




statista 

Digital Economy Compass

April 2017



“At least 40% of all businesses will die in the next 10 years... if they don’t figure out how to change their entire company to accommodate new technologies.”

John Chambers,
Chairman of Cisco System

Welcome to the Digital Economy Compass

Less talking, more facts – our idea behind creating the **Digital Economy Compass**. It contains facts, trends and key players, covering the entire digital economy.

We provide...

- key essentials from our research,
- actionable insights,
- Statista's exclusive forecasts.

This very first edition will provide everything you need to know about the digital economy.

Your Digital Market Outlook Team

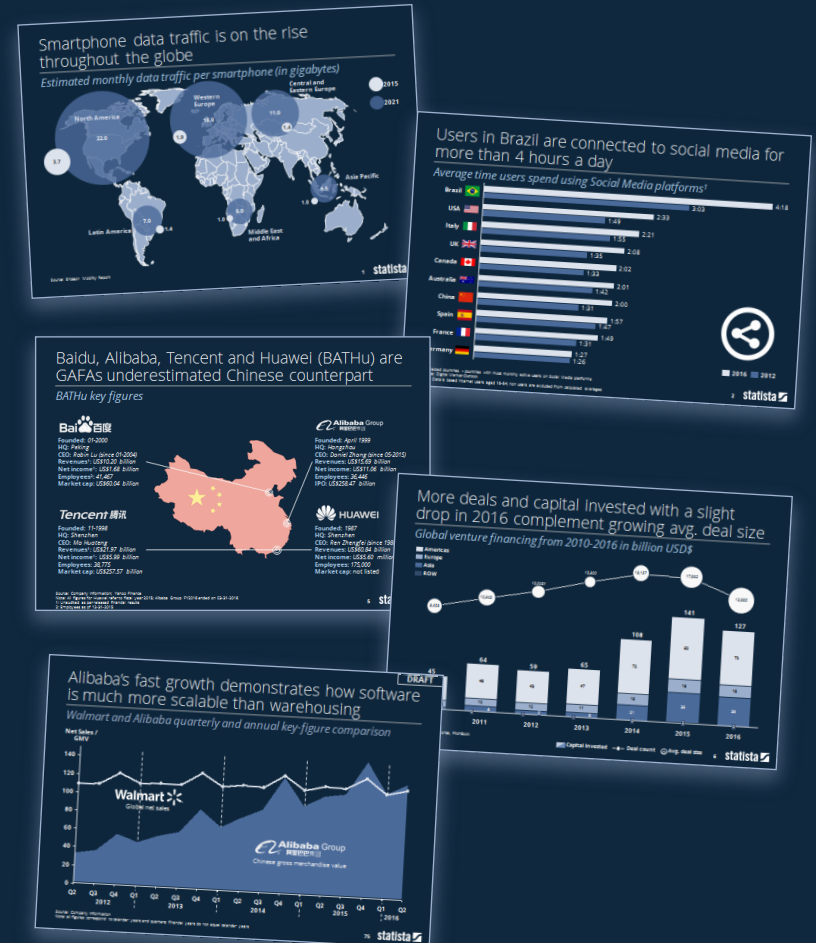


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Connectivity

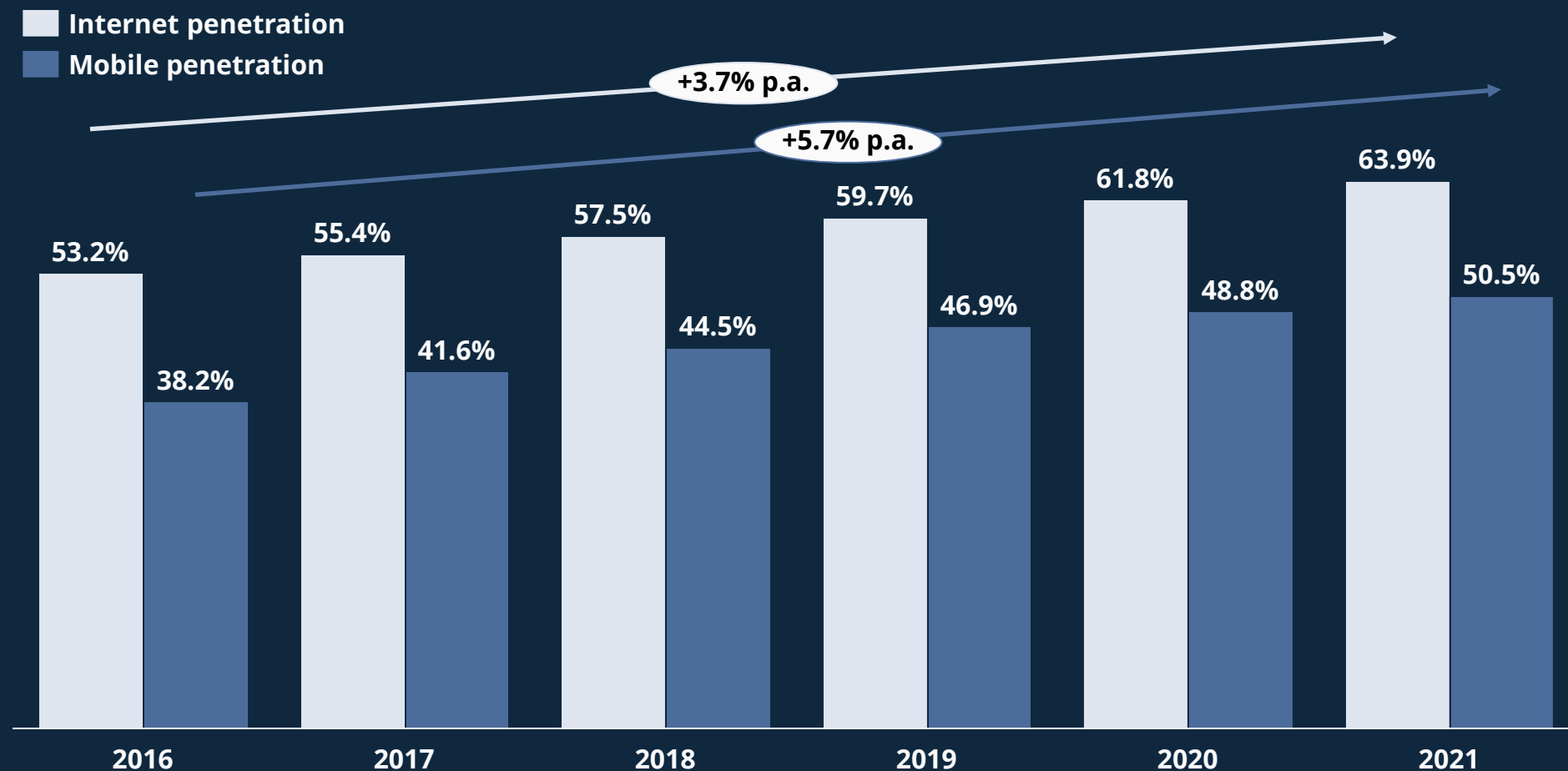
2,570,792

e-mails per second

The global number of e-mails sent per second resulted in around **81 trillion** e-mails sent during 2016.

The world is more connected than ever, a development which looks set to continue

Share of world population connected to the internet from 2016 to 2021

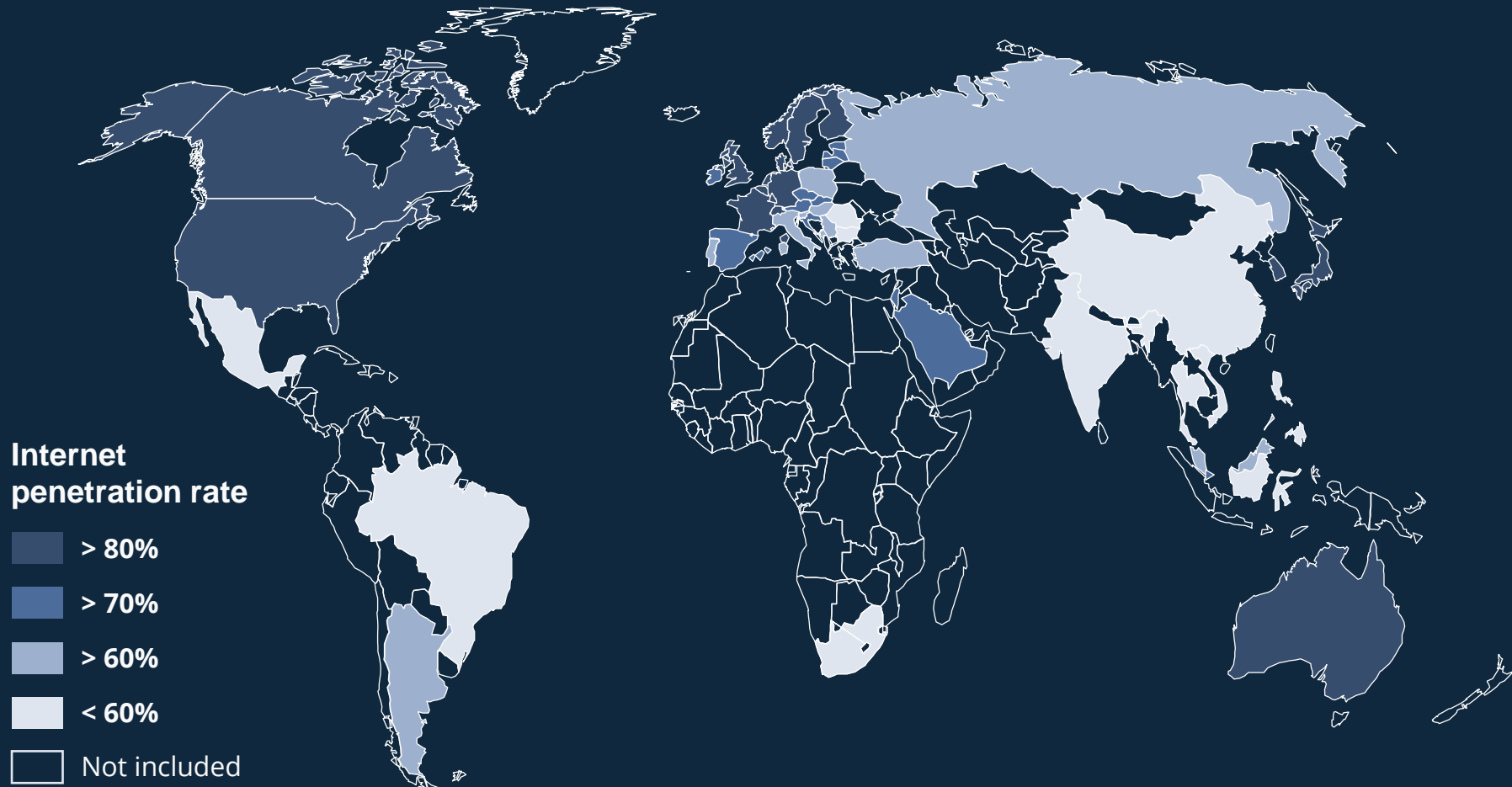


Source: **Statista Digital Market Outlook**

Note: Figures account for total world population using the internet / a smartphone within the last 12 months

Many people still lack internet access, particularly in the most populous countries

Internet penetration per country in 2016 (in % of total population)



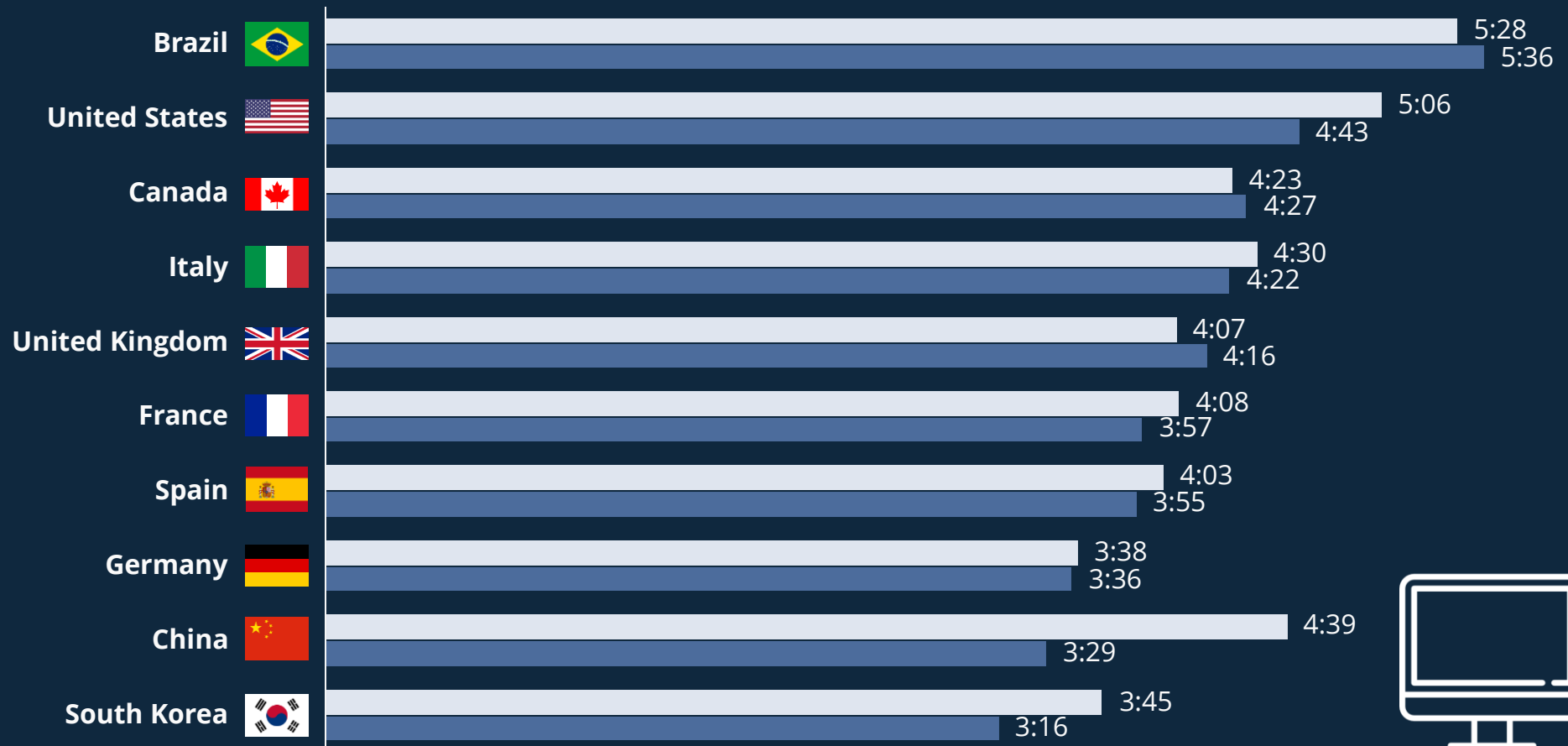
Source: **Statista Digital Market Outlook**

Note: Only includes countries listed in the Digital Market Outlook

Web consumption per user via Laptop or Desktop PC is highest in Brazil

Time spent online via Laptop/Desktop PC (hours per day)

2012 2016

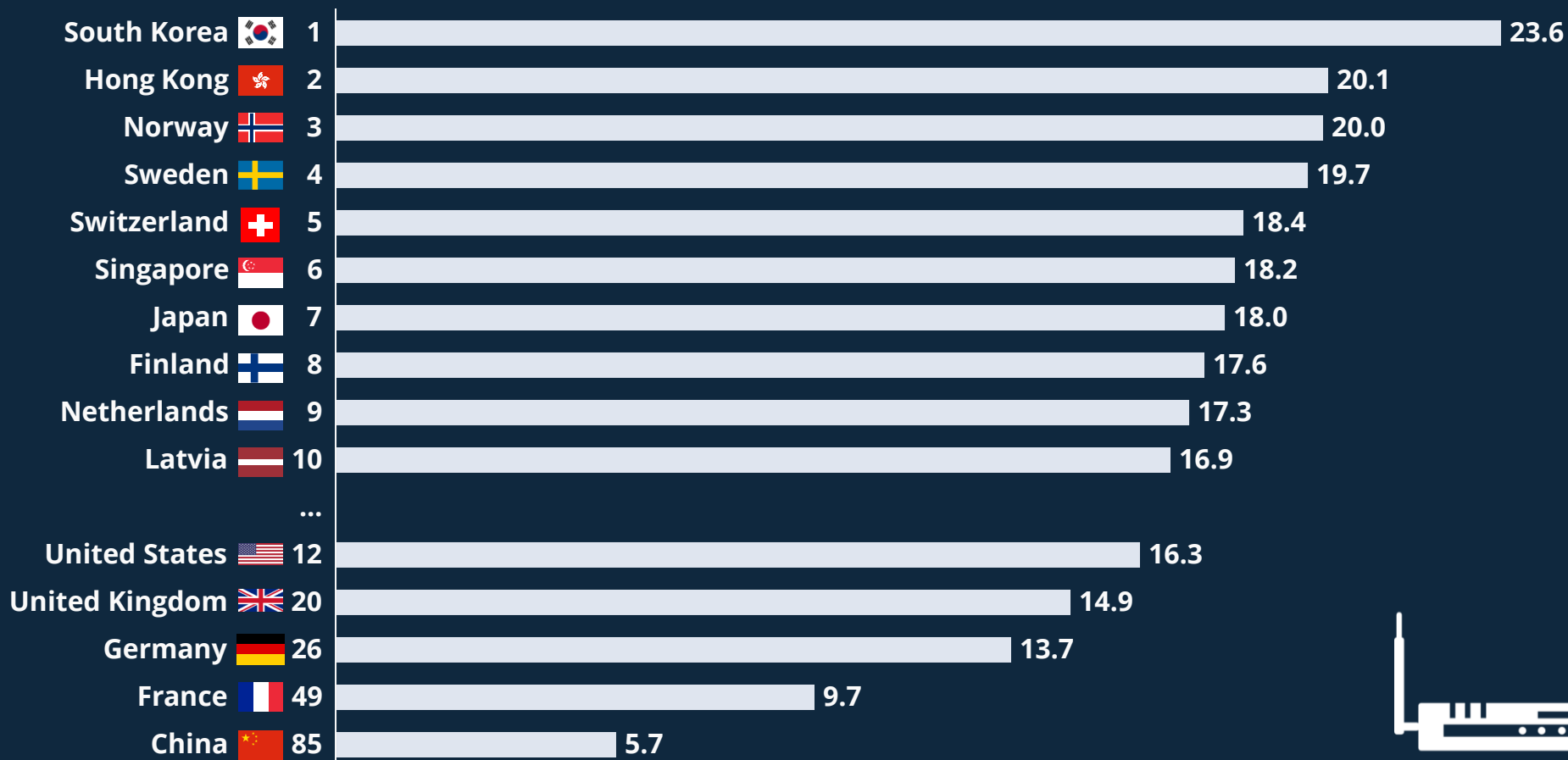


Source: **Statista Digital Market Outlook**

Note: Data is based on internet users aged 16+; non-internet users are excluded from averages

In a global comparison, broadband speed is fastest in East Asia and Scandinavia

Average broadband speed in Top10 and selected countries (in Mbps¹)



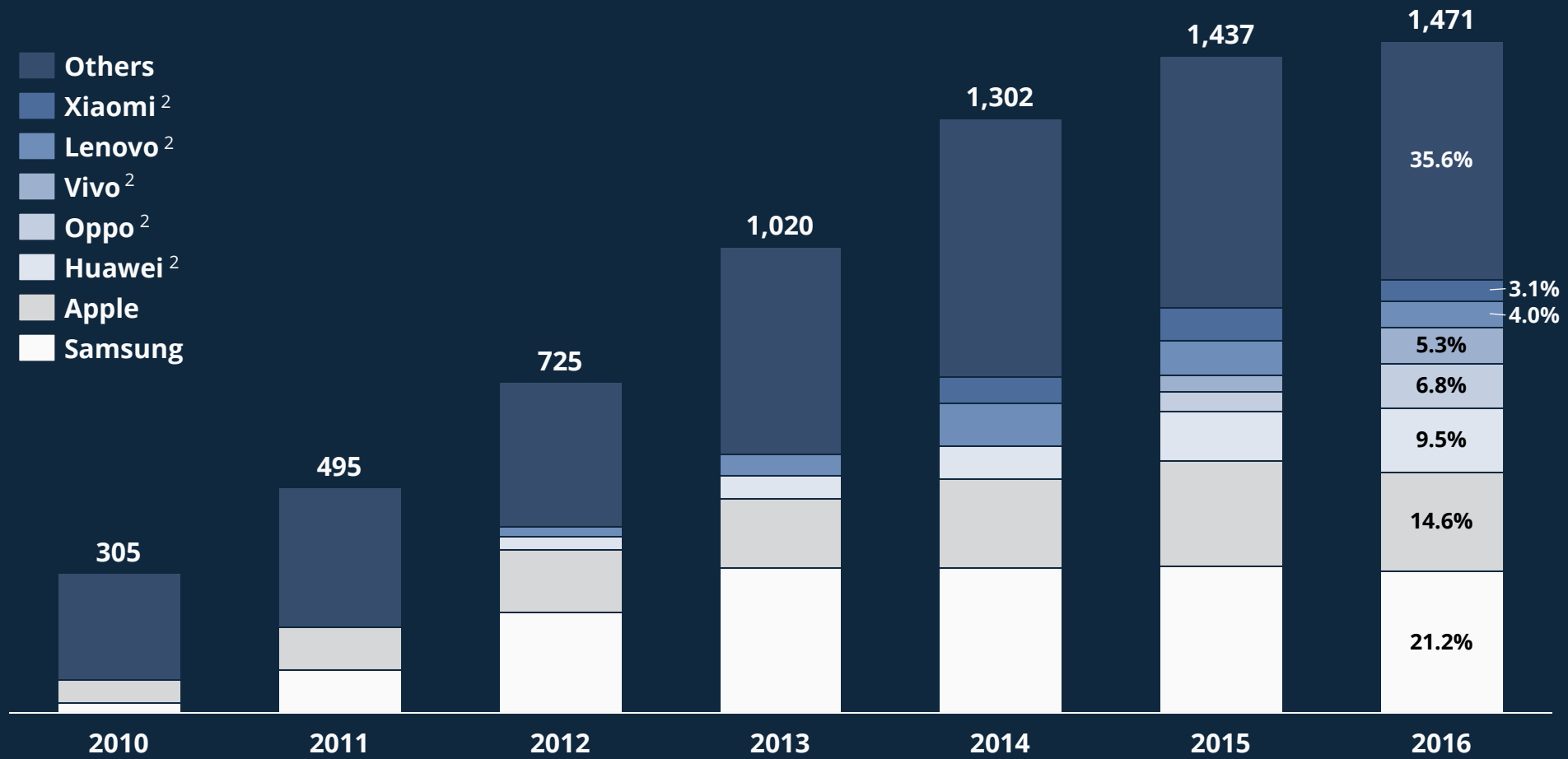
“Mobile is the future, and there is no such thing as communication overload.”

Eric Schmidt,
Executive Chairman of **Alphabet, Inc.**



Smartphone sales reached almost 1.5 billion in 2016, with Samsung being the biggest vendor

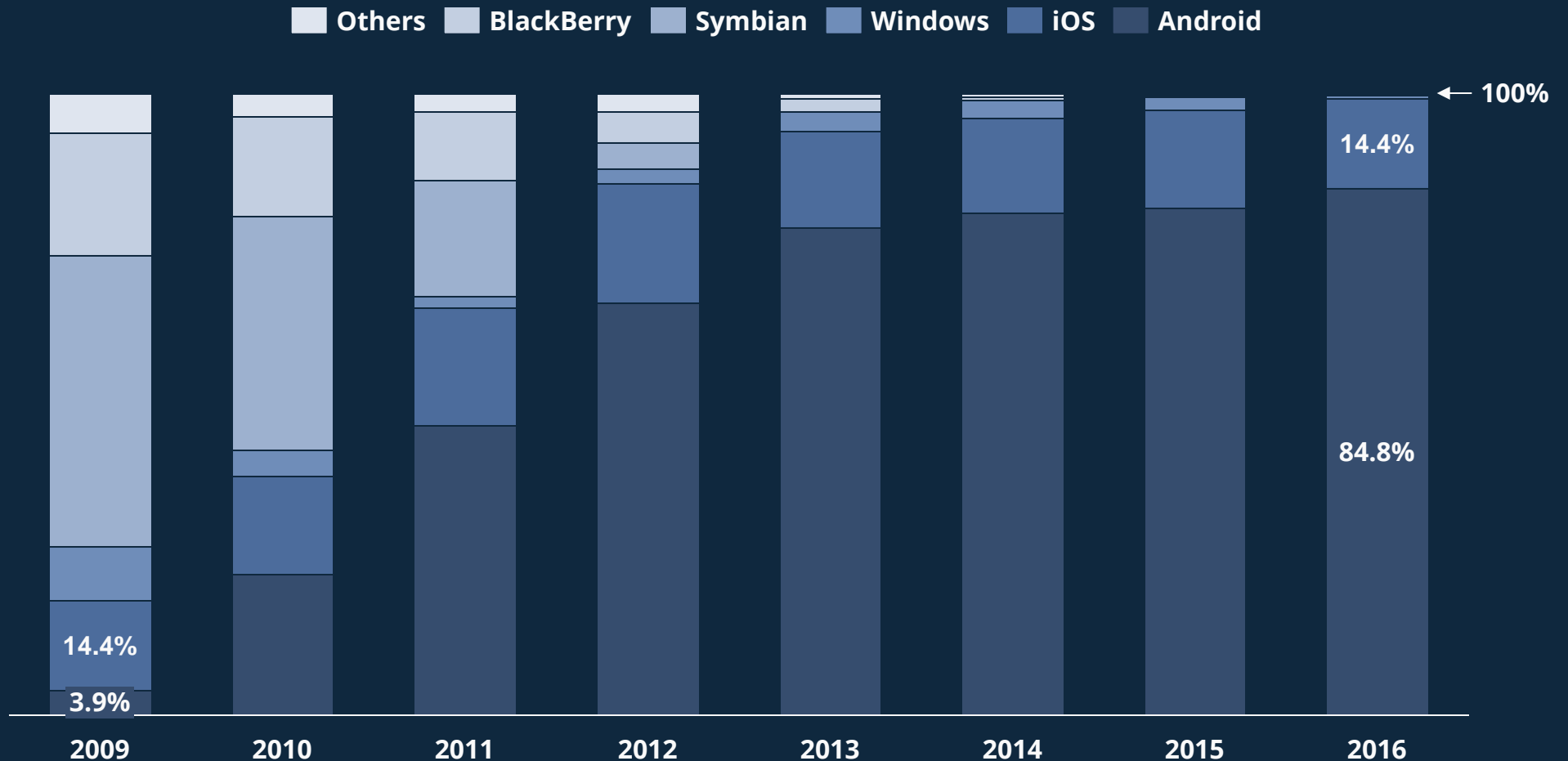
Global smartphone shipments (in million) and market shares per OEM¹



Source: IDC, Gartner
 1: Original Equipment Manufacturer
 2: Shipment information not available for each year; if no information available, sales are included in "Other"
 Note: Estimated figures for Lenovo and Xiaomi in 2016; market shares may not sum up in 100% due to rounding

Android has become the dominating mobile OS, while Apple's iOS has maintained market share

Worldwide smartphone operating system market share¹



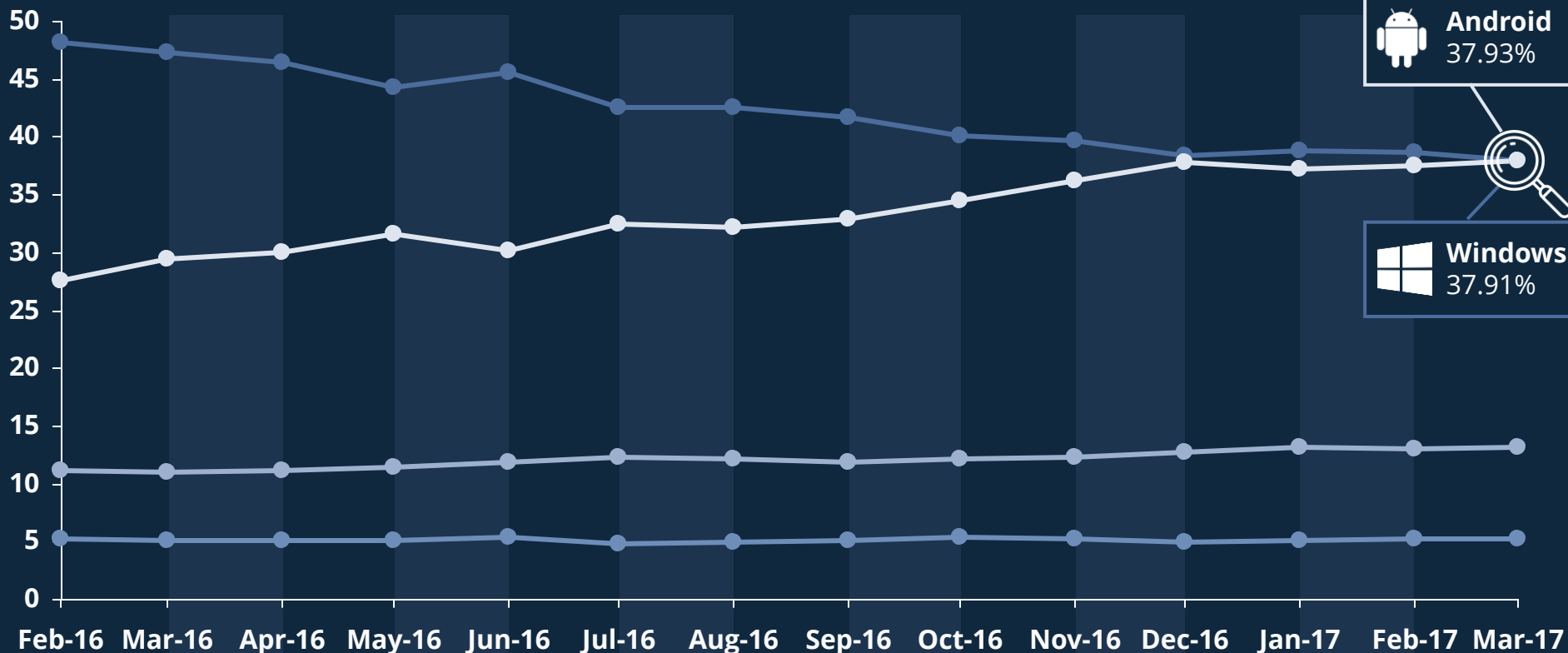
Source: Gartner
 OS = Operating System
 1: based on worldwide unit sales

Cross-device, Android even overtook Windows as the dominating OS for desktop and mobile

Global operating system market share from Feb 2016 to Mar 2017

— Windows — Android — iOS — OS X

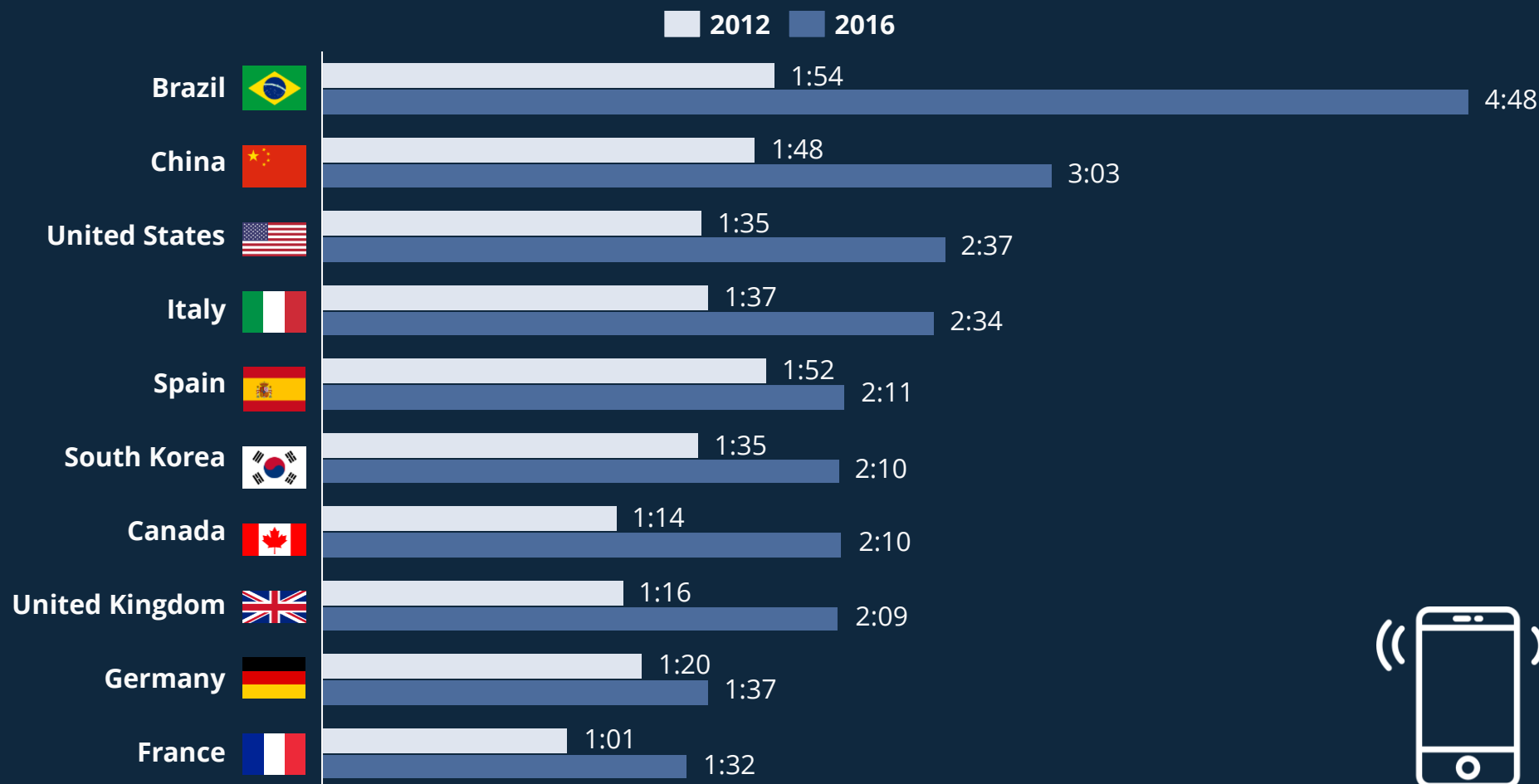
Market share
(in %)



Source: StatCounter.com

Advanced mobile devices and a growing number of apps increase time spent on mobile devices

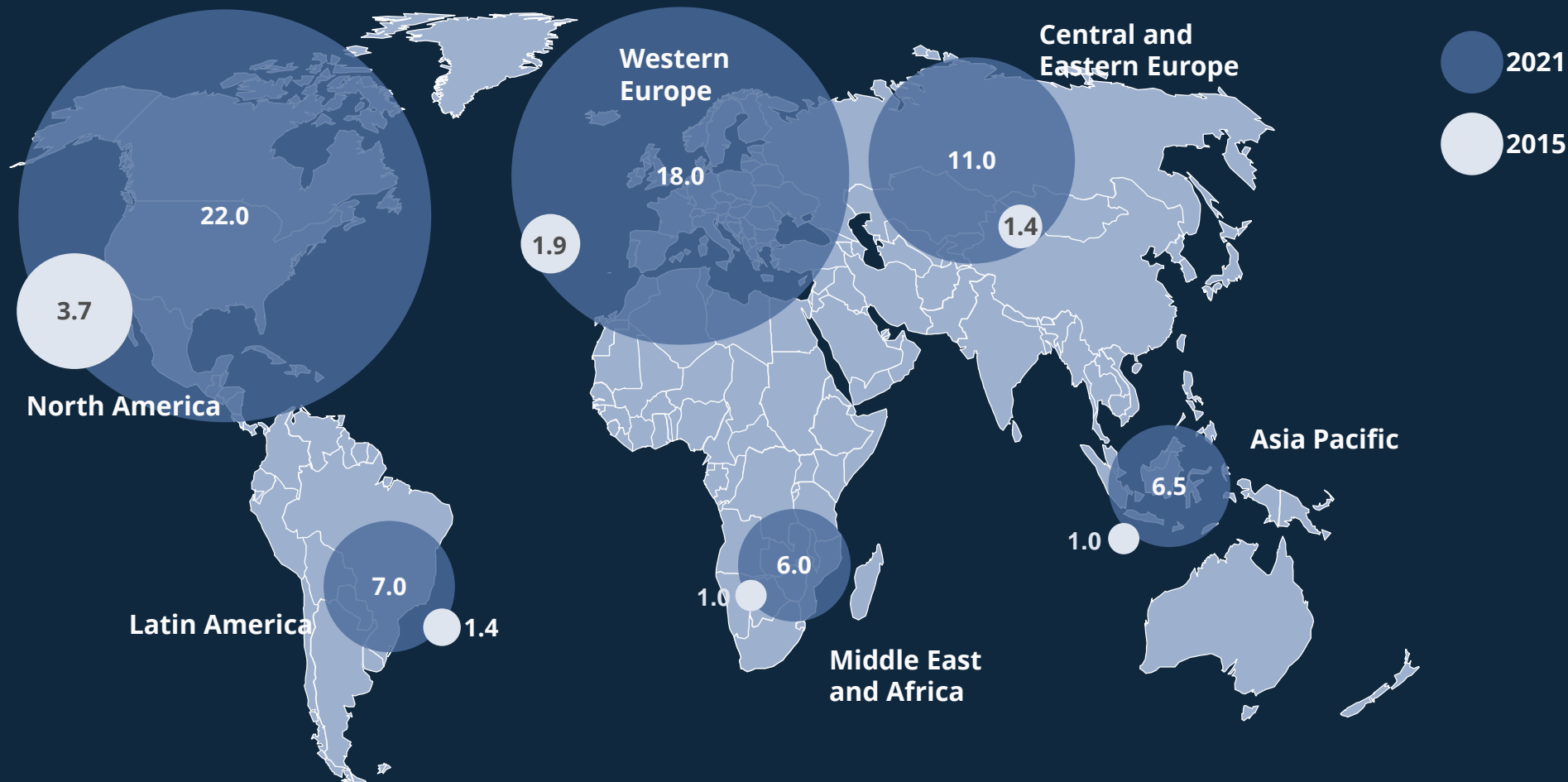
Time spent online via mobile device per user (hours per day)



Source: **Statista Digital Market Outlook**
 Note: Data is based on internet users aged 16+; non-internet users are excluded from averages

Being 'always online' leads to larger mobile data traffic per device

Estimated data traffic per smartphone (in gigabytes per month)



Source: Ericsson Mobility Report

The sevenfold increase in global mobile data traffic is mainly driven by online video streaming

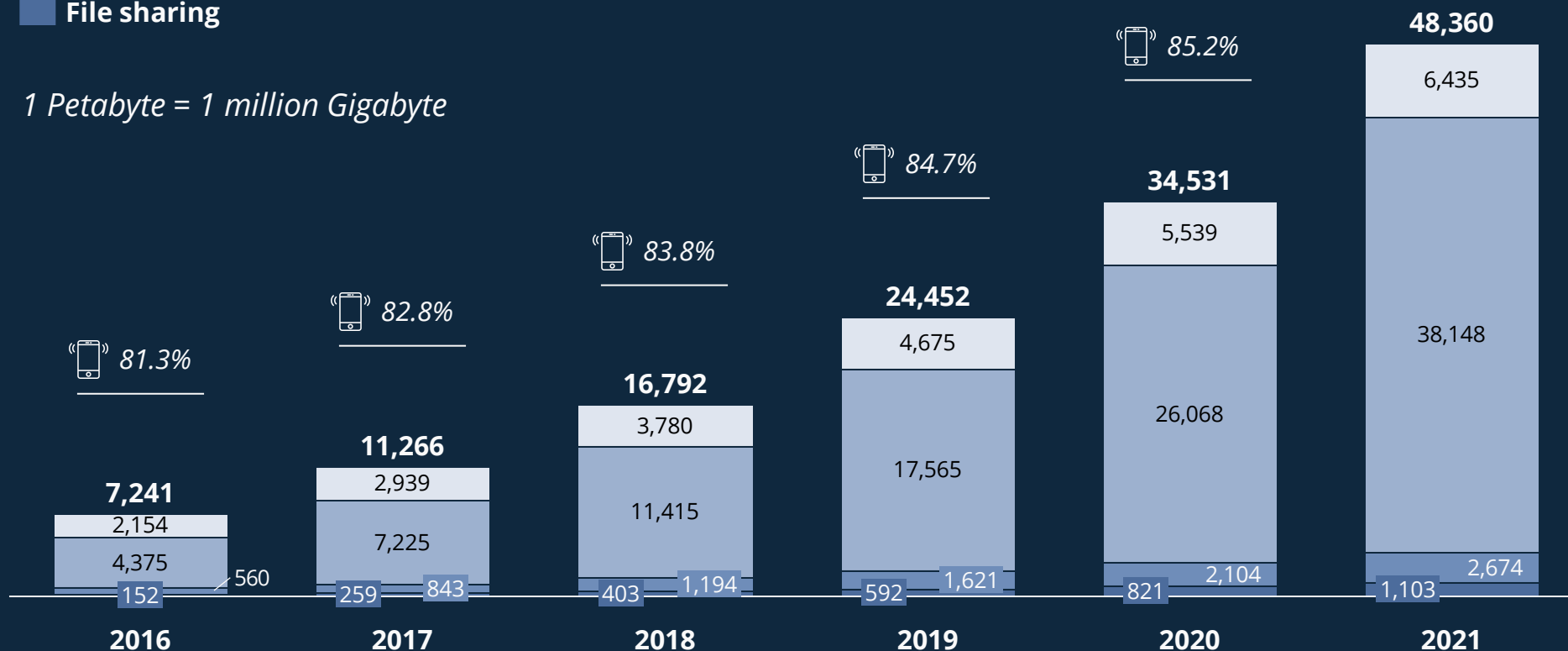
Global mobile traffic forecast per segment (in petabytes per month)

- Web, data, and VoIP
- Video streaming
- Audio streaming
- File sharing

☎ Consumed via smartphone

☎ 85.8%

1 Petabyte = 1 million Gigabyte

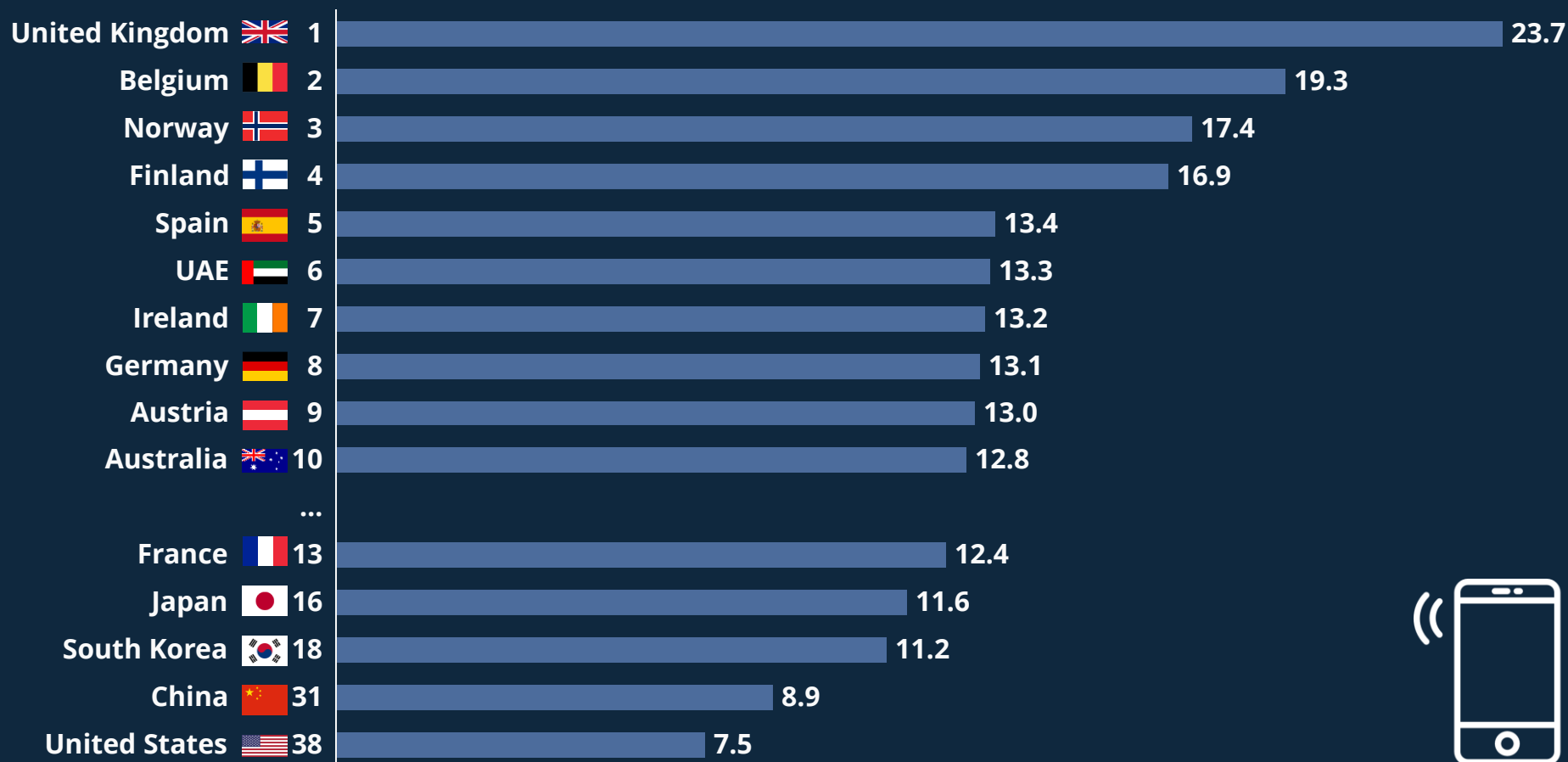


Source: Cisco System; figures include only cellular mobile traffic (Wi-Fi or small cell from dual-mode devices are excluded)

Note: Other mobile devices include Tablets, mobile PCs, M2M (incl. wearables), non-smartphone mobile phones, e-readers and portable gaming consoles

Mobile connection speed varies a lot between countries, with disappointing speed in the U.S.

