driven decision making and AI into the core of their products whereas many large corporations are still relying on intuition and experience when it comes to making big decisions.

No. of software projects at Google using Deep Learning



Source: Google

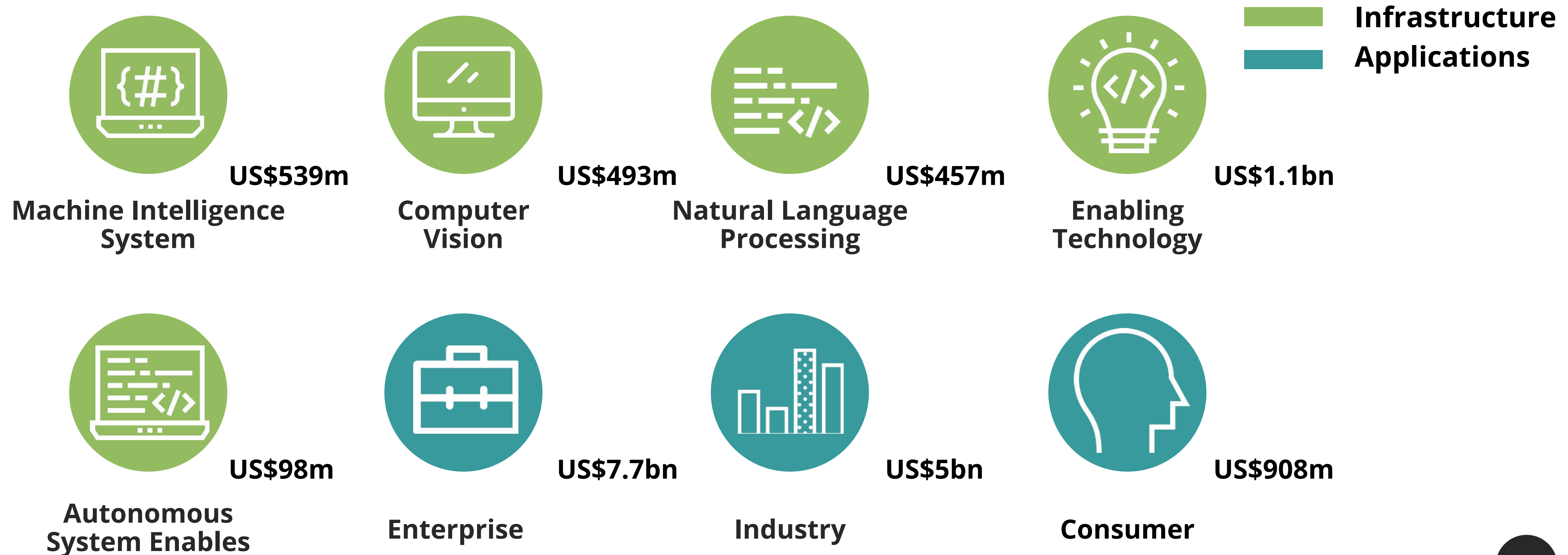
Artificial Intelligence



2450+ companies tracked, 900 funded over the past 5 years

Most Active Investors: In-Q-Tel, NEA, Khosia Ventures, Y Combinator, Intel Capital, Data Collective

Cumulative funding in the sector:



Funding Highlights - AI



Over the past 10 years **AI applications** in the enterprise, industry and consumer sectors have received a **cumulative funding of US\$13bn** whereas AI enabling infrastructure **received US\$2.7bn** over the same period.

Cumulative funding in the sector:

US\$13.bn
Applications

**Enterprise /
US\$7.7bn**

**Industry /
US\$5.0bn**

**Consumer /
US\$908m**

US\$2.7bn
Infrastructure

Machine Intelligence Systems / US\$539m

Computer Vision / US\$493m

Natural Language Processing / US\$457m

Enabling Technology / US\$1.1bn

Autonomous System Enablers / US\$98m

Observations - AI

We are at an inflection point where corporations are realising that artificial intelligence can supplement human judgement with data-driven insights and fundamentally change the way they make decisions.

Within the US\$13bn invested in AI applications, **US\$7.7bn has been invested in enterprise as more and more corporations realise that they need to be faster and more sophisticated when it comes to making important decisions.** Executives are now looking at mixing mind and machine to leverage data, understand risk, and gain a competitive edge.

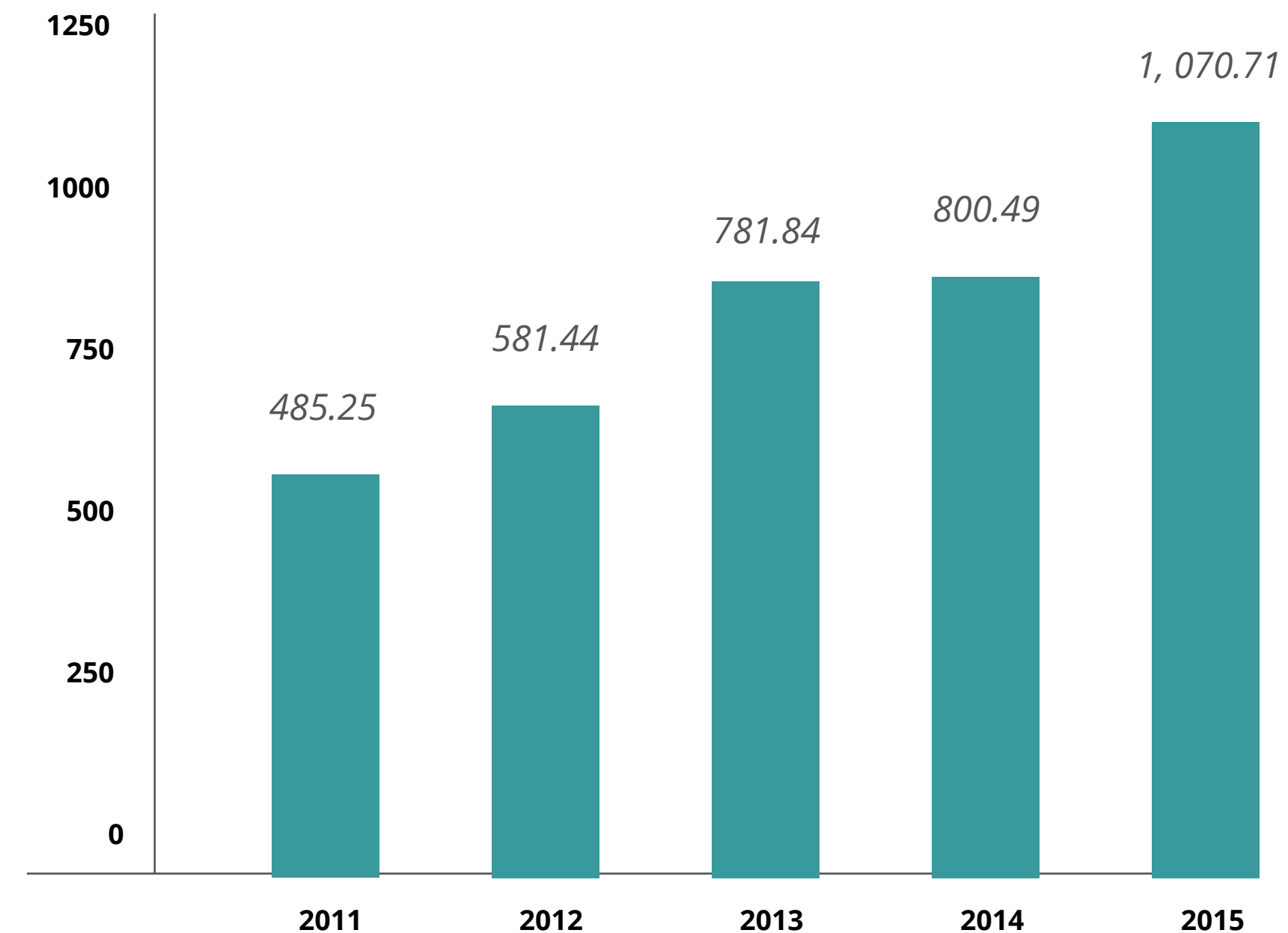
On the flip side, **US\$1.1bn has been invested in infrastructure enabling technology.** We believe that funding in this segment will increase in the near future as it is the backbone for many AI applications.

Cybersecurity

Damage caused by cyber crime is on the rise:

- 01 Data sourced from the FBI's internet crime complaint center (IC3) reveals that reported **cyber crime damage has more than doubled over the past 5 years** and experts are expecting the frequency of the attacks to continue to rise.
- 02 Cyber attacks have steadily increased over time and in **2015, damage reported exceeded US\$1bn for the first time in history.**

Amount of Monetary Damage Caused by Reported Cyber Crime (in millions U.S. dollars)



Source: FBI; IC3 US Department Justice, 2016

Big Banks Join Forces Against Cybercriminal Networks

As cyber threats become increasingly sophisticated, many financial institutions are coming together to share critical threat intelligence with peers, industry groups and government agencies.

In 2016, for the first time ever, **8 of the largest US banks including JPMorgan, Bank of America and Goldman Sachs joined forces to share best practices on fighting cybercrime.**

In fact, PwC's recent Global State of Information Security Survey in 2017 revealed that **55% of surveyed CIOs and CSOs worldwide collaborate with external partners** to improve security and reduce risk.

This leads us to believe that there will be more cross industry collaboration to fight powerful cybercrime networks.

Enterprise Security

3130+ companies in the sector, 964 funded in past 5 years

 **Tracxn**
Cumulative funding in the sector



US\$1bn
Software Suites



US\$1bn
Application Security



US\$3.6bn
Endpoint Security



US\$1.5bn
Anti-Fraud



US\$718m
Email Security



US\$4.2bn
BYOD Security



US\$1bn
Website Security



US\$4.2bn
Network Security



US\$451m
IoT Security

Enterprise Security

Most Active Investors: Intel Capital, Sequoia, BVP, NEA, Accel, KPCB, Paladin Capital, Greylock



US\$2bn

Data Security



US\$193m

Industrial Security



US\$2.5bn

Identity & Access Management



US\$20m

Server Security



US\$125m

Database Security



US\$2.5bn

Security Analytics



US\$689m

Threat Intelligence



US\$1.6m

Cloud Security



Cumulative funding in the sector

Funding Highlights - Cybersecurity



The network security segment has received the largest amount of funding with a total of **US\$4.2bn to date**. However, **the proliferation of smart devices has led to a rise in cyberattacks** as these provide more access points (RFID, GPS, WiFi, etc.) and have historically been shipped with outdated software. **And, although investments in this space have been historically low, we can expect funding to increase going forward.**

Cumulative funding in the sector:

US\$451m
IoT Security

Inside Secure (1995, IPO)

US\$4.2bn
Network Security

Palo Alto Networks (2005, IPO)

Observations - Cybersecurity

PwC's latest Global State of Information Security Survey revealed that:

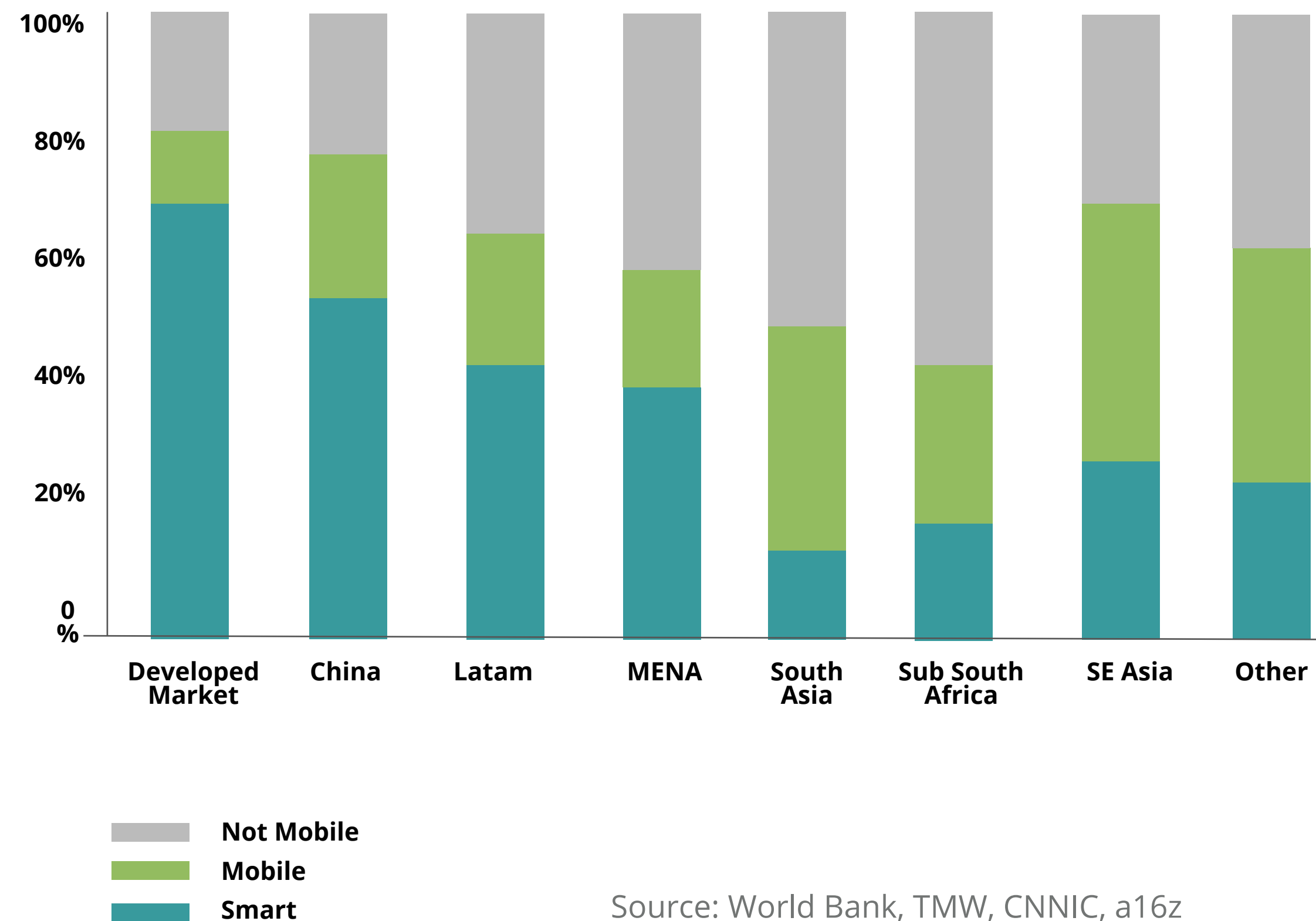
- 01 **62% of respondents worldwide have an Internet of Things security strategy in place or are currently implementing this strategy**
- 02 **Globally, 46% of surveyed organisations are investing in a security strategy for the Internet of Things over the next 12 months**

While network security has and will continue to attract a large part of investments, we believe that investments in IoT security will grow as more and more organisations adopt IoT security strategies.



Mobile Payments

Global Population and Mobile Penetration at Dec 2016



Source: World Bank, TMW, CNNIC, a16z

Smart phones and mobile connections are everywhere. And, according to the World Bank:

- 01 We are halfway to connecting everyone
- 02 5.5 billion people above 14 years old have close to 5 billion mobile phones
- 03 Out of the total mobile phones we have an approximation of 2.5 billion smartphones users

Mobile connectivity will continue to grow and Asia will continue to drive a large part of that growth as global economic power shifts from mature markets to emerging economies.

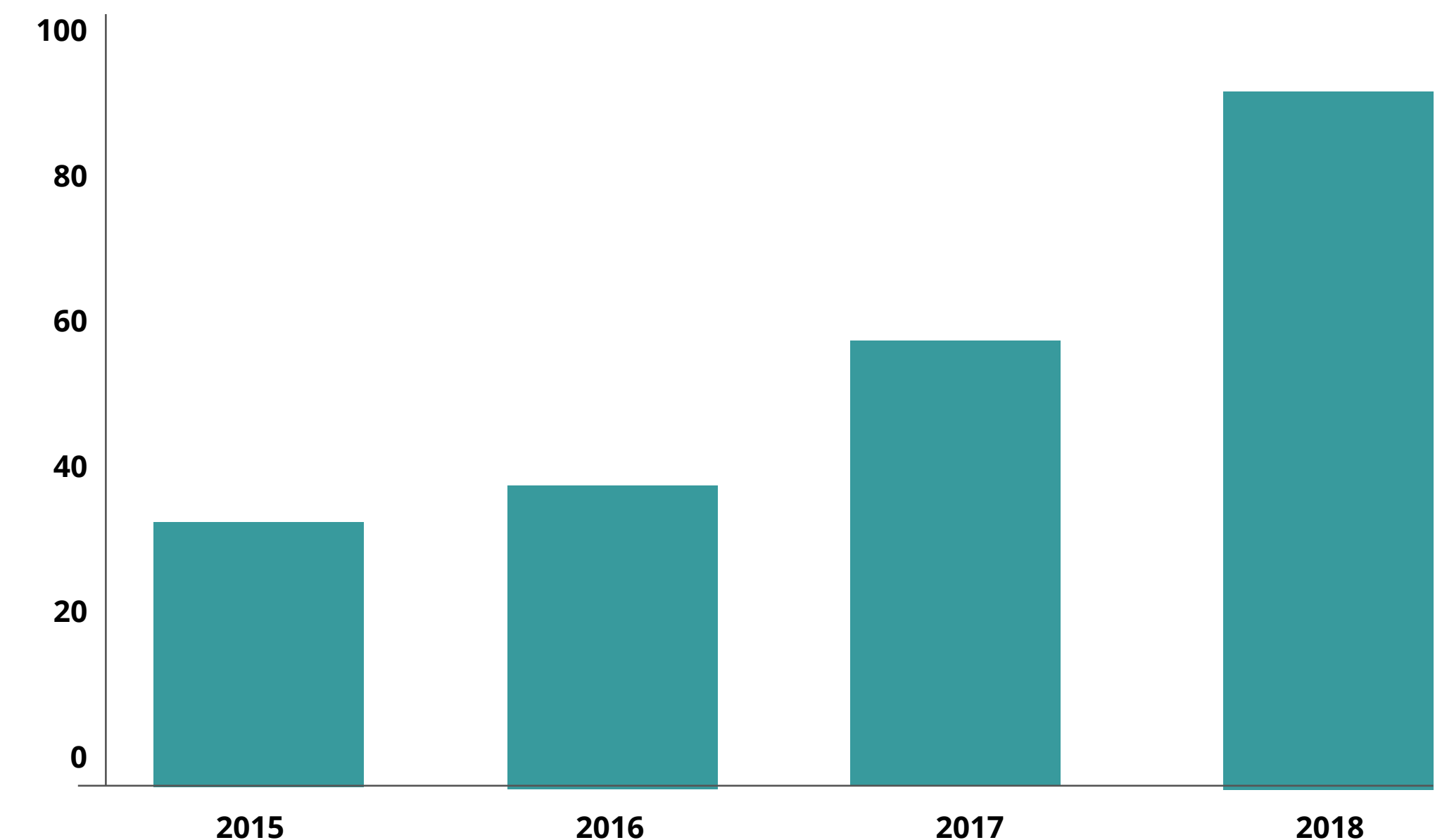
Mobile Connectivity is Fueling Financial Inclusion

A study from Juniper Research predicts that mobile and **contactless payments will reach a global value of US\$95bn by 2018.**

Mobile payments is a step towards more for financial inclusion as it can **lower the cost of providing basic financial services by 80% to 90%.**

For instance, the data collected through mobile payments enables lenders to assess the creditworthiness of borrowers and can be used to create tools to help businesses better manage their finances.

**Mobile and Contactless Payments Transaction Value
(in billions U.S. dollars)**



Source: Juniper Research

Mobile Payments



1510+ companies in the sector, 369 funded in past 5 years

Most Active Investors: Sequoia Capital, Entree Capital, Accel Partners

Cumulative funding in the sector:



US\$2.2bn

m-POS



US\$2.4bn

Wallet



US\$247m

Carrier Billing



US\$354m

Technology



US\$528m

Multi-Solutions



US\$18m

Wearables



US\$146m

Payment Gateway

Funding Highlights – Mobile Payments

Tracxn

In mobile first technologies, **mobile wallets have attracted US\$2.4bn** in cumulative investment over the past 10 years.

Cumulative funding in the sector:

US\$2.4bn

Wallet

Semi Closed / Paytm (2010, US\$1.9bn)

P2P Money / Venmo (2009, US\$1.3m, Acq.)

White Label / Mozido (2008, US\$302m)

Observations - Mobile Payments

The advancement of technology combined with ongoing infrastructure improvements has increased mobile phone penetration over the past years. This in turn has led to widespread adoption of mobile wallets.

Rather than waiting a generation for incomes to rise and traditional banks to extend their reach, emerging economies have the opportunity to leverage mobile technologies to provide digital financial services for all, which in turn can rapidly unlock economic opportunity and accelerate social development.

GLOBAL FINTECH TRENDS



Global FinTech Trends

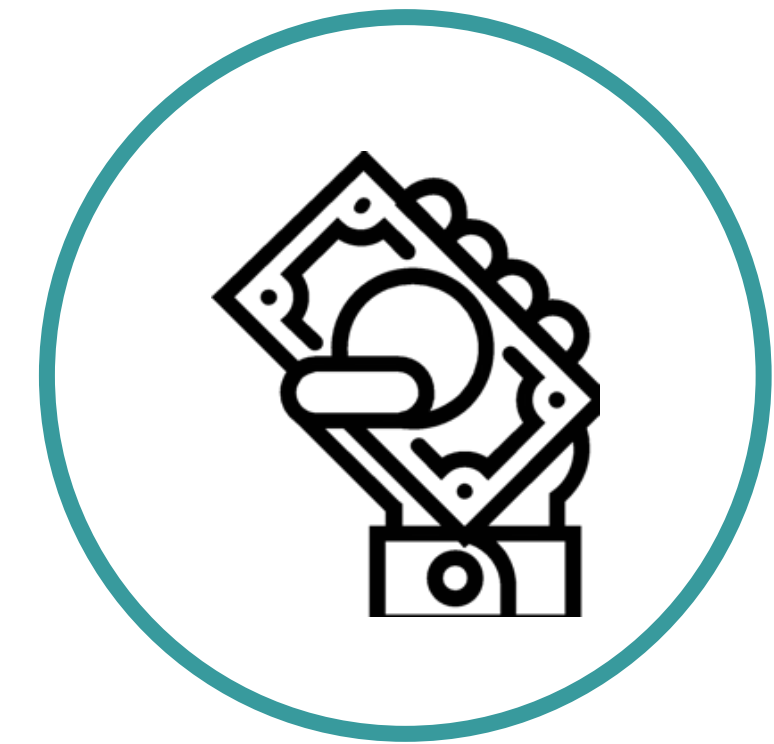
Top three global FinTech Trends in 2017:



Big Data
Infrastructure and Analytics



Chinese Dragon
Leading the tide of FinTech wave in Asia

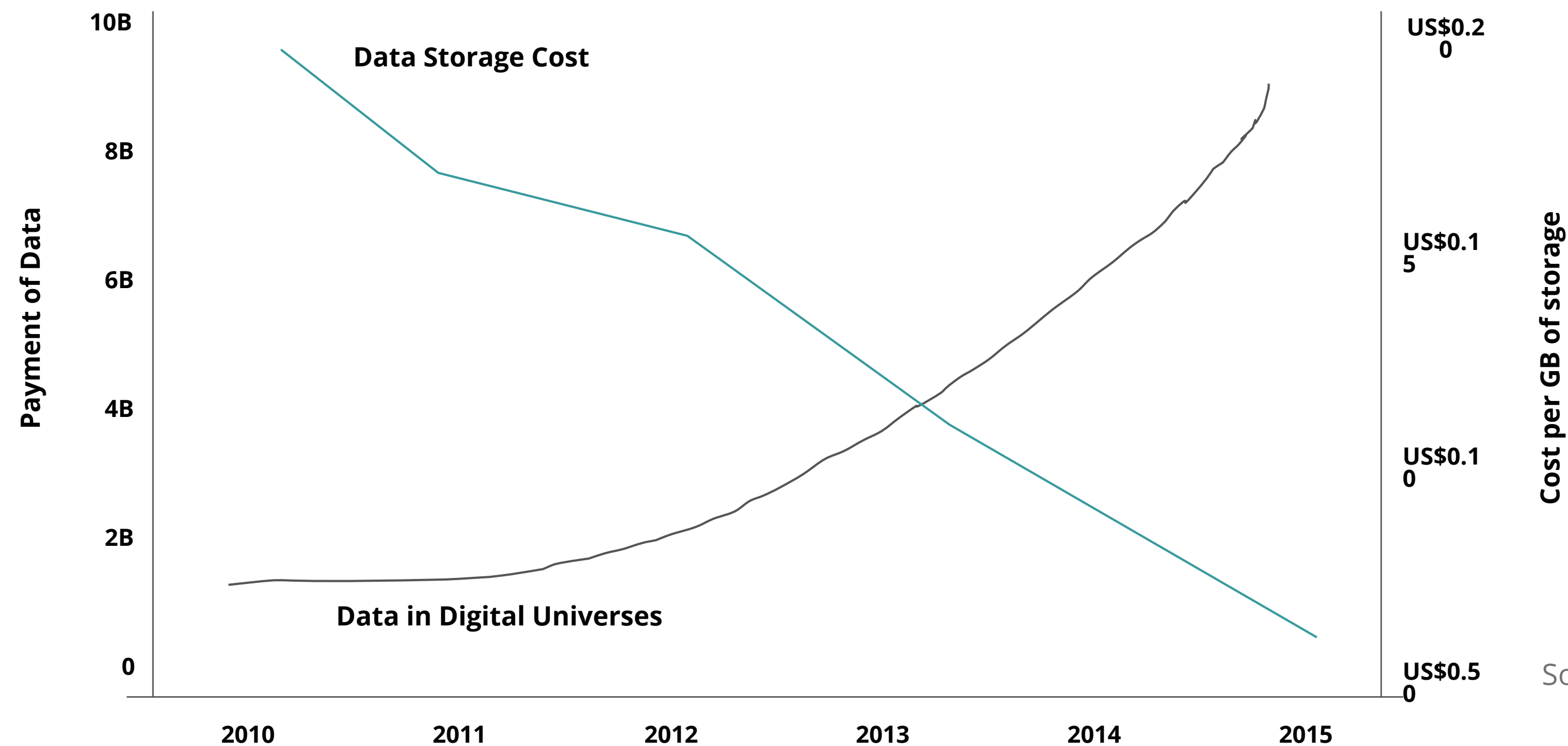


India
World's First
Unified Payments Interface

Big data and Moore's Law

According to Moore's law, global data doubles every two years while the cost of storing data decreases at approximately the same rate.

Data in Digital Universe vs. Data Storage Cost

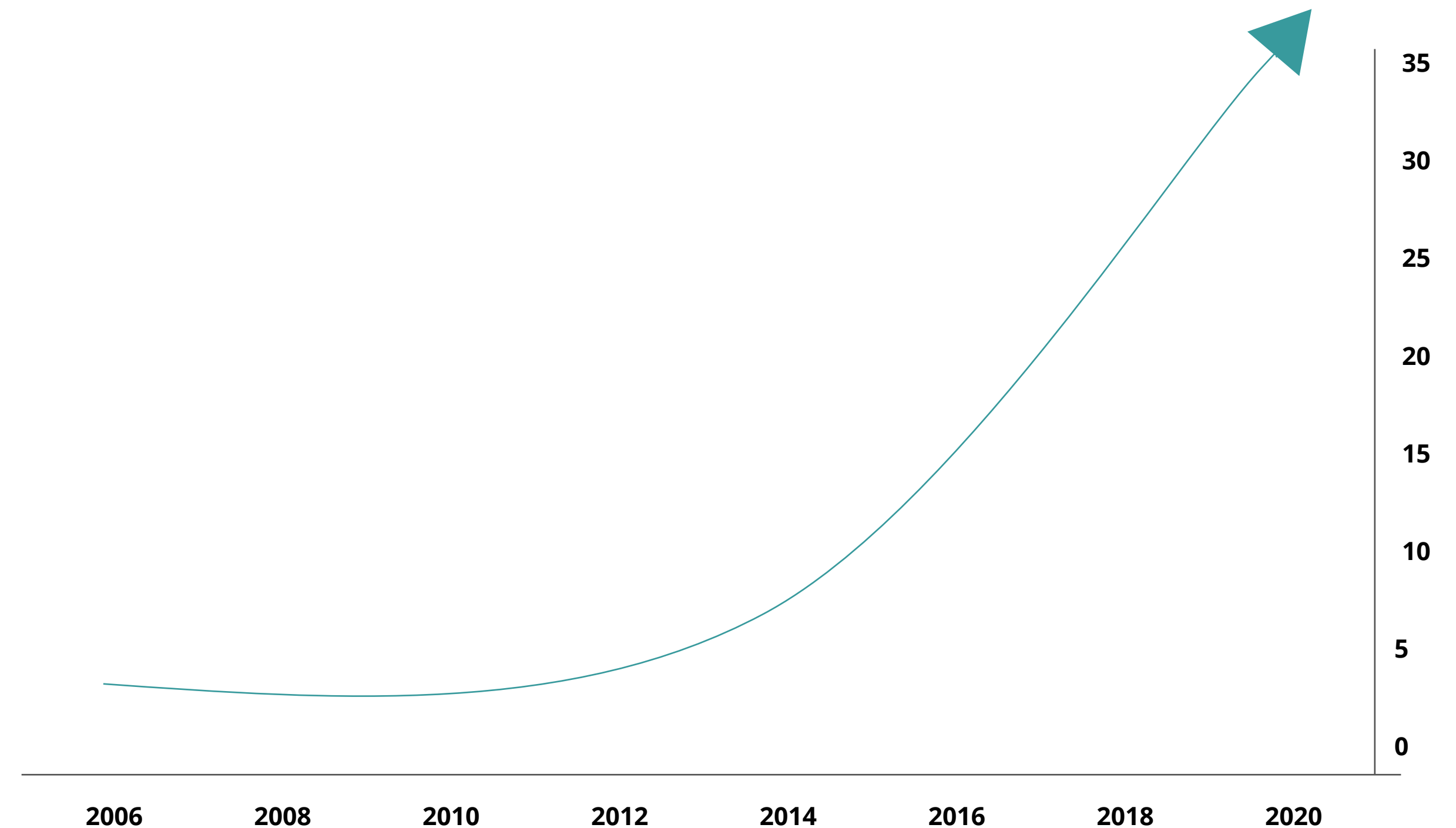


Source: IDC, May 2016

Storage Space For Big Data

- 01 By 2020, the cumulative total of digital information is expected to grow from 3.2 zettabytes to 40 zettabytes.
- 02 In order to be able to meet these data storage requirements, we would need the equivalent of 6,000 football fields.

Worldwide Digital Data Created and Replicated
(in zettabytes)



Source: Purefunds Big Data ETD (BDAT)



Scalend, part of the Startupbootcamp FinTech Singapore 2017 cohort, provides a ready to use data and insights discovery platform geared to solve data challenges faced by financial services companies.

The platform brings data residing in multiple silos to a central secure data lake and applies machine learning and AI to generate customer journeys, fraud, and risk scores. Scalend's mission is to deliver actionable insights now.

Ravi Madhira
Co-founder, Scalend Technologies

Big Data Infrastructure

Tracxn

250+ companies in the sector, US\$4.9bn in funding over the past 5 years

Most Active Investors: Data Collective, Accel, NEA, Intel Capital

Cumulative funding in the sector:



US\$1.4bn

Big Data Stack



US\$1bn

Analytical Processing



US\$266m

Real Time Processing



US\$862m

Management Tools



US\$1.3bn

Operational Processing



US\$161m

Application

Big Data Analytics



480+ companies in the sector, US\$5.78bn in funding over the past 5 years

Most Active Investors: In-Q-Tel, Accel Partners, Andreessen Horowitz, NEA, Intel

Cumulative funding in the sector:



US\$985m

Verticals



US\$989m

Data Analytics



US\$897m

Data Preparation



US\$226m

Data Science Platform



US\$2.7bn

Contextual Data Analytics



US\$131m

Streaming Data Analytics

Funding Highlights – Big Data

Over the past year, Big Data Infrastructure and Big Data Analytics received a total funding of US\$748m & US\$1bn respectively.

Cumulative funding in the sector:

US\$748m
Big Data Infrastructure

Big Data Stack / US\$1.4bn
 Analytical Processing / US\$493m
 Real Time Processing / US\$266m
 Management Tools / US\$862m
 Operational Processing / US\$1.3bn
 Application / US\$161m

US\$1bn
Big Data Analytics

Verticals / US\$985m Streaming Data Analytics / US\$131m
 Data Analytics / US\$989m
 Data Preparation / US\$867m
 Big Data Analytics Suite / IPO
 Data Science Platform / US\$226m
 Contextual Data Analytics / US\$2.7bn

Observations - Big Data

As technology advances, Big Data must have the necessary infrastructure in order to perform in-depth analytics. This is why both segments are highly correlated when it comes to funding.

Both Big Data Infrastructure and Analytics have seen considerable investments over the past year, this can be explained by:

- 01 **More Financial Institutions taking advantage of** what **the cloud** can offer in terms of protection and scale resulting in increases in infrastructure investment
- 02 An **increasing amount of Financial Institutions building data driven insights into strategic decision making**

As a result, we believe that investments in both infrastructure as well as data and analytics will continue to grow in the near future as more and more Financial Institutions put data at the heart of their strategy.

Chinese Dragons Are Leading The Tide of a Rising FinTech Wave in Asia

According to the Economist, mainland China's middle class is expected to account for more than a third of its population by 2030. By then, 35% of the population will have annual disposable income in excess of US\$10,000, up from about 10 per cent today.

And, while in the West, the major FinTech hubs (London, New York and Silicon Valley) have been innovating through incremental changes, China's technology giants have been revolutionising many aspects of the financial services industry.

Countrywide adoption of FinTech by a growing tech savvy population, combined with considerable investments in breakthrough innovation, leads us to believe that China will continue to lead in FinTech innovation.

China Dominates Asia Pacific Investments

Currently, total investment in China is higher than the combined investments from the rest of the countries in Asia Pacific. Some of the key reasons why China is dominating the FinTech space include:

- 01 **China's Internet giants** were the first to market when it came to developing e-commerce third-party payments. And, as a result, they **now control 80% of the Chinese mobile payment market**
- 02 **China's eight FinTech unicorns have raised a total of US\$9.4bn in funding and have a combined valuation of US\$96.4bn**
- 03 **The four biggest FinTech unicorns in the world are Chinese:** Ant Financial (US\$60bn), Lufax (US\$18.5bn), JD Finance (US\$7bn), and Qufenqi (US\$5.9bn)



FinTech China

940+ companies in the sector, 163 received funding rounds exceeding US\$10m

Most Active Investors: Sequoia Capital, IDG, Matrix Partners, K2VC



Cumulative funding in the sector



US\$7.8bn

Alternative
Lending



US\$7.4bn

Horizontal



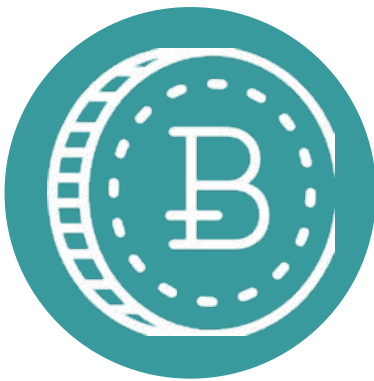
US\$938m

Payment



US\$83m

Crowdfunding



US\$49m

Crypto
currency



US\$1.2bn

InsurTech



US\$1.2bn

Consumer
Finance



US\$128m

Mobile
Payments



US\$1.3bn

Banking
Tech



US\$35m

Enterprise
Finance



US\$1.1bn

Investment Tech



US\$1.8m

Remittance

Funding Highlights – China

Tracxn

Alternative lending is the sector that has attracted the most investment in China with a **total cumulative funding amounting to US\$7.8bn.**

Cumulative funding in the sector:

US\$7.8bn
Alternative Lending

Commercial Loans / CTGZ (2013, US\$162m)

Consumer Loans / Yixin Capital (2015, US\$1.13bn)

Horizontal / Ppmoney (2012, US\$53.96m)

Enabler/ Dimeng (2005, US\$79m)

Observations - China

Alternative lending is the FinTech trend that has attracted the most investments in China. This has been driven by:

- 01 **High demand for business and personal borrowing that remains unmet by the traditional state-owned bank system**
- 02 **Internet and technology platforms with huge market scale** diversifying into new market segments
- 03 **A historically unrestricted sector** that remained unchecked by regulators

Low barriers to entry combined with widespread internet access fueled a proliferation of alternative lending platforms in China.

While some great platforms have emerged many have turned out to be giant Ponzi schemes – the most famous one being Euzabao where the founder allegedly escaped with over US\$7.2bn from over 1 million investors. As a result of this Beijing has started a nationwide crackdown on alternative lending platforms.