Average mobile speed in Top10 and selected countries (in Mbps¹)



Source: Akamai Technologies

Figure refers to Q3-2016; countries covered in mobile connection ranking - 61

Note: Evaluation of mobile connection speed for each country is based on a minimum of 25,000 observed unique IPv4 addresses

1: Megabits per second

Pokémon Go was the most popular mobile game for iPhone users across the globe

Most downloaded iPhone apps per category and country in 2016

Categories covered: Shopping, Music, News, Gaming, Social Networks



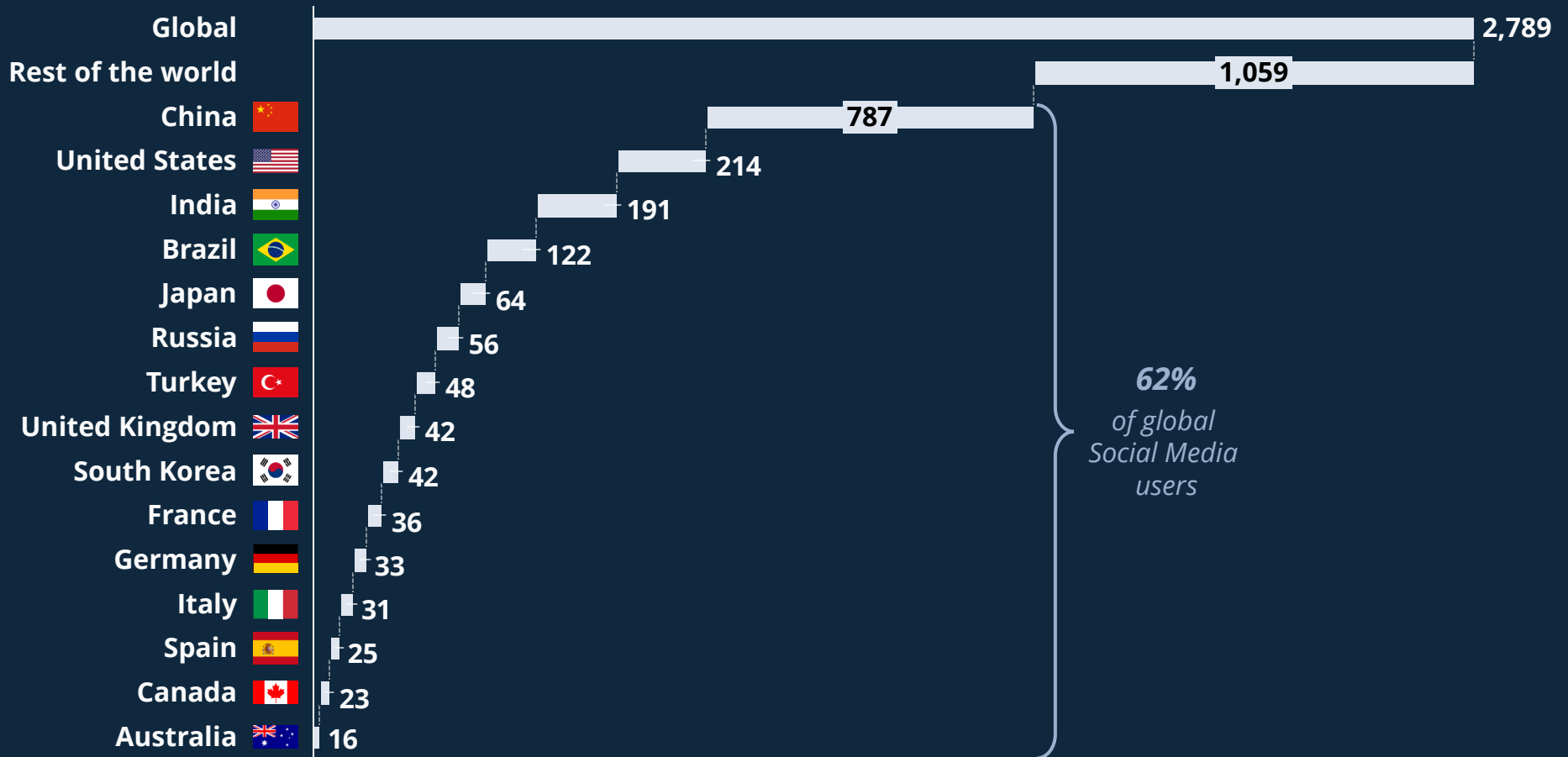
Social Media

“If you make customers unhappy in the physical world, they might each tell 6 friends. If you make customers unhappy on the Internet, they can each tell 6,000 friends.”

Jeff Bezos,
Founder and CEO of *Amazon*

In 2016, Social Media platforms connected 2.8bn people, more than 1/3 of the world population

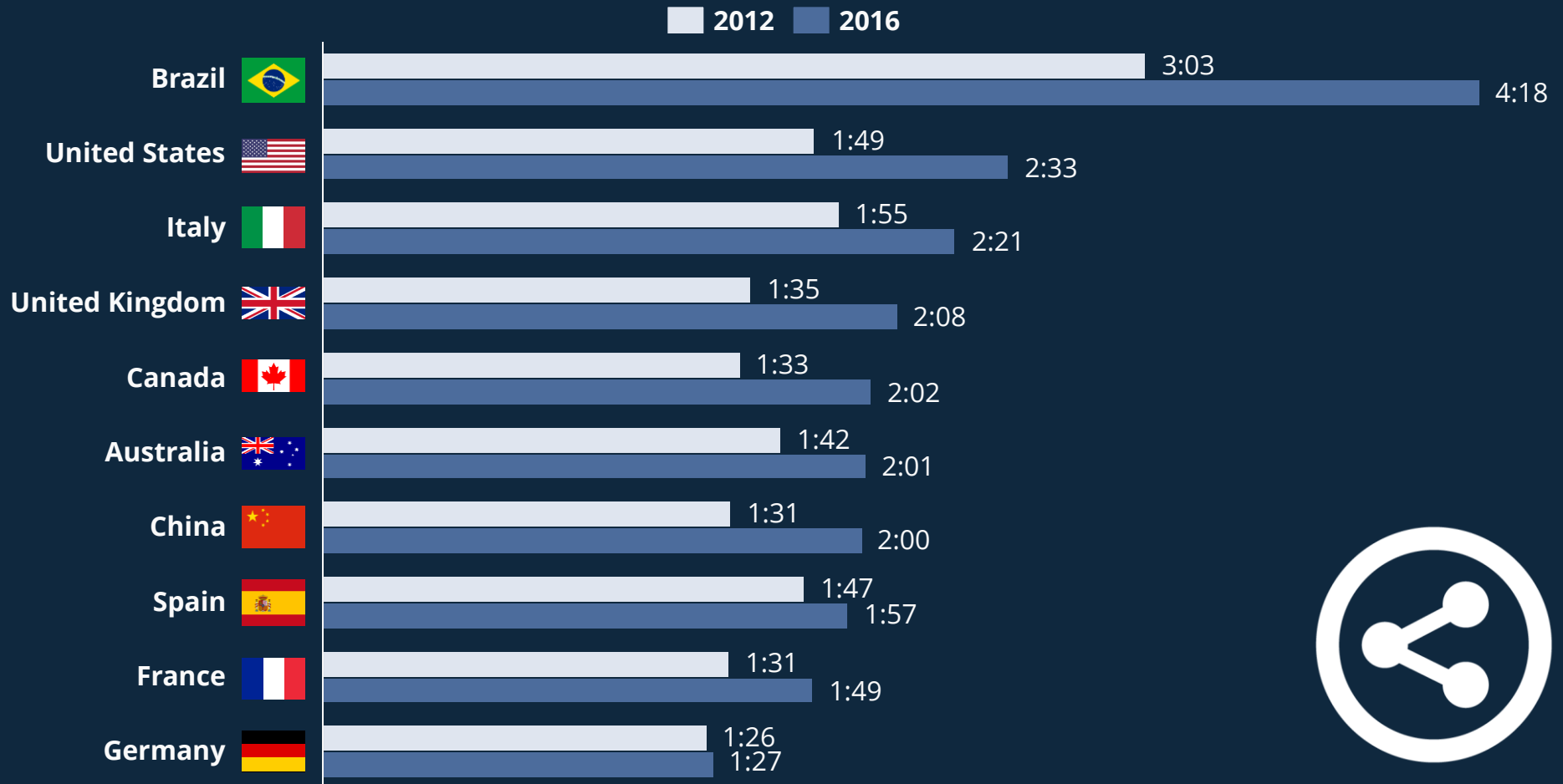
Selected countries in terms of Social Media MAU¹ (in million)



Source: wearesocial, InternetWorldStats, [Statista Digital Market Outlook](#)
 1: MAU = Monthly active users

Users in Brazil are connected to Social Media for more than 4 hours a day

Avg. time users spend on Social Media platforms (hours per day)



Source: Statista Digital Market Outlook
 Note: Data is based on internet users aged 16+; non users are excluded from averages

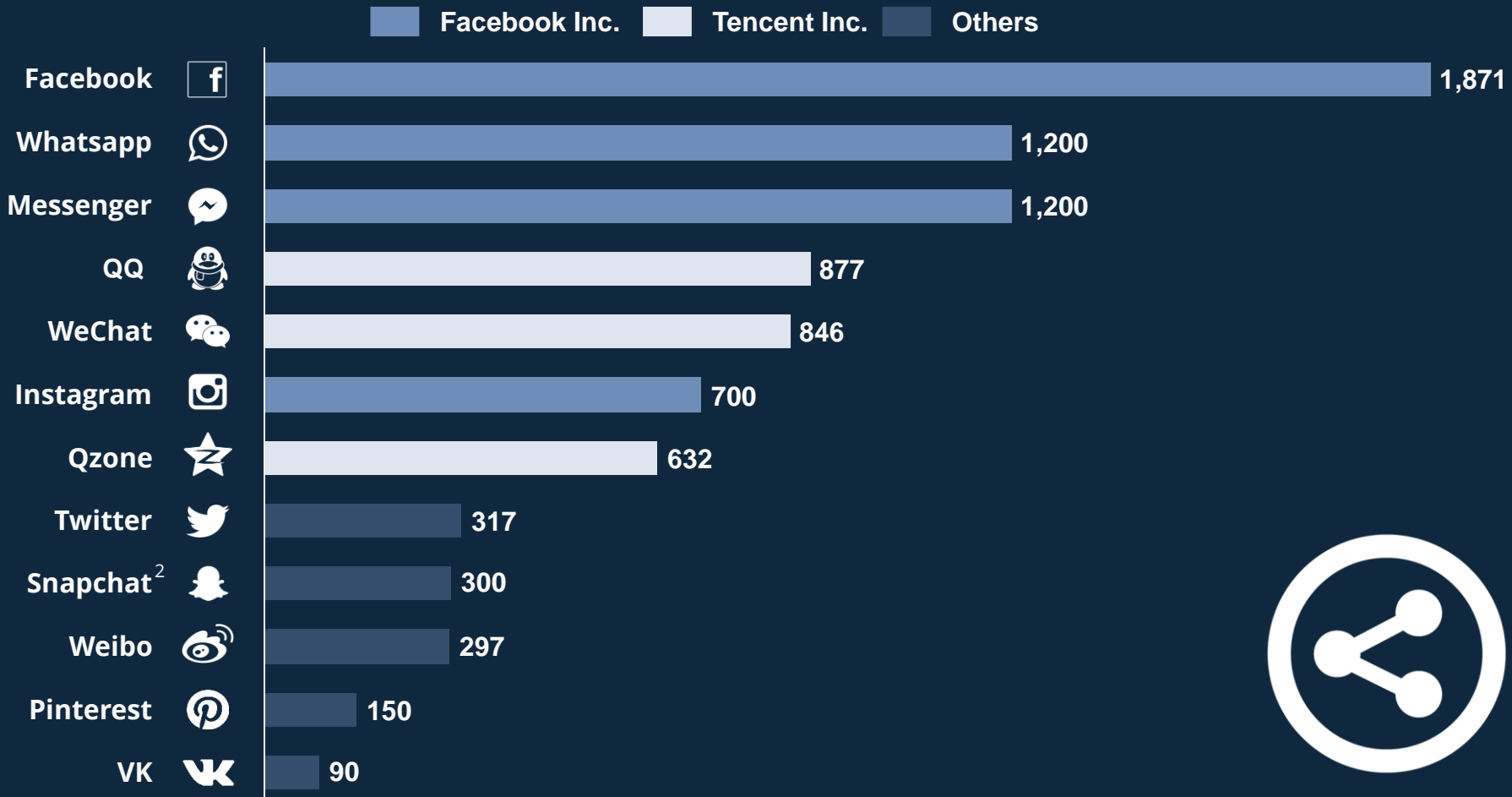
> 50,000,000,000

More than 50 billion messages are sent through **WhatsApp** every day.

WhatsApp
Version 2.12.13

Facebook has the biggest Social Media reach, followed by Chinese tech-company Tencent

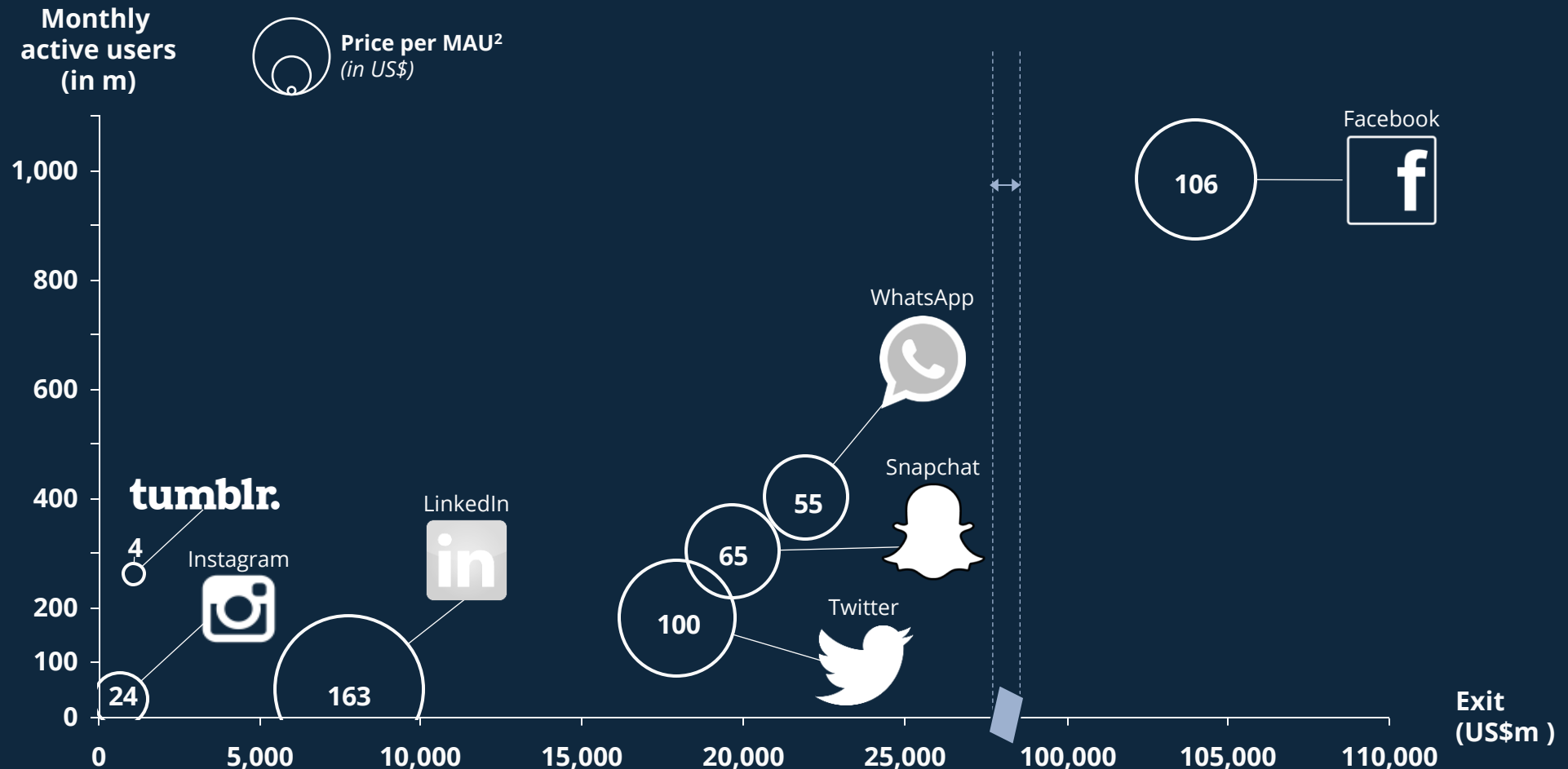
MAU¹ of selected social networks and messaging services (in million)



Source: We Are Social, Hootsuite, Techcrunch.
 1: MAU = Monthly active users, as of January 2017; WhatsApp and Facebook Messenger as of March 2017
 2: Estimation as Snapchat only reports daily active users

Facebook and LinkedIn Social Media exits¹ were the most expensive per user to investors

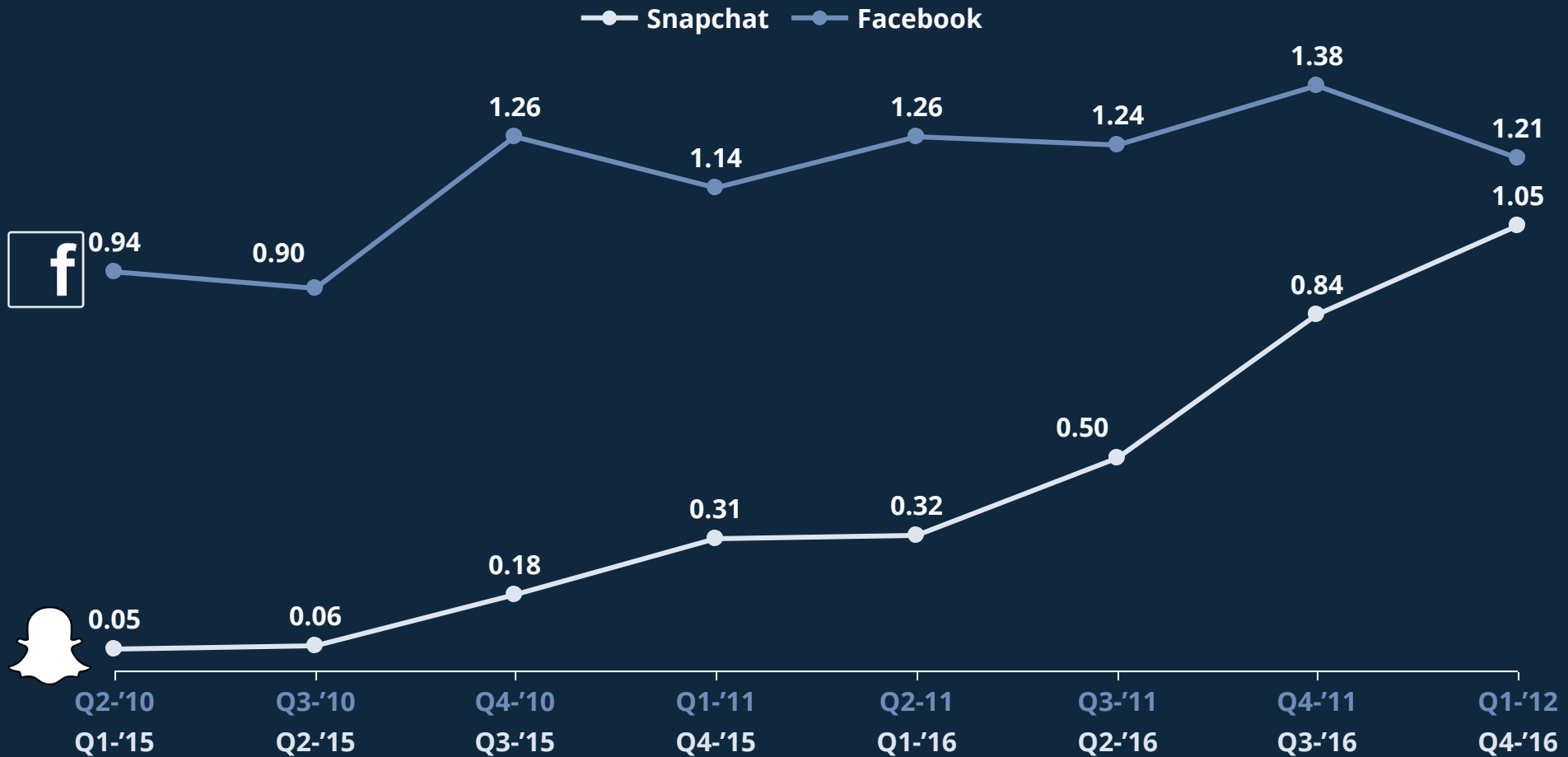
Social Media exits (acquisition or IPO) in comparison



Source: Company Information, Yahoo! Finance, Business Insider, Forbes
 Note: Figures for monthly active users refer to the time of exit
 1: Acquisition or IPO
 2: MAU = monthly active user

Snapchat pre-IPO revenue per user performed well compared to its biggest competitor

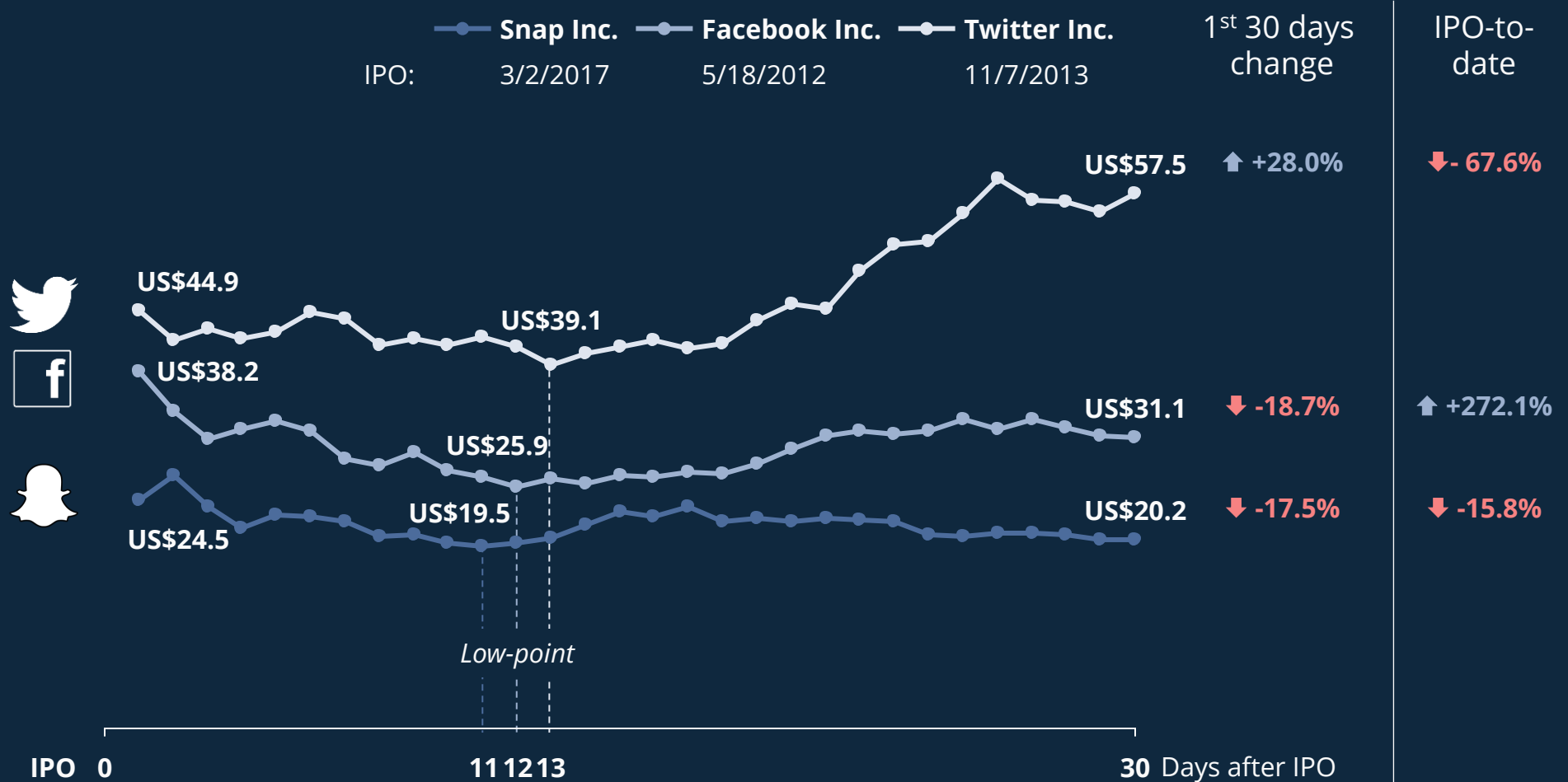
Global avg. revenue per user in the eight quarters before IPO (in US\$)



Sources: Snap Inc., Facebook Inc.

Post-IPO development is nothing to worry about for Snapchat

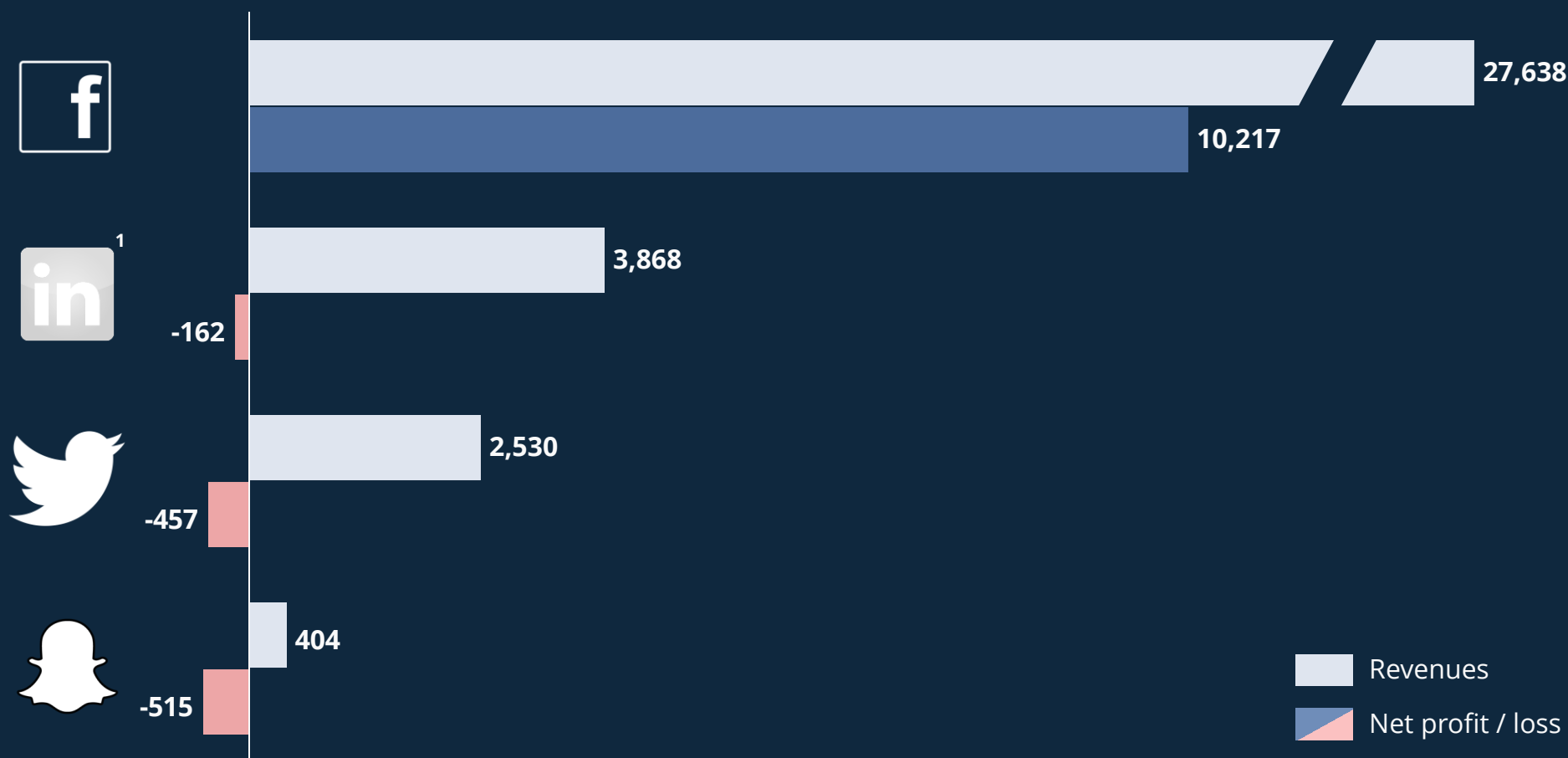
Stock prices of Snap, Facebook and Twitter in the first 30 days after IPO



Source: Yahoo! Finance
 Note: Figures as per 4-19-2017; all stock prices are closing prices; dividends are not considered

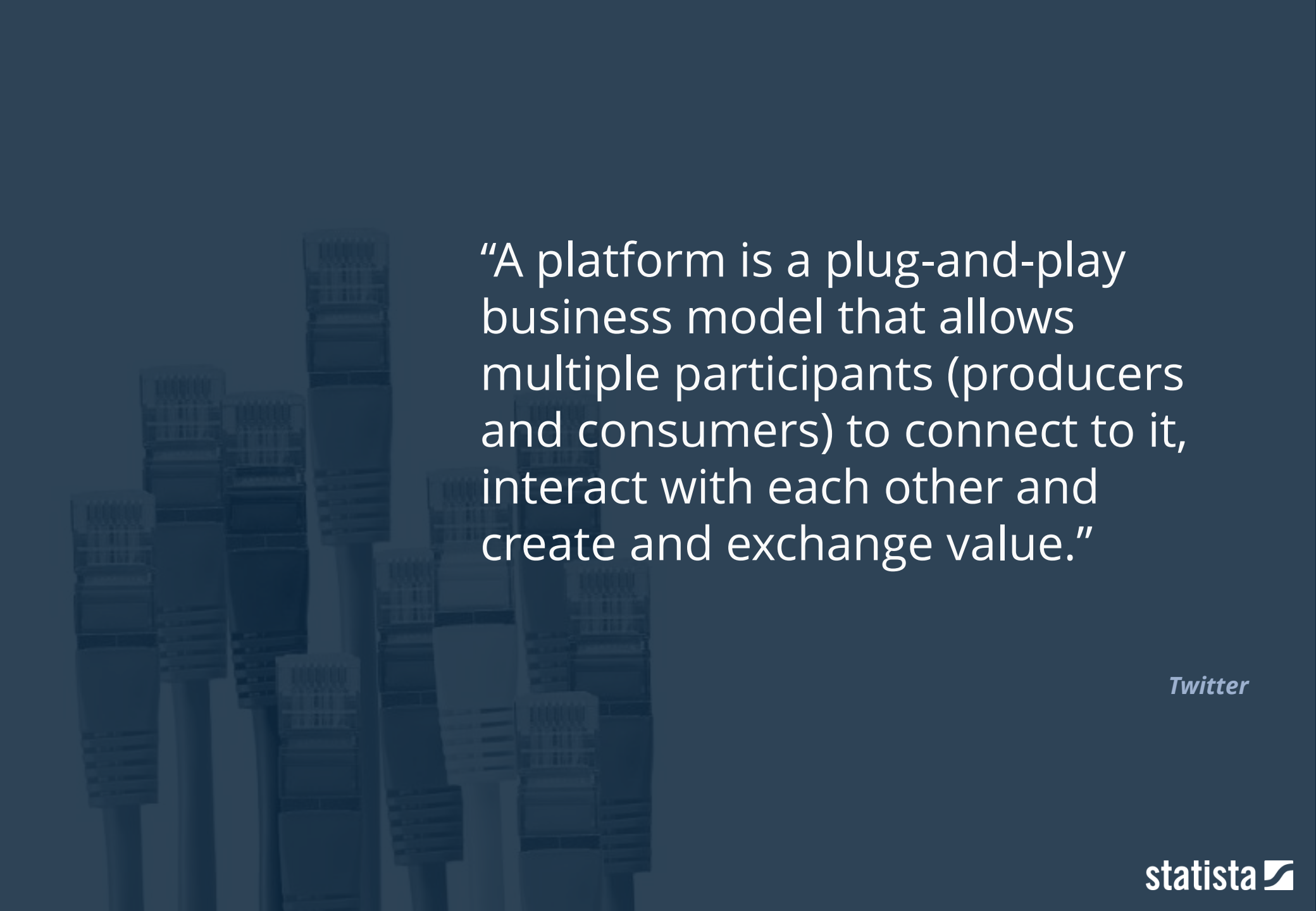
If you are not Facebook, it remains challenging to transform Social Media into a profitable business

FY2016 results of listed U.S. Social Media platforms (in US\$ million)



Source: Company Information, as of Mar 2017
 1: Statista estimated financial results for Q4-2016

Platform Economics



“A platform is a plug-and-play business model that allows multiple participants (producers and consumers) to connect to it, interact with each other and create and exchange value.”

Twitter

The success of a digital platform is dependent on its external ecosystem

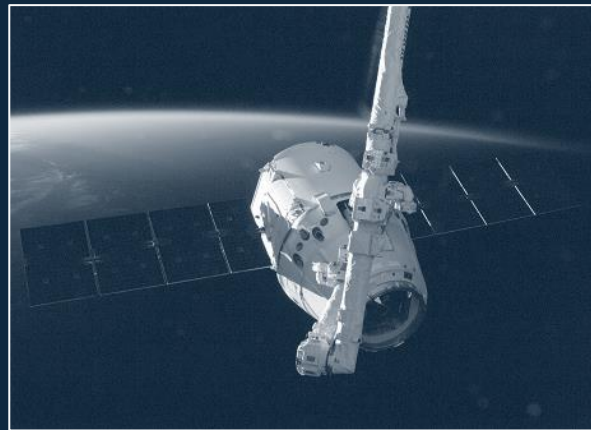
Factors determining successful platforms

Connection



Simplicity for partners to **plug in, share and transact**

Gravity



Capability to **attract producers and consumers**

Flow



Promotion of **co-creation and exchange of value**

Digital platforms with varying business models can be found in multiple industries

Marketplace examples and their business models

Advertising

Search engines
Google

Application stores
Apple store

Transactions

Ride sharing
Didi Chuxing

Social Media
Instagram

Classifieds
eBay classifieds group

Market places
Alibaba Group
阿里巴巴集团



Subscription

Digital Media
NETFLIX

Freemium

Repository
GitHub

Pay-as-you-go

Infrastructure
amazon web services

The platform landscape consists of *White Sharks*, *Swordfish*, and *Piranhas*

Platform economics in nutshell



Digital
White Sharks



- *At the top of the food chain* -

- › (Very few) digital economy **leaders**
- › Wide, **diverse** product portfolio
- › Gigantic **assets**

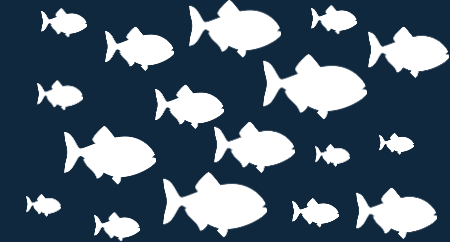


Digital
Swordfish



- *Big, fast, rarely get eaten* -

- › (Few) big **industry shaping** players
- › Deep, **vertical specific** products
- › Already **near peak** growth



Digital
Piranhas



- *Small but aggressive for prey* -

- › (Many) **product specific** players
- › Huge, product centric **competition**
- › **Peak growth** not yet reached

Huge Chinese rivals are catching up on the big four U.S. platforms

Top 15 publicly listed platforms by market cap (in US\$ billion)



Source: Yahoo! Finance as per 04-12-2017

VC-backed platforms are vertically focused and 1/3 of the Top15 is located in China

Top 15 privately held, VC-backed platforms by market cap (in US\$ billion)



Source: CB Insights as per 04-12-2017

Google
Amazon
Facebook
Apple

The biggest White Sharks in the digital economy: Google, Amazon, Facebook, and Apple

Google, Amazon, Facebook and Apple key figures

Google

Founded: 09-1994
HQ: Mountain View, California
CEO: Sundar Pichai (since 10-2015)
Revenues¹: US\$90.23 billion
Net income¹: US\$19.48 billion
Employees: 69,953
Market cap: US\$558.1 billion



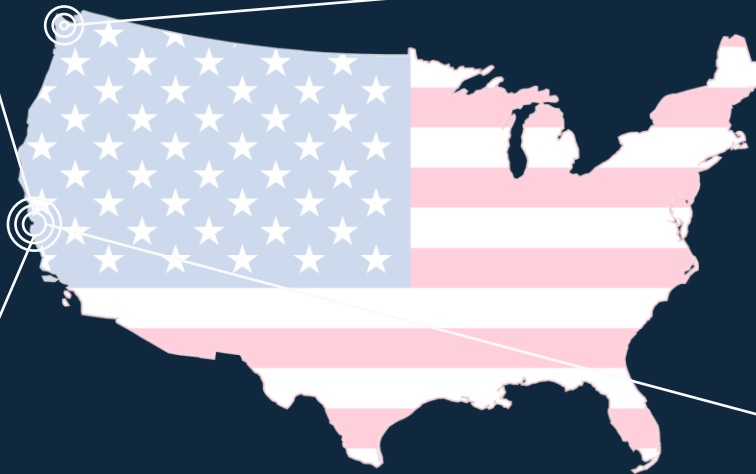
Founded: 02-2004
HQ: Menlo Park, California
CEO: Mark Zuckerberg (since 2004)
Revenues¹: US\$27.64 billion
Net income¹: US\$10.22 billion
Employees: 17,048
Market cap: US\$399.5 billion

amazon

Founded: 05-1994
HQ: Seattle, Washington
CEO: Jeff Bezos (since 05-1996)
Revenues¹: US\$135.99 billion
Net income¹: US\$2.37 billion
Employees²: 341,400
Market cap: US\$407.0 billion



Founded: 04-1976
HQ: Cupertino, California
CEO: Tim Cook (since 08-2011)
Revenues: US\$215.64 billion
Net income: US\$45.69 billion
Employees: 116,000
Market cap: US\$727.4 billion



Source: Company Information, Yahoo Finance;

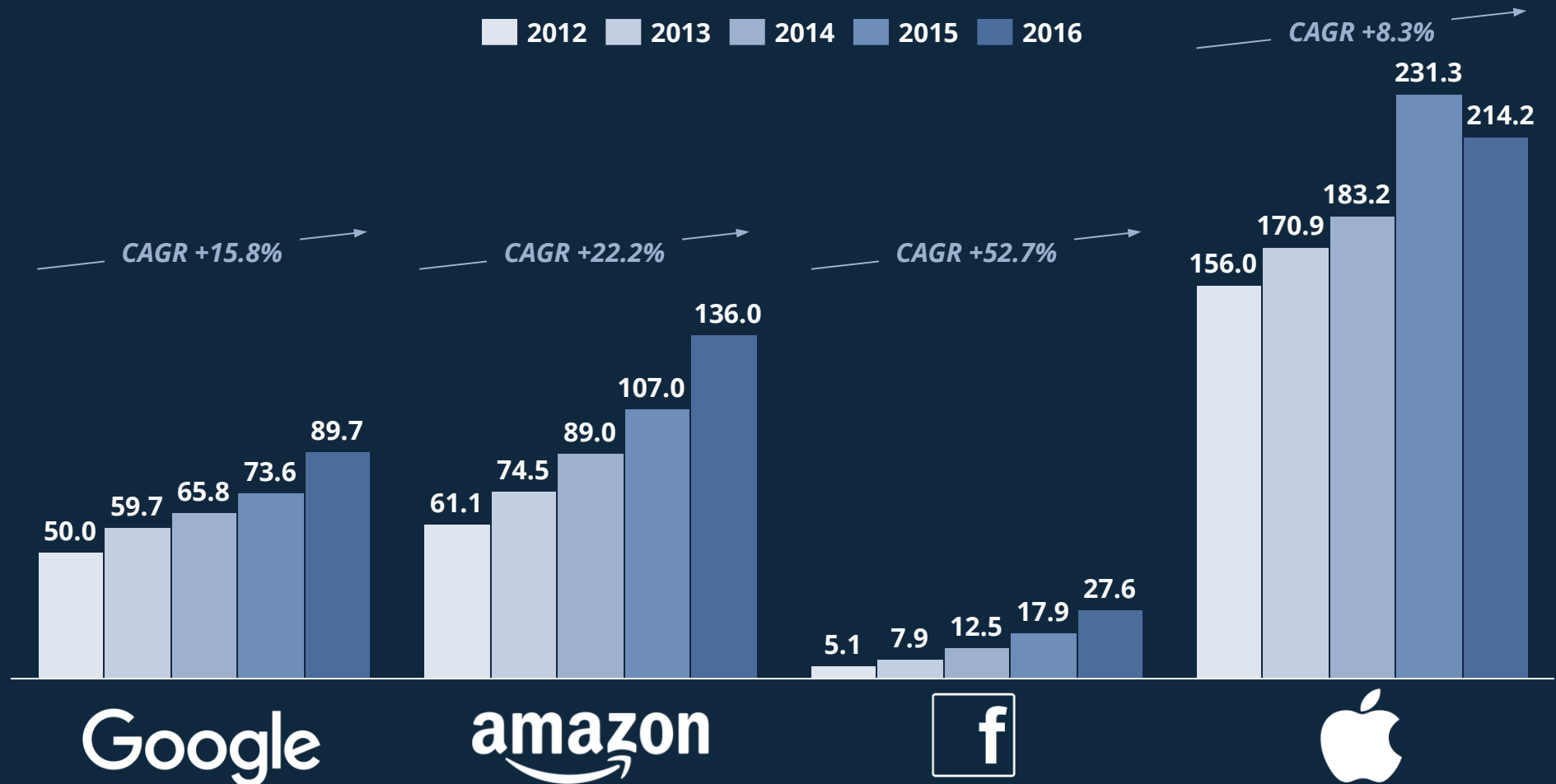
Note: All figures refer to end of fiscal year 2016, except market cap which is as of 03-10-2017; figures related to Google correspond to Alphabet Inc. conglomerate

1: Unaudited as per released financial results

2: Full-time and part-time employees

Revenues of the biggest four U.S. players show consistent growth

Google, Amazon, Facebook and Apple global revenues (in US\$ billion)



Source: Company Information
 Note: FY2016 figures for Google, Amazon, Facebook are unaudited as per released financial results

Apple has the highest net income, while Facebook has just started to make big money

Google, Amazon, Facebook and Apple global net income (in US\$ billion)

Google



amazon

-0.04

•0.27

-0.24

•0.60

•2.37



•0.05

•1.50

•2.94

•3.69

•10.22



41.73

37.04

39.51

53.39

45.69

2012

2013

2014

2015

2016

Source: Company Information

Note: The size of circles corresponds to net income; FY2016 figures for Google, Amazon and Facebook are unaudited financial results

Relationships with their users are key to the biggest digital platforms' successes

User touchpoints of Google, Amazon, Facebook and Apple

	Google	amazon	f	Apple
IT & Infrastructure	Google fiber	amazon web services fulfillment by amazon	Aquila	Apple SIM
Artificial Intelligence	Google Assistant	amazon alexa	Jarvis	Siri
Hardware Devices	Pixel Chromecast Home nest	amazon fireTV amazonkindle amazon echo	oculus	iPhone iPad WATCH etc.
Communication & Messaging	Google+ Allo		Whatsapp facebook Messenger Workplace	iMessage
Digital Media & Entertainment	Google Play YouTube	amazon Prime instant video	facebook.com/gaming	iTunes Apple TV Apple MUSIC
Connected Car & e-Mobility	android auto	amazon alexa Alexa integration	-Integration (Transportation)	CarPlay
E-Commerce & Retail	Google Shopping 'Purchase on Google'	amazon.com etc. amazon Prime NOW amazon fresh	Facebook 'Buy-Button'	iBeacon store
FinTech & Payment	Google wallet pay	amazon payments	-Integration (Friend-to-Friend Payment)	Apple Pay
Navigation & Location services	Google Maps	Amazon Maps API, MAPS.ME integration		Apple Maps
Advertising	Google AdWords Google AdSense doubleclick by Google AdExchange	amazon associates amazon advertising	Facebook Business, Instagram Business	Apple Search Ads

59,141

Every second **Google** receives 59,141 search requests.
On a single day, this number totals over 5.1 billion.

Google's extensive product portfolio covers nearly all aspects of the digital experience

Google product portfolio



Source: Google

“Day 2 is stasis. Followed by irrelevance. Followed by excruciating, painful decline. Followed by death. And that is why it is always Day 1.”

Jeff Bezos,
Founder and CEO of *Amazon*

The key to Amazon's success is Jeff Bezos' "Day 1" philosophy

Amazon revenue development from foundation to 2016 (in US\$ million)

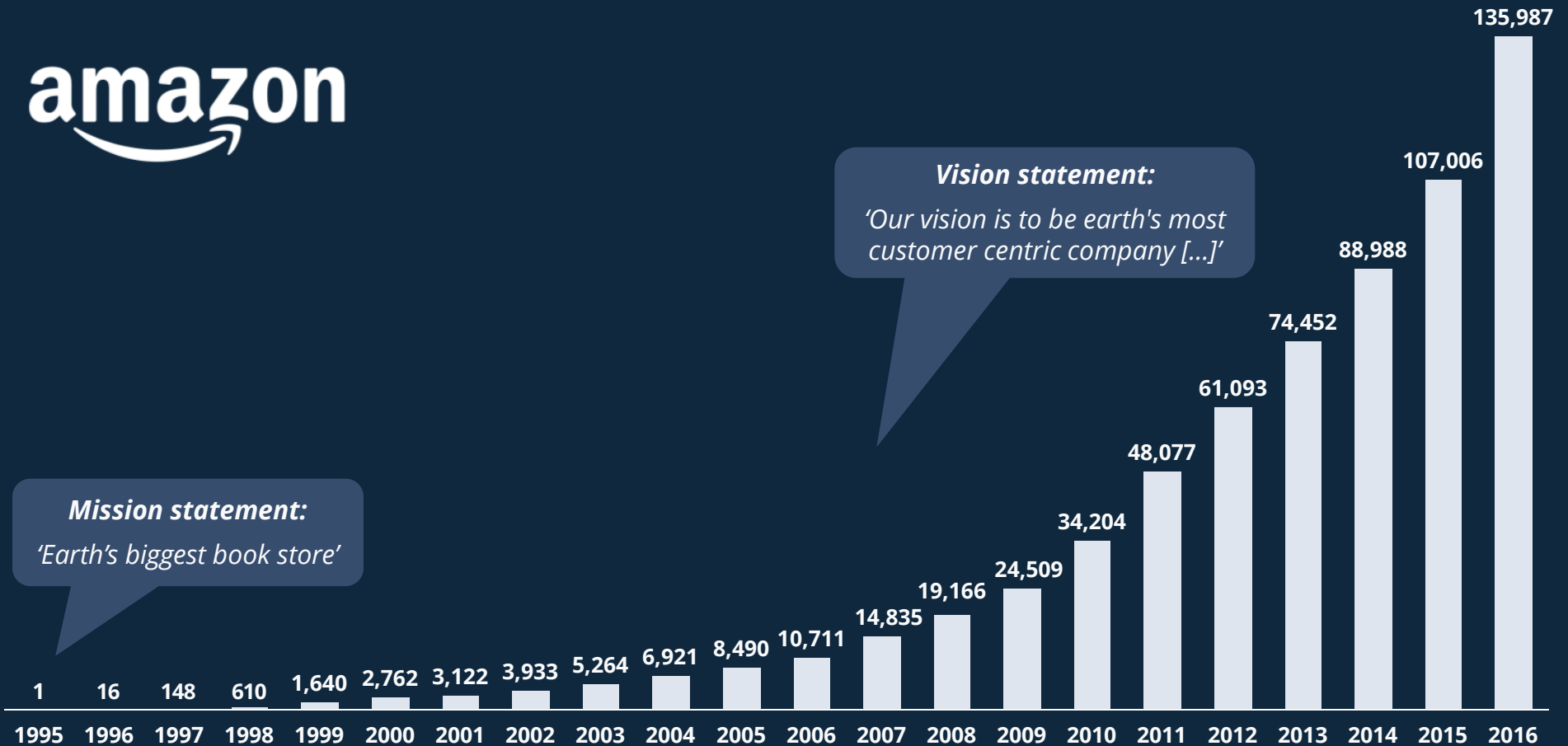


Vision statement:

'Our vision is to be earth's most customer centric company [...]

Mission statement:

'Earth's biggest book store'

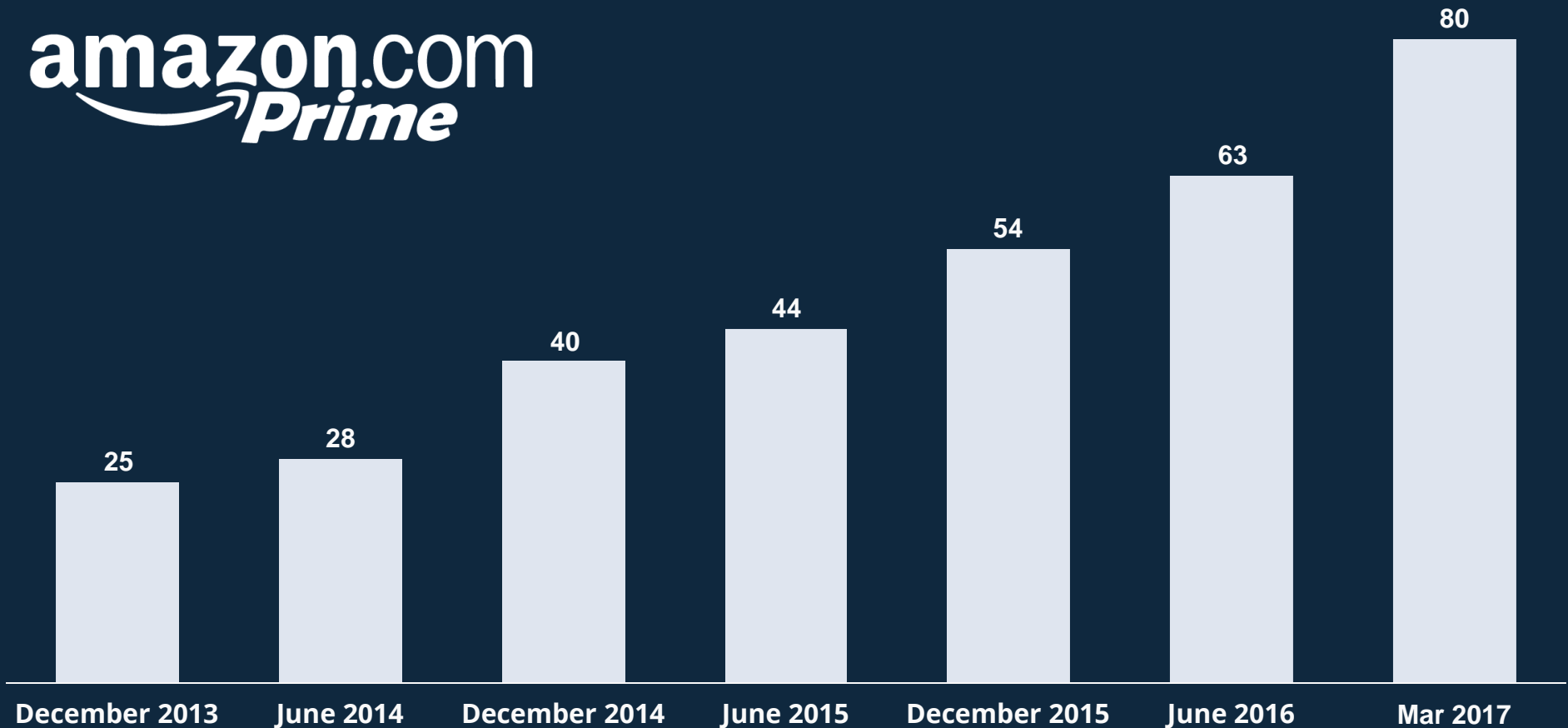


Source: Amazon, Inc.

About 32% of U.S. e-Commerce customers subscribe to Amazon Prime

Amazon Prime subscribers in the United States (in million users)

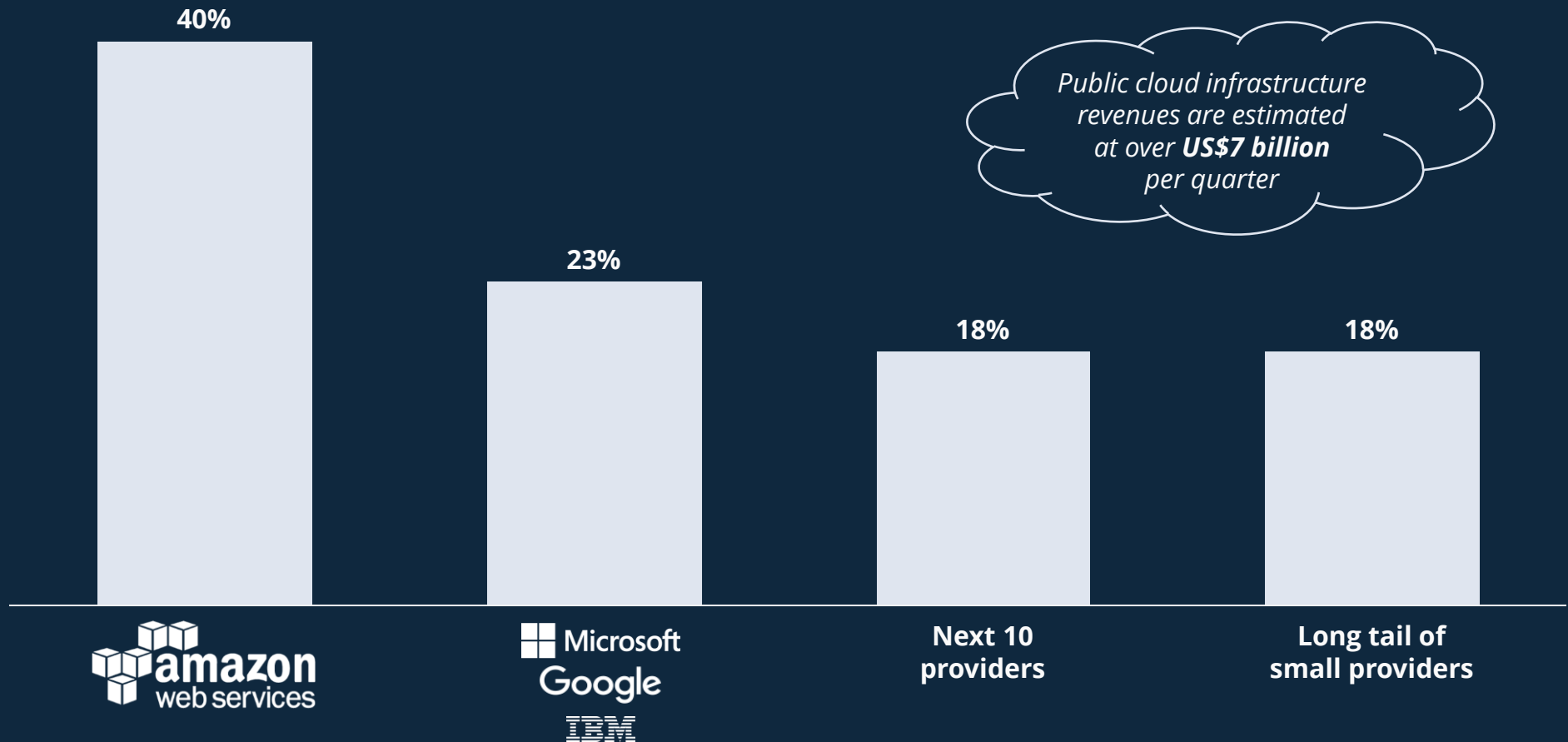
amazon.com
Prime



Source: Consumer Intelligence Research Partners, **Statista Digital Market Outlook**
Note: 249 million e-Commerce users in the U.S. in 2016 (Statista estimates)

Amazon is far more than just an e-Commerce giant; it also controls the public cloud landscape

Global public cloud infrastructure¹ market share (% of revenue) in Q4-'16



Source: Synergy Research Group

1: includes platform as a service (PaaS) and infrastructure as a service (IaaS) revenues

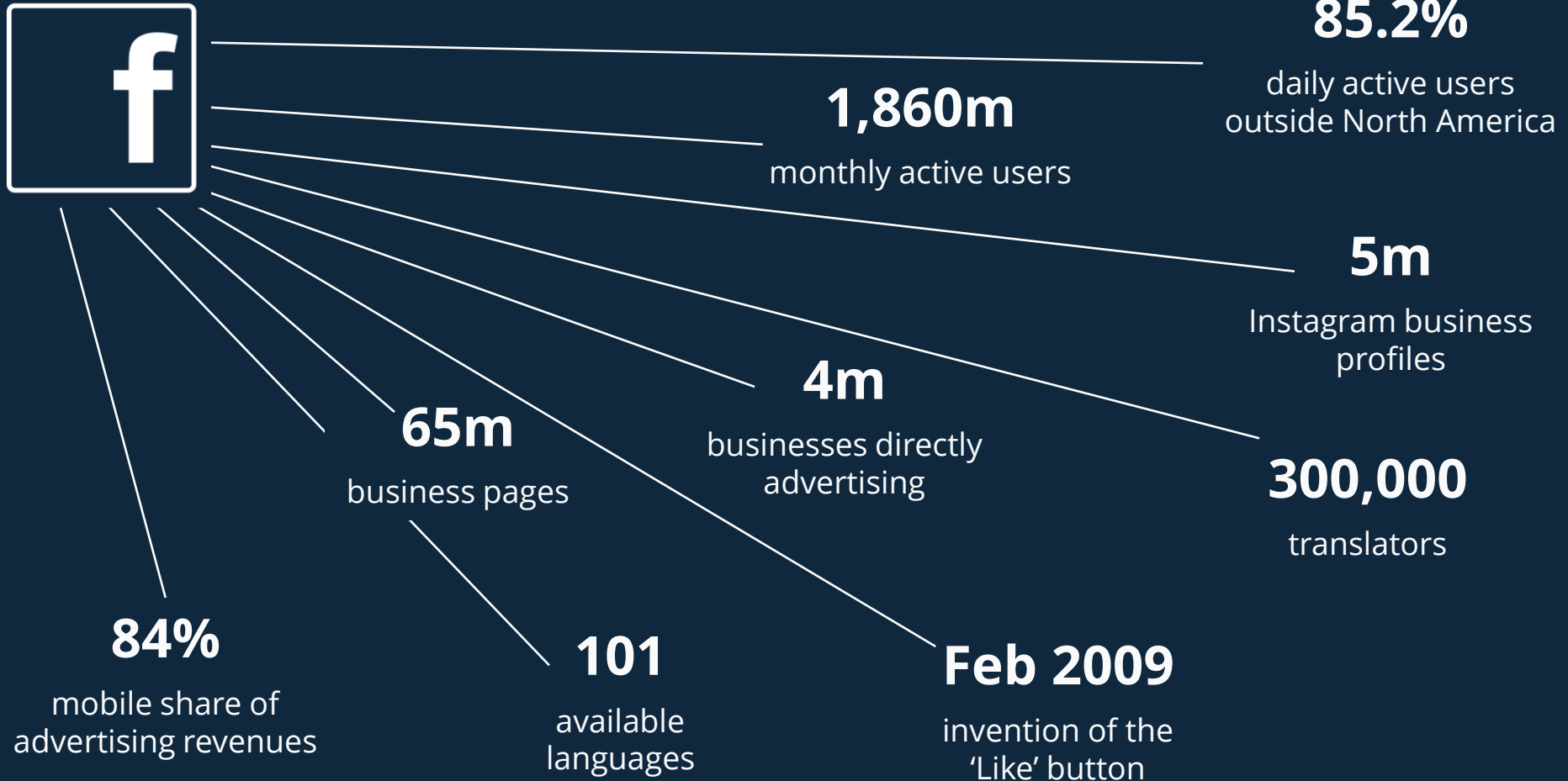
300,000,000,000

gigabytes

Facebook stores more than 300 million gigabytes of user data.
This data corresponds to 126 digital books about each active user.

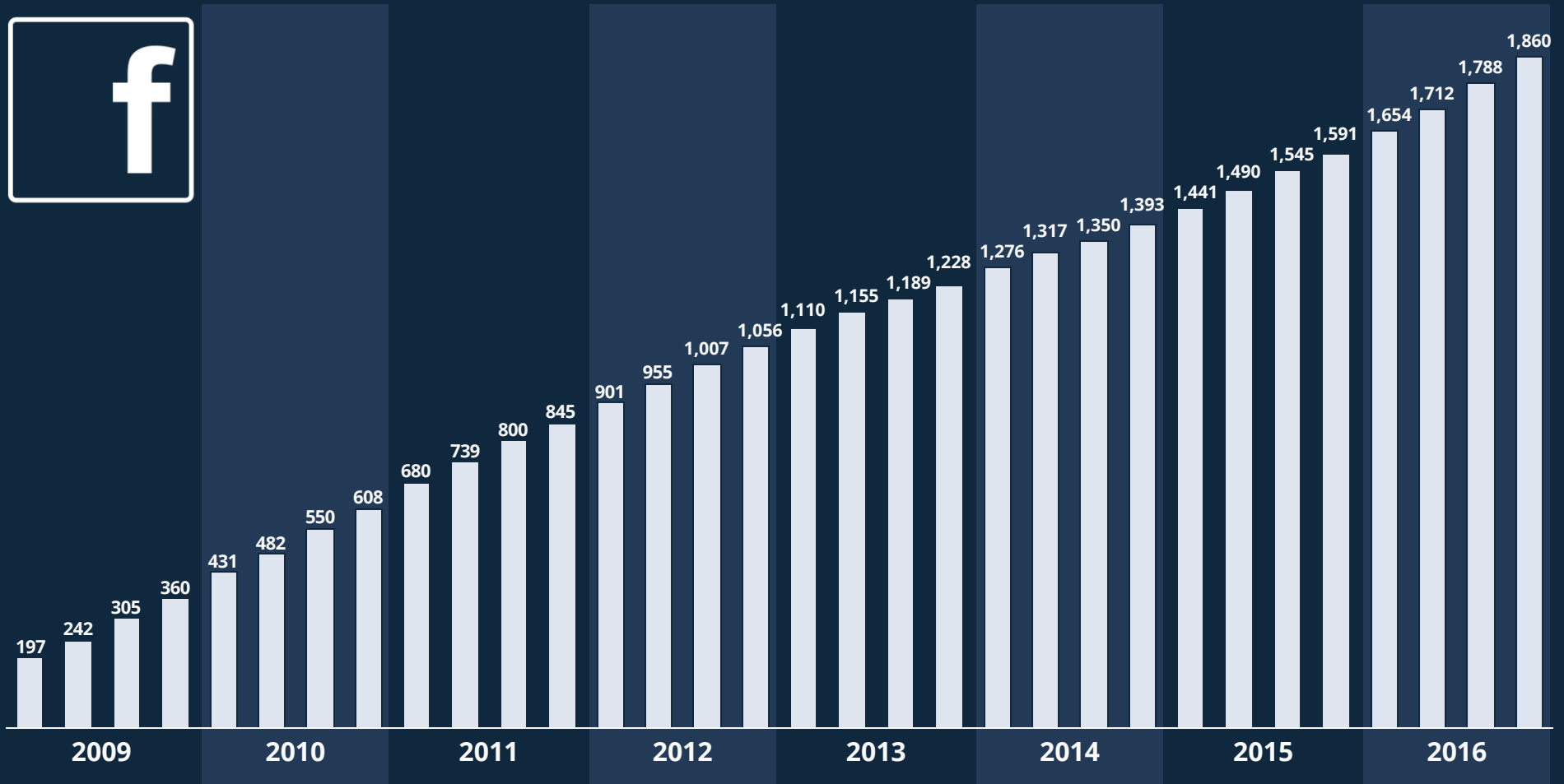
Facebook has 1,860m MAU¹ with 85.2% of them located outside of North America

Facebook key facts



Facebook's active user base has been consistently growing

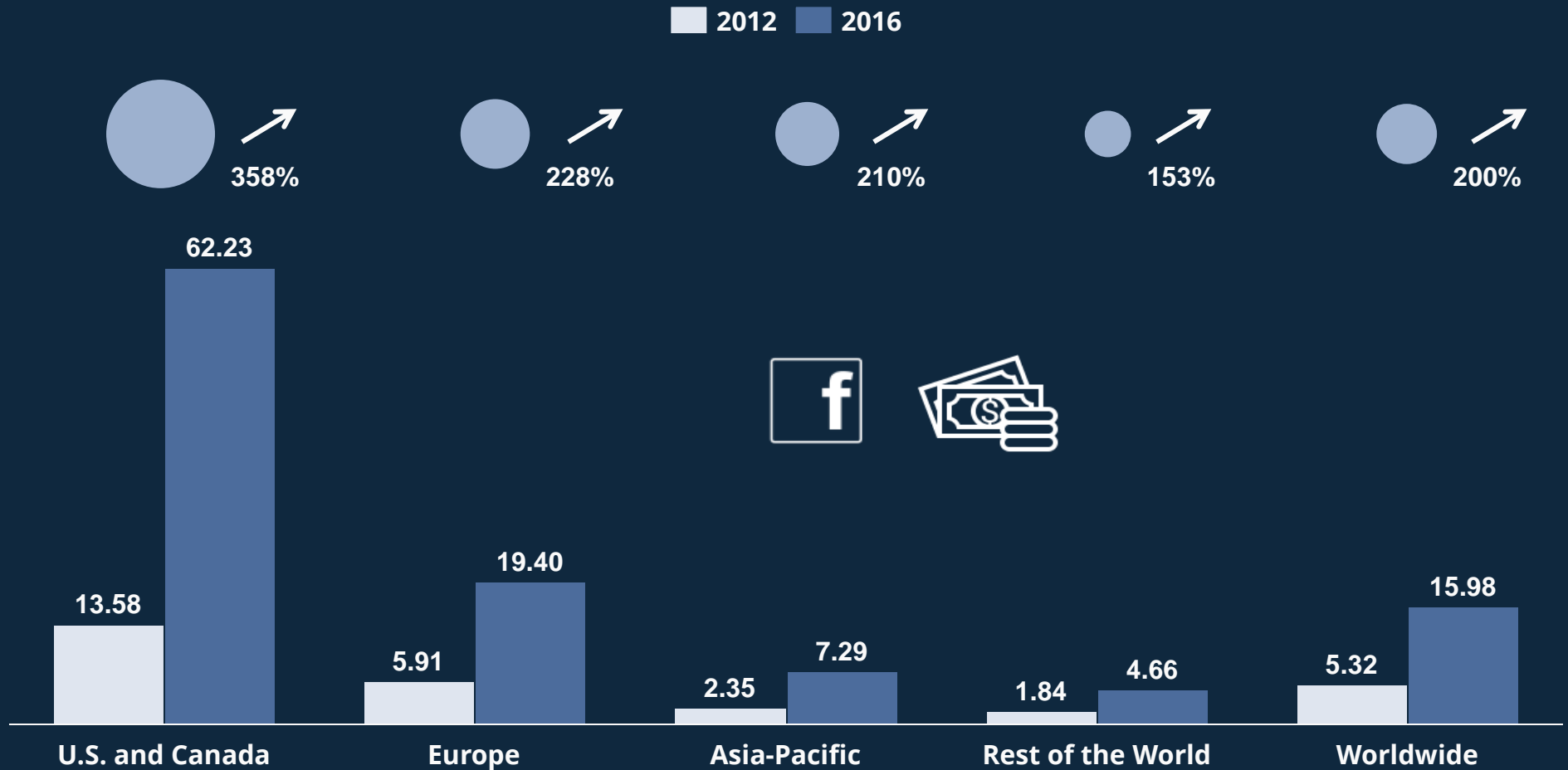
Global number of Facebook's monthly active users (in million users)



Source: Facebook Inc.

Imagine if Facebook's worldwide average revenue per user equaled that of North America

Facebook's average revenue per user, by user geography in US\$



Source: Facebook Inc.

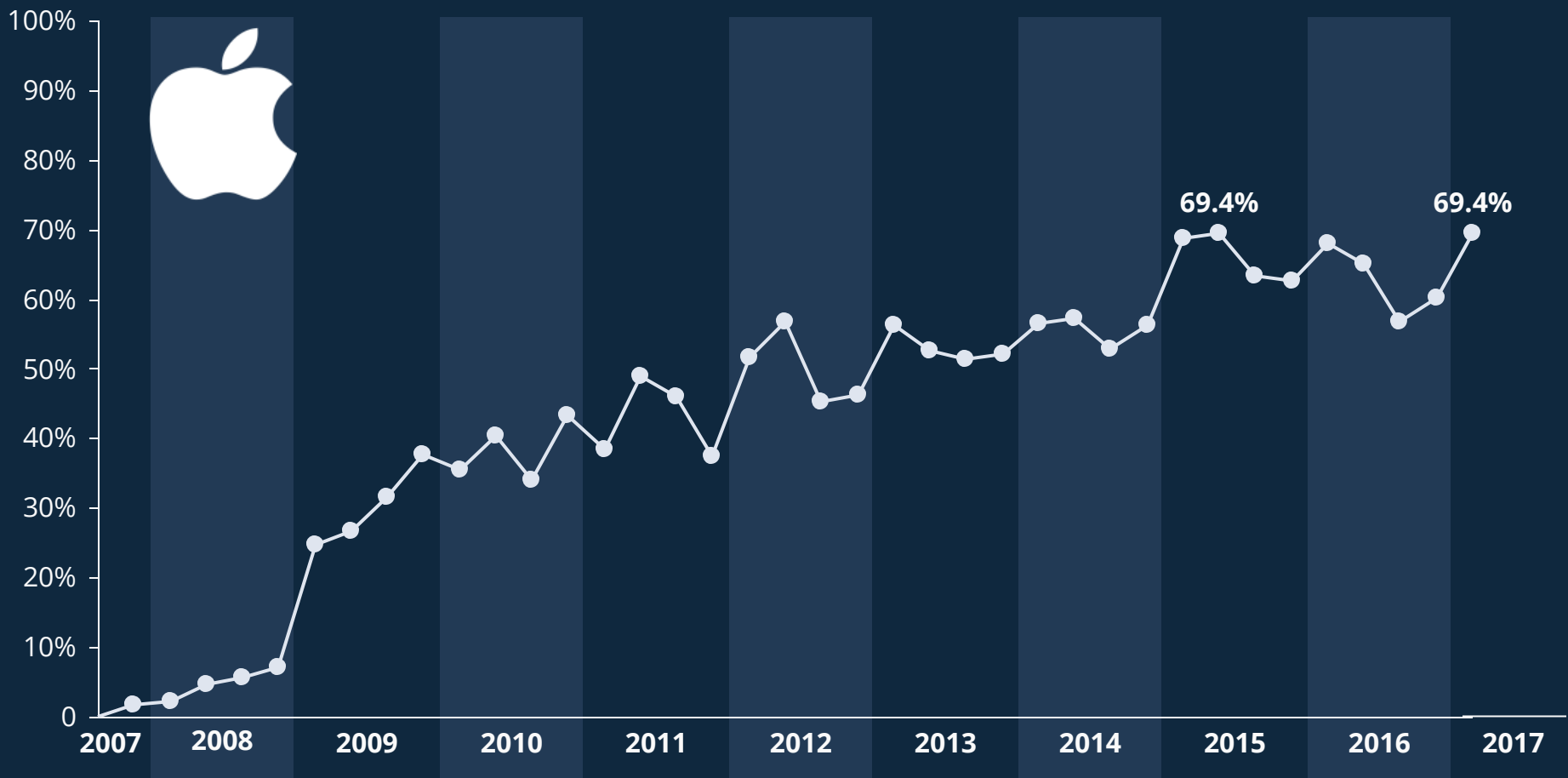
“There is no chance that the iPhone is going to get any significant market share.”