India Leading The Way For Digital Banking

India has taken a number of steps that have ultimately enabled the launch of pure play digital banks, these include:

- 01 Aadhaar, launched in 2009 aims to provide a unique identification to all citizens of India. The authentication is based on biometrics and although this was originally intended to facilitate the delivery of government welfare services, it has now become an important part of customer onboarding and digital KYC verification
- 02 The United Payments Interface aims to make peer to peer transactions as fast and as easy as sending a text message. The other integral focus of UPI is interoperability (i.e. allowing transactions across banks).

India: World's First Unified Payment Interface

India's largest demonetisation was exercised on 8 November, 2016. All Rs 500 and Rs1,000 notes were abruptly withdrawn in a bid against black money, terror funding, corruption and fake currency proliferation.

In search for a new alternative to replace cash, Indian citizens turned to **digital transactions**, which **witnessed a 400 – 1,000% increase since the beginning of the demonetisation**.

At the same time, the National Payments Corporation of India (NPCI), the body that governs all retail payments in India, unveiled a new payment system called Unified Payment Interface or UPI, which enables:

- 01 Payment systems to be fully interoperable across all payment system players, enabling funds to be transferred between mobile wallets from different financial institutions
- 02 Smartphones to double up as virtual debit cards for sending and receiving money instantly

Payments Industry in India

As a result of the demonetization and the development of UPI:

- 01 **Digital transactions grown by 4x in volume and value** across various modes from wallets to cards and interbank transfers from a year earlier
- 02 Card transactions at point of sale (PoS) terminals at merchant locations have surged
- 03 **The number of debit card transactions rose to more than 1 billion in January from 817 million last year**
- 04 The number of ATM transactions have remained constant at around 700 million, the incremental growth has been driven mostly by card swipes at PoS terminals.

The government has also been promoting smartphone-based transactions through the UPI and the Bharat Interface for Money (BHIM). Both use the Immediate Payment Service (IMPS), which has seen a 160% increase in number of transactions amounting to 67 million in March up from 26 million one year ago.



“

Over the last five years, we have invested over S\$5 billion in our technology and infrastructure, enabling us to develop products and platforms to meet our customers' needs. From re-architecting our technology infrastructure to transforming our front end, we are becoming digital to the core. The bank's customers, both individuals and corporates alike, are increasingly engaging and transacting more with us digitally. Some examples of our new services include digibank, India's first branchless, paperless and signature-less bank; DBS iWealth, a platform that allows clients to conduct their banking transactions, manage their wealth and trade; and online account opening for SMEs. Coupled with a focus on agile methodology and journey thinking, we have been able to improve our speed to market and overall customer experience. This translates to more digitally-engaged customers, and higher returns per customer.

We have rewired many parts of the bank, and changed the mindset of our employees. It is now easier for us to work with startups and we have partnered over 10 a year to deliver new products and services to our customers and staff. Through our talent management hackathons, our employees are also given the opportunity to learn and work with startups. We have also used hackathons to hire tech talent, interns and management associates.

Neal Cross
Chief Innovation Officer

FinTech India

1650+ companies in the sector, **213** were funded the past 5 years

Most Active Investors: Sequoia Capital, Accel Partners, Blume Ventures



Cumulative funding in the sector



US\$396m

Lending



US\$64m

Software for
Institutional
Investor



US\$527m

Payment



US\$4m

Crowdfunding



US\$131m

InsurTech



US\$38m

Consumer
Finance



US\$2.5bn

Mobile
Payments



US\$338m

Banking
Tech



US\$49m

Investment Tech



US\$1.8m

Remittance

Funding Highlights - India



Over the past year, **payments has attracted the largest part of investments in India**, this is explained by a combination of mature payment platforms expanding into new markets as well as the demonetisation of Indian currency.

Cumulative funding in the sector:

US\$2.5bn
Mobile Payments

Wallet / Paytm (2010, US\$2.16bn)

mPOS / Ezetap (2011, US\$35m)

Money Transfer / Chillr (2013, US\$7.5m)

Payment Technology/ Juspay (2012, US\$5.8m)

Observations - India

The introduction of UPI has been a game changer in the Indian FinTech scene.

There has been a **convergence of interest of various stakeholders, which has created an enabling environment for the development of mobile payments** — the regulations on Payments Banks, the Central Government's focus on financial inclusion and the near universal coverage of Aadhaar as a digital identity.

While closed loop platforms with remittances at the core of their proposition have worked successfully in other parts of the developing world, similar attempts in India have had limited success. A standardised interoperable system such as the UPI is a necessity for a multi-stakeholder ecosystem such as India.

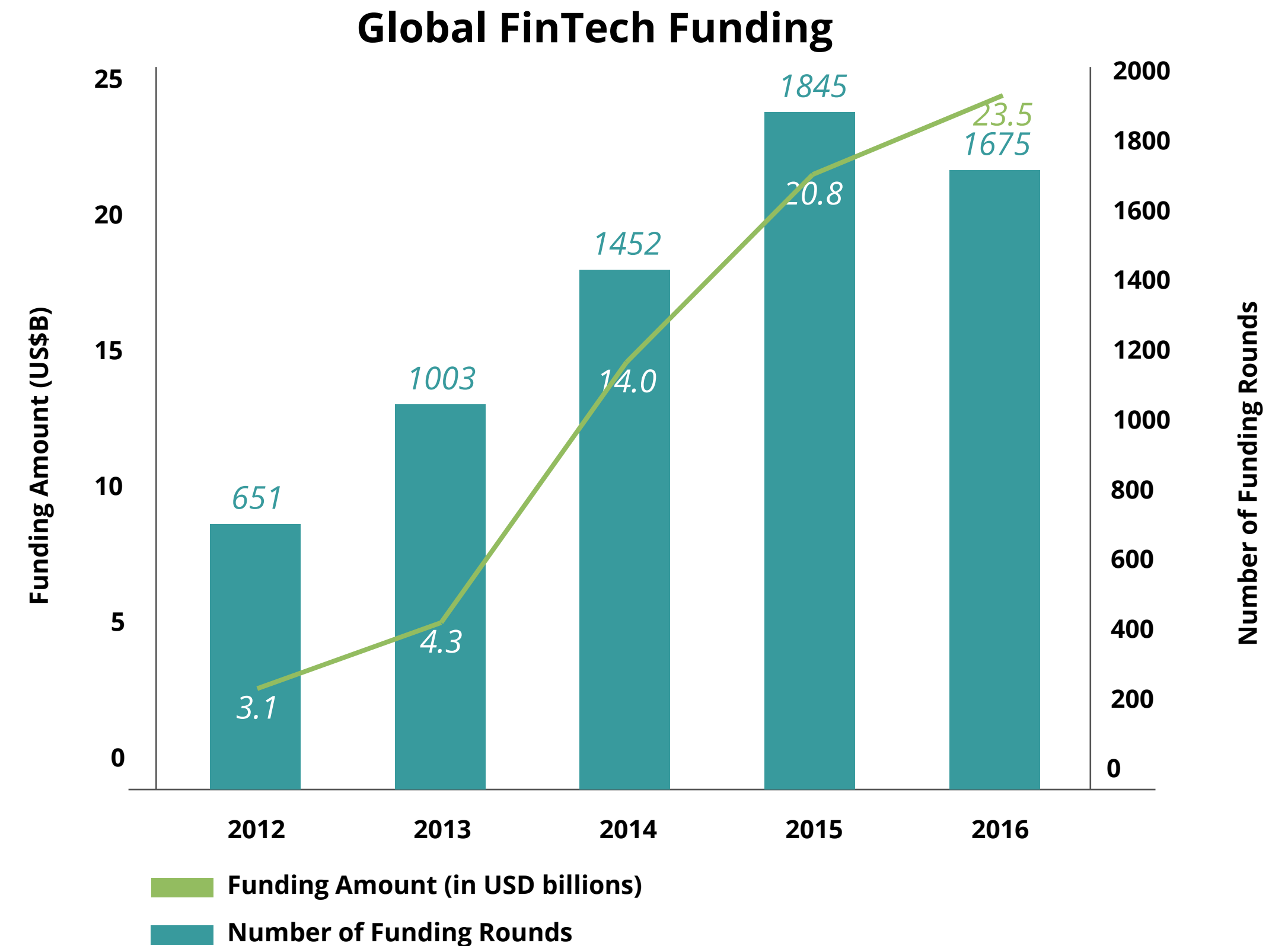
GLOBAL STATE OF FINTECH



Global FinTech Funding



- 01 In Q1 2017, US\$1.8bn has been invested in FinTech globally and, at the current run rate, both deals and funding are on track to increase in 2017.
- 02 It is worth noting that in 2016, there was an increase in funding of US\$2.7B but a decrease in the number of funding rounds.

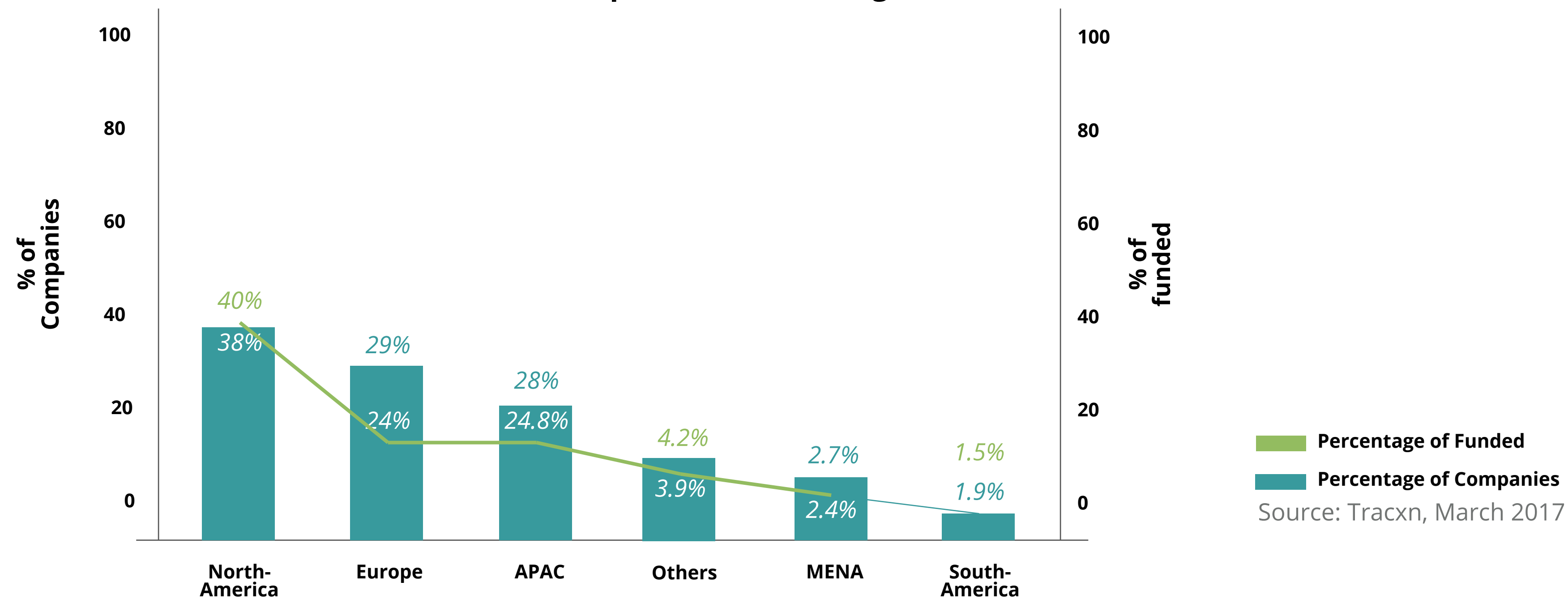


Geographical Analysis - Fintech

Tracxn

18,400+ companies in the sector, **4000+ funded since 2012**
Most Active Investors: Startupbootcamp, 500 Startups, Y Combinator