Steve Ballmer in 2007,
Former CEO of *Microsoft*



With nearly 70% revenue share in Q1-'17, the iPhone is the biggest success in Apple's history

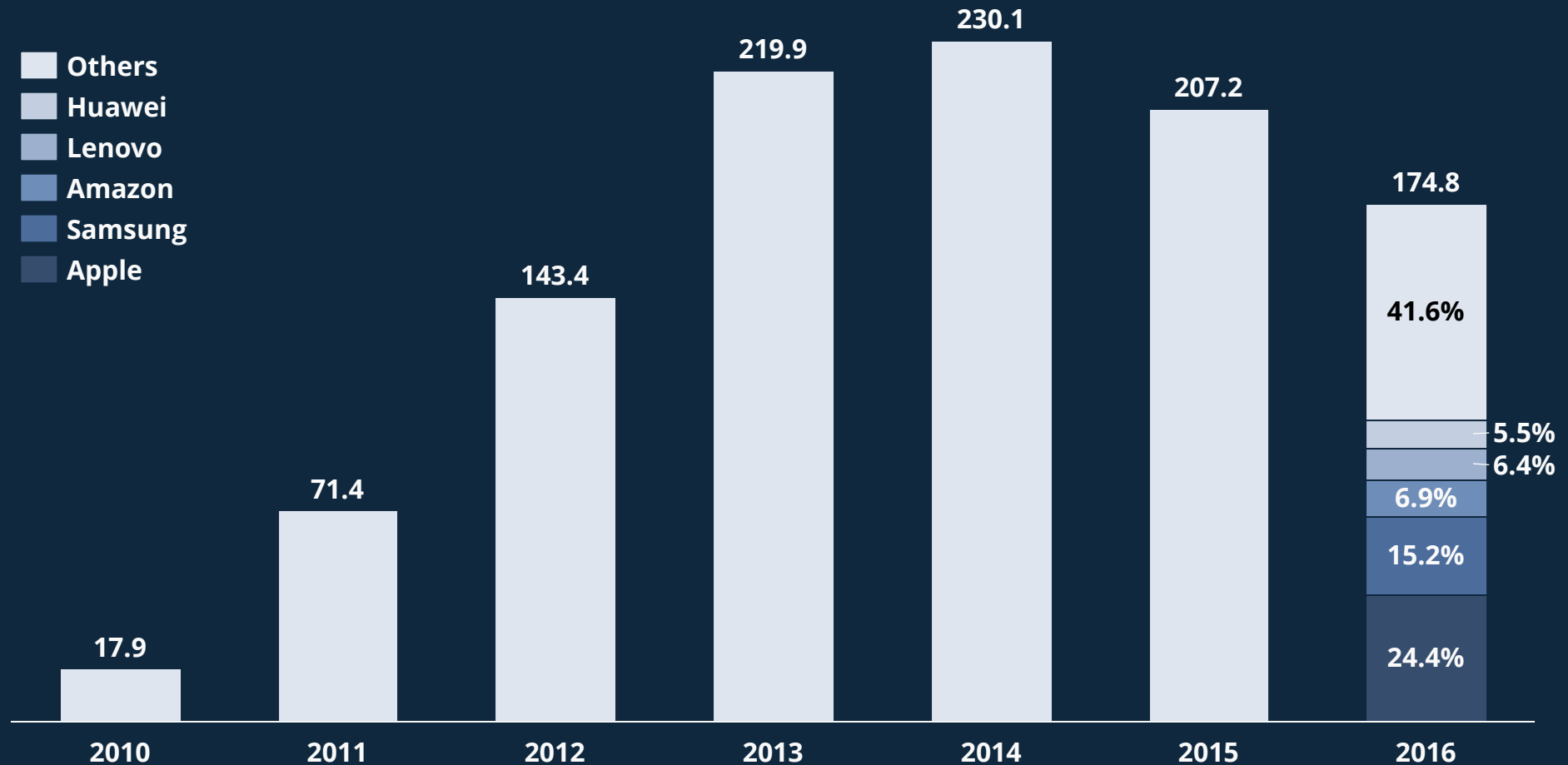
iPhone revenue as percentage of Apple's total revenue since 2007¹



Source: Company Information
 1: Fiscal quarters; Apple's fiscal year ends in September

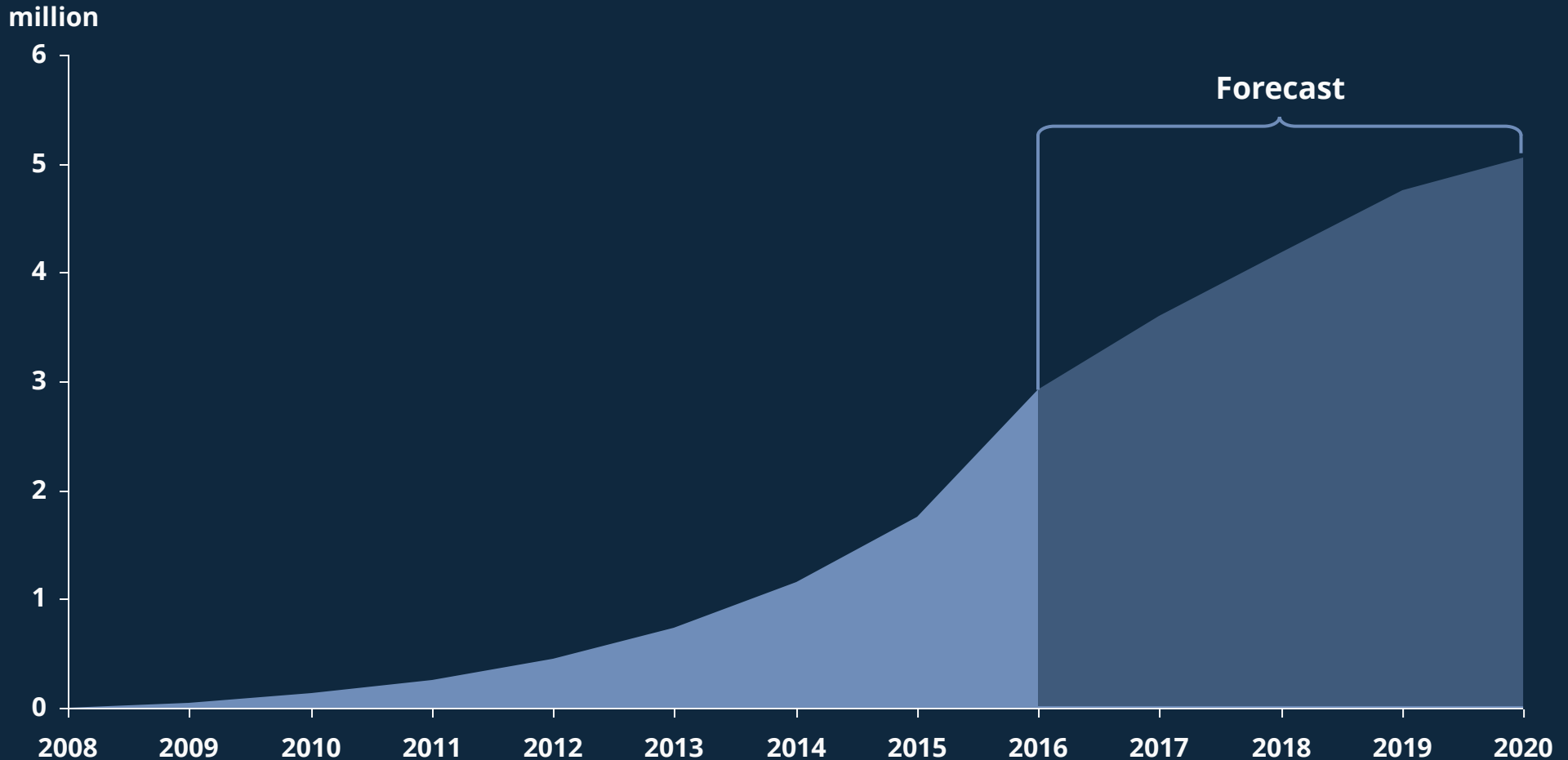
Apple is the biggest vendor in a shrinking tablet market

Global tablet shipments in 2016 in millions



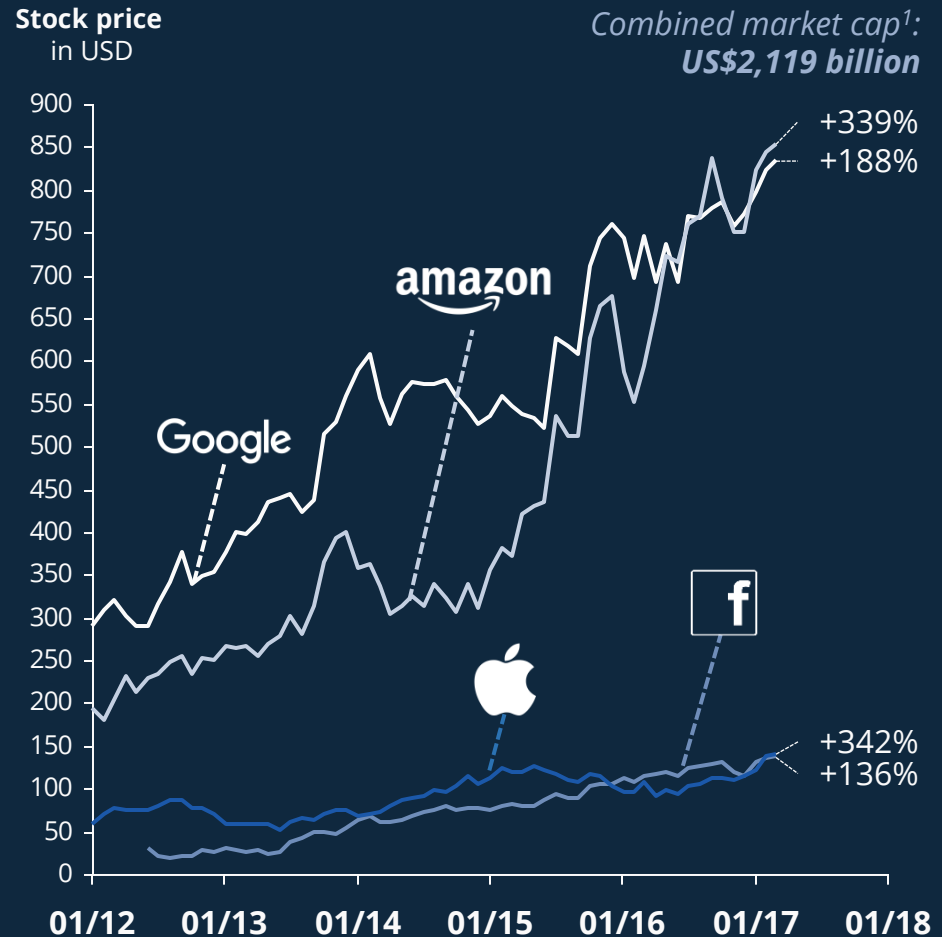
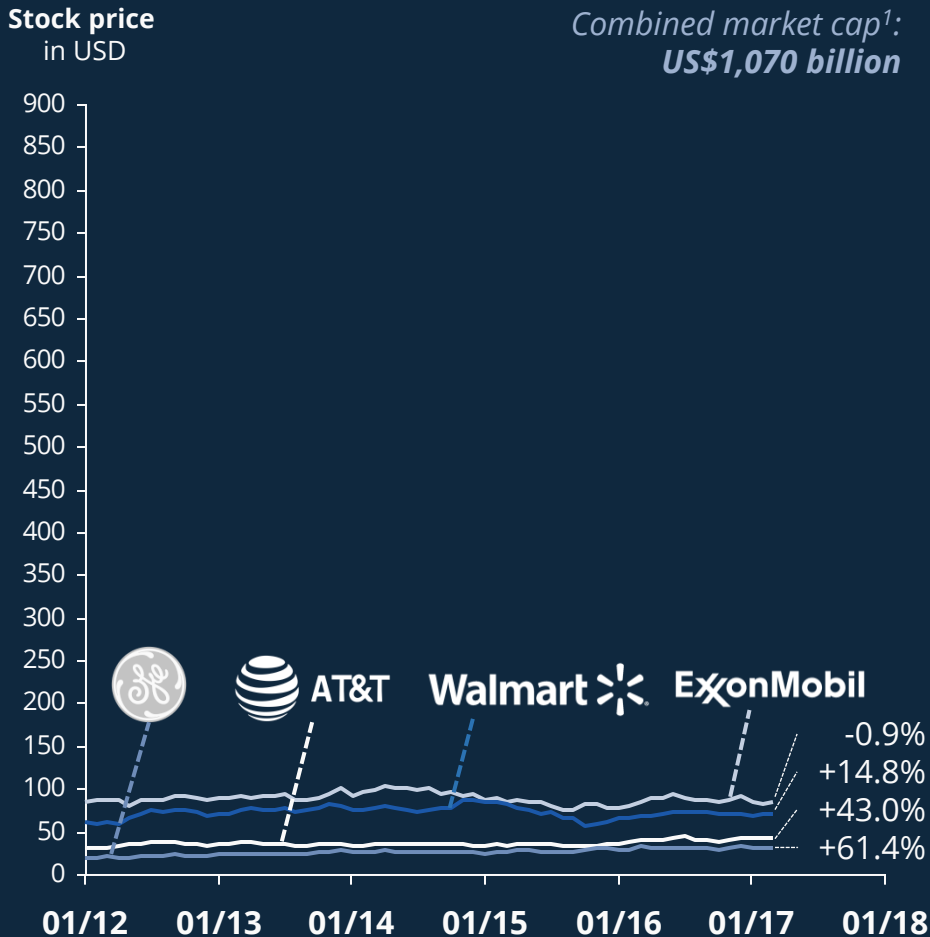
The number of active Apps in Apple's App Store is predicted to reach over 5 million by 2020

Projected number of active apps in Apple's App Store worldwide by 2020



Stock market prices reflect the tech-giants' development

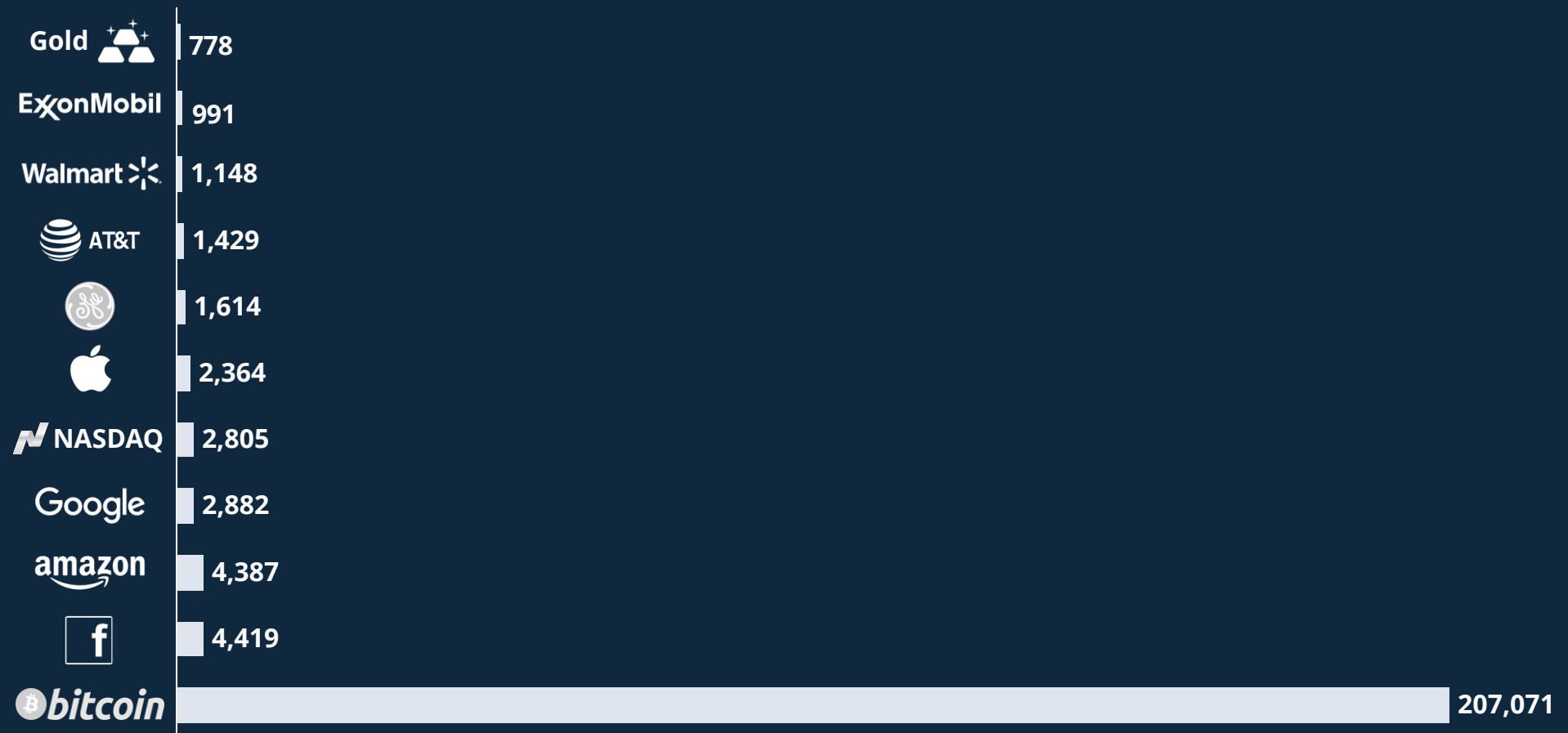
U.S. tech-giants vs. Top U.S. non-tech giants stock market development



Source: Yahoo! Finance
 Baseline for stock prices are GE, T, WMT, XOM, GOOGL, AMZN, AAPL, FB
 1: Figures as per 03-10-2017; all stock prices are closing prices; dividends are not considered

Only investing \$1,000 in bitcoins would have been more profitable than in digital platforms

Pay-off in Mar 2017 for a US\$1,000 investment in Jan 2012



Source: Yahoo! Finance; Coindesk.com
 Baseline for stock prices are GE, T, WMT, XOM, GOOGL, AMZN, AAPL, FB (NASDAQ)
 Note: Dividends are not considered

As many western platforms struggle in China, Chinese competitors have stepped up

Major digital platforms and their appearance in the Chinese market

Google

1.45% search engine market share

amazon

0.8% e-Commerce market share

ebay

Fail and retreat a decade ago

UBER 优步

Acquired by Didi Chuxing

NETFLIX

Licensing partnership instead of own business

YAHOO!

0.49% search engine market share



BANNED

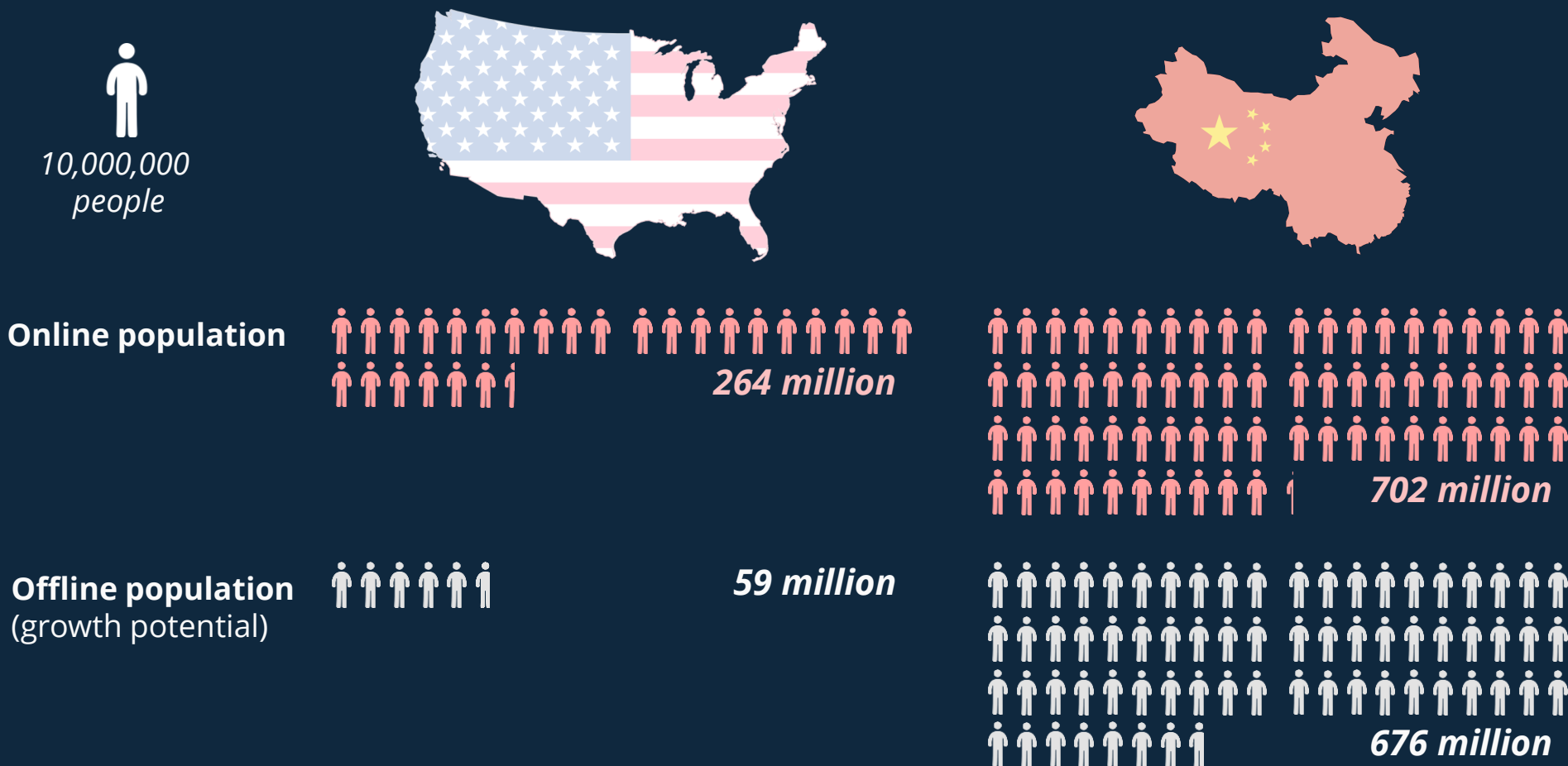
PayPal

0.0001% share of China e-Commerce transactions

Baidu
Alibaba
Tencent
Huawei

The untapped potential of 676m awakening digital customers makes China unique

Online vs. Offline population in China and the U.S. in 2016



Source: Statista Digital Market Outlook

Baidu, Alibaba, Tencent, and Huawei (BATHu) are China's overlooked tech-giants

BATHu key figures



Founded: 01-2000
HQ: Peking
CEO: Robin Lu (since 01-2004)
Revenues¹: US\$10.20 billion
Net income¹: US\$1.68 billion
Employees: 45,887
Market cap: US\$60.04 billion



Founded: 11-1998
HQ: Shenzhen
CEO: Ma Huateng (since 11-1998)
Revenues¹: US\$21.97 billion
Net income¹: US\$5.99 billion
Employees: 38,775
Market cap: US\$257.57 billion



Founded: 04-1999
HQ: Hangzhou
CEO: Daniel Zhang (since 05-2015)
Revenues: US\$15.69 billion
Net income: US\$11.06 billion
Employees: 36,446
Market Cap: US\$258.47 billion



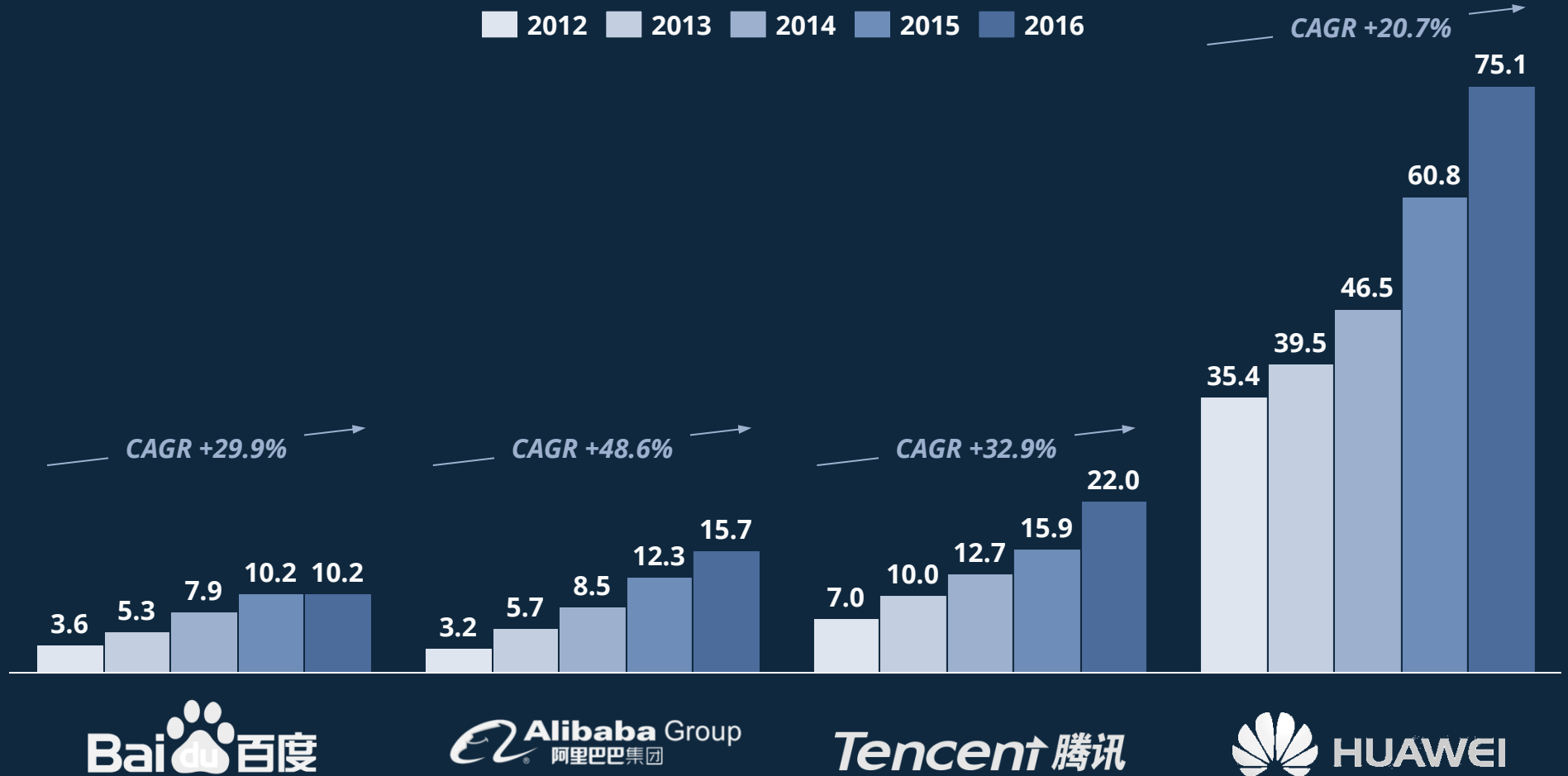
Founded: 1987
HQ: Shenzhen
CEO: Ren Zhengfei (since 1988)
Revenues: US\$75.10 billion
Net income: US\$5.34 million
Employees: 180,000
Market cap: not listed



Source: Company Information; Yahoo! Finance
 Note: Alibaba Group FY2016 ended on 03-31-2016; revenues converted from RMB to US\$ as per annual reports respectively press releases
 1: Unaudited as per FY2016 released financial results

BATHu's compound annual growth rates from 2012 to 2016 are consistently above 20%

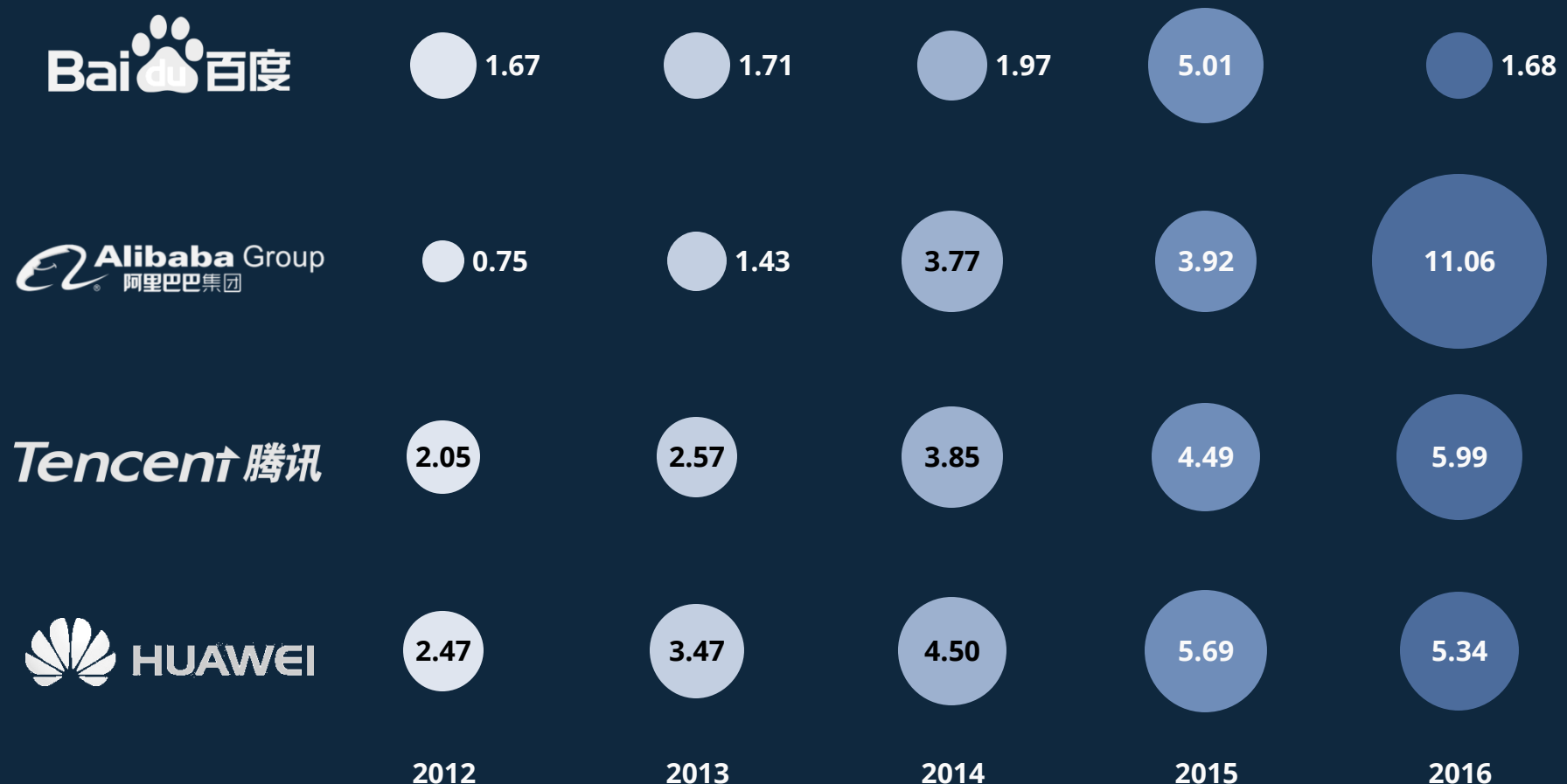
BATHu global revenues (in US\$ billion)



Source: Company Information
 Note: Tencent and Baidu monetary figures for FY2016 yet unaudited
 Revenues converted from RMB to US\$ as per annual reports respectively press releases

Alibaba's FY16 net income was almost fifteen times higher than 5 years ago

BATHu global net income in US\$ billion



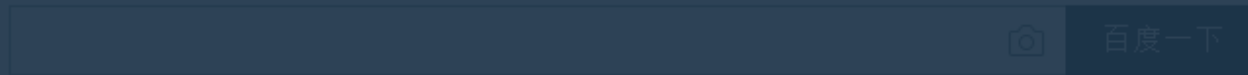
Source: Company Information

Note: The size of circles corresponds to net income; Tencent and Baidu monetary figures for FY2016 not yet unaudited
Net income converted from RMB to US\$ as per annual reports respective press releases

Accompanied by their financial prosperity, Chinese platforms invest in U.S. startups

VC-investments of Baidu, Alibaba and Tencent in the U.S.

	2014		2015		2016	
Baidu 百度	IndoorAtlas		Cloudflare IndoorAtlas	Taboola GWC	Dynamic Yield Velodyne LiDAR	ZestFinance
Alibaba Group 阿里巴巴集团	Peel Kabam Lyft	Tango 1stdibs	Lyft Mei.com	Snap Inc. Quixey	Barefoot Networks	Magic Leap PlaceIQ
Tencent 腾讯	Playdots Kamcord Heirloom Technology Tile Heirloom, Inc. Woqu.com AltspaceVR	Moon Express, Inc. Vurb Women.com Scaled Inference TapZen Whisper Weebly	Circle Medical Watsi Artillery FlightCar Clinicloud Nav Nixie Labs HomeHero Tute Genomics Tissue Analytics Lyft Pocket Gems	CloudMedx Inc Scanadu SkyMind VC Mobile Entertainment Inc. Cyanogen Satellogic Robot Entertainment Discord SketchMe	Stae Clear Labs Barefoots Networks Petuum SkyMind Nav Payoff Meta	Tile Paradox Interactive Planetary Resources Kamcord Diffbot Discord



1st

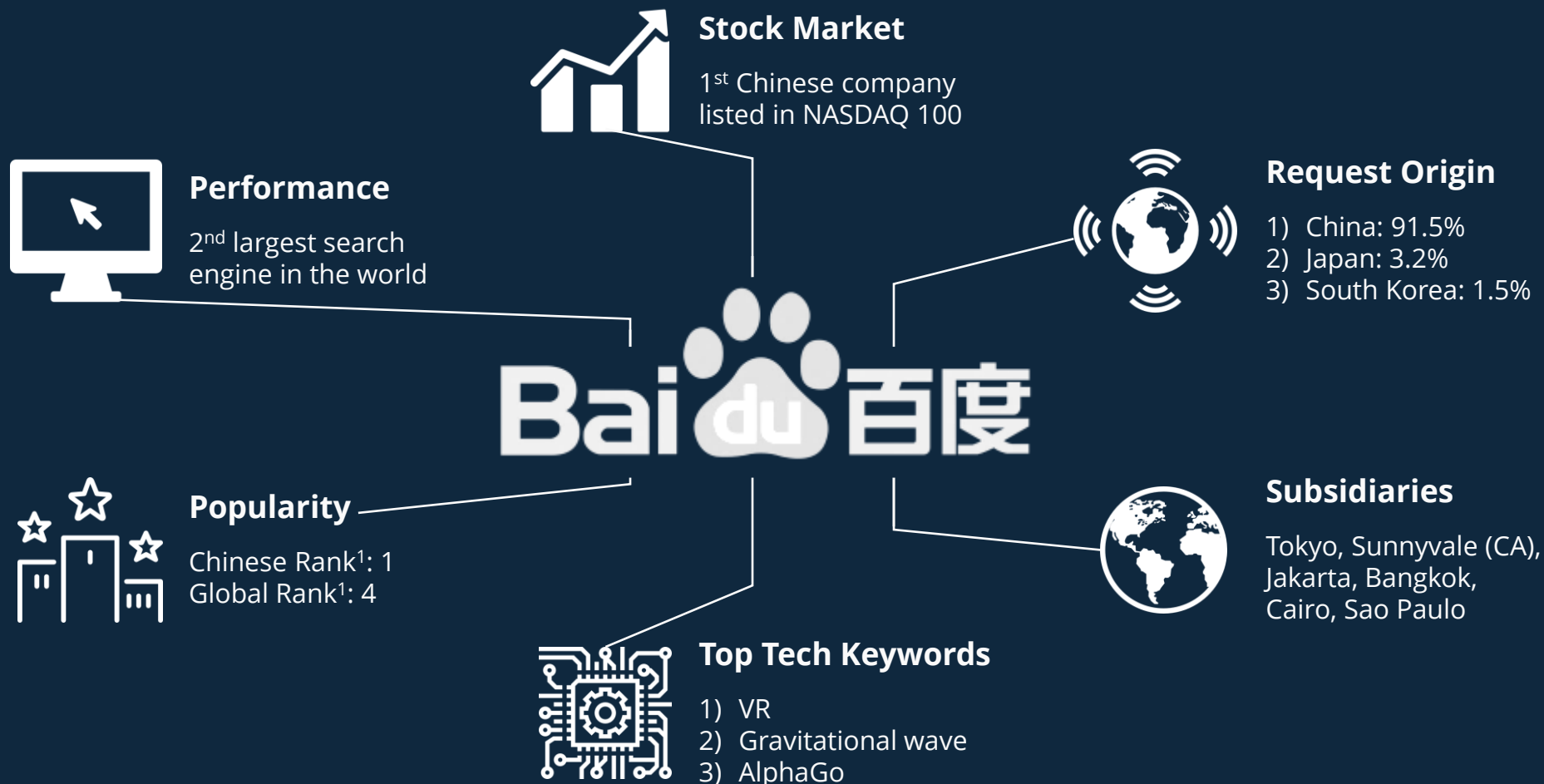
Baidu was the first Chinese company to be listed in the NASDAQ 100 index.



手机百度

Although primarily operating in China, Baidu dips its toes into new markets

Baidu key facts

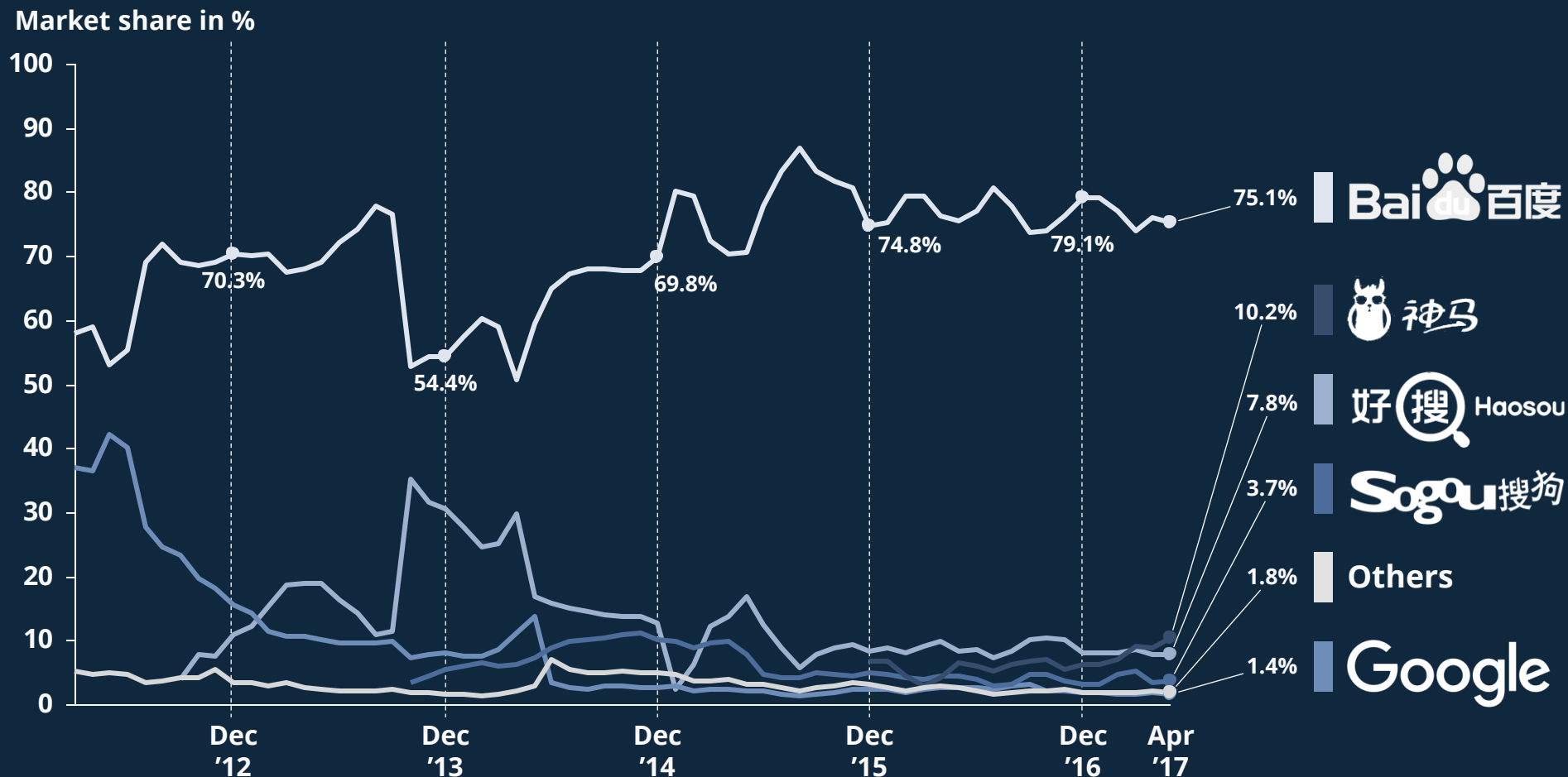


Source: Chinainternetwatch.com, StatCounter.com, Alexa.com

1: The rank is calculated using a combination of avg. daily visitors and pageviews over the past three months

In China, Baidu has strong brand awareness, with a large domestic market share of over 75%

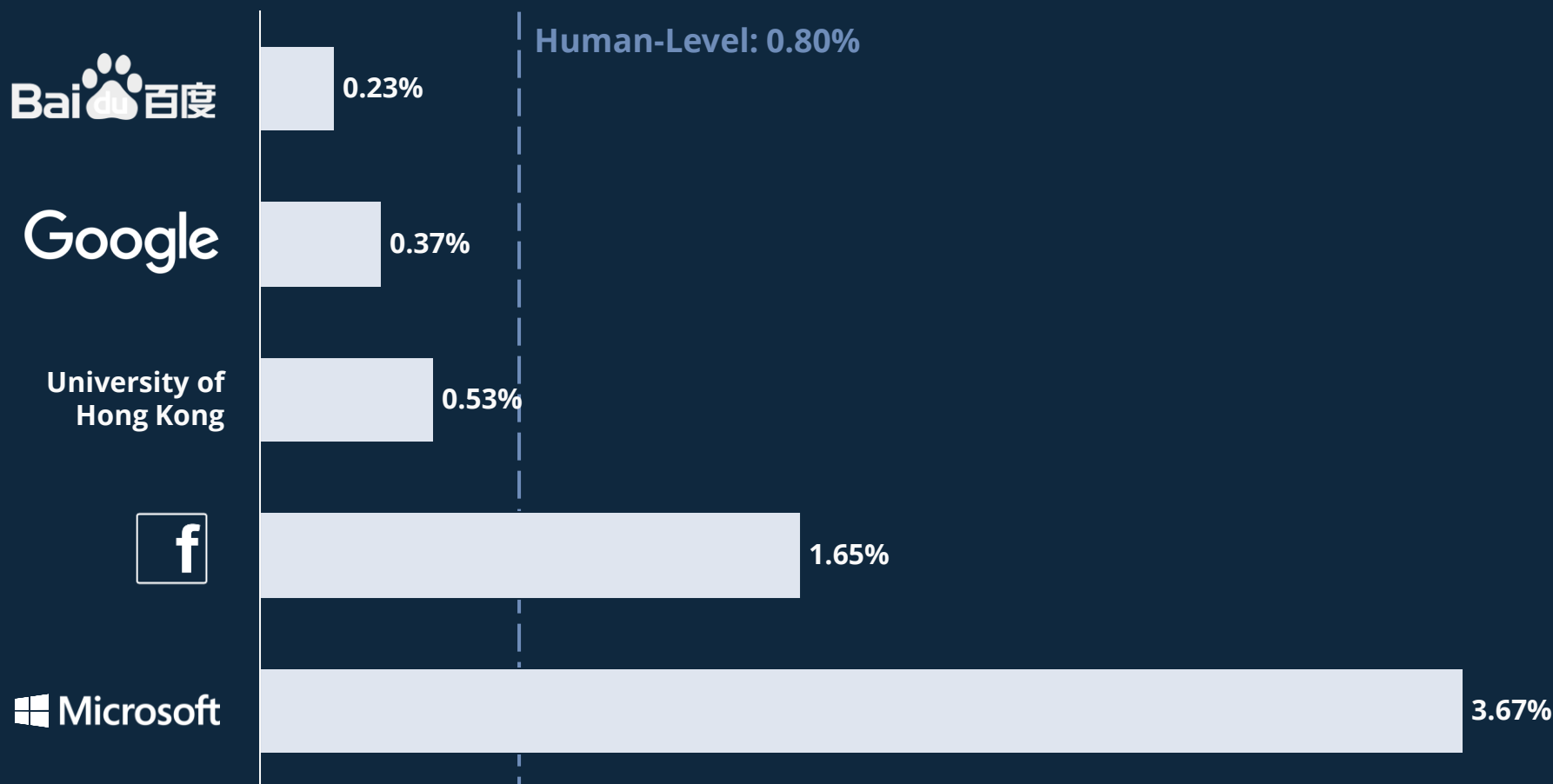
Search engine market share in China (in percentage)



Source: StatCounter.com

AI will further improve search engines; Baidu's face recognition software is a good example

Face recognition software comparison as %-error in face recognition



Source: Massachusetts Institute of Technology
Note: Figures as of 2015, based on the Labeled Faces in the Wild (LFW) dataset



175,000

Chinese e-Commerce giant **Alibaba** processed 175,000 transactions per second on the peak time of "Singles' Day" in 2016. At the end of the day the number of orders processed totaled 657 million.

The Alibaba Group has evolved to become a platform with multiple user touchpoints

Alibaba Group Overview

Digital Media

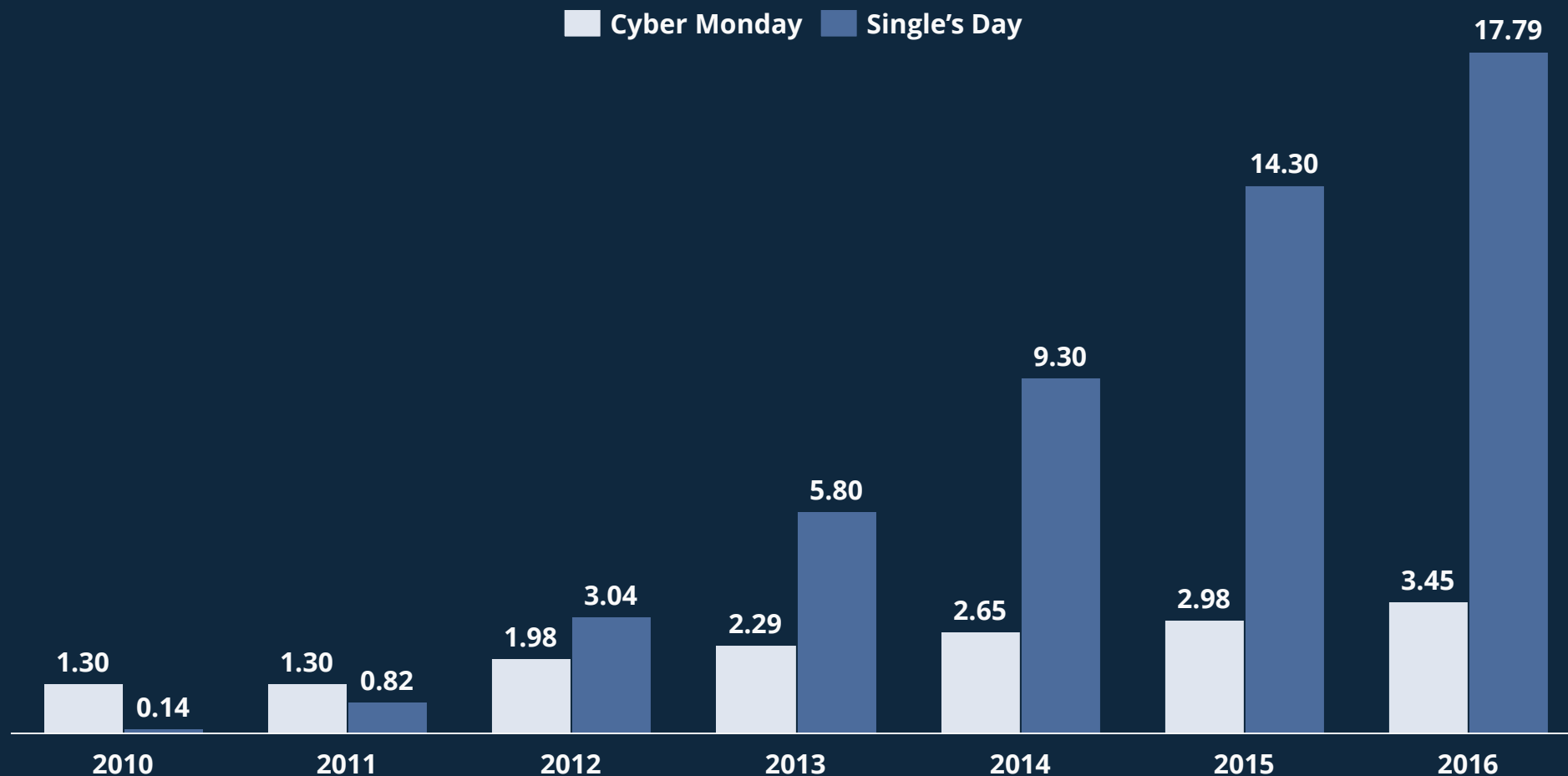
Others



Source: Alibaba Group

Singles' Day is the largest shopping day in the world, and Alibaba benefits most of it

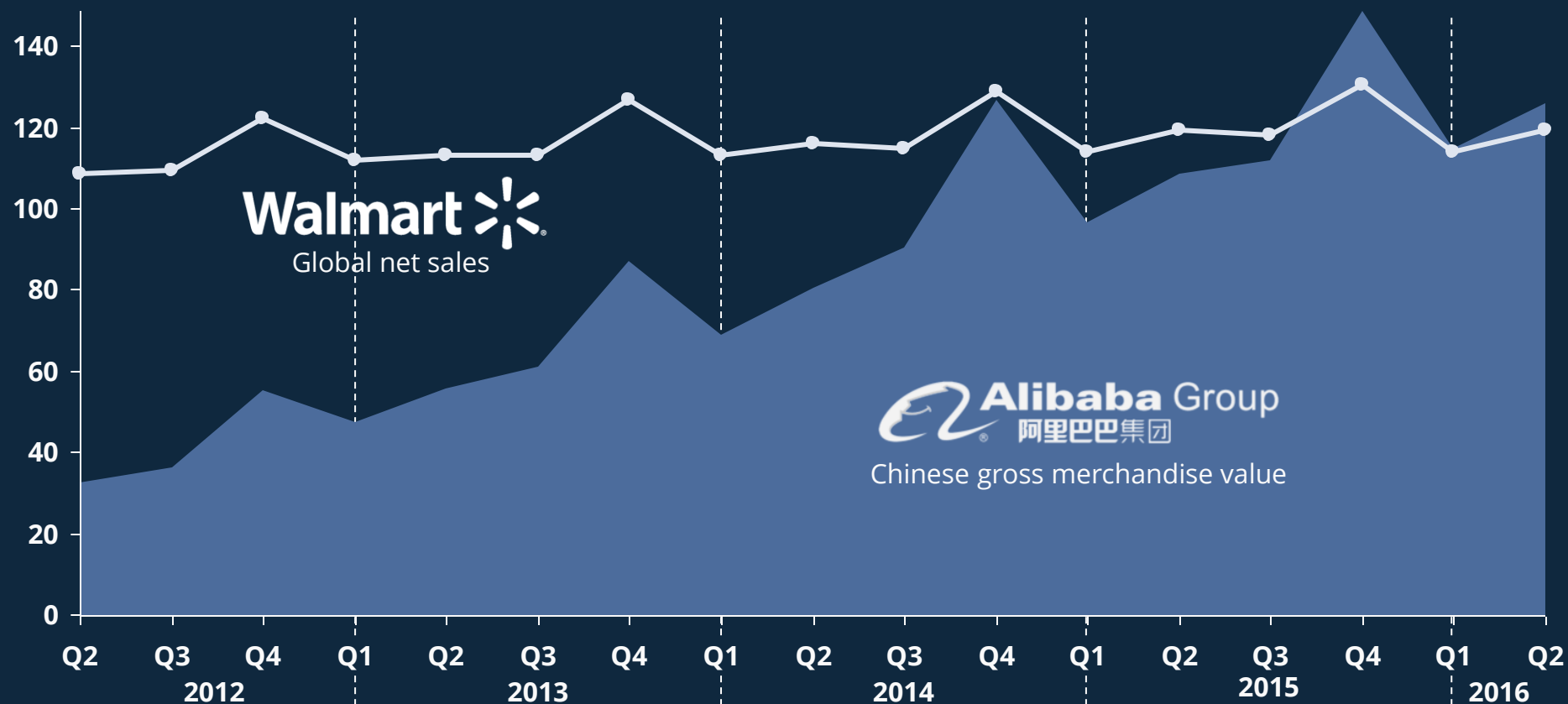
U.S. Cyber Monday spending and Alibaba Single's Day GMV (in US\$bn)



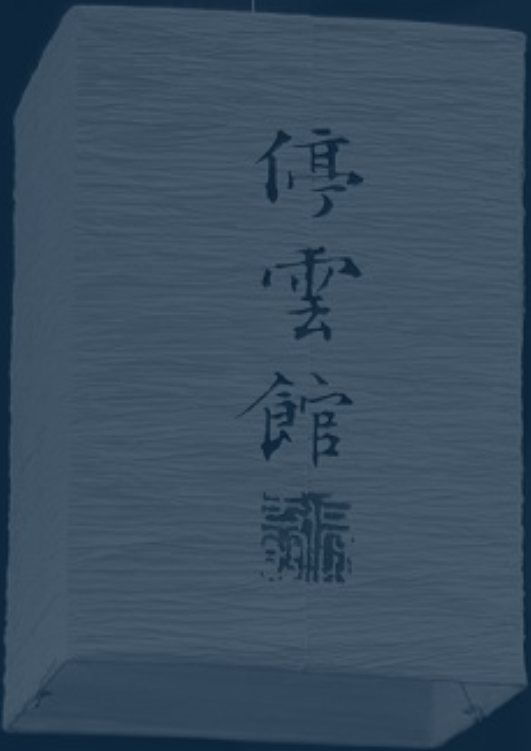
Alibaba's fast growth demonstrates how software is much more scalable than warehousing

Walmart and Alibaba quarterly key-figure comparison (in US\$ billion)

Net Sales /
GMV



Source: Company Information
 Note: all figures correspond to calendar years and quarters; financial years do not equal calendar years



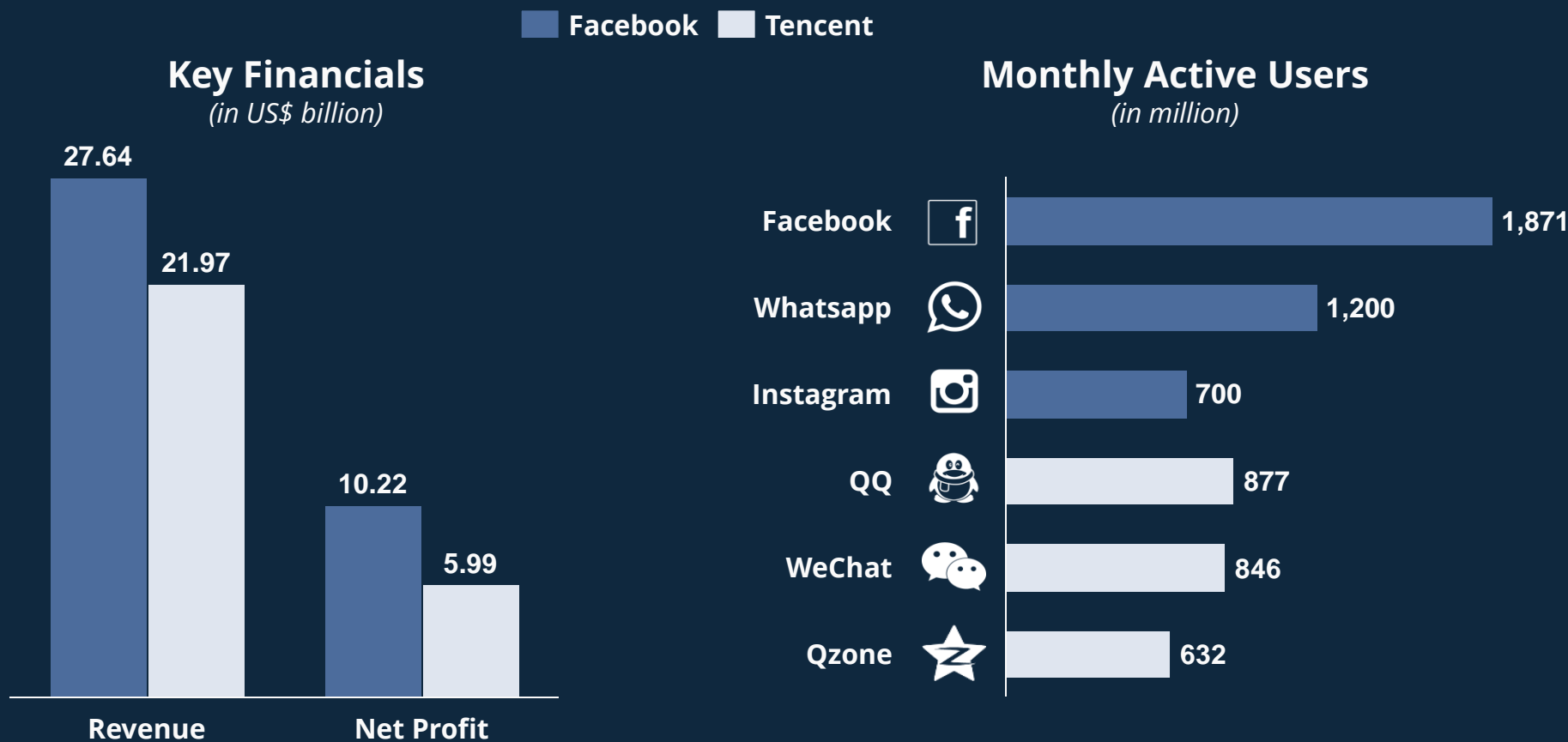
停
雲
館

“Will **Tencent** join the likes of *Amazon, Google, Facebook* and *Twitter*? [...] They already are in that league. The rest of the world just doesn’t know it.”

Aditya Rathnam,
Co-Founder of *Kamcord*

China's largest tech company can be compared with its U.S. Social Media counterpart























Key financial and operating metrics of Tencent and Facebook in 2016



Source: Company Information, We Are Social, Hootsuite

WeChat has a diverse business model with multiple revenue sources

Direct comparison of WeChat and WhatsApp

	WeChat 	WhatsApp 
Geographical focus	China 	US  Europe 
Monthly active users	846 million	1,200 million
Price	Free of Charge	Free of Charge
Monetization	Transaction Fees & Mobile Advertising	
› Social & Communication	 Texting  Group Chats  Photography  Video  Location  Video Chat  Voice Message  Official Accounts  Meet Strangers (Shake)  Voice Chat  Moment Feeds  QR Code Reader	 Texting  Group Chats  Photography  Video  Location  Video Chat  Voice Message
› Leisure & Commerce	 Newsfeeds  Translation  Taxi Reservation  Event Organization  Price Checks  e-Commerce  Online Ticketing  Mobile Banking	
› Media & Gaming	 Music  Mobile Gaming  Desktop Gaming	

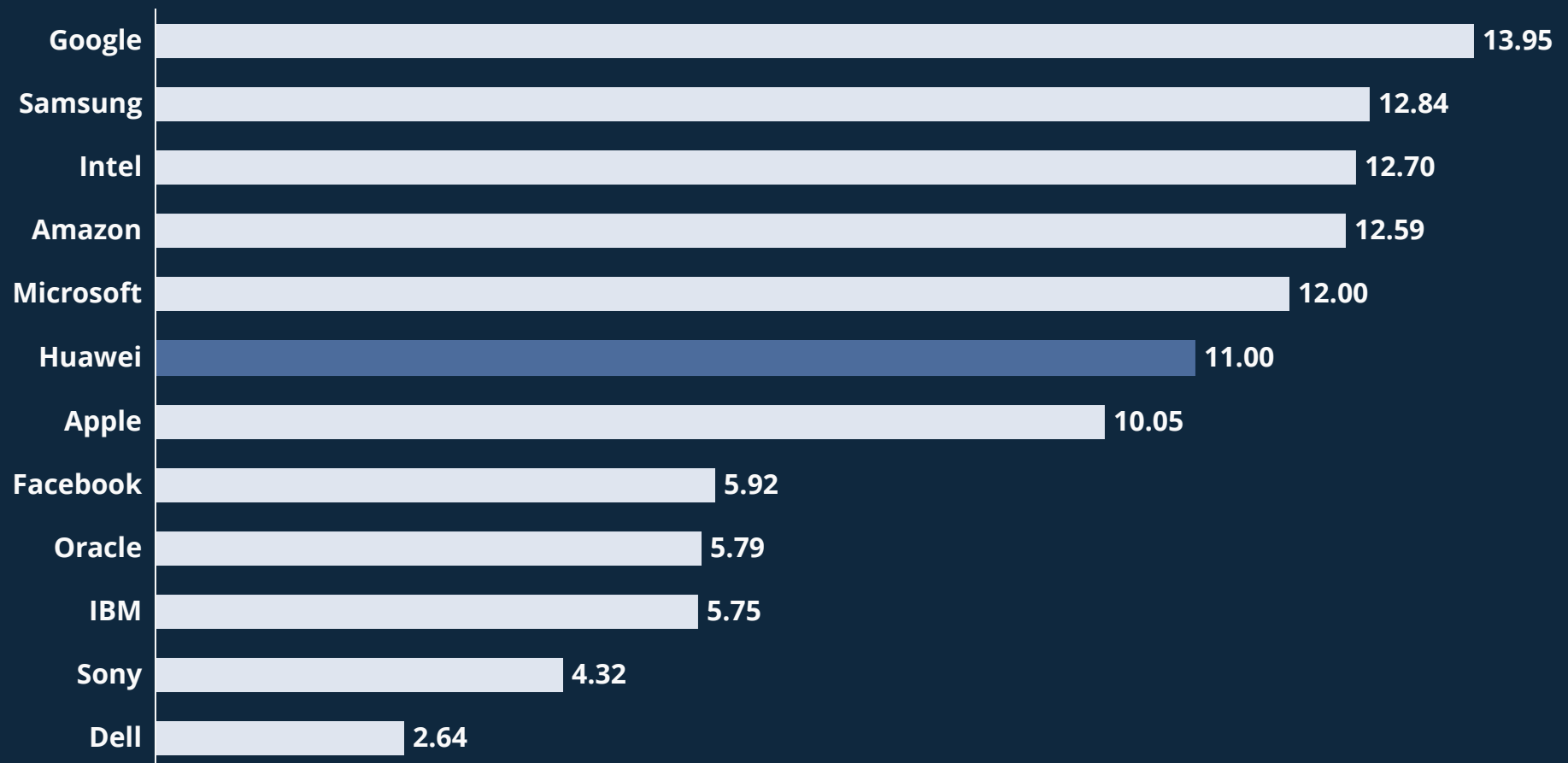
Source: Company Information, OLMA Capital Management

5G

Huawei aims at playing a central role in 5G mobile technology, the next big evolutionary step in mobile connectivity. Along with large R&D expenditures, Huawei also initiated a number of collaborative research initiatives – widely known as **Wireless X labs**.

Huawei overtook Apple and became one of the most R&D-intensive tech companies

R&D spending of major global tech-companies in 2016 (in US\$ billion)





Source: Company Information

Note: Dell figures refer to FY2017 as this year ended on 01-31-2017

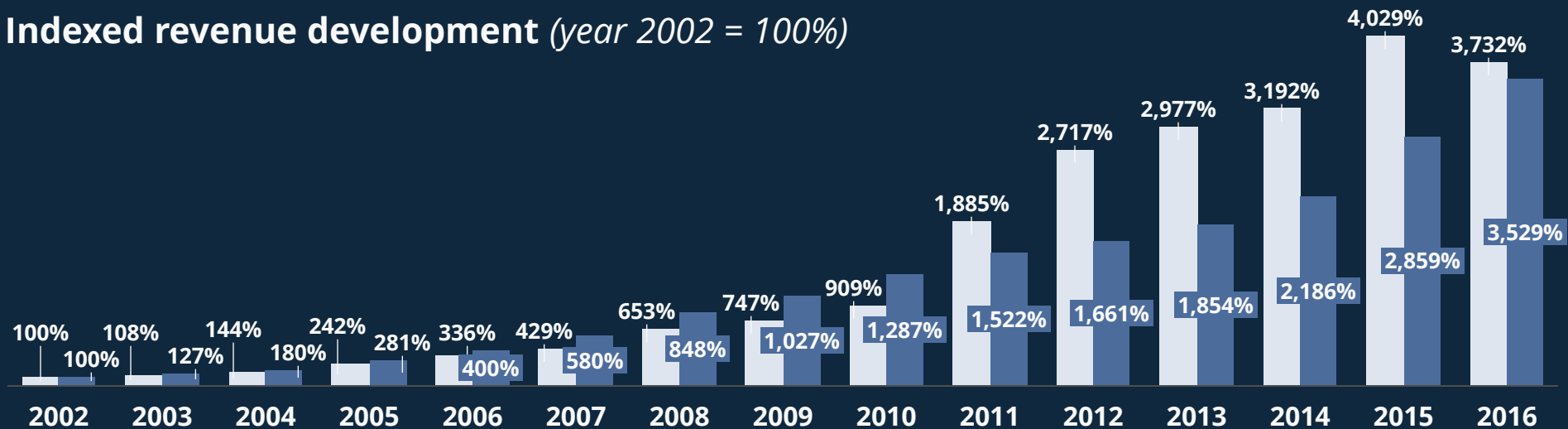
Huawei and Apple show similar revenue growth

Annual revenue comparison of Huawei and Apple from '02-'16

Annual revenue (in US\$ billion)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
 Apple	5.7	6.2	8.3	13.9	19.3	24.6	37.5	42.9	52.2	108.2	156.0	170.9	183.2	231.3	214.2
 HUAWEI	2.1	2.7	3.8	6.0	8.5	12.3	18.0	21.9	27.4	32.4	35.4	39.5	46.5	60.8	75.1

Indexed revenue development (year 2002 = 100%)



Source: Company Information, **Statista Digital Market Outlook**

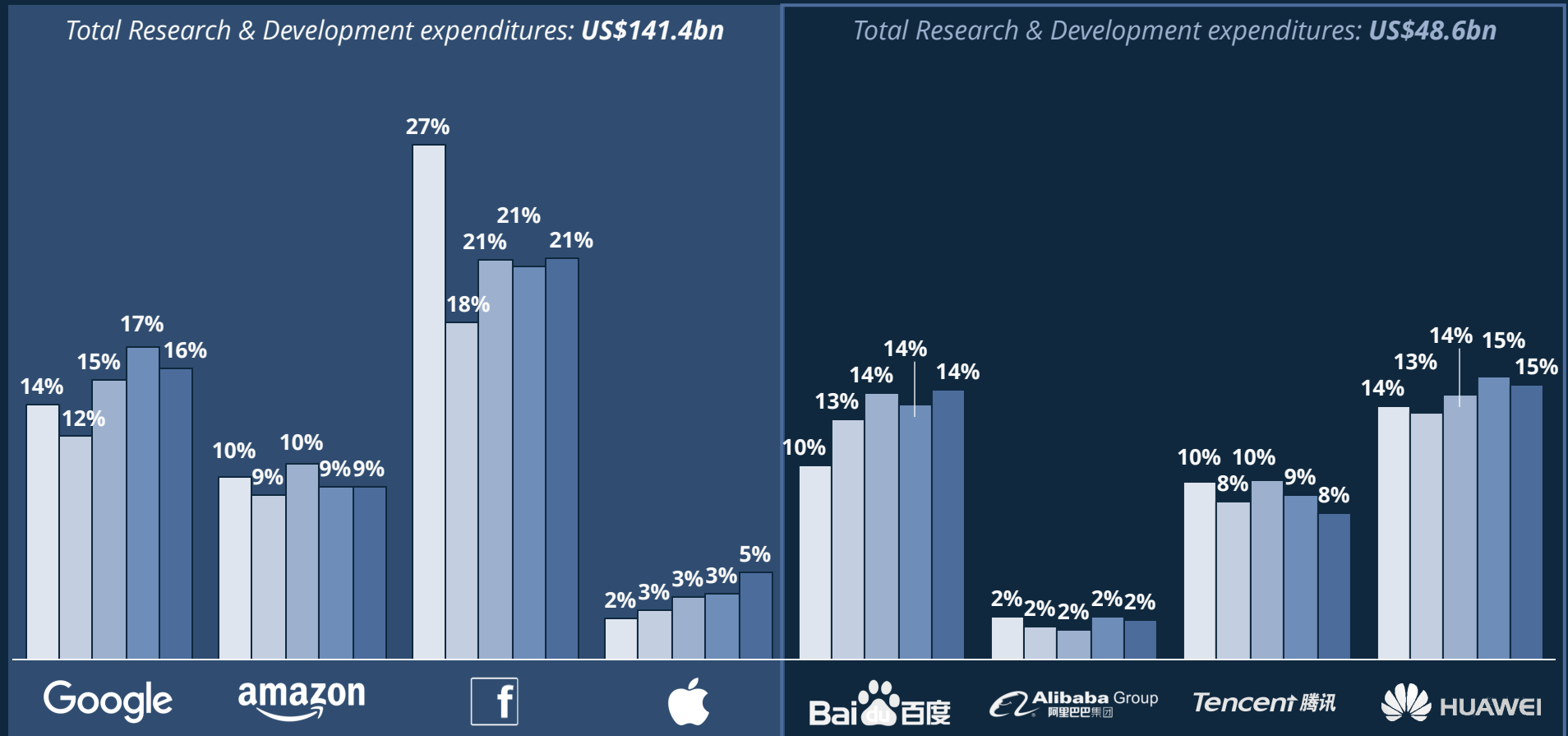
Revenues converted from RMB to US\$ as per annual reports respectively press releases; years 2007-2011 are calculated with the avg. exchange rate of the specific year with exchange rates from www.oanda.com

Baidu, Alibaba, Tencent and Huawei
vs.
Google, Amazon, Facebook and Apple
–
Who is taking the lead?

BATHu may catch up in the digital economy, but the big U.S. players remain the top innovators

Research & Development expenditures (in percent of total revenues)

2012 2013 2014 2015 2016



Source: Company Information; YCharts.com
 Note: Revenues and R&D expenditures converted from RMB to US\$ from annual reports respectively press releases

Comparatively, U.S. tech-giants remain ahead of their Chinese competitors

Key-figure comparison: GAFA vs. BATHu

Google vs. Bai 百度

Revenues	US\$bn	★ 89.73	10.20
CAGR ¹ '12-'16	%	15.77	★ 29.92
Profit margin	%	★ 21.71	16.44
R&D expend.	US\$bn	★ 13.95	1.47
Domestic market share	%	64.0	★ 75.1

amazon vs. Alibaba Group 阿里巴巴集团

Revenues	US\$bn	★ 135.99	15.69
CAGR ¹ '12-'16	%	22.15	★ 48.63
Profit margin	%	1.74	★ 70.5
R&D expend.	US\$bn	★ 12.59	0.34
GMV	US\$bn	251.0 ²	★ 484.6



vs. Tencent 腾讯

Revenues	US\$bn	★ 27.64	21.97
CAGR ¹ '12-'16	%	★ 52.66	32.88
Profit margin	%	★ 36.97	27.3
R&D expend.	US\$bn	★ 5.92	1.71
MAU ³	m	★ 1,871	877



vs. HUAWEI

Revenues	US\$bn	★ 214.23	75.10
CAGR ¹ '12-'16	%	8.26	★ 20.73
Profit margin	%	★ 21.33	7.1
R&D expend.	US\$bn	10.05	★ 11.00
Smartphone shipments	m	★ 215.4	139.3

Source: Company Information, IDC, WeAreSocial, comScore

Note: Monetary figures converted from RMB to US\$ sourced from annual reports respectively press releases

1: CAGR = Compound annual growth rate

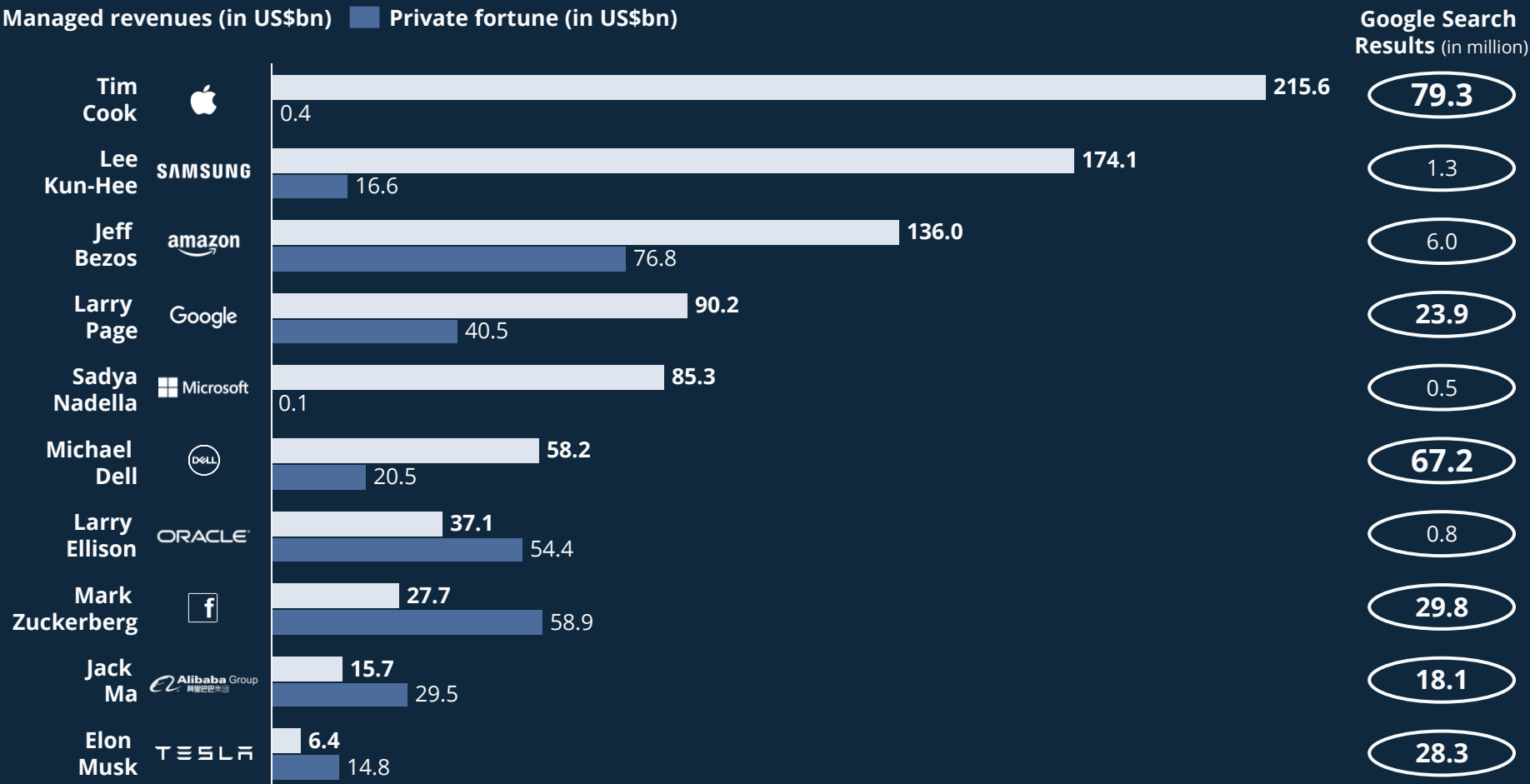
2: Statista estimates

3: MAU = Monthly active users; only take into account the biggest single Social Media Platforms Facebook and QQ

The Top 10 digital CEOs manage revenues of \$846bn and own a combined fortune of \$312bn

Top 10 business people in the digital economy

■ Managed revenues (in US\$bn)
 ■ Private fortune (in US\$bn)



Source: Company Information, forbes.com, celebritynetworth.com, therichest.com
 Note: Jack Ma is founder of the Alibaba Group, in 05-2015 Daniel Zhang became CEO
 Managed revenues referring to FY2016; Private fortune as of 04-10-2017

Venture Capital



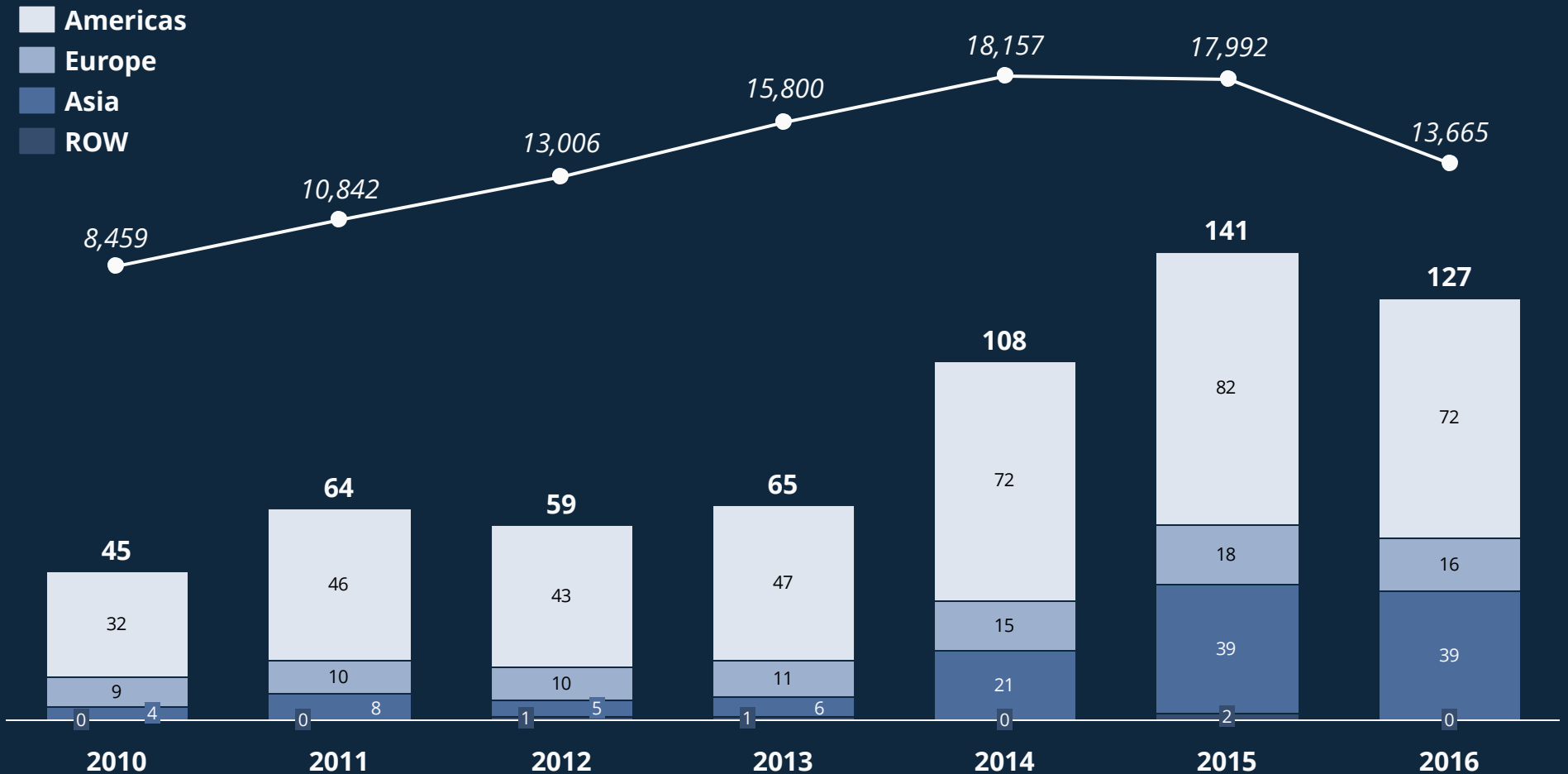
7,300,000,000

US\$

In 2016 **Didi Chuxing**, the Chinese ride sharing company and major competitor of **Uber**, collected fresh capital funding totaling US\$7.3 billion in order to strengthen its position in the Southeast Asian market

More deals and greater capital invested, bar 2016, complement growing average deal size

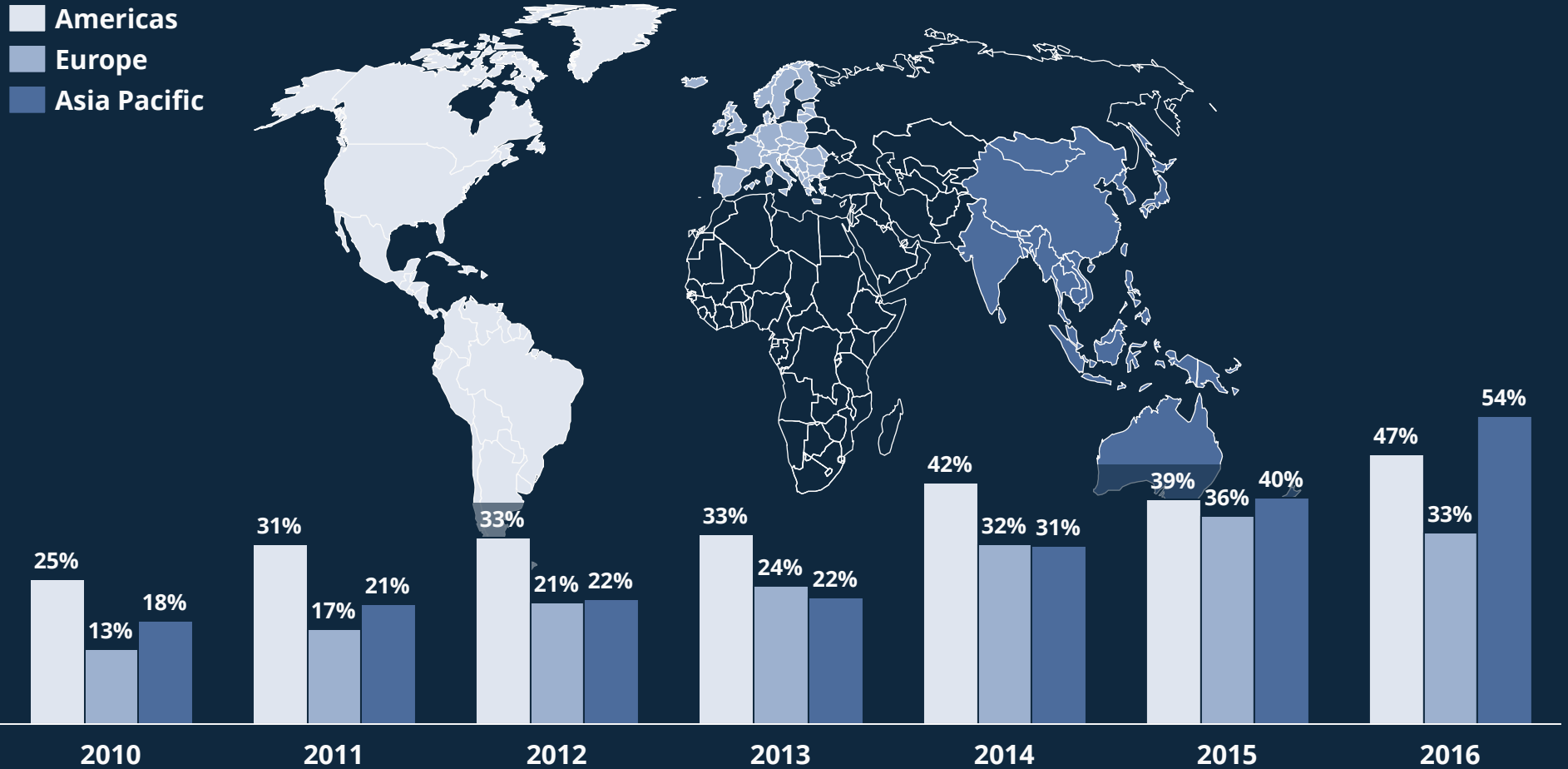
Global venture financing from 2010-2016 (in US\$ billion)



Source: KPMG Enterprise, PitchBook

“Software is eating the world” – at least in the case of VC financing

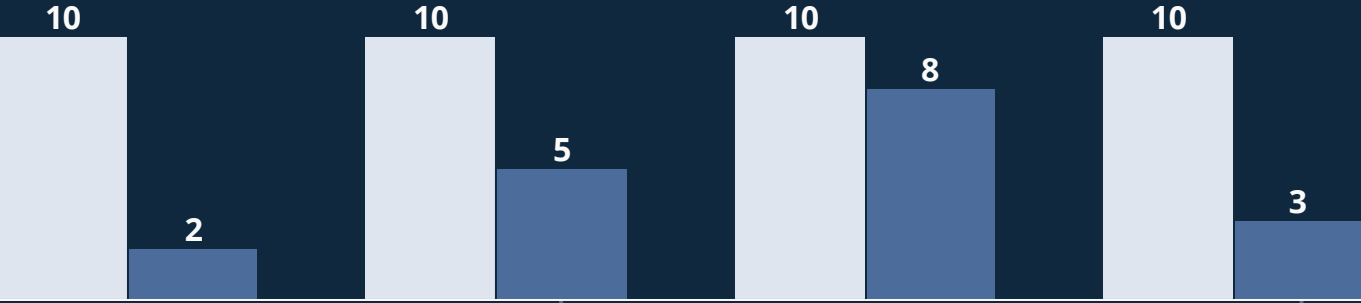
Software sector share in venture financing in a regional comparison



Source: KPMG Enterprise, PitchBook

The stereotype Unicorn¹ in 2016: digital and most likely to be Chinese or American