Global FinTech Companies and Funding

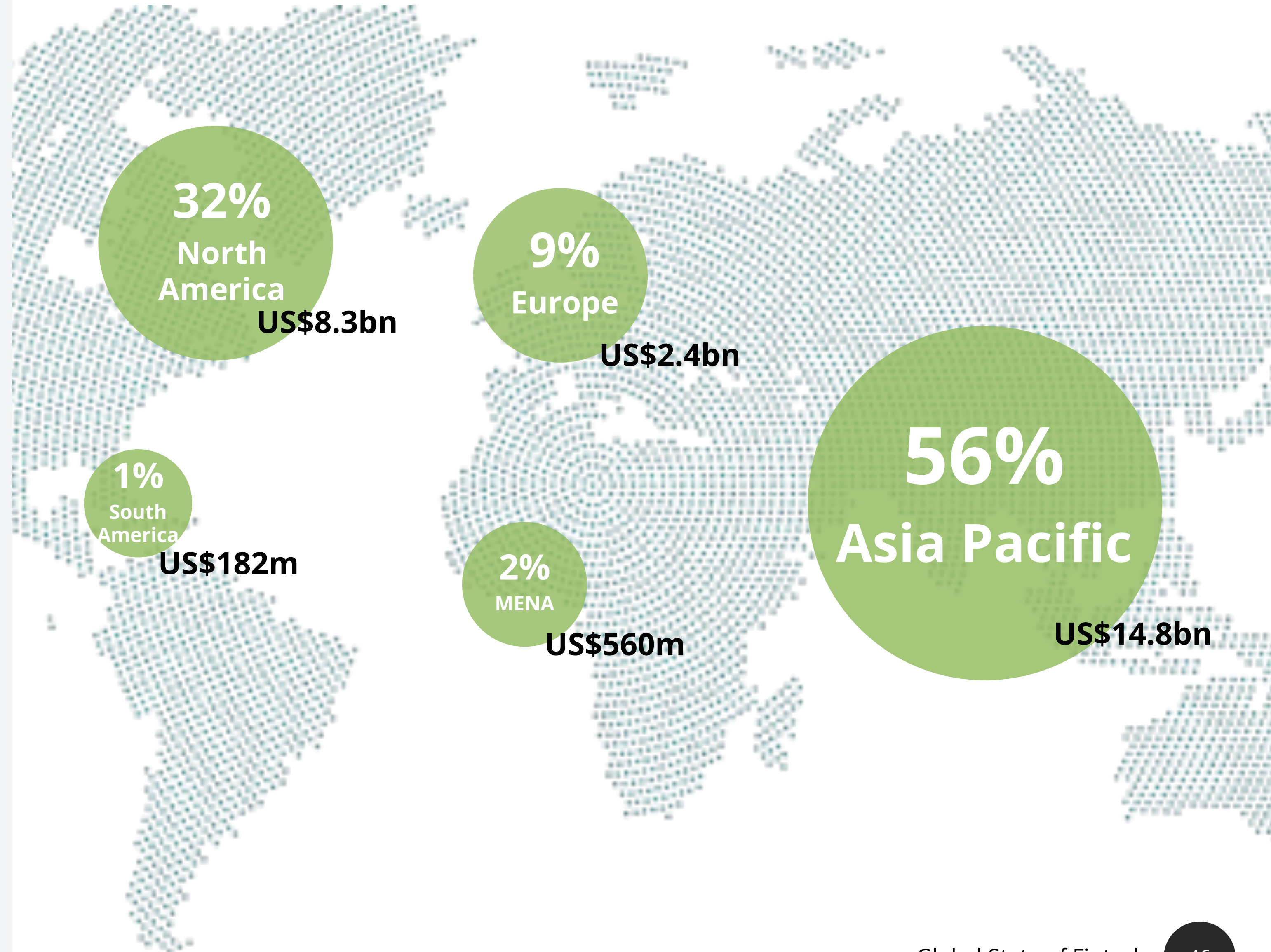


Global Funding Invested in FinTech 2016-17

Asia Pacific attracted the largest amount of investment with a total of US\$14.8bn. However **China accounts for 88% of this, receiving US\$13.05bn** in funding.



Funding January 2016 to February 2017



Global Funding Invested in FinTech

18,400+ companies in the sector, 4000+ funded since 2012

Most Active Investors:
Startupbootcamp, 500 Startups, Y Combinator



US\$6.1bn

Mobile Payment



US\$24.3bn

Lending



US\$857m

Investment Tech



US\$7.2bn

Finance & Account



US\$6.3bn

Consumer Finance



US\$6.1bn

Insurance Tech



US\$1.4bn

Robo Advisors



US\$583m

Blockchain



US\$13bn

Payments



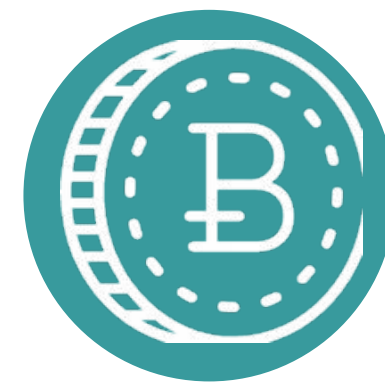
US\$2.1bn

Remittance



US\$1.2bn

Crowdfunding



US\$1.1bn

Bitcoin



US\$7.9bn

Banking Tech

Global Funding Highlights



The sectors that have received the most cumulative funding over the past year are **Lending (US\$24.3bn)** and **Payments (US\$13bn)**. This comes with no surprise as the two largest markets in Asia Pacific, China and India, have been driven by lending and payments.

Cumulative funding in the sector:

US\$24.3bn

Lending

Business Loans/ Funding Circle (2010, US\$373m)

Consumer Loans/ Lufax (2011, US\$1.7bn)

Aggregators/ Nav (2012, US\$52m)

US\$13bn

Payments

Gateway/ Stripe (2010, US\$466m)

Wallet/ Mozido (2008, US\$288.5m)

The Future of FinTech Asia Pacific



The Future of FinTech

01



**Financial
Inclusion**

02



**Wealth
Management**

03



RegTech

04



InsurTech

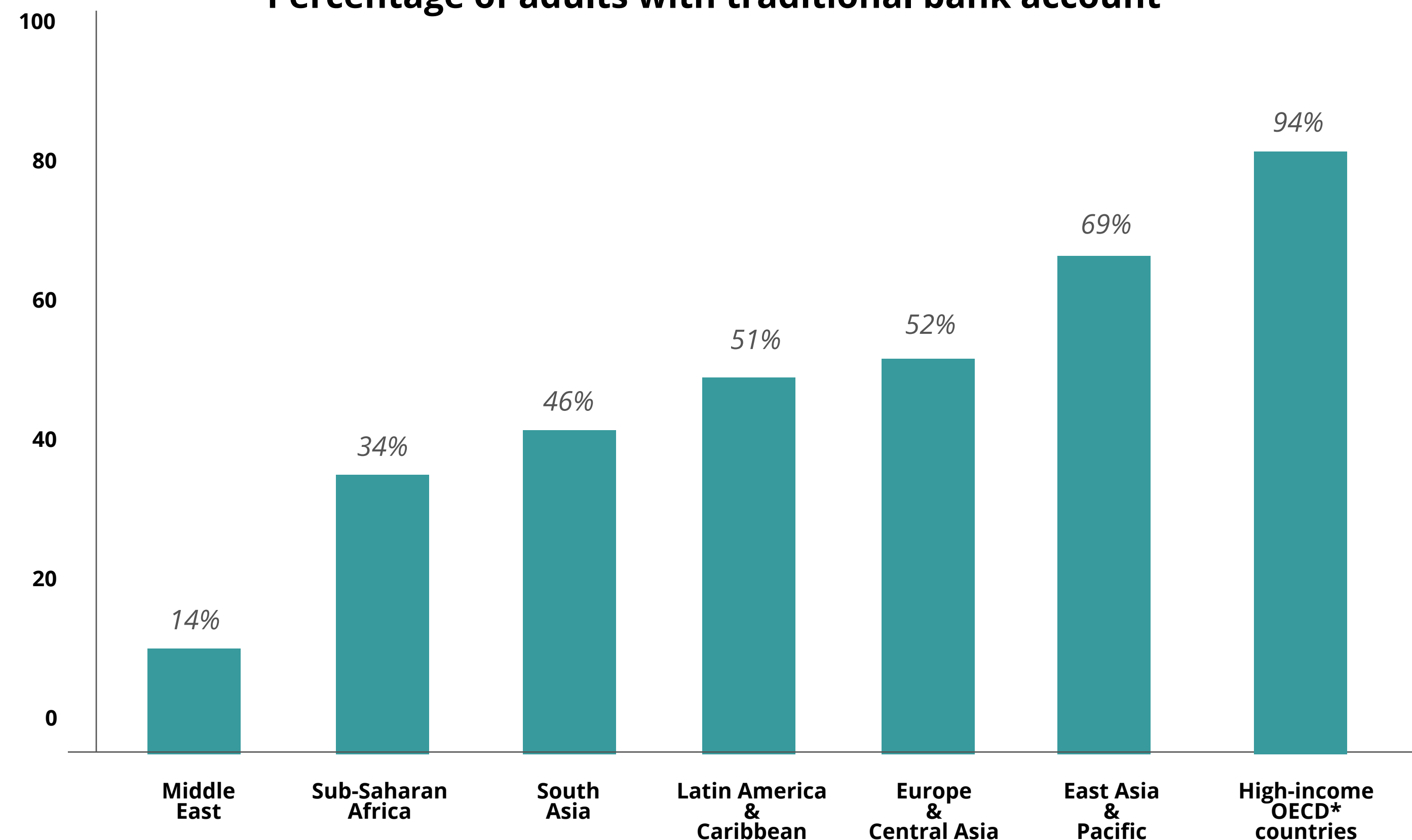
Financial Inclusion

The unmet deposit demand from the un(der)banked demographic is estimated to represent US\$360bn.

The World Bank Group (WBG), estimates that 2 billion or 42% of the global adult population does not have access to basic financial services.

We believe that addressing the un(der)banked community, which is largely located in Asia Pacific, presents sizeable opportunities for both startups and corporates.

Percentage of adults with traditional bank account



*Organization for Economic Co-Operation and Development

Source: Global Findex Database, 2014

A Global View of Financial Inclusion

- 01 Financial inclusion is a progression that develops in steps with payments as the optimal entry point
- 02 Using financial products does not necessarily transition to financial inclusion
- 03 Understanding the current state of financial inclusion is critical to determine future priorities/focus areas.

Source: Mastercard, 2014.



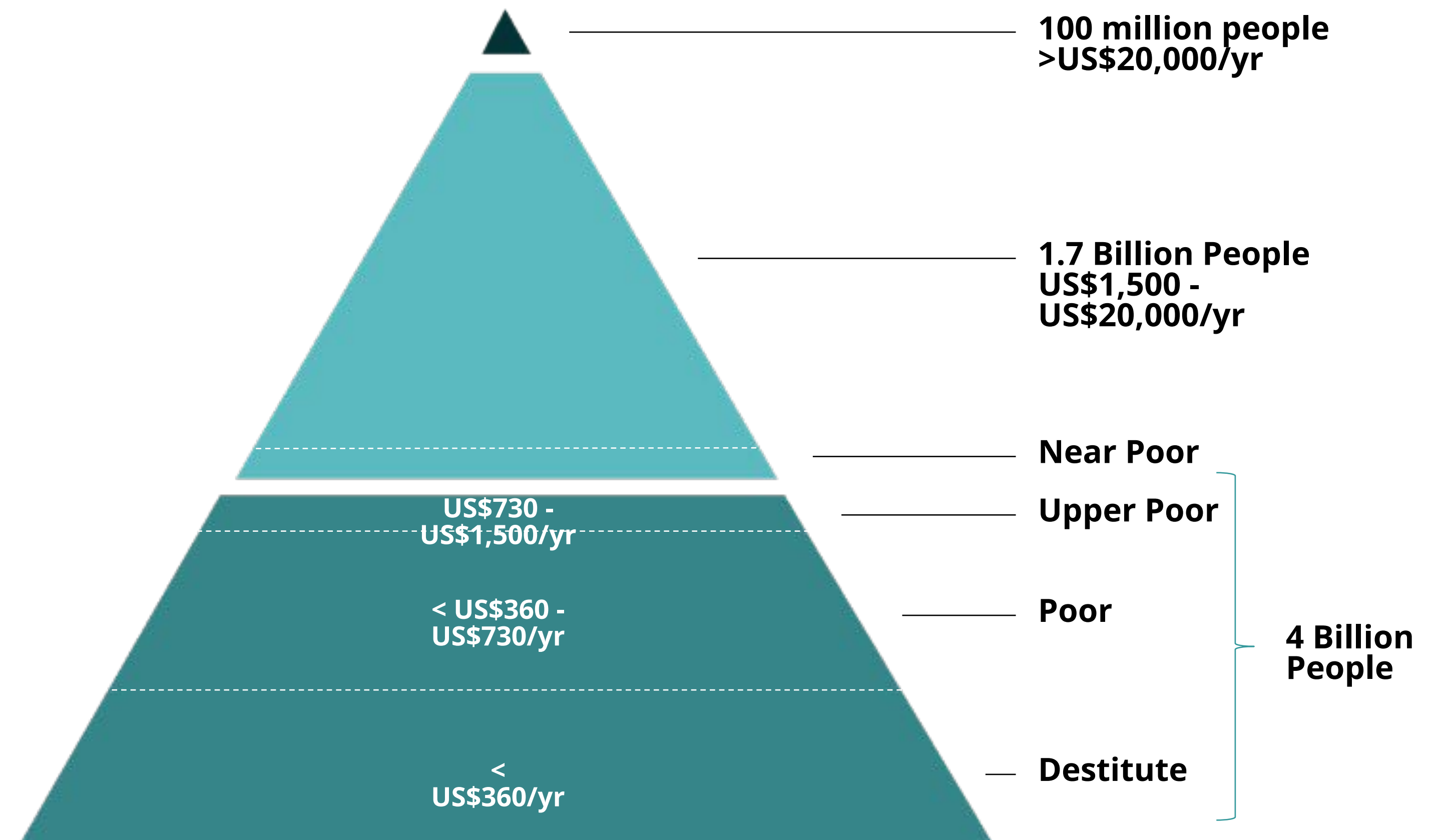
Microfinance

For the past 50 years, Grameen Foundation has analysed micro financing trends and these demonstrate that lending to the poor has low default rates.