New VC-backed Tech Unicorns and Exits in 2016



40 out of 41 new Unicorns were highly Tech-related

31 out of 40 Tech Unicorns were Chinese or American

US\$66.4 billion valuation² of the 2016 Tech Unicorns

US\$34.4 billion value of the 18 Tech Unicorn Exits

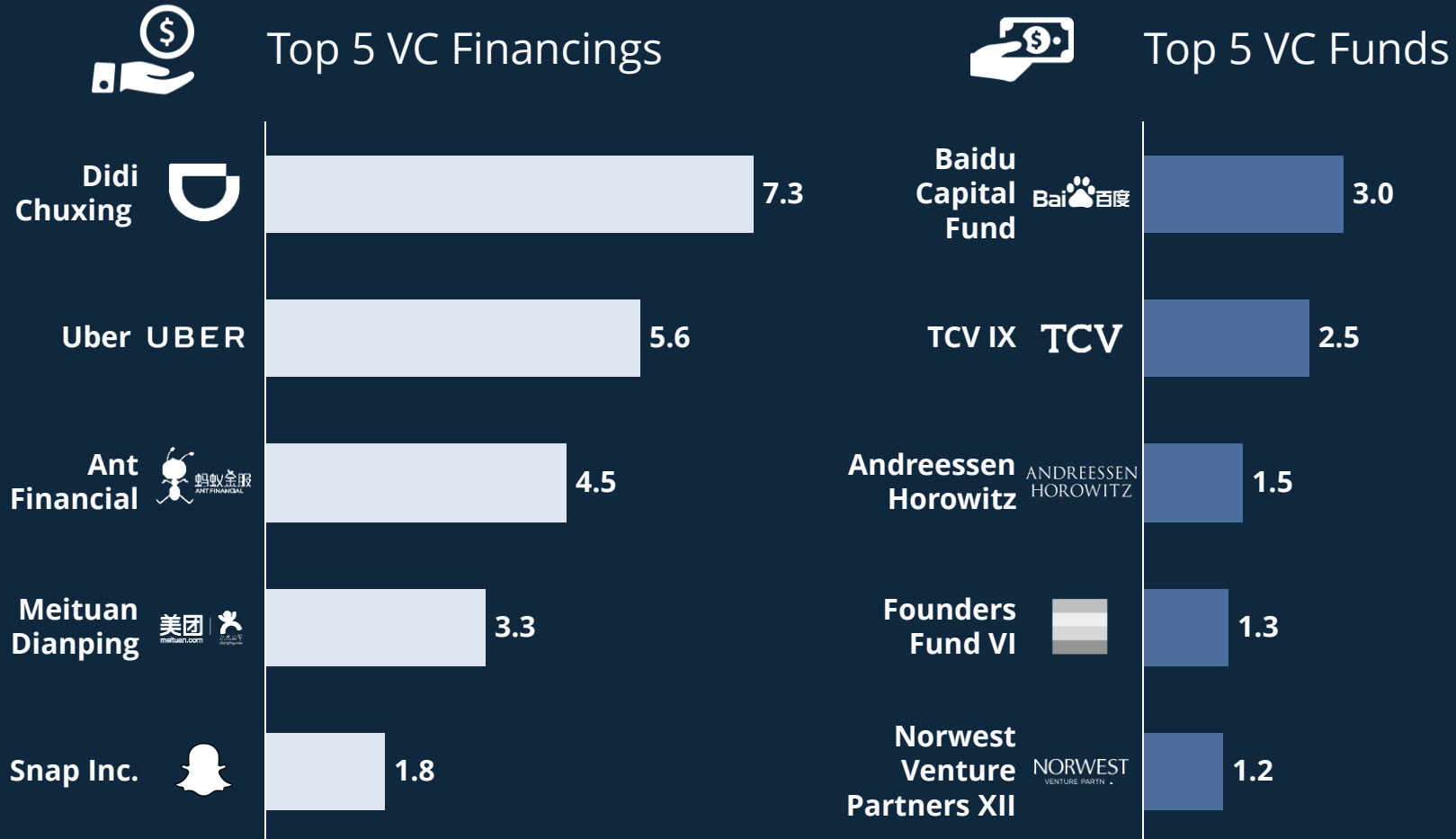


Skyscanner became Unicorn and exited in 2016

Source: CB Insights
 1: Unicorn = Startup company with a company valuation of more than US\$ 1.0 billion
 2: Company valuation as per 03-15-2017

U.S. and Chinese players take the top spots in terms of global VC financing and funding

Top 5 VC Financings and Funds in 2016 (in US\$ billion)

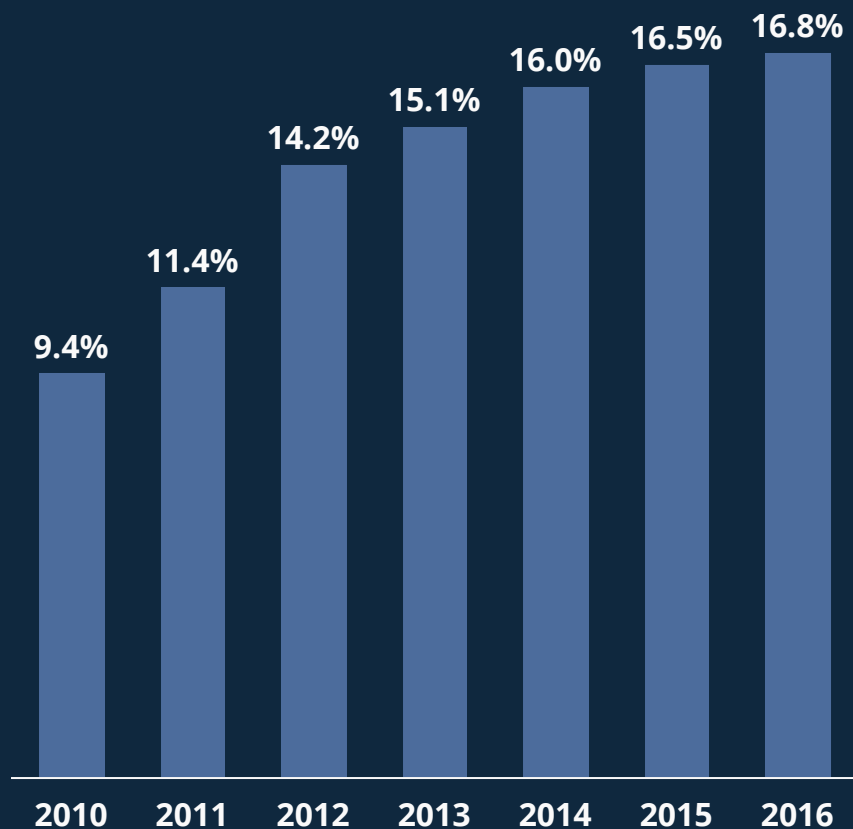


Source: PitchBook

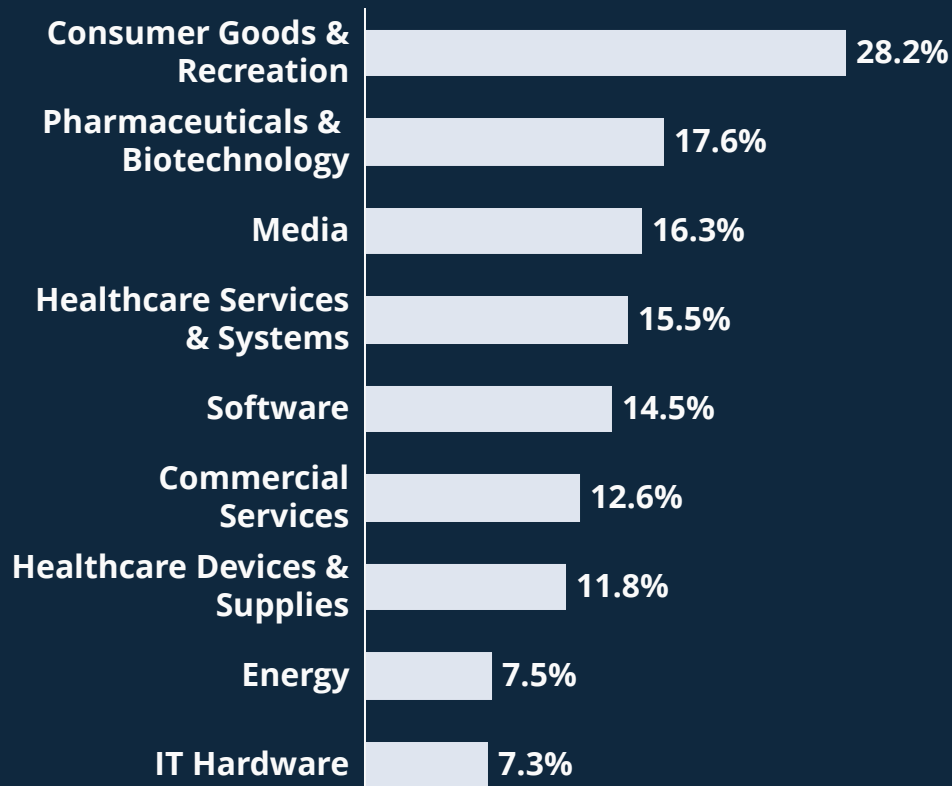
VC deals are primarily closed with male founders, particularly in the tech landscape

Global VC deals for companies with at least one female founder

Percentage of deals



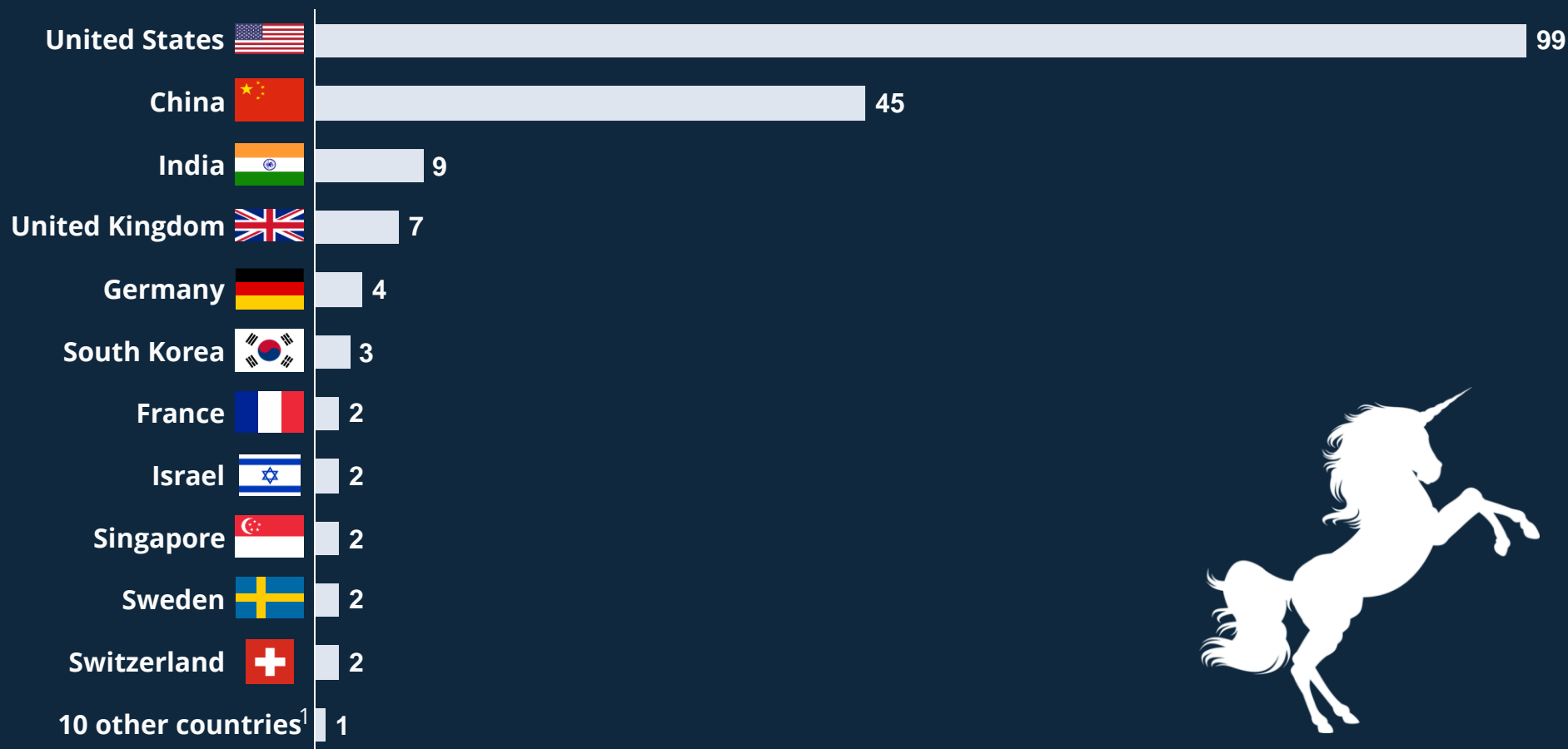
Top industries



Source: PitchBook

The U.S. and China are home to the greatest number of Unicorns, with Europe lagging behind

Private companies valued at one US\$ billion or more as of 03-27-2017



Source: CB Insights

Unicorn = Startup company with a company valuation of more than US\$ 1.0 billion

1: countries with one 'unicorn': Argentina, Colombia, Czech Republic, Indonesia, Japan, Luxembourg, Netherlands, Nigeria, South Africa, United Arab Emirates

AI, AR & VR

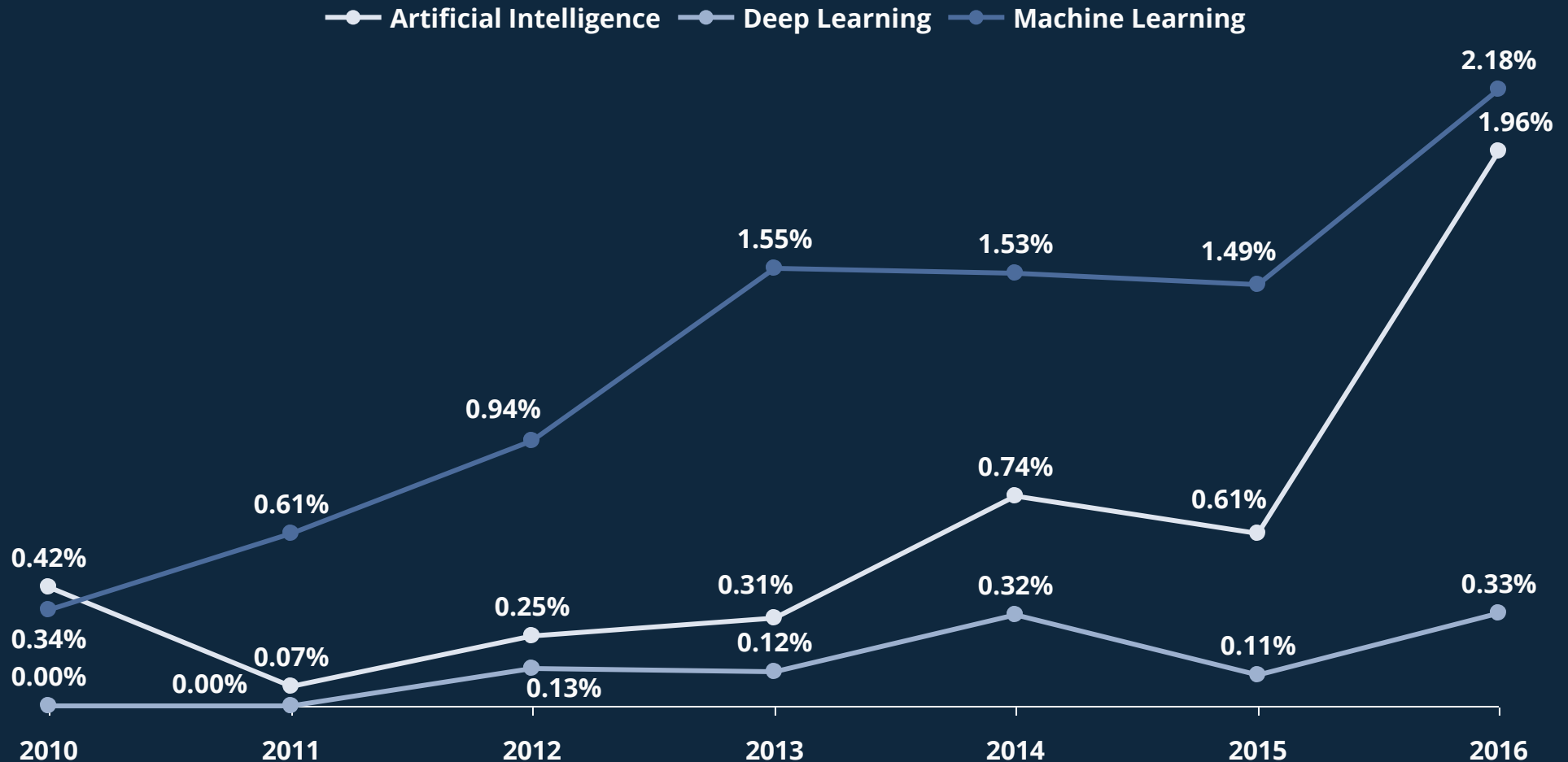


99.77%

Baidu has developed a facial recognition software that recognizes human faces with a 99.77% accuracy. This surpasses average human-level facial recognition and many Silicon Valley competitors.

There is a lot of activity in the Artificial Intelligence and Data Mining startup scene

VC-backed companies with certain words in their company description



Source: CB Insights

VC-backed companies with the terms Machine Learning, VR & AI drastically increased since '10

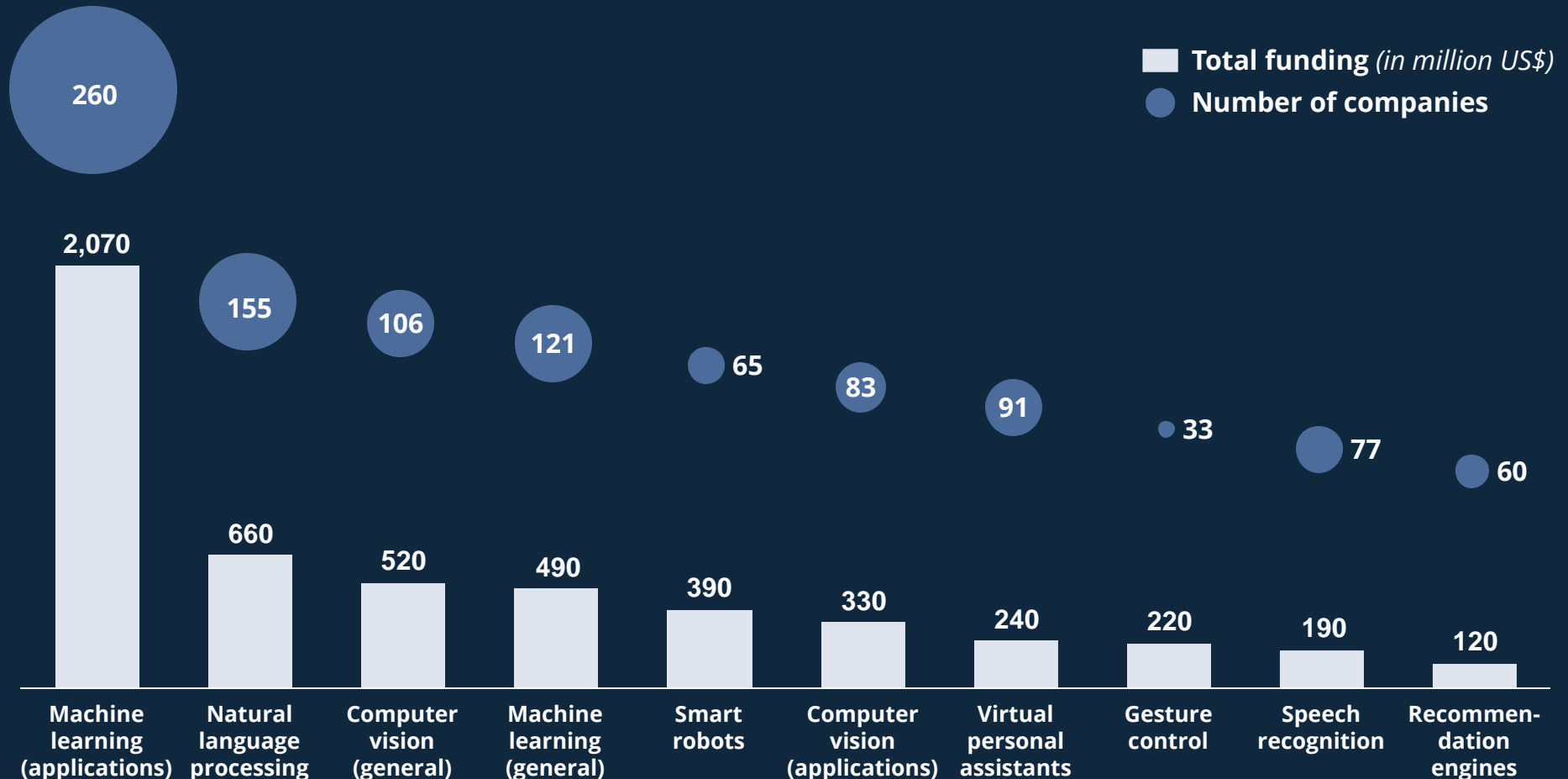
Change of VC-backed companies with given terms in their description

Rank	Word	% in 2010	% in 2016	Change
1	Virtual Reality	0.0%	1.0%	-
2	Machine Learning	0.3%	2.0%	507%
3	Natural Language	0.2%	1.0%	507%
4	Ingredients	0.3%	1.2%	385%
5	Cyber	0.3%	1.5%	355%
6	Artificial Intelligence	0.4%	1.8%	337%
7	Reality	0.3%	1.4%	325%
8	Automates	0.3%	1.0%	304%
9	Sensors	0.3%	1.3%	294%
10	Feedback	0.4%	1.3%	215%
11	Seconds	0.3%	1.0%	203%
12	Minutes	0.4%	1.2%	191%
13	Oncology	0.4%	1.2%	191%
14	Therapy	0.7%	1.9%	188%
15	Modern	0.5%	1.4%	183%
16	Tumor	0.4%	1.1%	167%
17	Stealth	1.3%	3.3%	143%
18	Workflow	0.7%	1.6%	143%
19	Insurance	0.8%	1.9%	130%
20	Software Platform	0.5%	1.1%	122%

Rank	Word	% in 2010	% in 2016	Change
21	Human	1.7%	3.5%	106%
22	Connected	1.0%	2.0%	102%
23	Genetic	0.8%	1.5%	102%
24	Videos	0.6%	1.1%	91%
25	Risk	2.4%	4.2%	78%
26	Intelligent	1.7%	3.0%	76%
27	Algorithms	0.8%	1.3%	75%
28	Treatments	0.8%	1.3%	75%
29	Audio	0.6%	1.0%	73%
30	Culture	0.6%	1.0%	73%
31	Women	0.6%	1.0%	73%
32	Body	0.8%	1.4%	70%
33	Healthy	0.8%	1.4%	70%
34	Language	0.8%	1.4%	70%
35	Stream	2.4%	4.1%	67%
36	Threat	0.4%	1.5%	65%
37	Hand	2.1%	3.5%	65%
38	Labs	1.7%	2.8%	64%
39	Bank	0.8%	1.3%	58%
40	Measure	1.4%	2.2%	57%

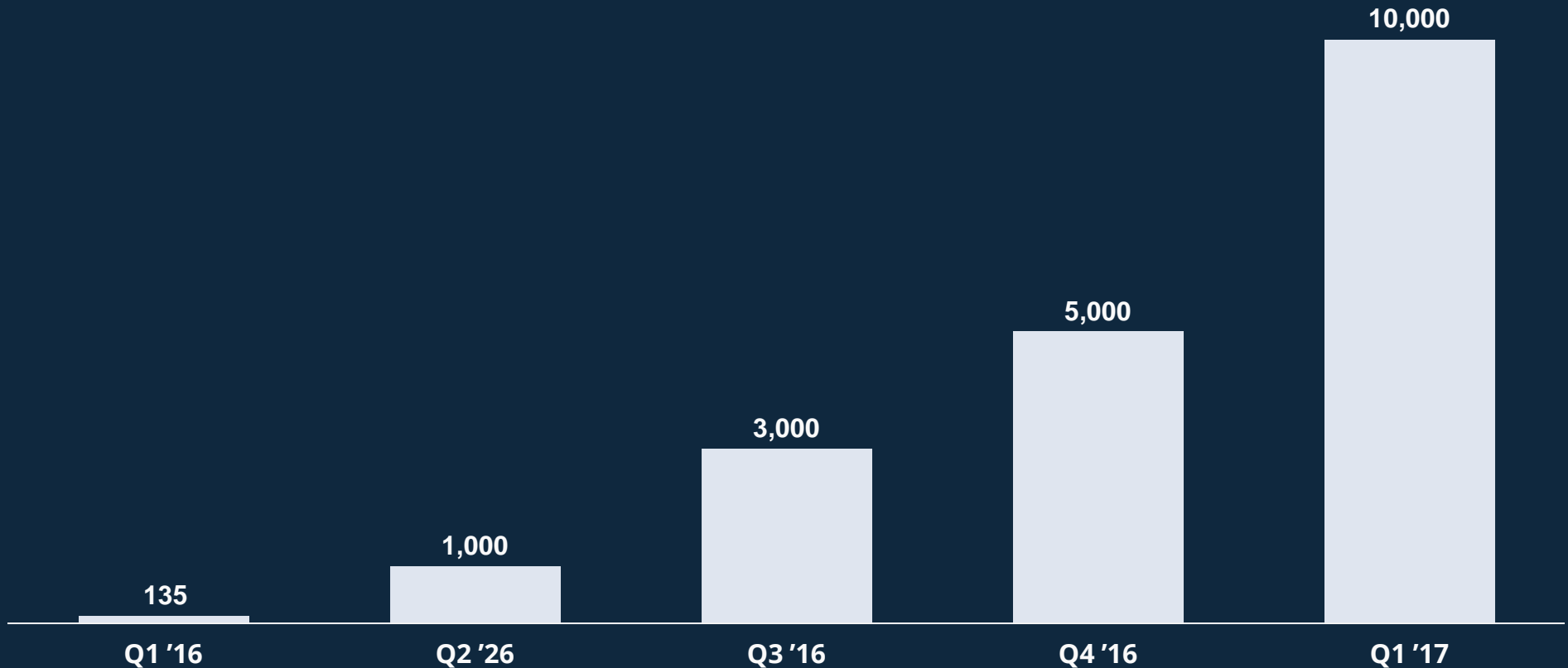
Startups in the machine learning / AI segment have benefited from the largest VC funding

Funding and number¹ of startups working in the AI market, by category



AI will also enable human voices to become a new powerful communication layer

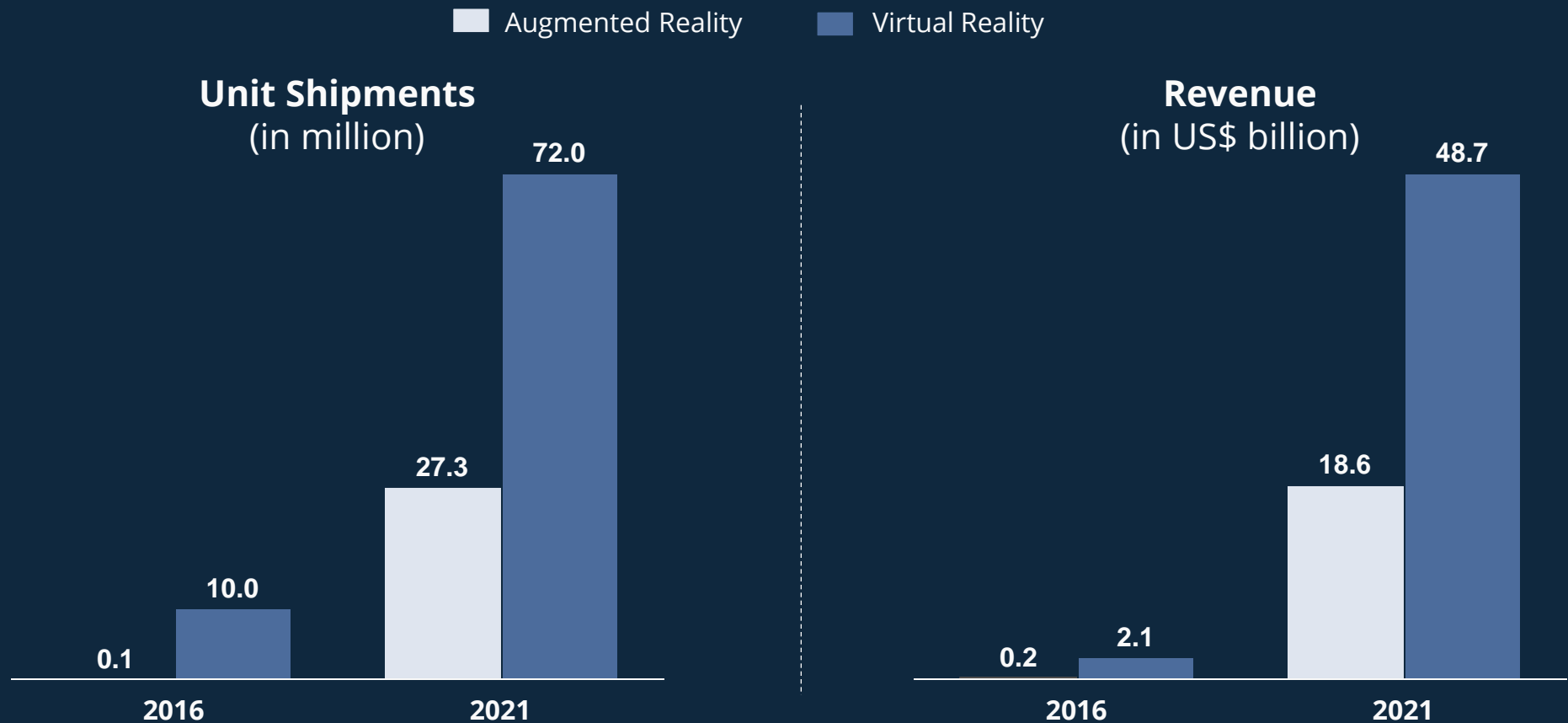
Number of third-party skills available for Amazon's virtual assistant



Sources: Amazon, Press reports

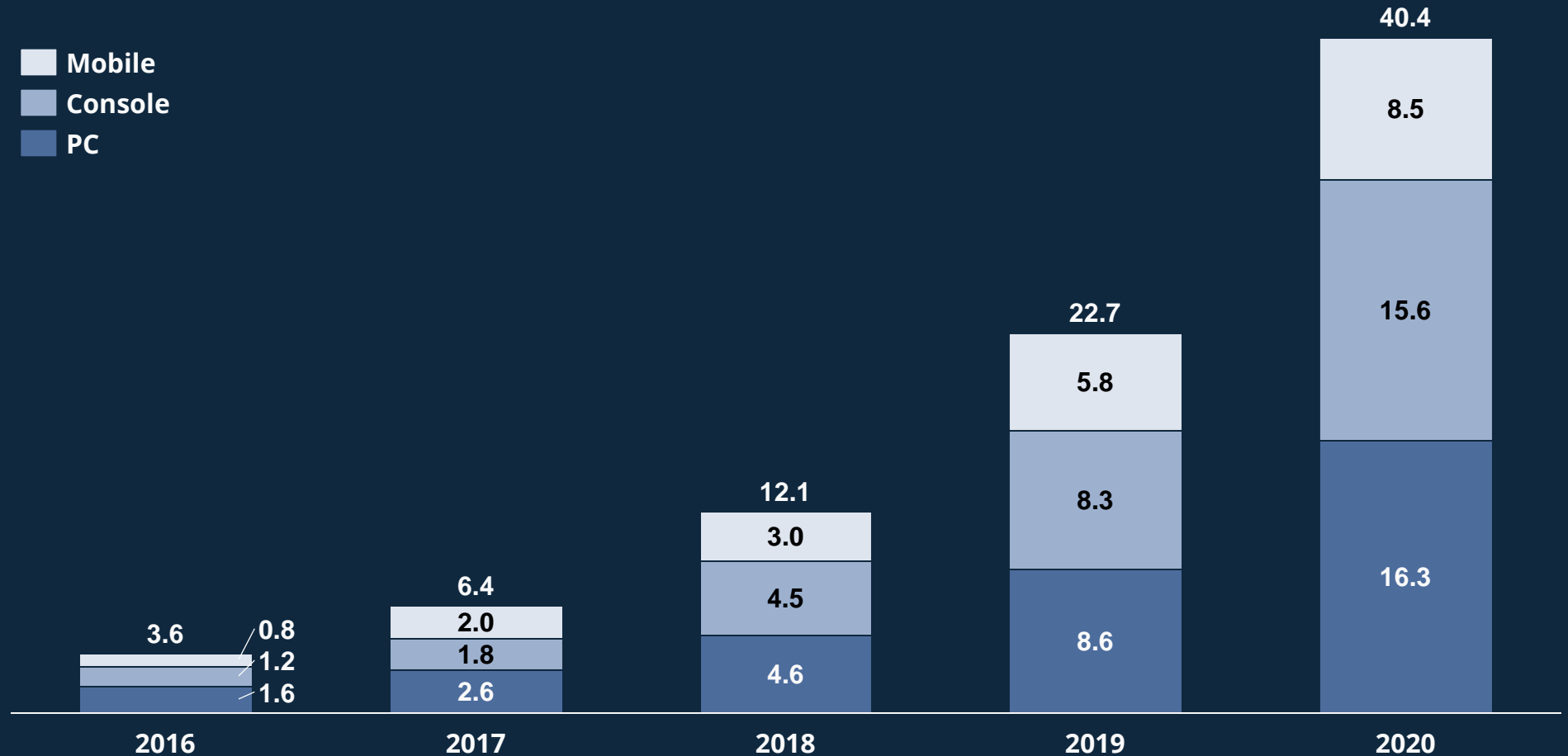
Augmented & Virtual Reality may be the next big tech opportunity

Estimated global virtual & augmented reality headset development



Global VR revenues are expected to increase to almost US\$40 billion by 2020

Forecasted VR hard- and software revenues by platform in US\$ billion



Source: Superdata via VRFocus

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Statista's Digital Market Outlook

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The Digital Market Outlook (DMO) provides KPIs and insights for eight digital markets

Statista Digital Market Outlook coverage



e-Commerce

Fashion, Electronics & Media, Food & Personal Care, Furniture & Appliances, Toys, Hobby & DIY



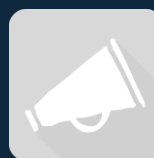
FinTech

Digital Payments, Business Finance, Personal Finance



eServices

Event Tickets, Fitness, Dating Services, Food Delivery



Digital Advertising

Banner Ads, Video Ads, Search Ads, Social Media Ads, Classifieds



eTravel

Online Travel Booking, Mobility Services



Smart Home

Home Automation, Security, Home Entertainment, Ambient Assisted Living, Energy Mgmt.



Digital Media

Video-on-Demand, Digital Music, Video Games, ePublishing

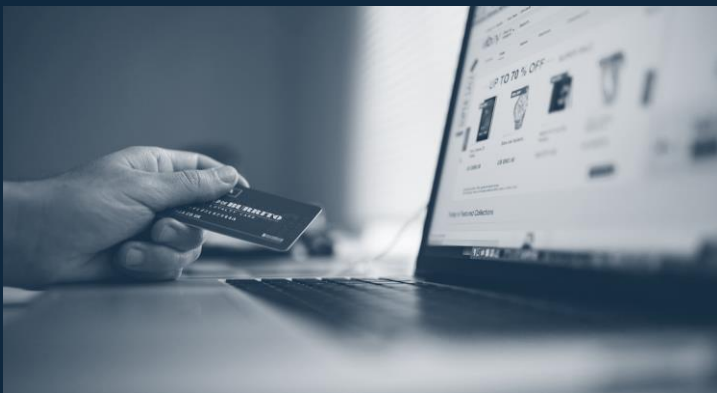


Connected Car

Connected Hardware, Vehicle Services, Infotainment Services

The DMO markets and forecasts cover a broad range of products and services

DMO scoping



B2C¹ markets and revenues for...



new² products and services...



in over 50 regions and countries...

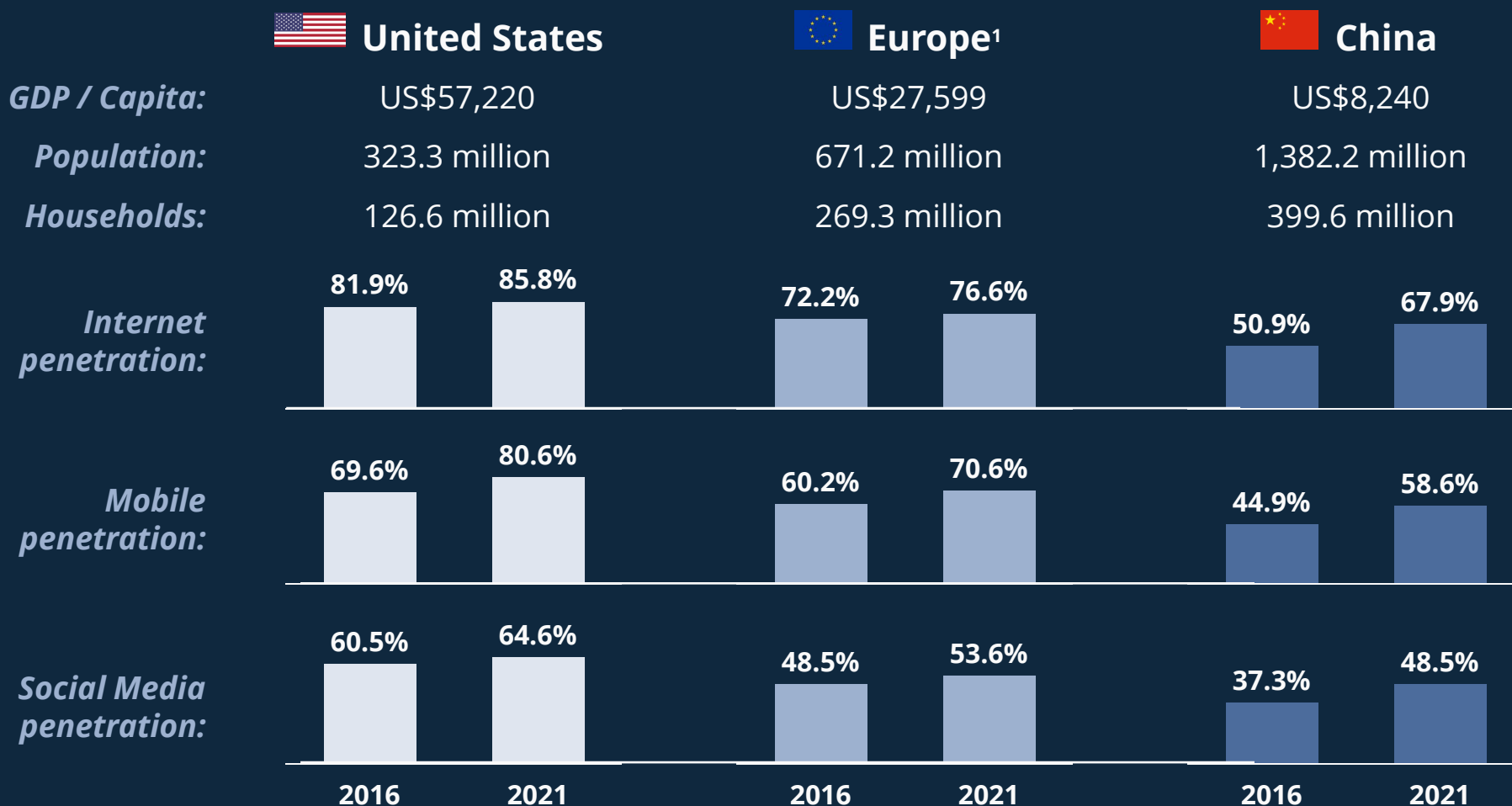


covering 7 years, from '15 to '21.

1: B2B and C2C markets are excluded
2: Resale of used goods is not included

Forecasts based on market-specific knowledge, enriched with macroeconomic developments

Macroeconomic overview 2016

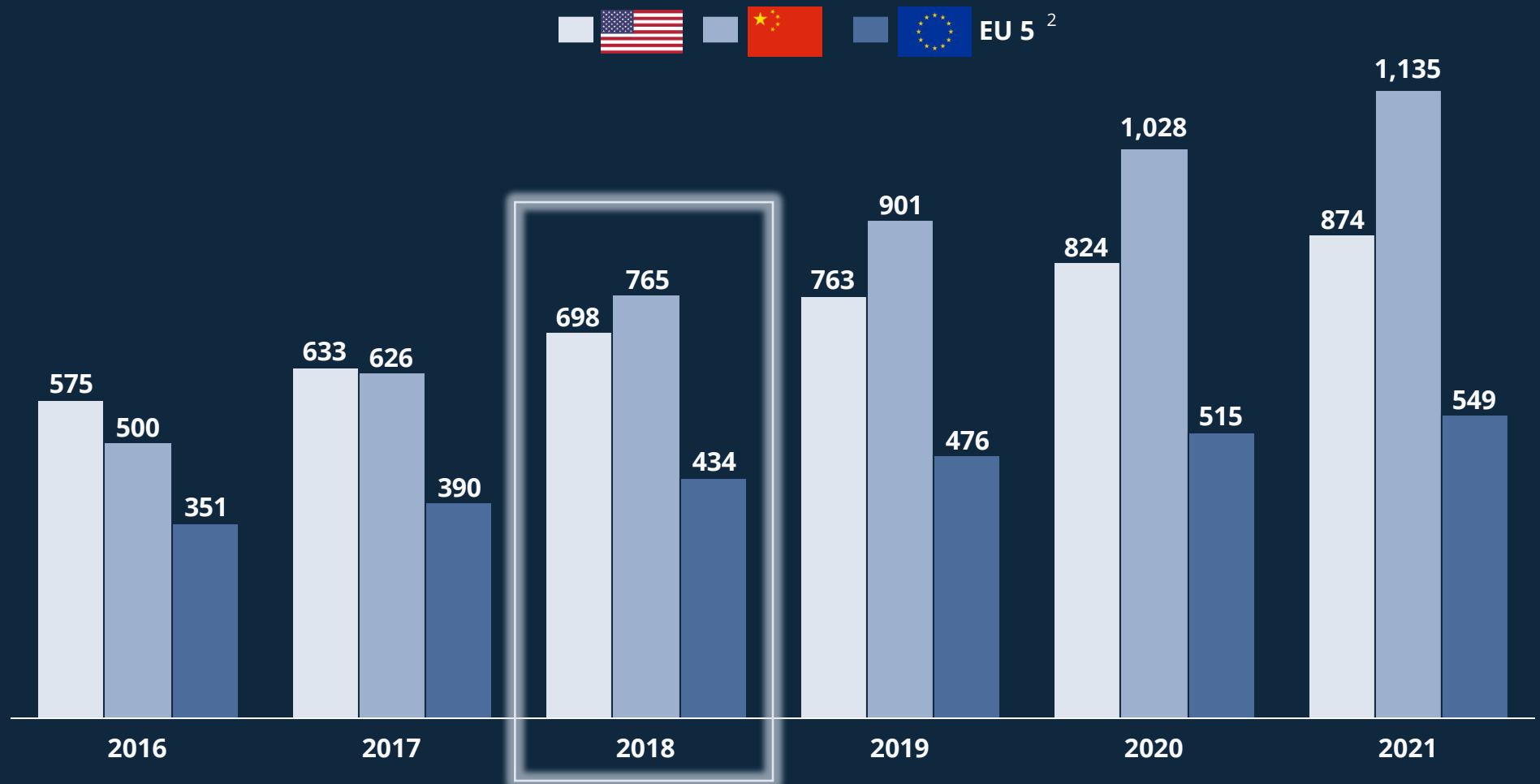


Source: **Statista Digital Market Outlook**

1: only includes countries of the Digital Market Outlook

In 2018, China will overtake the U.S. and will become the biggest digital economy

Digital market¹ development of the three major regions (in US\$bn)



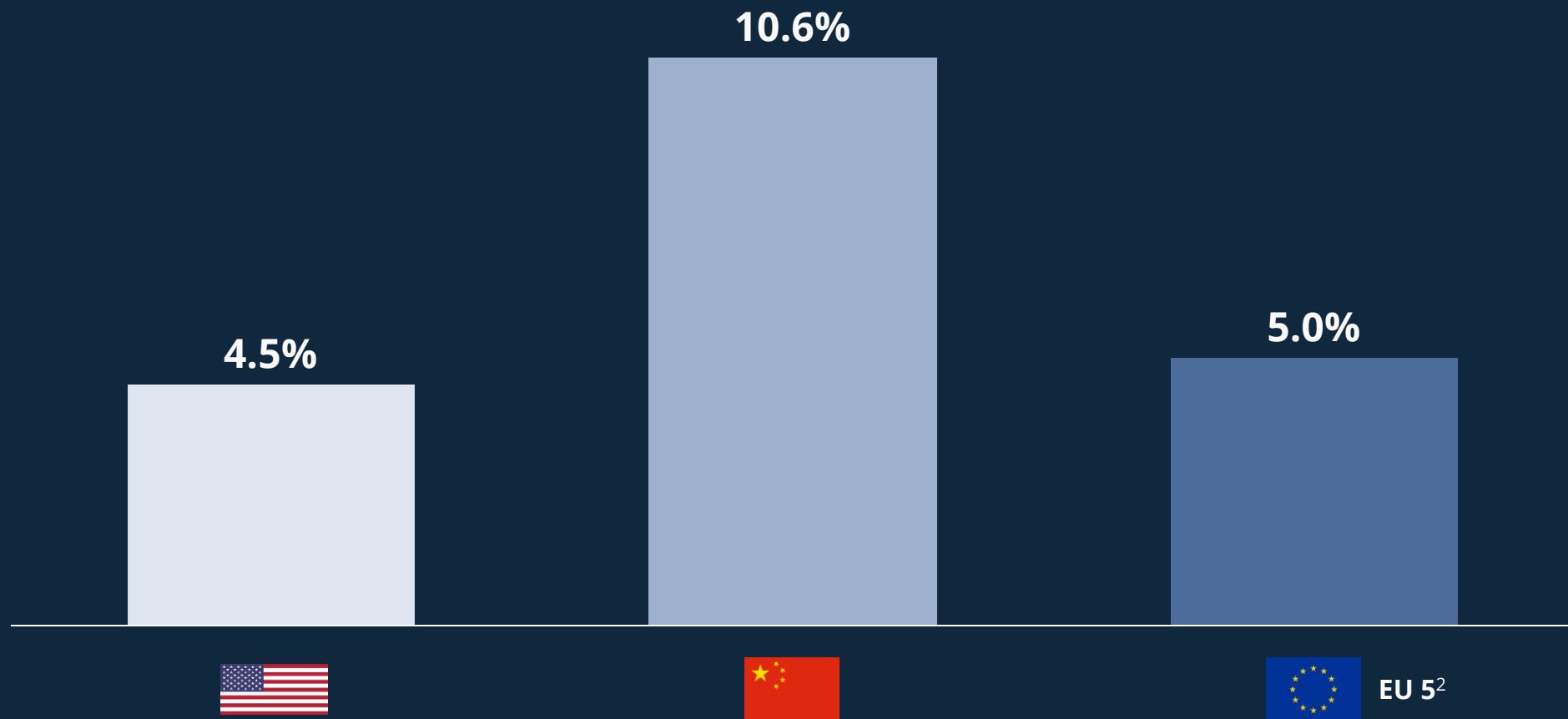
Source: **Statista Digital Market Outlook**

1: including all revenues generated within the e-Commerce, eTravel, eServices, Digital Media and Connected Car market

2: including France, Germany, Italy, Spain and the United Kingdom

In 2016, digital expenditure in % of household consumption per capita are the biggest in China

Digital expenditure¹ as share of household consumption per capita in '16



Source: **Statista Digital Market Outlook**

1: including all revenues generated within the e-Commerce, eTravel, eServices, Digital Media and Connected Car market

2: including France, Germany, Italy, Spain and the United Kingdom

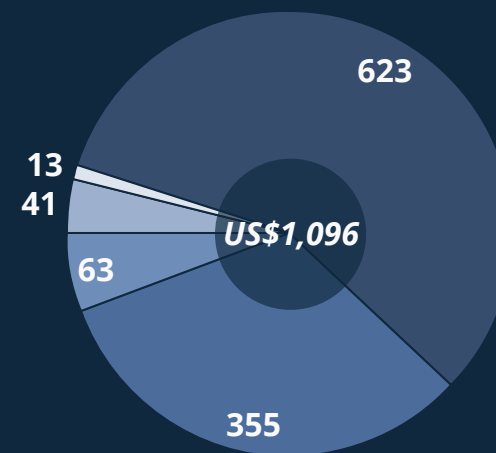
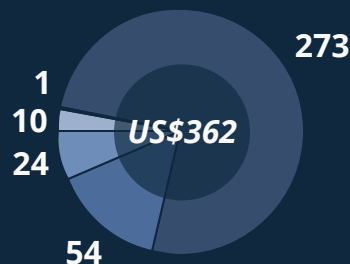
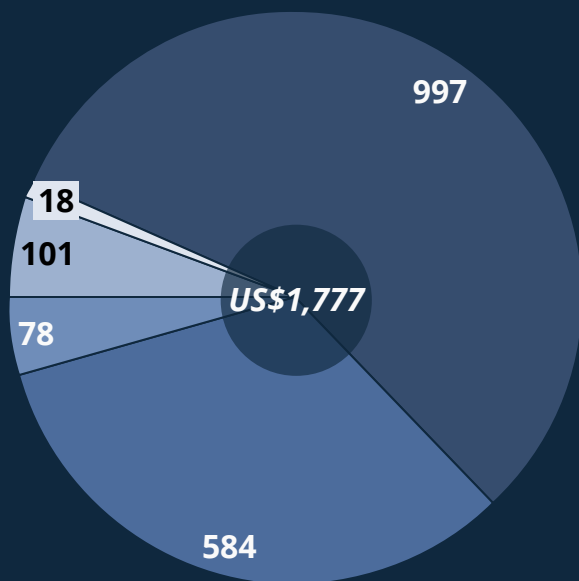
E-Commerce is by far the biggest digital market people spend their money on

Digital expenditure per capita in the major regions per category in '16

■ e-Commerce ■ eTravel ■ eServices ■ Digital Media ■ Connected Car



EU 5¹



Source: Statista Digital Market Outlook

1: including France, Germany, Italy, Spain and the United Kingdom

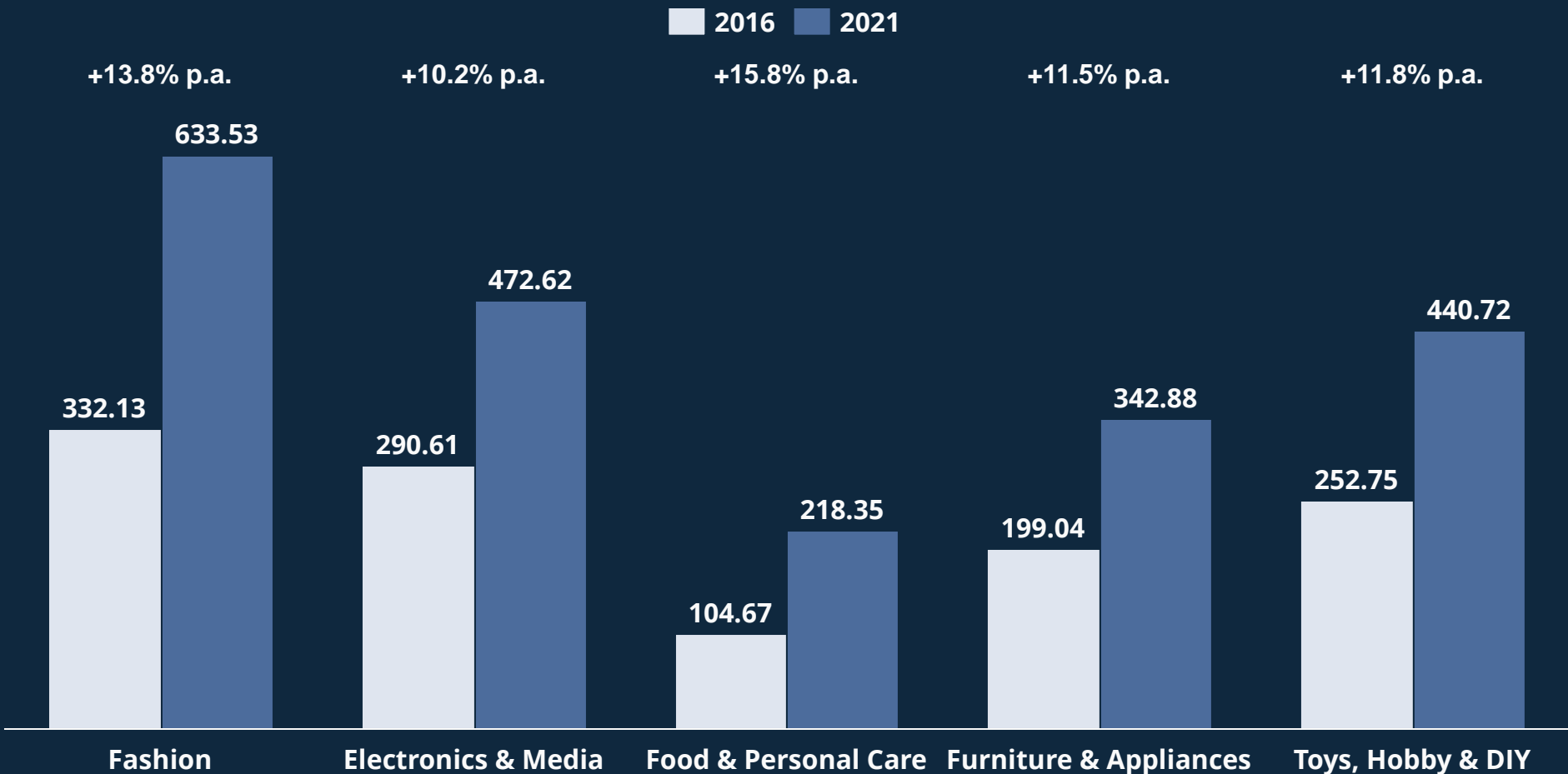
E-Commerce

12,000,000

Chinese online retailer **Tmall** ships an incredible 12 million boxes per day

Global e-Commerce revenue is expected to almost double to US\$2,108bn by 2021

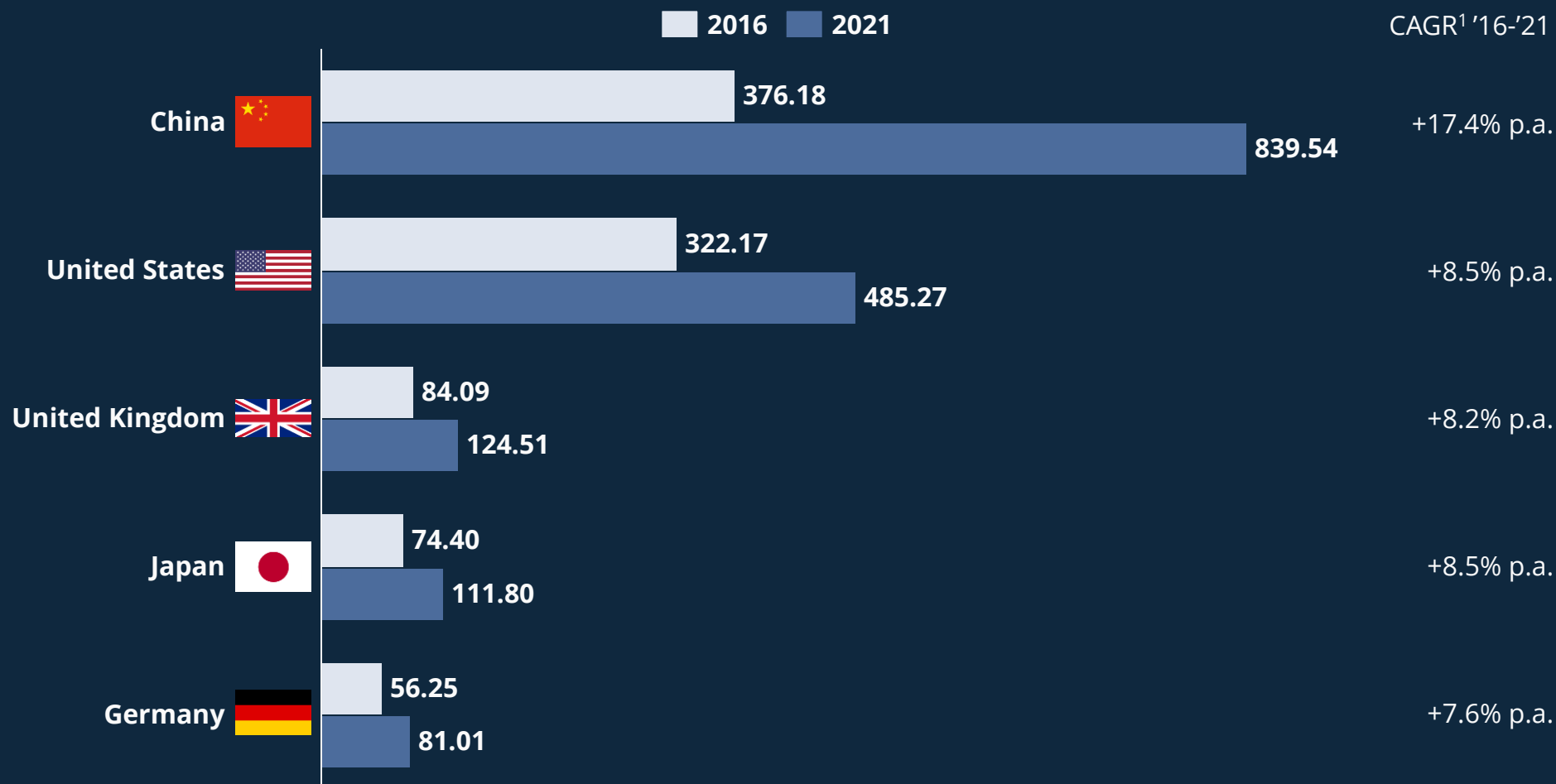
Global¹ e-commerce revenue (in US\$bn) and CAGR² 16-21 by segment



Source: Statista Digital Market Outlook
 1: only includes countries of the Digital Market Outlook
 2: CAGR: Compound Annual Growth Rate

The top e-Commerce markets exhibit growth and maintain their position in global ranking

Total e-Commerce revenue by region (in US\$ billion)



There are many product-specific big players in addition to large all-encompassing platforms

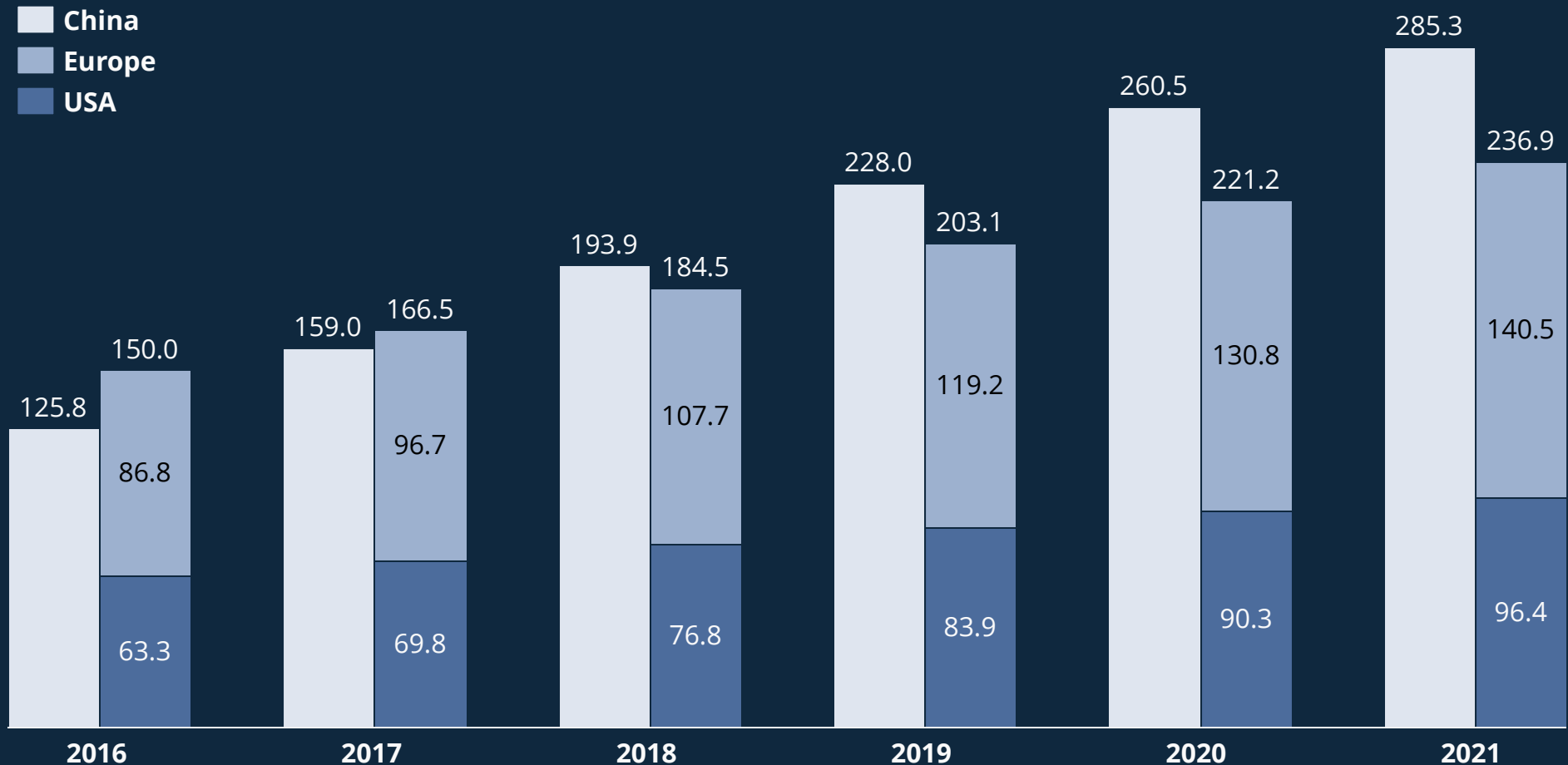
Key players by segment and business model

Key Player	Fashion	Electronics & Media	Food & Personal Care	Furniture & Appliances	Toys, Hobby & DIY
Market Places	vente-privee.com	newegg	Alibaba Group		
Online Retailer	zalando	amazon	TESCO	Crate&Barrel	STAPLES Cabela's Office DEPOT
	NORDSTROM ★ macy's ASOS next	BEST BUY	Walmart	home24 houzz	ToysRUS Argos SPORTS DIRECT.com
Direct Seller	ZARA VICTORIA'S SECRET H&M	DELL Apple hp Lenovo	Hello FRESH WHOLE FOODS MARKET SAFEGWAY	wayfair LOWE'S IKEA POTTERY BARN	asics THE HOME DEPOT LEGO NIKE

Source: Statista Digital Market Outlook

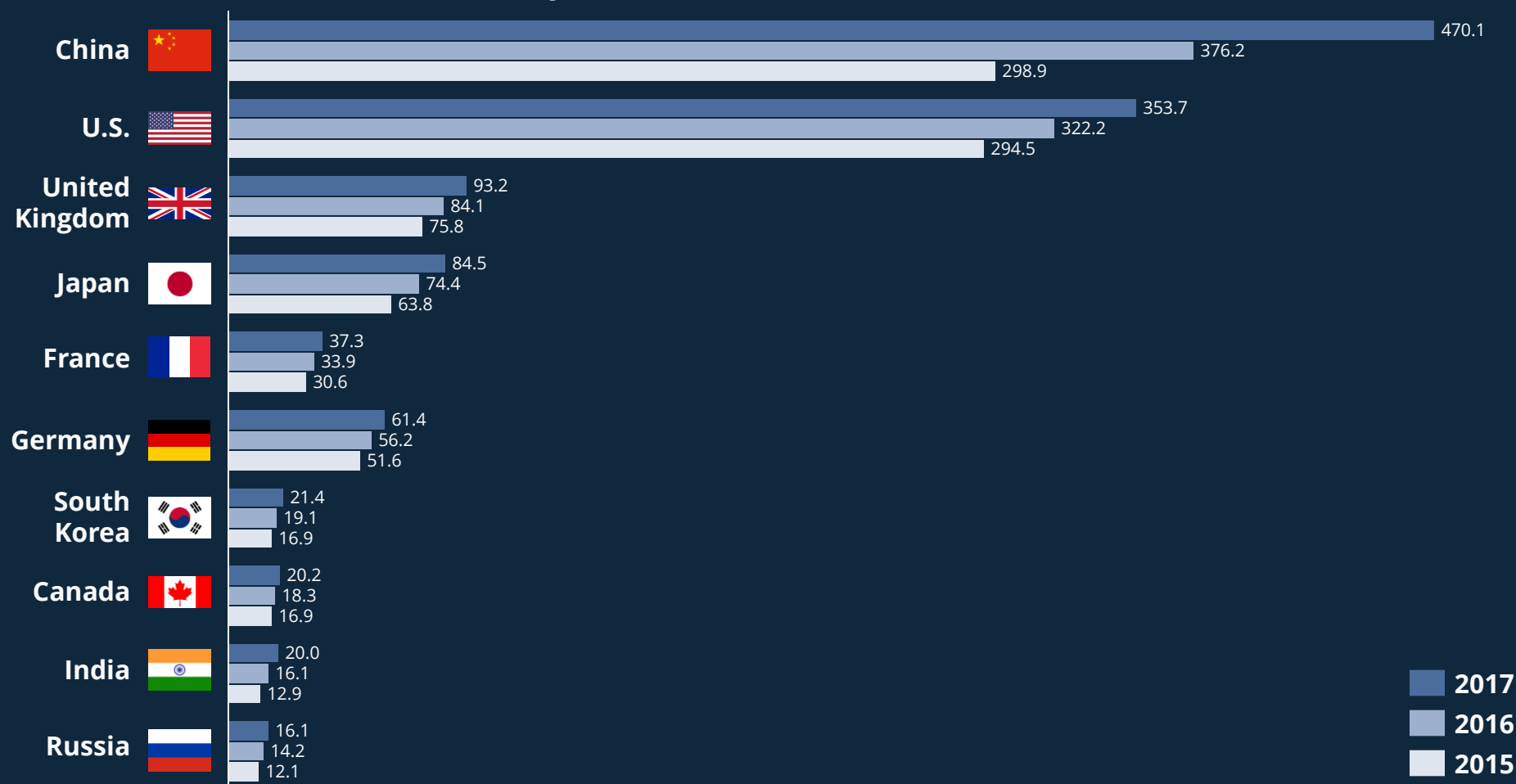
China will dominate the online fashion world with a turnover of more than US\$285bn in 2021

Projected online turnover from fashion (in US\$ billion)



The Chinese B2C e-Commerce market outperformed the U.S. both in size as well as in growth

B2C e-Commerce turnover from 2015 to 2017¹ in US\$ billion



Transparency and simple processes are most important for online shopping delivery

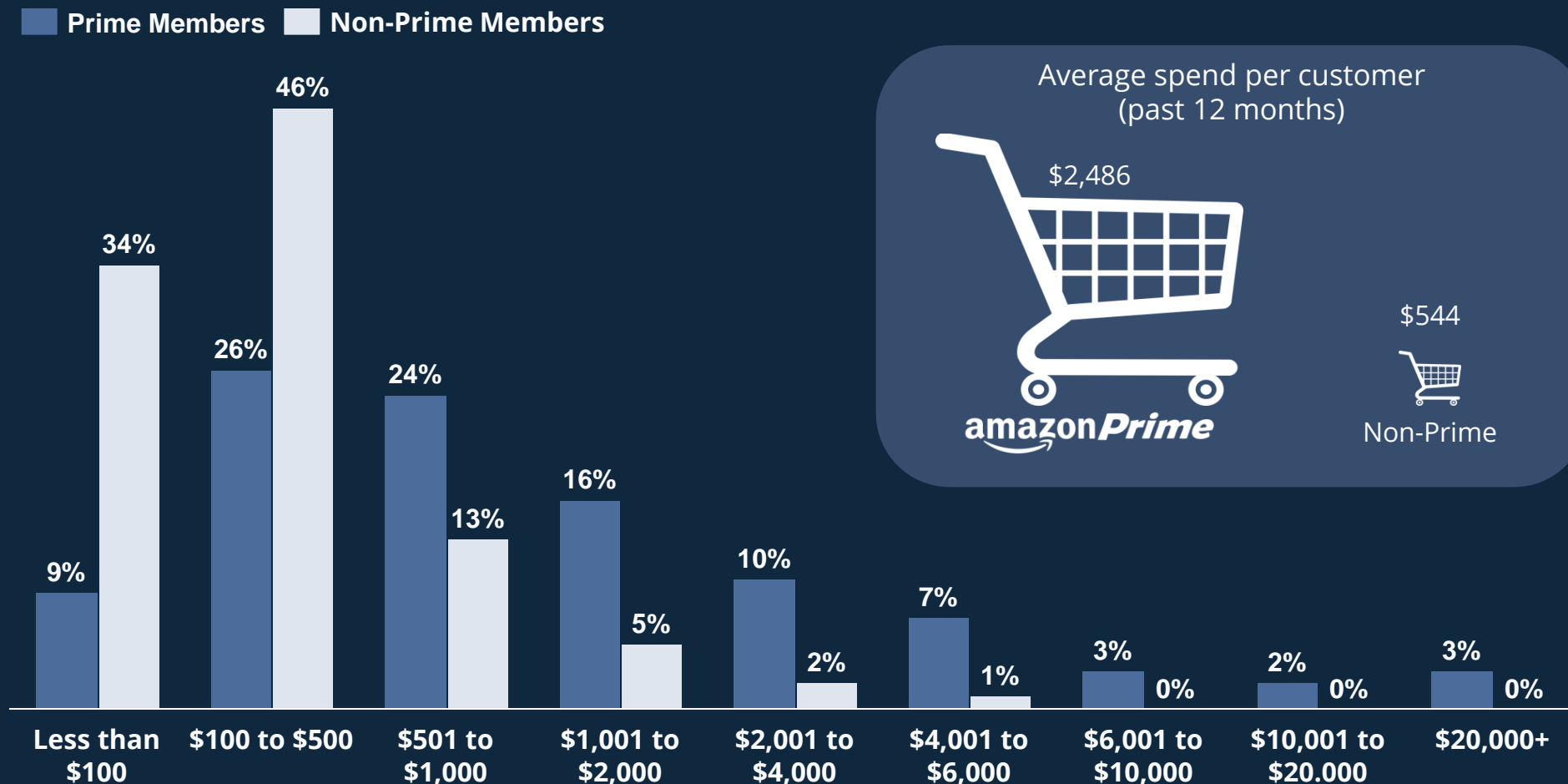
Most important aspects of online shopping delivery for customers



Source: IPC online survey with 23,331 respondents (Sept. to Oct. 2016)

Amazon leverages loyalty from Prime members; thus, incentivizing them is an important strategy

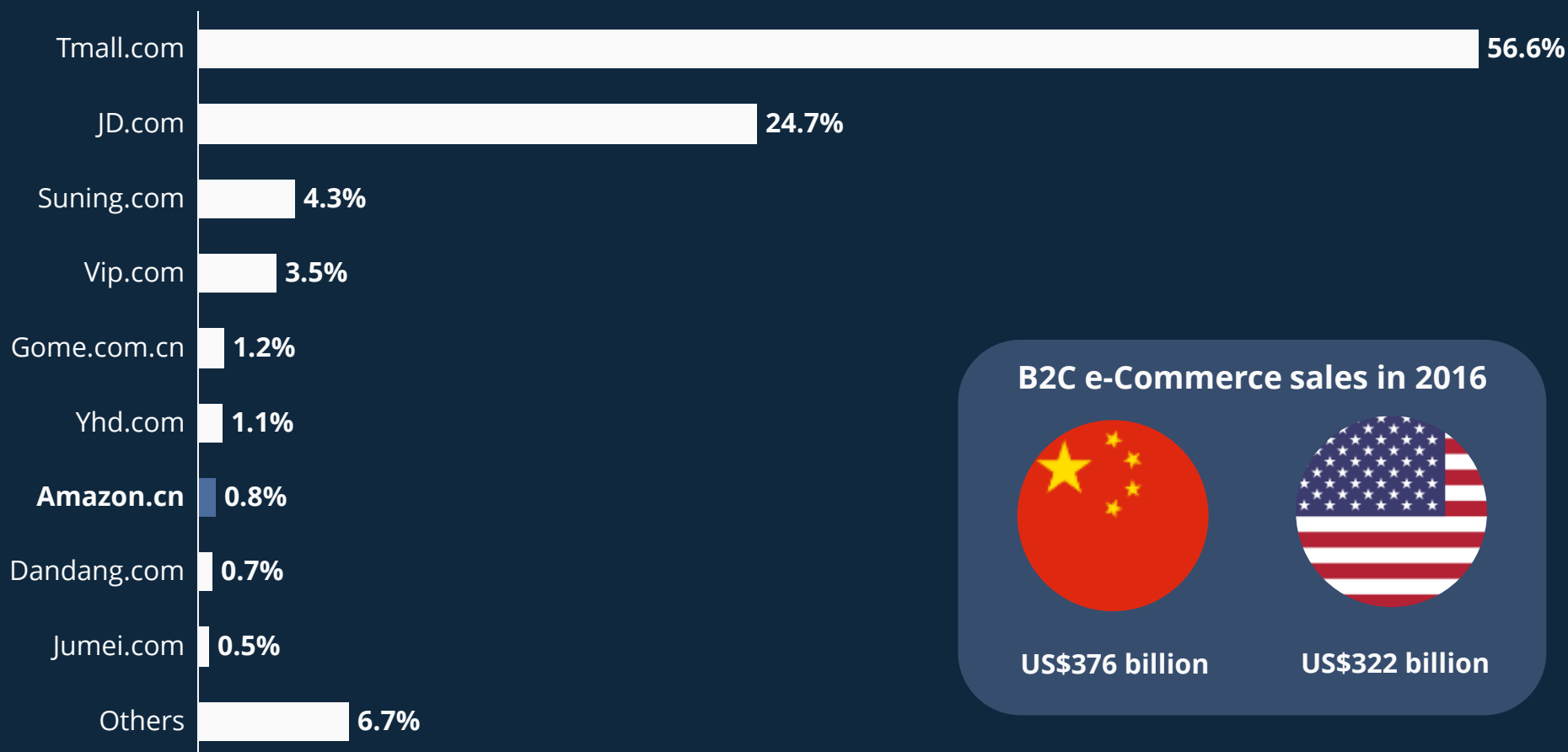
Amount spent by U.S. Amazon customers in the past 12 months



Sources: Morgan Stanley Research, AlphaWise

Despite being #1 in the U.S. and Europe, Amazon has not yet cracked the Chinese market

Market share of e-Commerce websites in China (in % of B2C sales)



Source: iResearch China, U.S. Department of Commerce, Statista Digital Market Outlook

Online Shopping is not as profitable as you think

Discover more of our topic-related research for e-Commerce

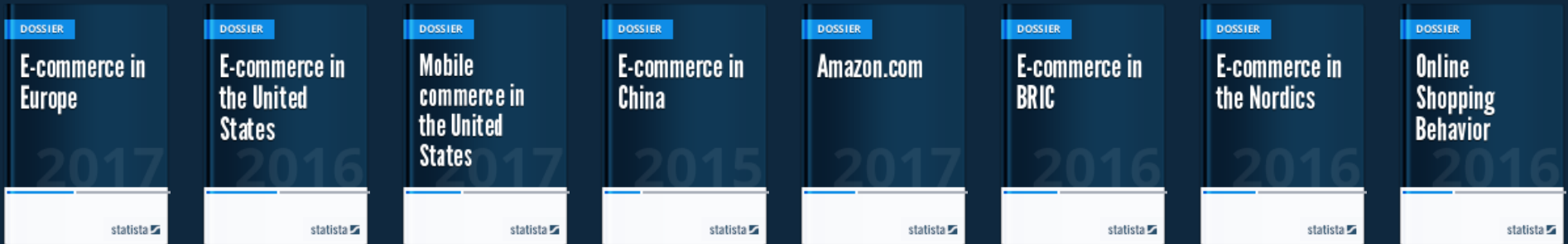


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eServices



1,400,000,000

Online dating app *Tinder* registers a daily average of 1.4 billion swipes on its platform

Food delivery is the most dynamic eServices market, with revenues expected to triple by 2021

Global¹ eServices revenue (in US\$ billion) and CAGR² 16-21 by segment

2016 2021



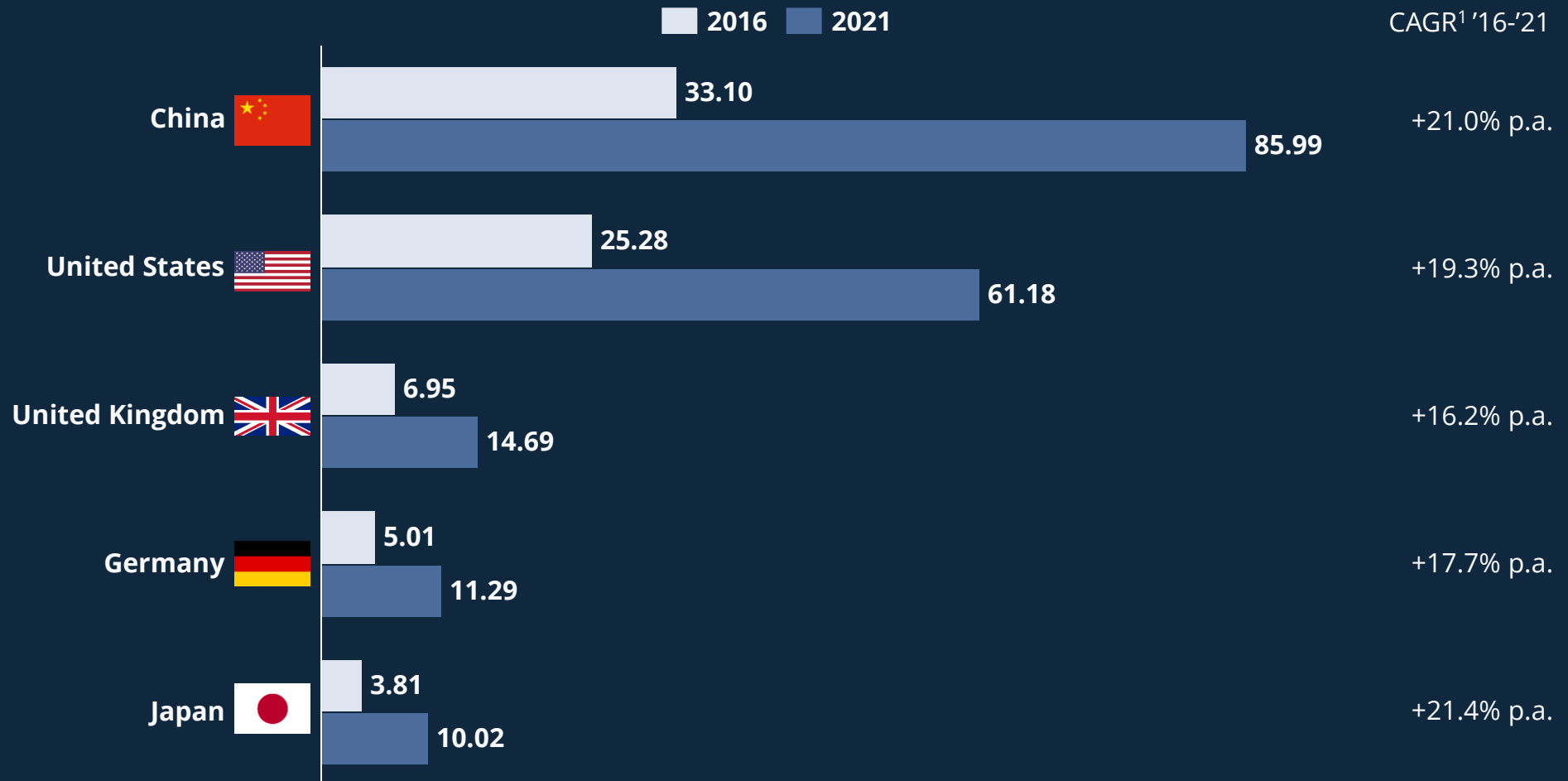
Source: Statista Digital Market Outlook

1: only includes countries of the Digital Market Outlook

2: CAGR: Compound Annual Growth Rate

An estimated eServices market value of US\$86bn by 2021 will increase China's lead over the U.S.