Activities in Asia are developing thanks to microfinancing but many people still do not have access to basic financial services.

Commercial Banks	<div><div></div><div></div></div>
Credit Unions	<div><div></div><div></div></div>
Microfinance	<div><div></div><div></div></div>

Microfinance targets lower income levels



Source: VISA International, World Bank, C.K Pralahad

Micro-finance For The Unbanked

Asia has the highest percentage of unbanked population in the world (21% in China, 47% in India and 64% in Indonesia).

This is due to a number of factors:

- 01 **Banks are difficult to access** for people living in remote areas
- 02 **Remittance and money transfer is not cost effective** when transferring small amounts
- 03 **Financial institutions have not historically focused on small businesses** leaving a funding gap in the market

Microfinance Drivers

Microfinance is growing, this trend is primarily driven by:

- 01 High levels of mobile phone penetration in Asia, which in turn has led to the rise of internet platforms with massive scale.
- 02 Technology companies now have more transaction data than banks and they are funneling this into alternative lending platforms.



Financial Inclusion – Asia Pacific

Most Active Investors: GMO Ventures, Legatum, Khosla Impact, Accion, Kinnevik AB

Leading and Payment sector has received the highest amount of funding

Cumulative funding in the sector:



US\$835m

Alternative Leading



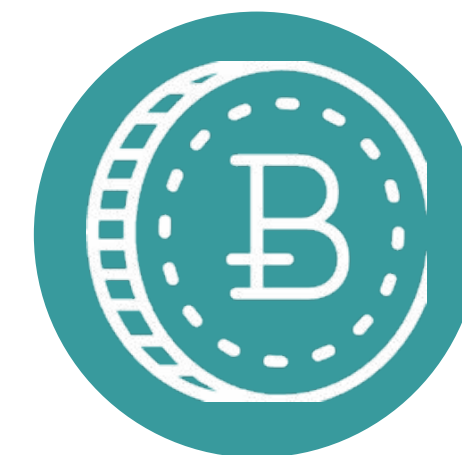
US\$570m

Payments



US\$166m

Remittance



US\$139.5m

Banking Tech



US\$77m

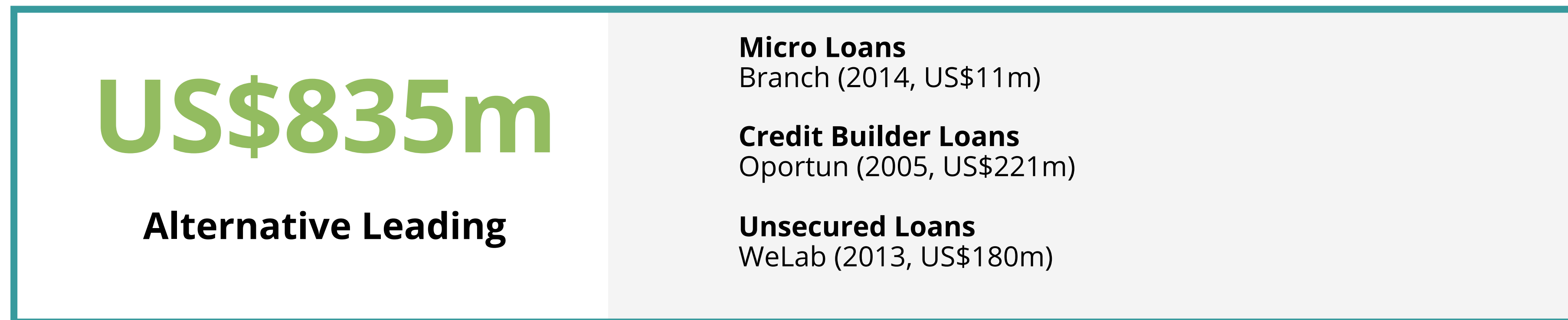
Insurance Tech

Financial Inclusion – Asia Pacific



Over the past year, **alternative lending**, which is a subsector of Financial Inclusion, has received the largest part of funding with a **total of US\$835m invested to date**.

Cumulative funding in the sector:





Observations – Financial Inclusion

A study by Microfinance Information Exchange (MIX), revealed that the Asian microfinance market stands unrivalled in scale.

Institutions facilitating microfinance in Asia will continue to play a critical role in improving access to finance for entrepreneurs, families and small business owners. And Asia is a prime market for alternative lenders, who usually use alternative means to assess creditworthiness, foregoing traditional credit scores altogether.

As a result, we believe that investments in micro financing will continue to grow and fuel economies in developing markets.

Expectation Gap Between Technology Capabilities And Demand in Wealth Management

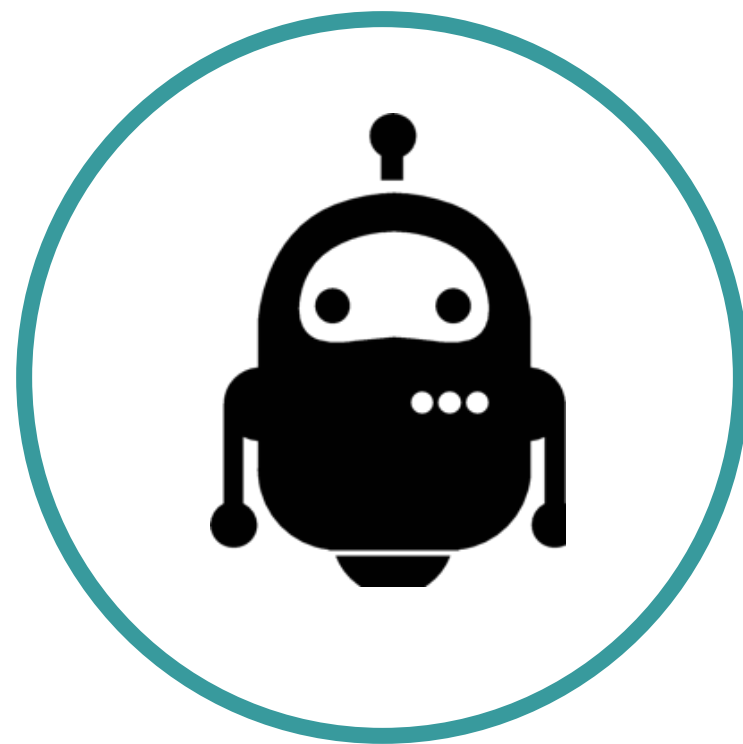
While high net worth individuals (HNWIs) enthusiastically adopt new technologies, the wealth management sector is one of the least tech literate segments of the Financial Services industry.

PwC's recent survey on the Wealth Management "Sink or Swim" revealed that **69% of high net worth individuals use online banking but only 1 out of 4 wealth managers offer digital channels that go beyond email.**

Additionally, **by 2020, millennials and generation X will control over half of all investable assets** and wealth management companies need to have a strategy to on-board and retain these generations of digital natives.

We see this as an opportunity for Wealth Managers to partner with FinTech companies to leverage on each others' strengths to build products and services that cater for this wealthy tech savvy generation.

Intelligent Things Are Disrupting the Wealth Management Sector



Internet of Things

A suite of technologies and applications that provide information of users to the providers



Chatbots

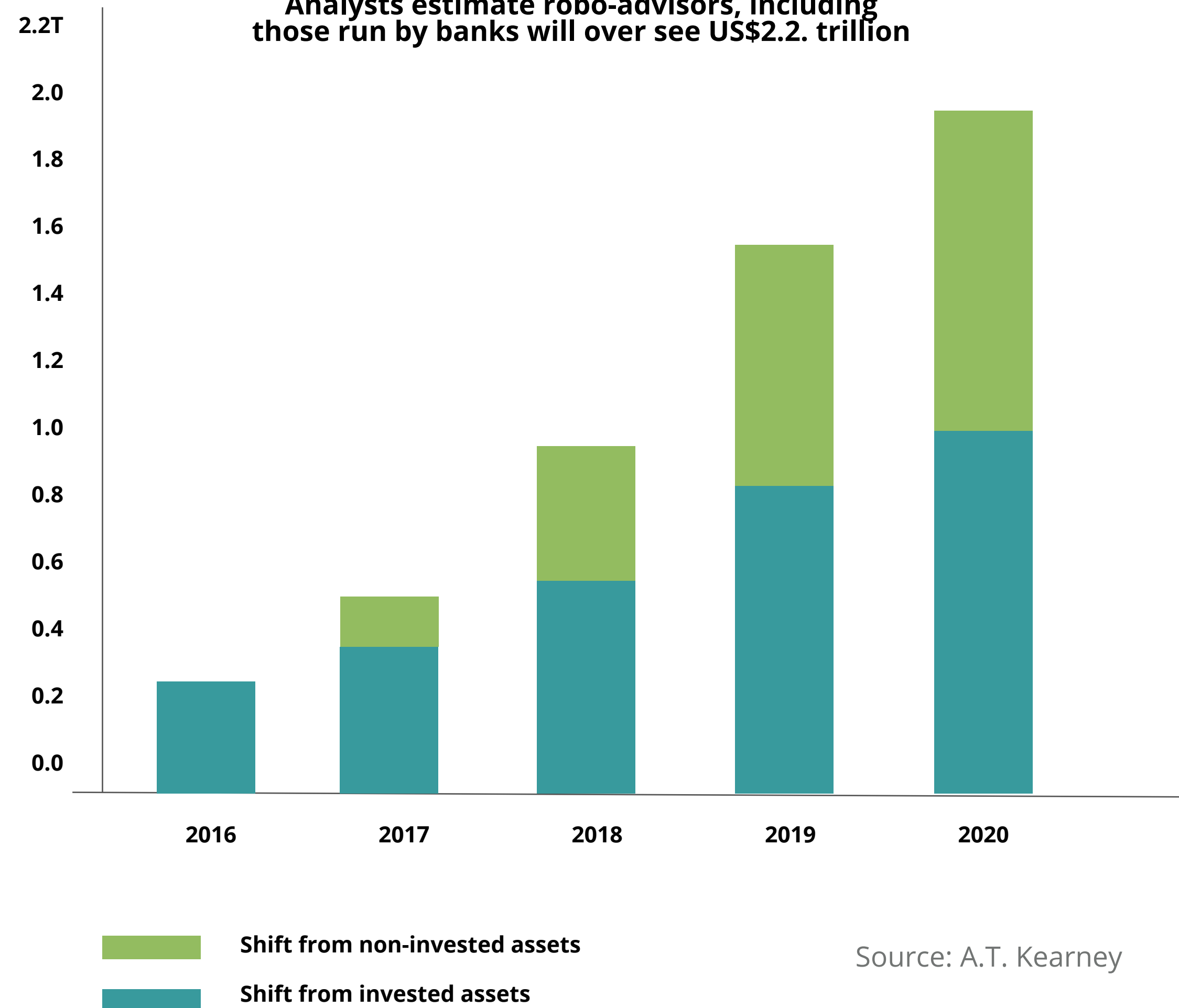
A computer program that engages in a conversation via auditory or textual methods



Robo-advisors

Digital financial advice based on mathematical rules or algorithms

The rise of Robo-advisors
Analysts estimate robo-advisors, including those run by banks will over see US\$2.2. trillion



Intelligent things bring both threats and opportunities

Intelligent things are creating both opportunities and challenges for the wealth management industry.

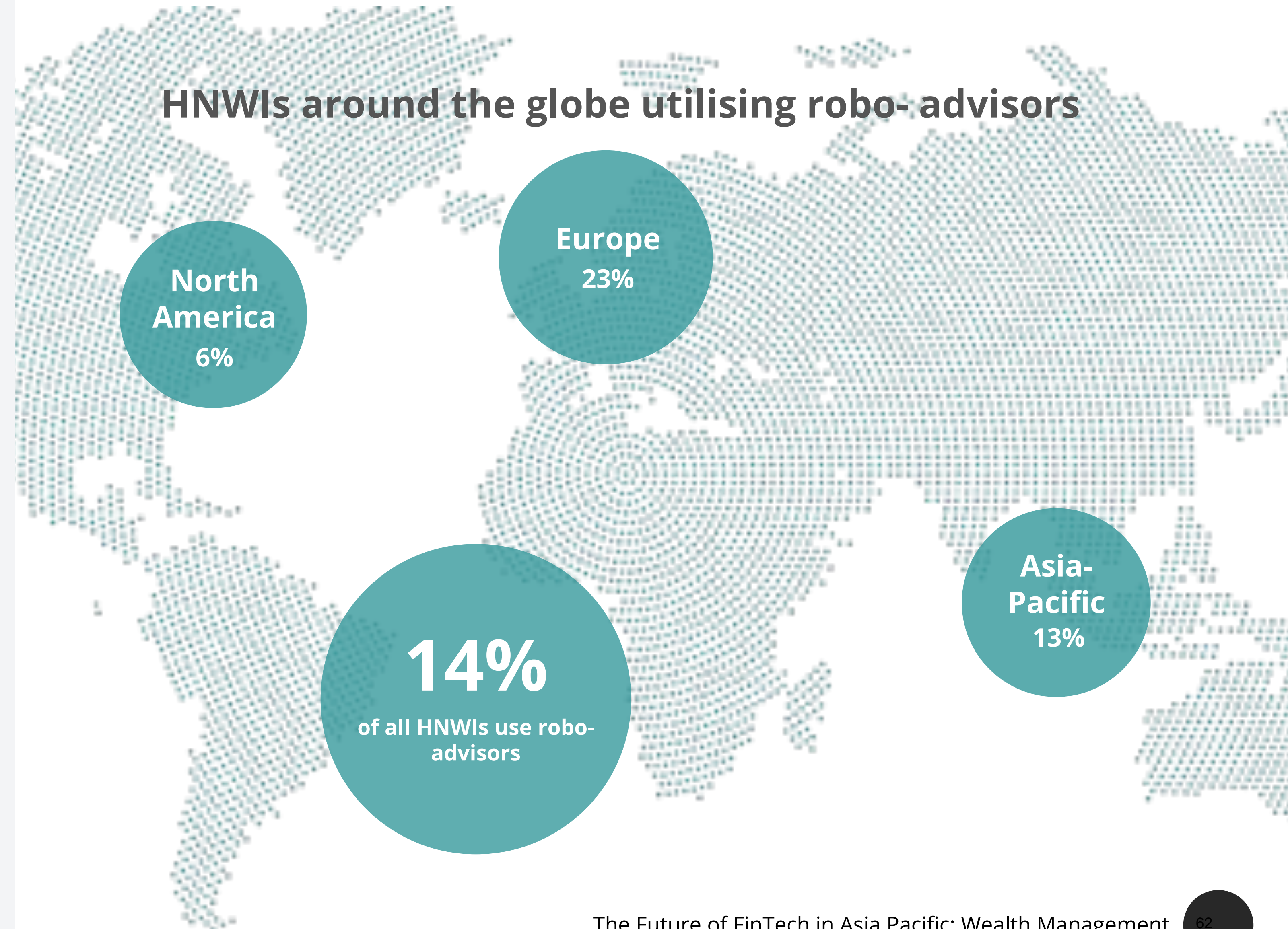
- 01 The internet of things provides Wealth Managers with new data on their customers' behaviour and daily routines
- 02 Chatbots enable wealth managers to provide 24/7 assistance and digital concierge services
- 03 Robo-advisors allow wealth management companies to effectively serve the mass-affluent segment, thus expanding their client base

Opportunities Bought by The Rise of Robo-advisors

Robo-advisors bring many opportunities to wealth managers, some of these include:

- 01 .Helping to deliver a low to high touch toolkit that will free up relationship and portfolio managers to spend more time on value add activities
- 02 .Capturing a larger share of investable assets that a client may choose to allocate across different wealth solutions
- 03 .Allowing Wealth Management firms to effectively serve a mass affluent clientele

HNWIs around the globe utilising robo- advisors





“

By 2020, wealthy individuals will see their wealth managers as the trusted advisor. Not only do they trust their wealth managers with financial matters, they also trust that their financial advice takes into account their wider family and social needs and their life aspirations. A financial butler is another way of looking at this relationship.

Two important pillars that will support this - the digitalization of the wealth management business and making advice the core business, not products.

The successful wealth managers of tomorrow will be client centric and will use technology to deliver personalised services to their clients. They will be able to mine data intelligently and use the insights to drive meaningful conversations with their clients. The future relationship between high net worth individuals and their asset managers will be founded on trust and value; not on products and fees.

Julia Leong, Partner, PwC Singapore

Wealth Management – Asia Pacific

Tracxn

900+ companies in the sector, 203 funded in last 5 years, US\$6.7B invested in 2016–17.

Most Active Investors: Sequoia Capital, K2VC, 500 Startups

Cumulative funding in the sector:



US\$158m

Wealth Management



US\$818m

Personal Finance Management Platform



US\$10m

Financial Literacy



US\$6.4bn

Conglomerate



US\$1.33bn

Financial Product Aggregators

Funding Highlights – Wealth Management

Tracxn

Over the past 10 years, wealth management has received **cumulative funding of US\$158m** and recently a large part of this has been invested in Robo-advisors.

Cumulative funding in the sector:



Observations – Wealth Management

To date, the segments that have received the largest amounts of funding are diversified FinTech companies such as Ant Financial; these have received cumulative funding of US\$6.4bn to date. The second largest investment category are financial product aggregators that have received cumulative funding of US\$1.33bn.

Given the technology expectations gap and the opportunities brought by automation we can expect to see more and more emerging technologies being adopted by tech savvy Wealth Managers. However, incumbents that fail to put technology in the heart of their strategy run the risk of becoming irrelevant.

RegTech, a Sector on the Rise

Ever since the 2008 financial crisis, regulators have been tightening legislation.

Banks have responded to this by hiring thousands of compliance officers, thus solving an important problem by increasing headcount. This is even more the case in Asia where banks need to deal with many different regulatory regimes.

Currently 80% of the AML budget of banks is related to headcount as many background checks are still done manually by large AML teams. And, while complex cases will continue to require human oversight, many of the lower-risk checks could be automated.

And, unlike in FinTech, where there is some element of disruption and competition, RegTech is an area where all parties benefit from working together. Which is why at Startupbootcamp we believe that RegTech is a sector on the rise.



Funding Highlights – Wealth Management



Globally, US\$819m has been invested in RegTech however, only 61.9% of this has been invested in Asia Pacific

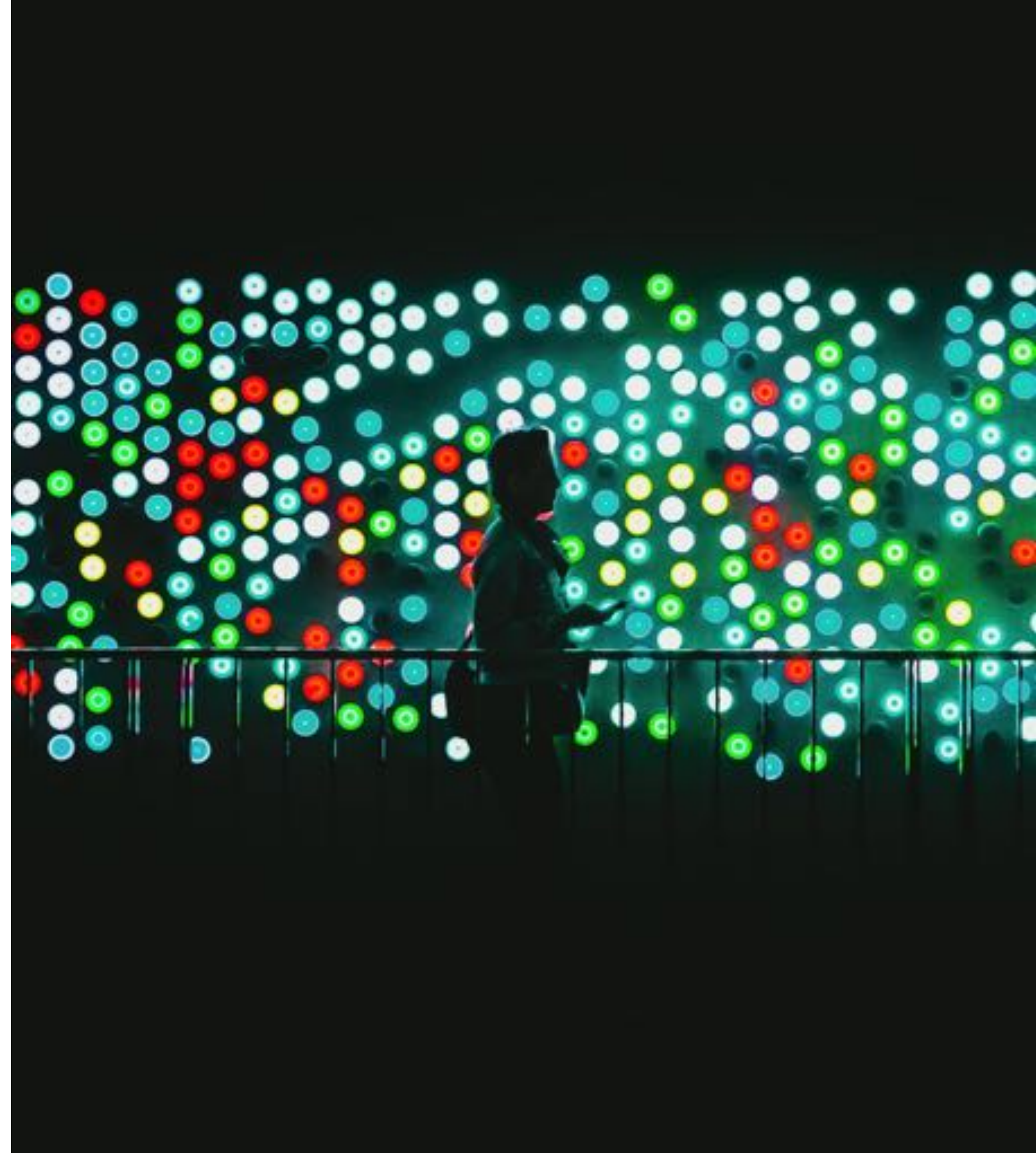
CATEGORY	RegTech Asia Pacific	RegTech Global
SUMMARY	<p>280+ companies in the sector, 60+ funded in last 5 years, US\$771m invested in 2016 – 2017.</p> <p>Most Active Investors: Startupbootcamp, IDG Ventures India, Sequoia Capital, IDG Capital Partners</p>	<p>1300+ companies in the sector, 320+ funded in last 5 years, US\$2.23bn invested in 2016 – 2017.</p> <p>Most Active Investors: Startupbootcamp, Plug & Play Tech Centre, Sequoia Capital, Intel Capital</p>
Cumulative Funding	US\$61.9m	US\$819m

Observations – Wealth Management

The total funding of RegTech in Asia Pacific represents less than 10% of the global RegTech funding.

While there are many RegTech startups in Europe, Australia and India, there are surprisingly very few RegTech startups in Singapore and Hong Kong, which are the two major financial hubs in Asia.

Given the central role that the regulators have had in driving the FinTech agenda in both Singapore and Hong Kong, we believe that there will be a rise in both government and non-governmental initiatives in the Regtech sector.





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Picture 2020 in a urban centre somewhere in Asia. Insurance has changed. Insurance companies have changed, in fact some of them are unrecognisable. Customers are asking for brands by name and are giving insurance companies credit for “changing their lives” by helping them avoid risk. Health has become a central part of what insurance companies deliver. And much of the friction of buying insurance has been smoothed out, thanks to a couple of dozen Insurtechs that have stepped up and reimaged small bits of the way insurance used to be done. Agents are now augmented advisors. Claims are seamless and automatic. Solutions are intelligent and tailored. Further, risk products are being embedded into other categories. Behind all this is software enabling change through APIs. Still, some insurers and many insurtechs have fallen far behind and have been slow to let go or slow to partner. The customers of those brands who have taken the lead are the real winners.

Zia Zaman
Chief Innovation Officer

Insurance Companies are Embracing Emerging Technologies

This year, PwC's Global FinTech Survey revealed that **in 2017, more than half insurance companies deal with FinTech whereas in 2016 32% of insurance companies surveyed did not deal with FinTech at all.**

Insurance companies are now turning to FinTech to:

- 01 Reach and serve their clients in a highly targeted manner
- 02 Quantify and identify risk through sophisticated data models and analytics

More than half of the insurers are actively monitoring FinTech to respond competitively



Almost half of the insurers are already engaging in partnerships with FinTech companies



One-third of the respondents are hiring services from FinTech companies to improve internal operations and services

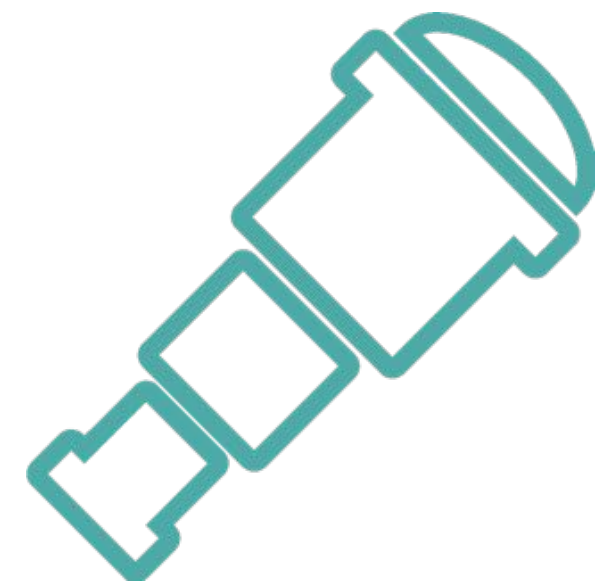


21% of incumbents set up start-up programs to incubate FinTech companies



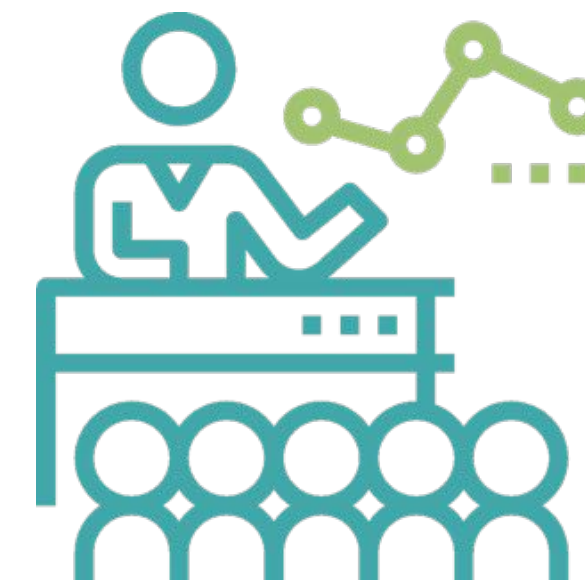
Source: PwC Global FinTech Survey 2017

How InsurTech Empowers Incumbents



Exploration

Incumbents are actively monitoring new trends and innovations. Many of these have established a presence in key innovation hubs to learn about the latest trends and technologies.



InsurTech Involvement

Working with startups and fast growing technology companies, whether this is through open innovation programs or through strategic partnerships, will enable insurance companies to learn and innovate at a faster pace.



Sandbox testing

Setting up sandbox environments will enable incumbents test solutions and analyse results while minimizing risks.



New Product Development

Involvement in InsurTech will help incumbents rethink the way that they deliver products and services by taking a customer centric view.

InsurTech – Asia Pacific



280+ companies in the sector, 70+ funded in last 5 years

Most Active Investors: Startupbootcamp, K2VC (Xianfeng Evergreen), CBC Capital , DW Fund

Cumulative funding in the sector:



US\$931m

Internet-First Insurers



US\$53m

Employer Insurance



US\$34m

P2P Insurance



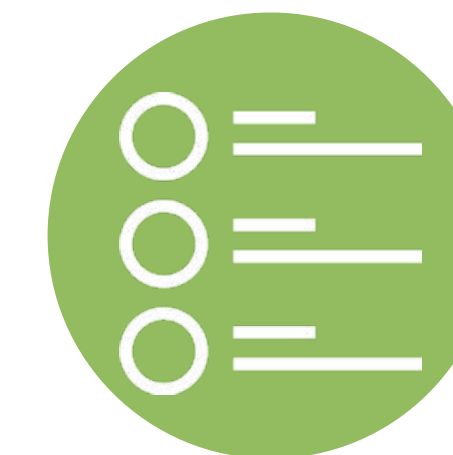
US\$331m

Distribution Platform



US\$74m

Enablers



US\$9m

Claims Management & Resolution

InsurTech – Asia Pacific



Internet-First and digital insurers have received the largest part of funding across Asia Pacific with a total of **US\$932m** invested to date.

Cumulative funding in the sector:



Observations - Insurtech

Internet-First Insurers and digital insurance companies have accounted for the largest part of funding to date. The most prominent example being Zhong An Insurance from China that received US\$931m.

Internet-First Insurers enable a broader population to access insurance. As many people in Asia live in remote locations, a multitude of alternative digital distribution models have emerged.

Although Internet-First Insurers have taken a large part of historical funding, going forward investments will be channeled into new technologies that disrupt other segments of the insurance value chain, such as claims management and customer onboarding.

Conclusion



Conclusion

- 01 In 2016, 6 out of 10 of the leading FinTech geographic regions are from Asia (i.e. China, Hong Kong, Singapore, South Korea, Japan and Australia).
- 02 At Startupbootcamp, we have looked at thousands of FinTech startups from Asia and we are very excited with the growth rate shown by the region.
- 03 We are confident that Asia Pacific is an up and coming region in the FinTech ecosystem.

Follow us on "[Facebook](#)", "[Twitter](#)" or "[Linkedin](#)" for more exciting FinTech news in Asia.



Startupbootcamp



Global Leading Startup Accelerator

412
Startups Accelerated

18
Exits

76%
Graduated Funded

€217M
Total Funding Raised

2012
Jobs Created



Each Program has a Vertical Industry Focus

Startupbootcamp programs target a specific industry to attract global startups and partners



Insurance



Food Tech



**Smart
Materials**



**Digital
Health**



**Transport
& Energy**



FinTech



ECommerce



Mobile



**Smart City
& Living**



IoT & Data

Cumulative funding in the sector

Using a Proven Acceleration Model

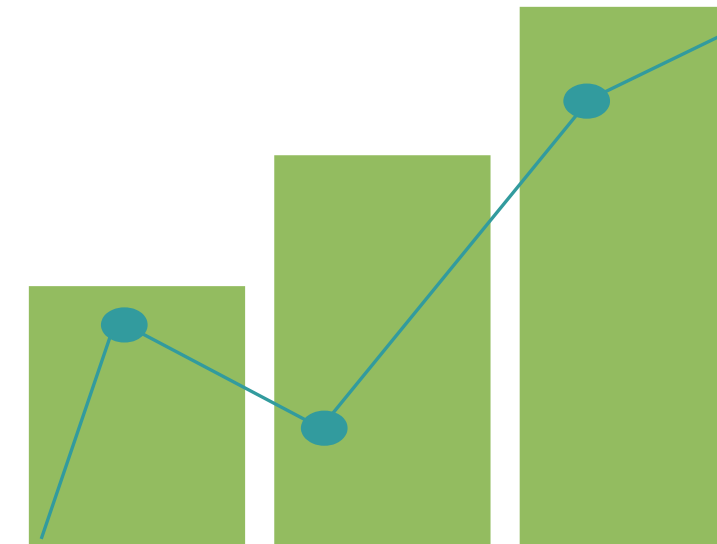
Scaling Startups

The Program provides all the tools to take a startup from its initial launch to developing a highly scalable business model with solid revenue growth



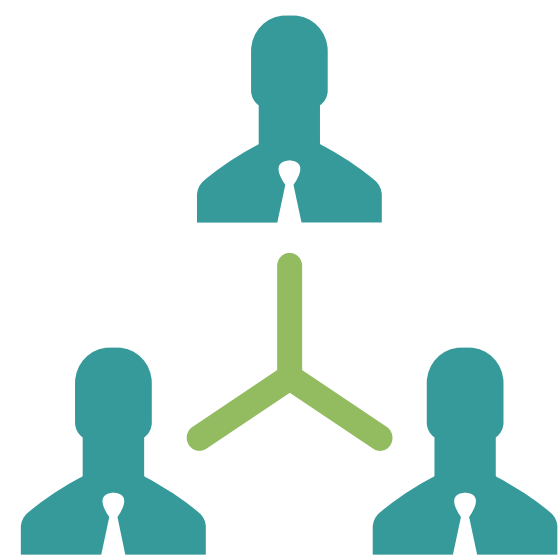
Over 3 months

Founders are taken through a focused 3-month program to address all critical areas of their business and prepare operations for future scale



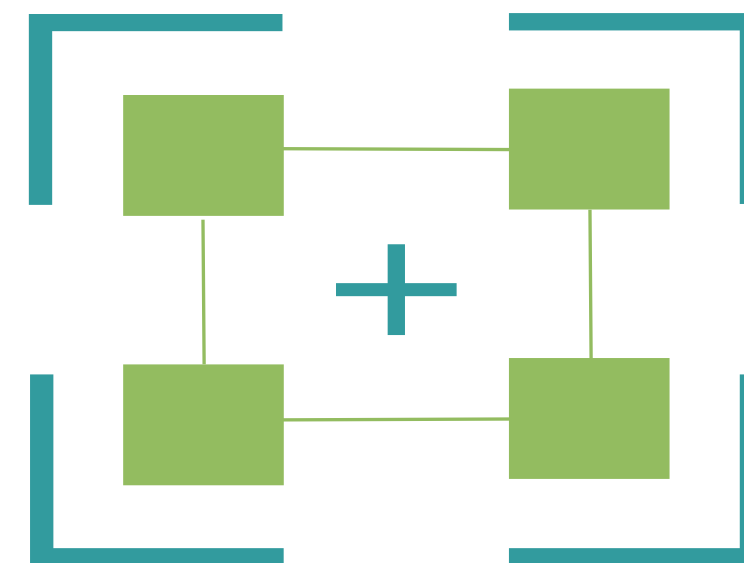
Targeted Connections

Partners and mentors of the program provide startups with an unparalleled level of highly curated access, insights, technology, and industry support



Industry Focus

The program only supports startups within a specific industry in order to optimise a founder's time and provide the most targeted possible value





412

STARTUPS ACCELERATED

Whilst Delivering Results to 100+ partners



Examples of Startupbootcamp Partners

Our Partners





Building Trust in Society And Solving Important Problems



startupbootcamp
FinTech



pwc

Team Members

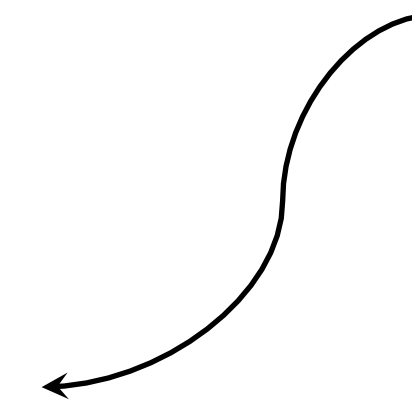


STEVEN TONG
Managing Director
ASIA

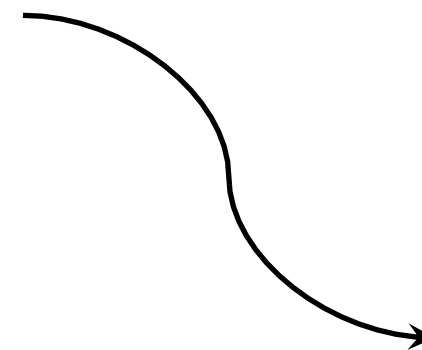


YEW PING LIM
Analyst

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Thank You