Total eServices revenue by region (in US\$ billion)



New market entrants create competitive pressures in the eServices market

Selected key players by segment and market complexity

	Event Tickets	Fitness	Dating Services	Food Delivery
Startups ¹				
Established players				
Market complexity ²				

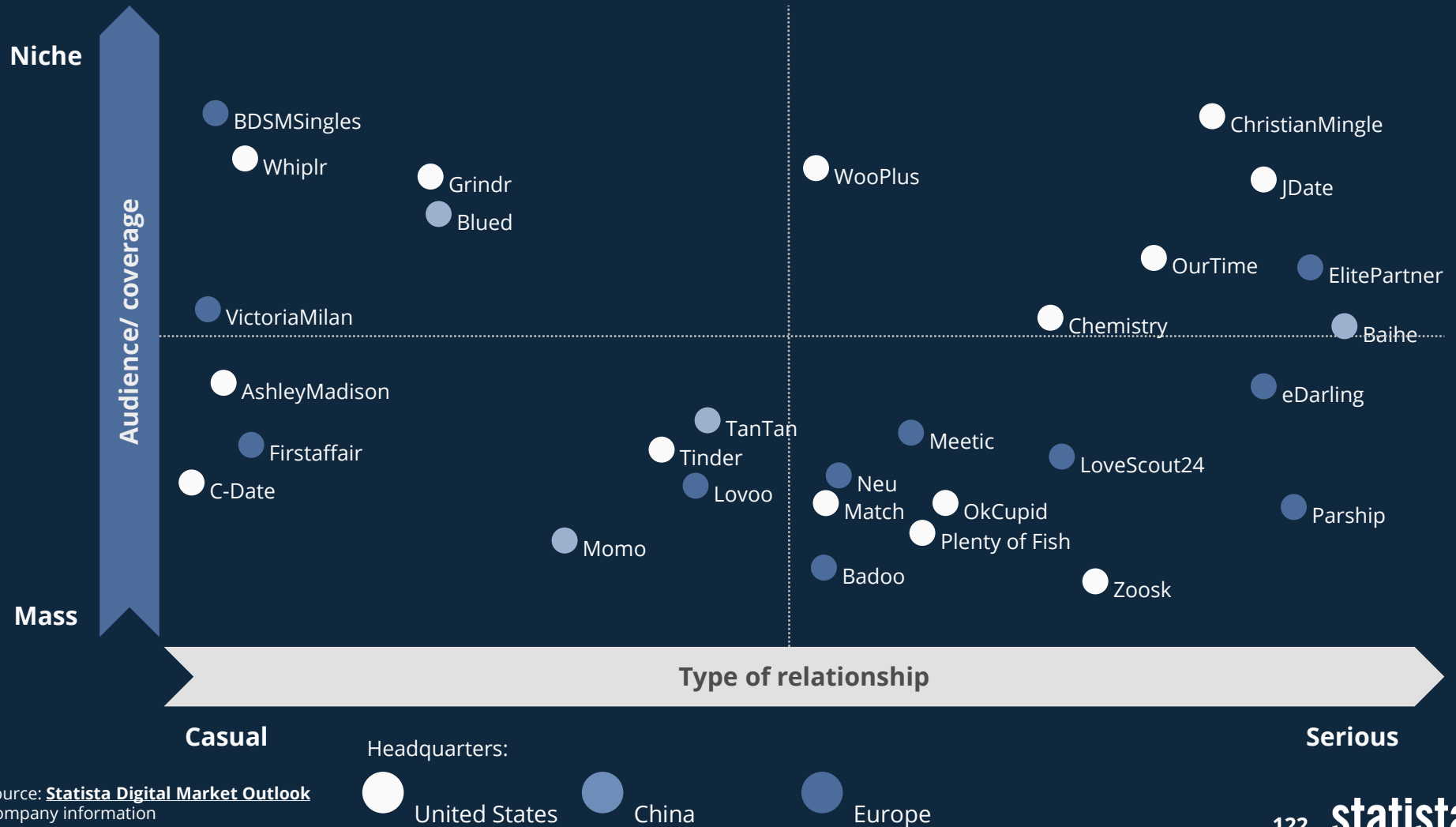
Source: Statista Digital Market Outlook

1: Founded after or in 2007

2: Estimate; considers value chain complexity and competitor landscape

In Dating Services, different offerings are targeted at various audiences and types of relationship

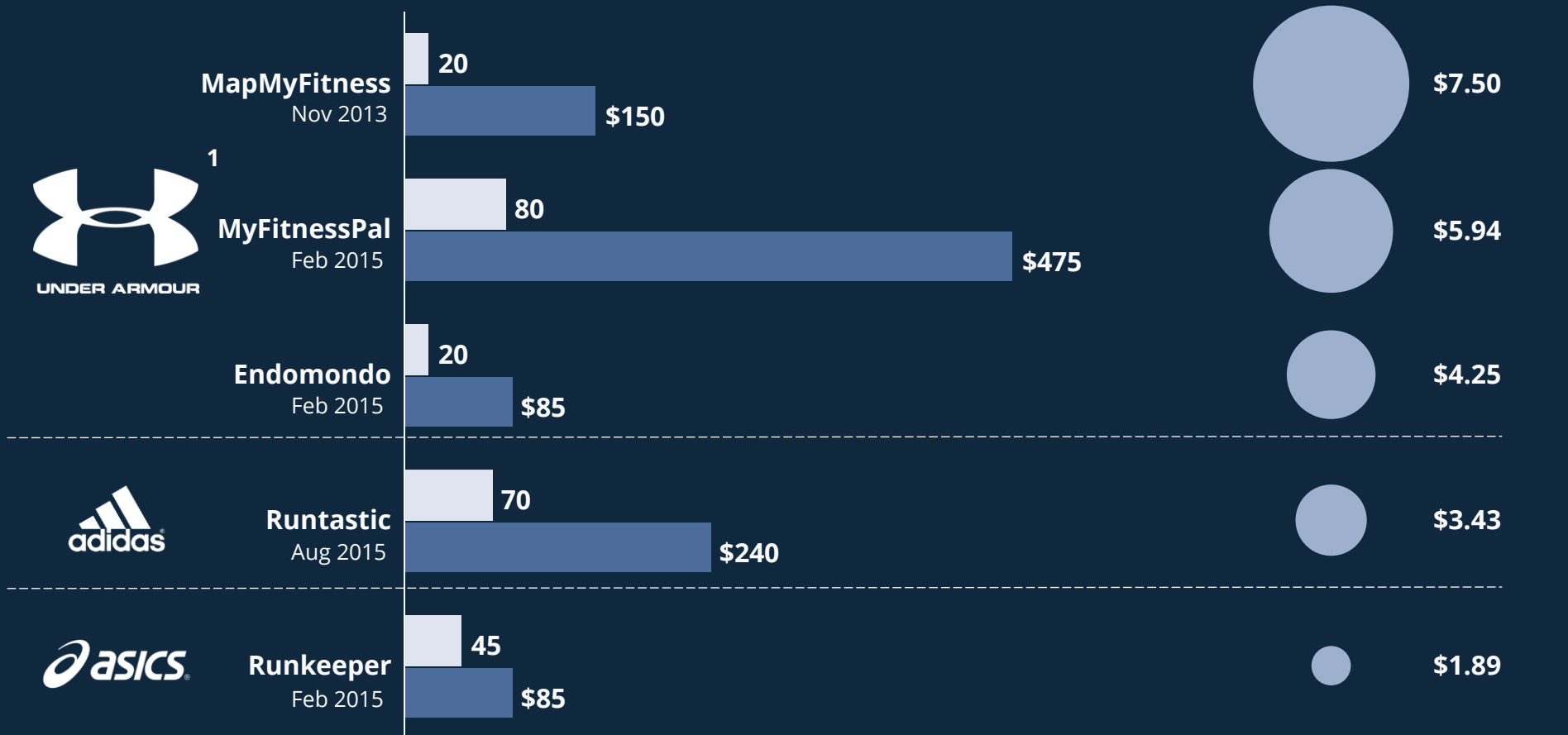
Dating portals/apps segmentation of selected players



Sportswear giants are acquiring fitness apps; Under Armour is the most active player

Sportswear companies' fitness app acquisitions

■ Registered users at the time of acquisition in million ■ Acquisition price in million ● Acquisition price per user

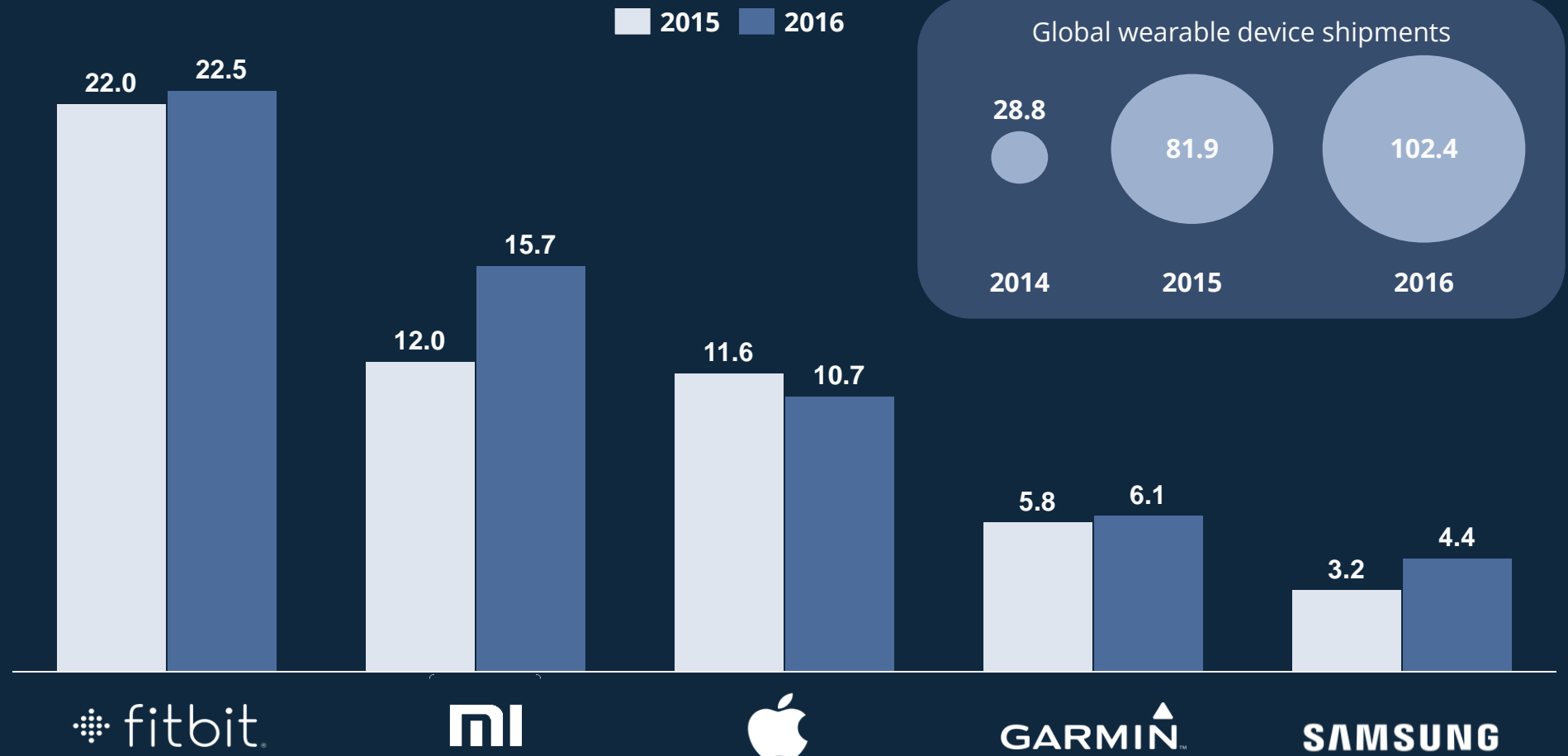


Sources: DC Reinmaker, Fortune, Runnersworld, Statista Digital Market Outlook

1: Under Armour also acquired Gritness in July 2015 for an unknown amount.

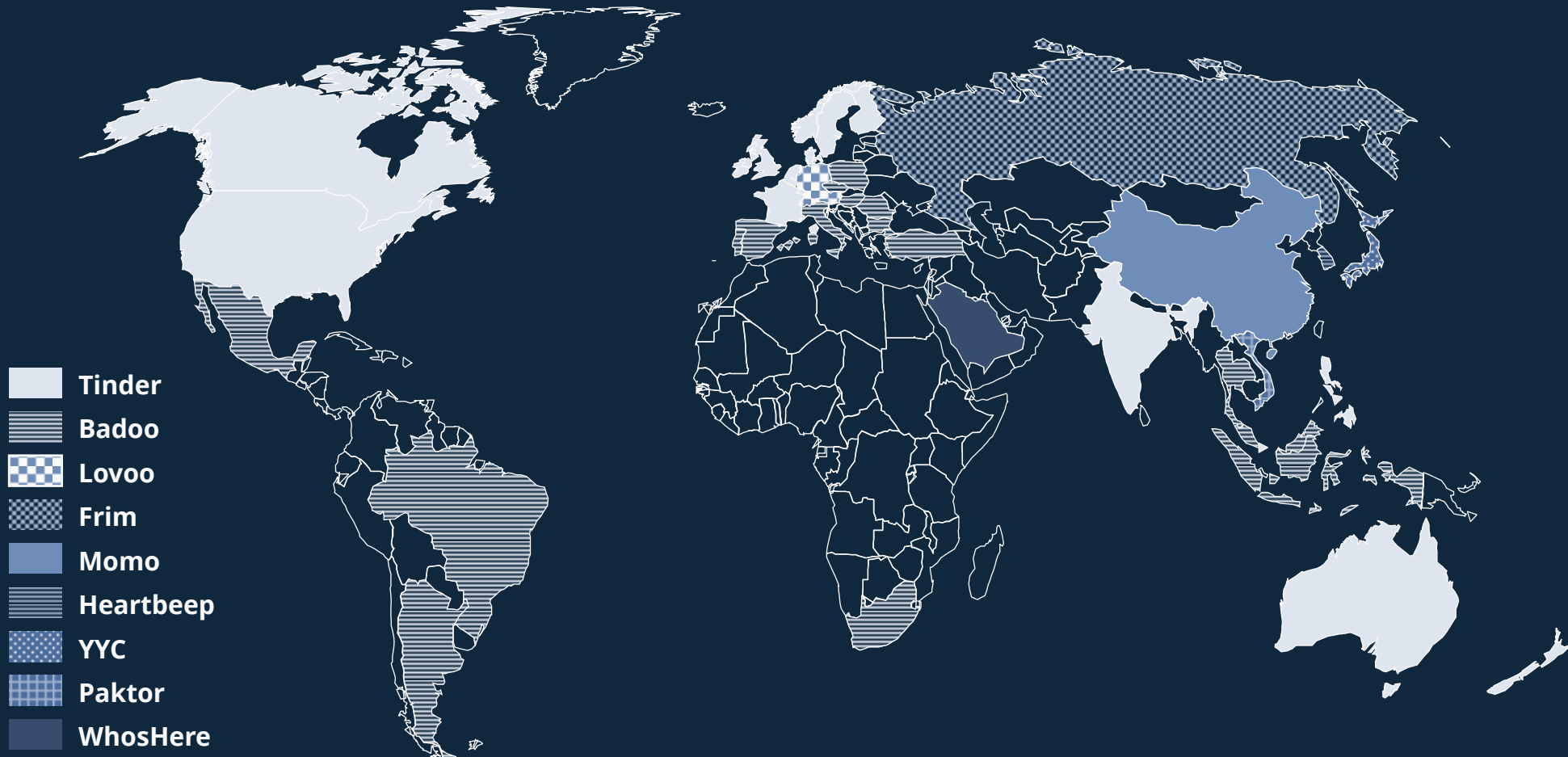
Fitbit leads the global wearables market; what can be expected from the Apple Watch?

Worldwide wearable device shipments by the Top 5 vendors in million



Tinder and Badoo are the top 2 dating apps in terms of global¹ downloads

The most downloaded dating app by country 2015



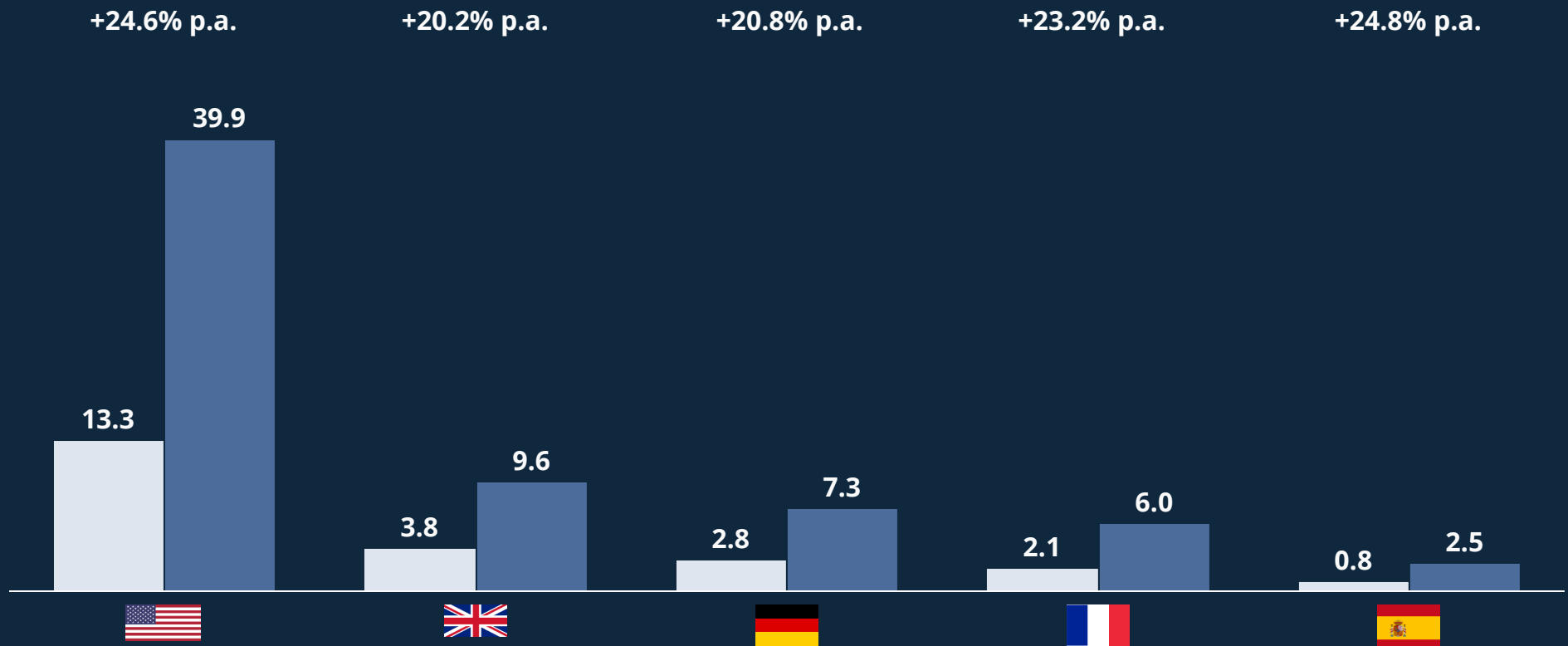
Sources: BBC News, App Anii, [Statista Digital Market Outlook](#)

1: only includes countries of the Digital Market Outlook

Selling food online is a promising business – especially in the U.S.

Online food delivery¹ revenue forecast (in US\$ billion)

2016 2021

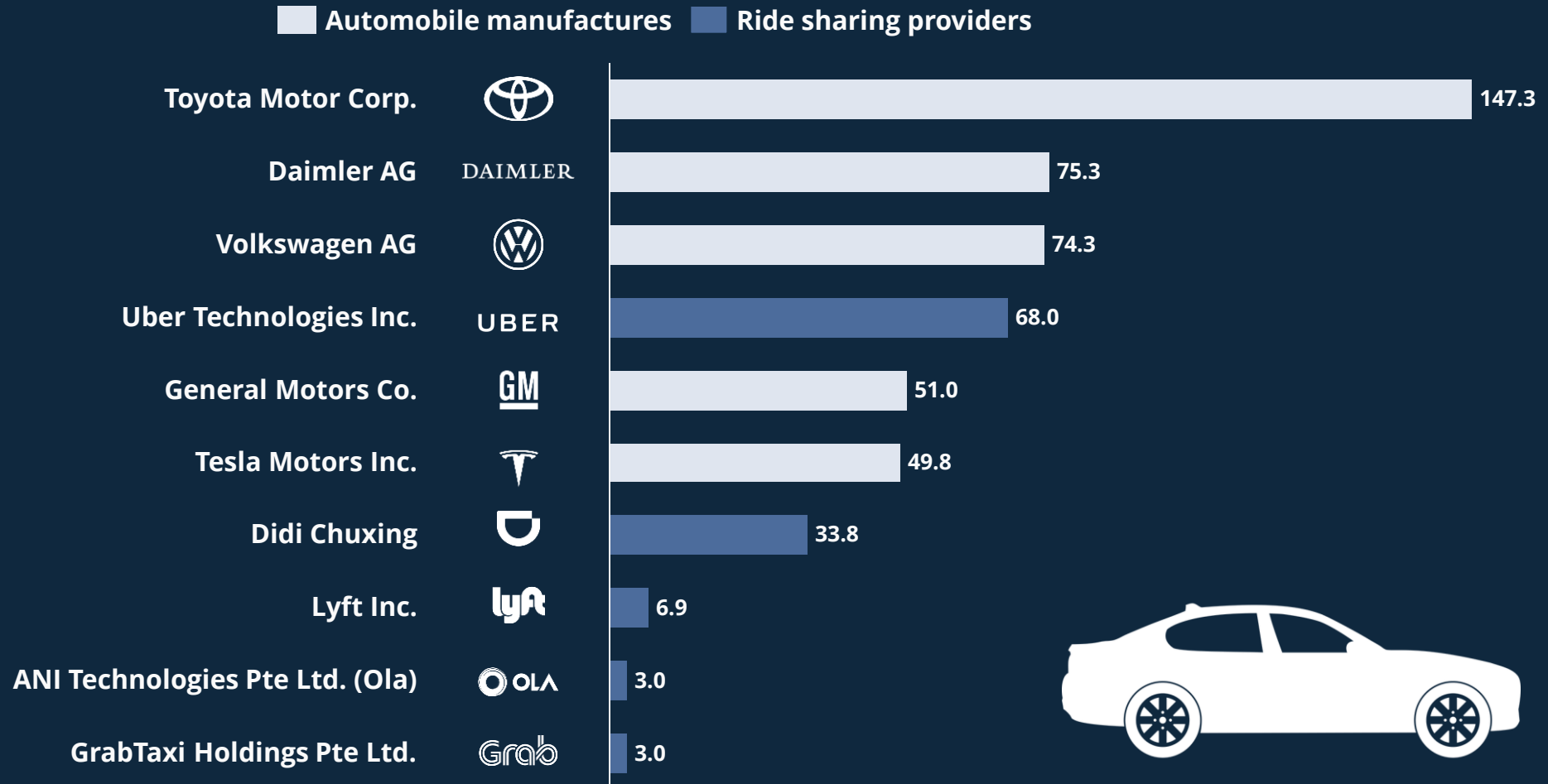


Source: **Statista Digital Market Outlook**

1: includes meals ordered online and delivered by restaurants, delivery services and online orders collected by the customer; does not include phone orders and grocery deliveries

Despite not owning a single car, Uber's market valuation is closing in on the big OEMs

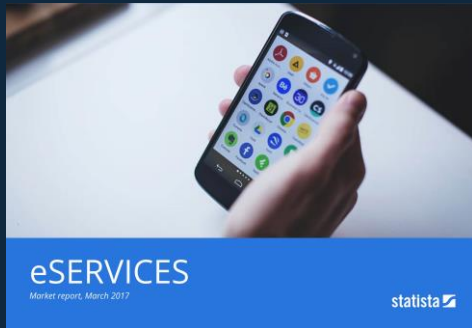
Market cap/valuation of selected companies in 2017 (in US\$ billion)



Source: Yahoo! Finance, CB Insights, livemint
Note: Market cap as of 04-20-2017

Everyone is taking a stab at online food delivery

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- › Dating Services
- › Food Delivery

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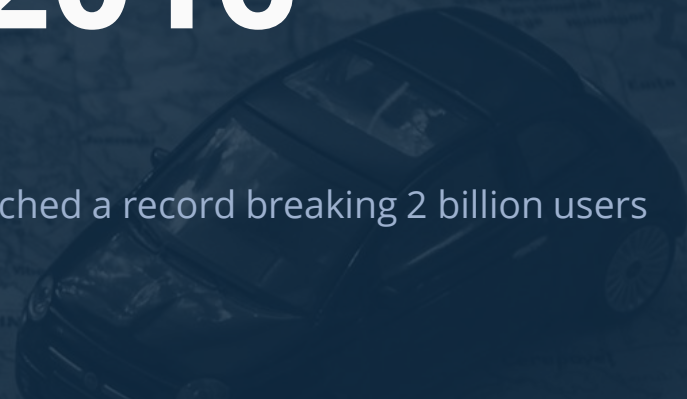


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eTravel

06-18-2016

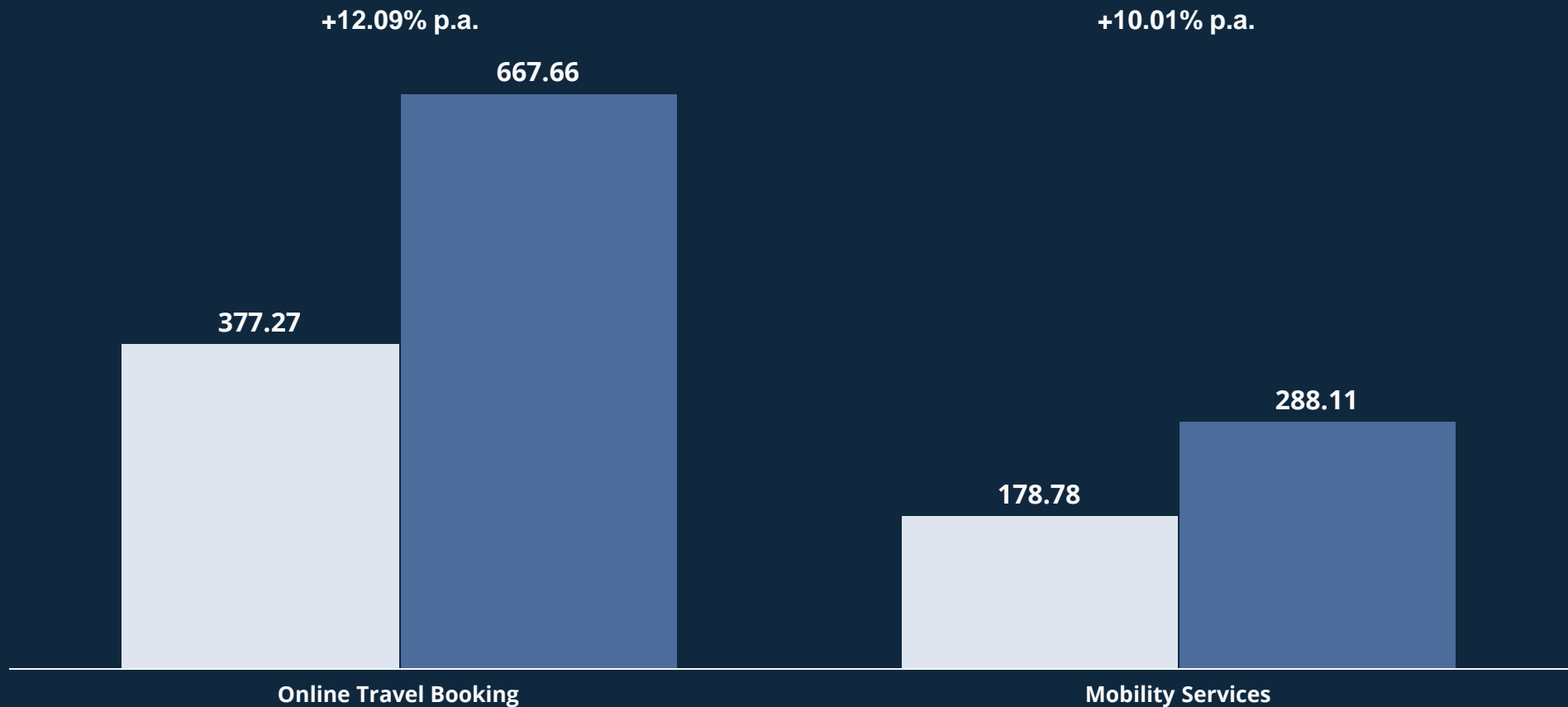
The day online ride sharing company **Uber** reached a record breaking 2 billion users



The global eTravel market will almost double to around US\$1 trillion by 2021

Global¹ e-commerce Revenue in US\$ billion and CAGR² 16-21 by segment

2016 2021



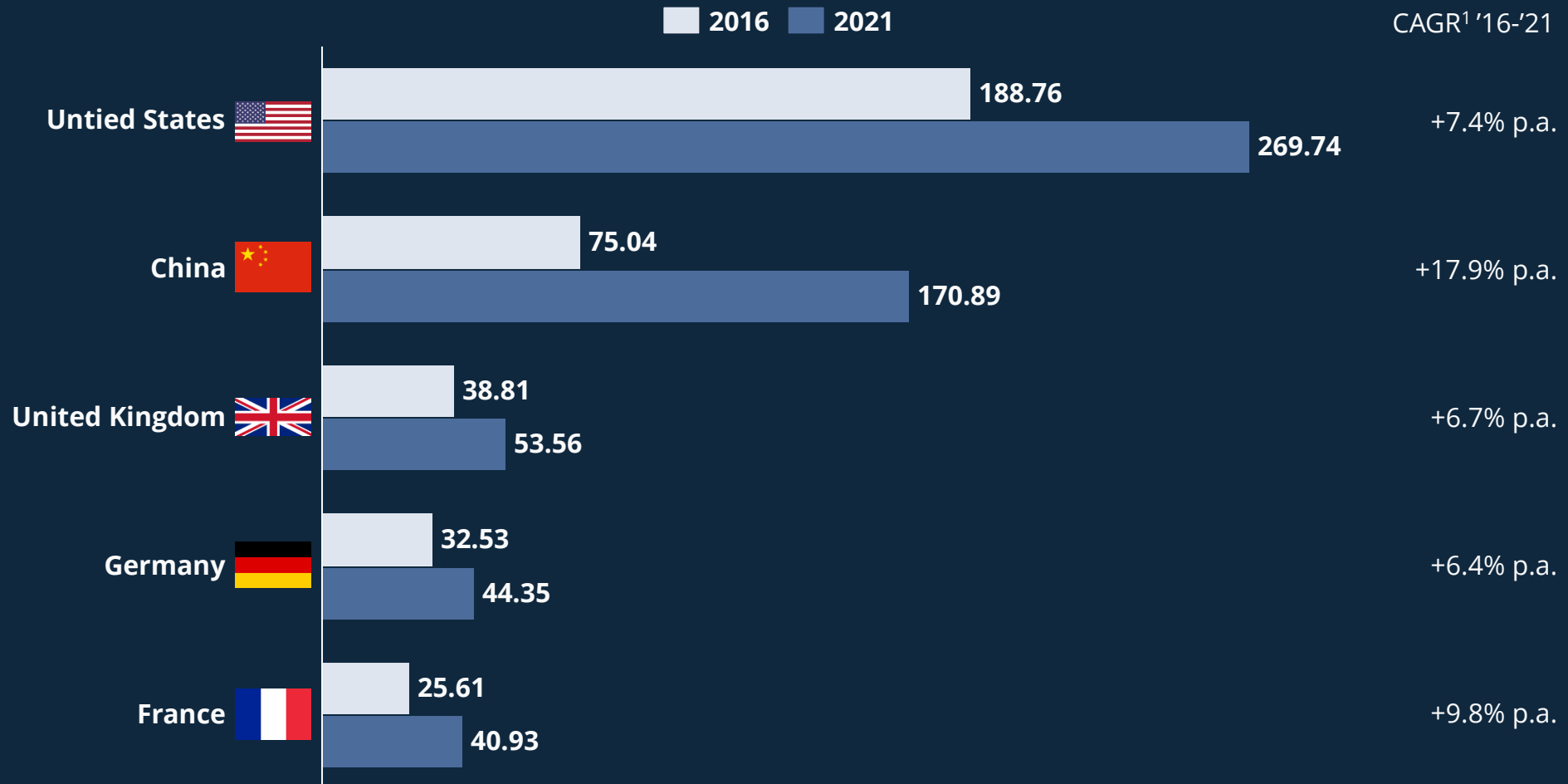
Source: **Statista Digital Market Outlook**

1: only includes countries of the Digital Market Outlook

2: CAGR: Compound Annual Growth Rate

China displays the fastest growth in terms of eTravel revenues

Total eTravel revenue by region (in US\$ billion)



Companies in the eTravel market can be grouped into startups and established players

Key players by segment and market complexity

	Online Travel Booking	Mobility Services
Startups ¹		
Established players		
Market complexity ²		

Source: Statista Digital Market Outlook
 1: Companies founded in or after 2007
 2: Estimate; considers value chain complexity and competitor landscape

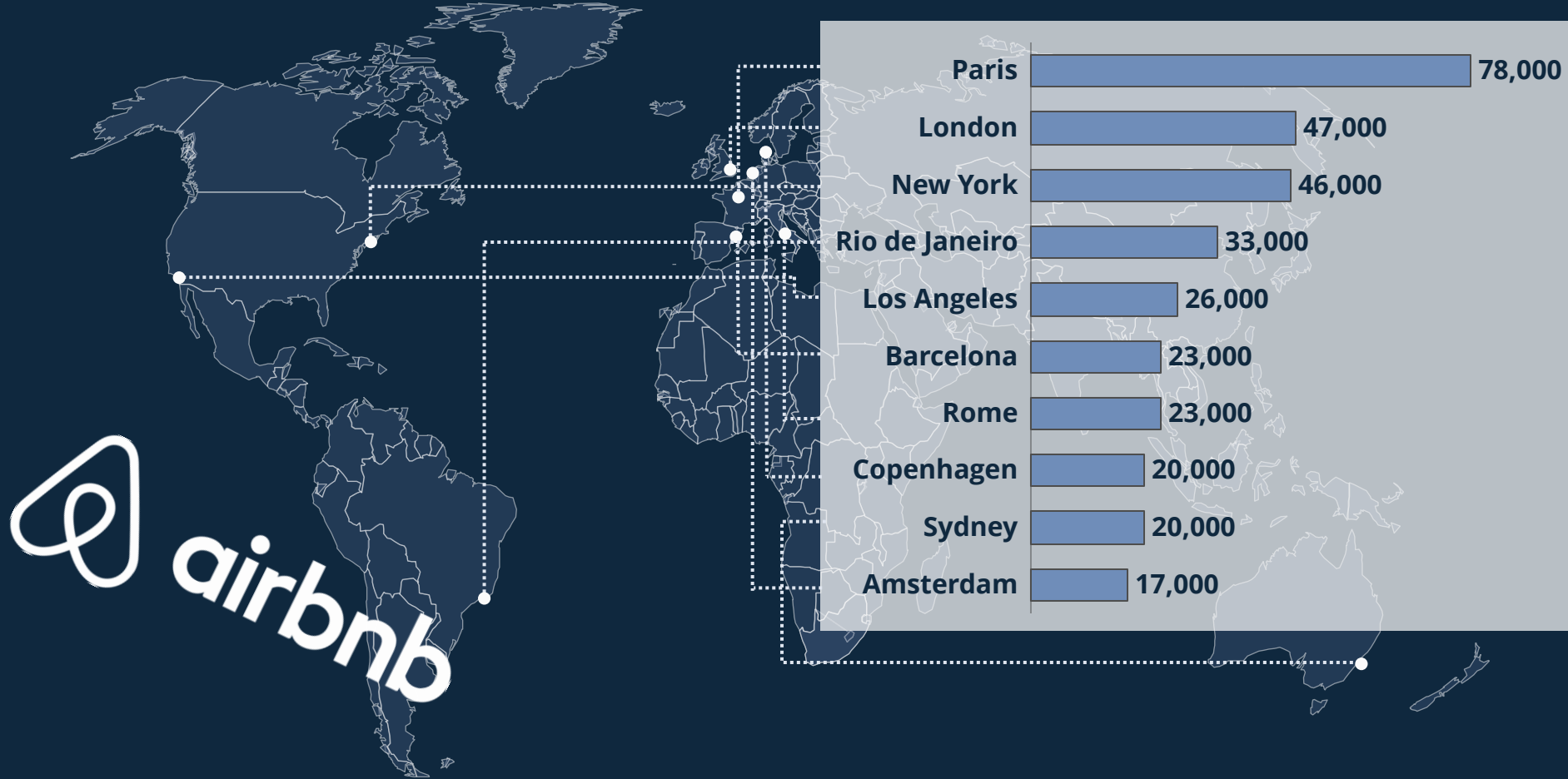
Four big players account for the major M&A activity within the Online Travel Booking industry

Selected players and selected acquisitions/ investments

Ctrip			eDreams ODIGEO			Expedia			Priceline		
2016	Skyscanner	US\$1700m	2013	Liligo.com	N/A	2015	Homeaway	US\$3900m	2015	PriceMatch	N/A
2016	MakeMyTrip	US\$180m (27% stake)	2011	Opodo	N/A	2015	Orbitz, eBookers	US\$1600m	2014	Hotel Ninjas	N/A
2015	Tuniu	US\$500m	2011	eDreams	Merger	2015	Travelocity	US\$280m	2014	Buuteeq	N/A
2015	eLong	US\$400m (38% stake)	2011	GoVoyages	Merger	2014	Wotif	US\$658m	2014	OpenTable	US\$2600m
2015	Travelfusion	US\$160m				2014	Auto Escape	US\$85m	2012	Kayak	US\$1800m
2015	Qunar	45% stake				2012	Trivago	US\$632m (62% stake)	2010	Rentalcars	N/A
2015	Suanya	US\$16m				2008	CarRentals.com	N/A	2010	Swoodoo	N/A
2014	ToursForFun	US\$100m				2008	Venere	N/A	2007	Agoda	N/A
2014	Tujia	US\$100m				2001	Hotels.com	N/A	2005	Booking.com	US\$135m
2013	Yongche	US\$60m									

Airbnb has reshaped the way we book accommodations

Number of Airbnb listings in cities worldwide in 2016¹

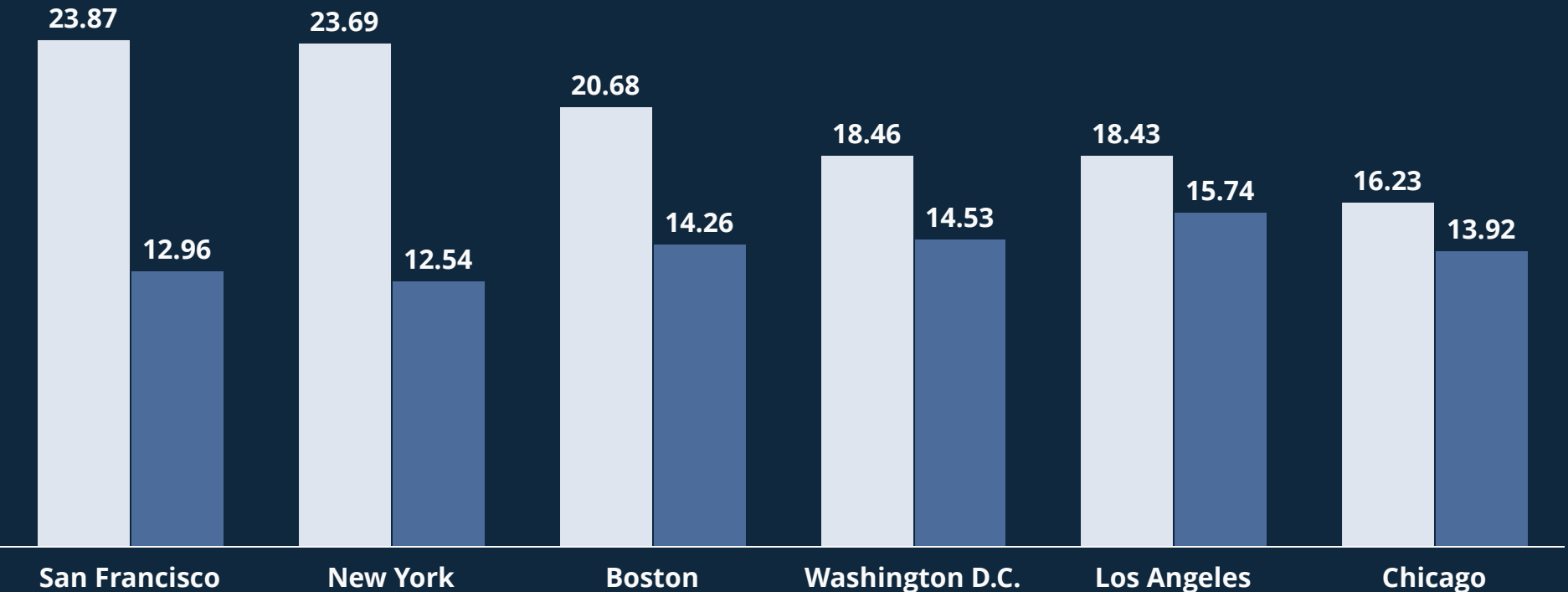


Source: Airbnb Data & Analytics
1: Listings refer to entire flats, private rooms and shared rooms

Fair deal? In major cities, taxi drivers earn significantly less than Uber drivers

Estimated hourly earnings of driver services in major U.S. cities

Uber Drivers (Net Earnings Per Hour)
Taxi Drivers & Chauffeurs (Hourly Wages)



Source: Uber

Rethinking travel: Airbnb is just the beginning

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Digital Media

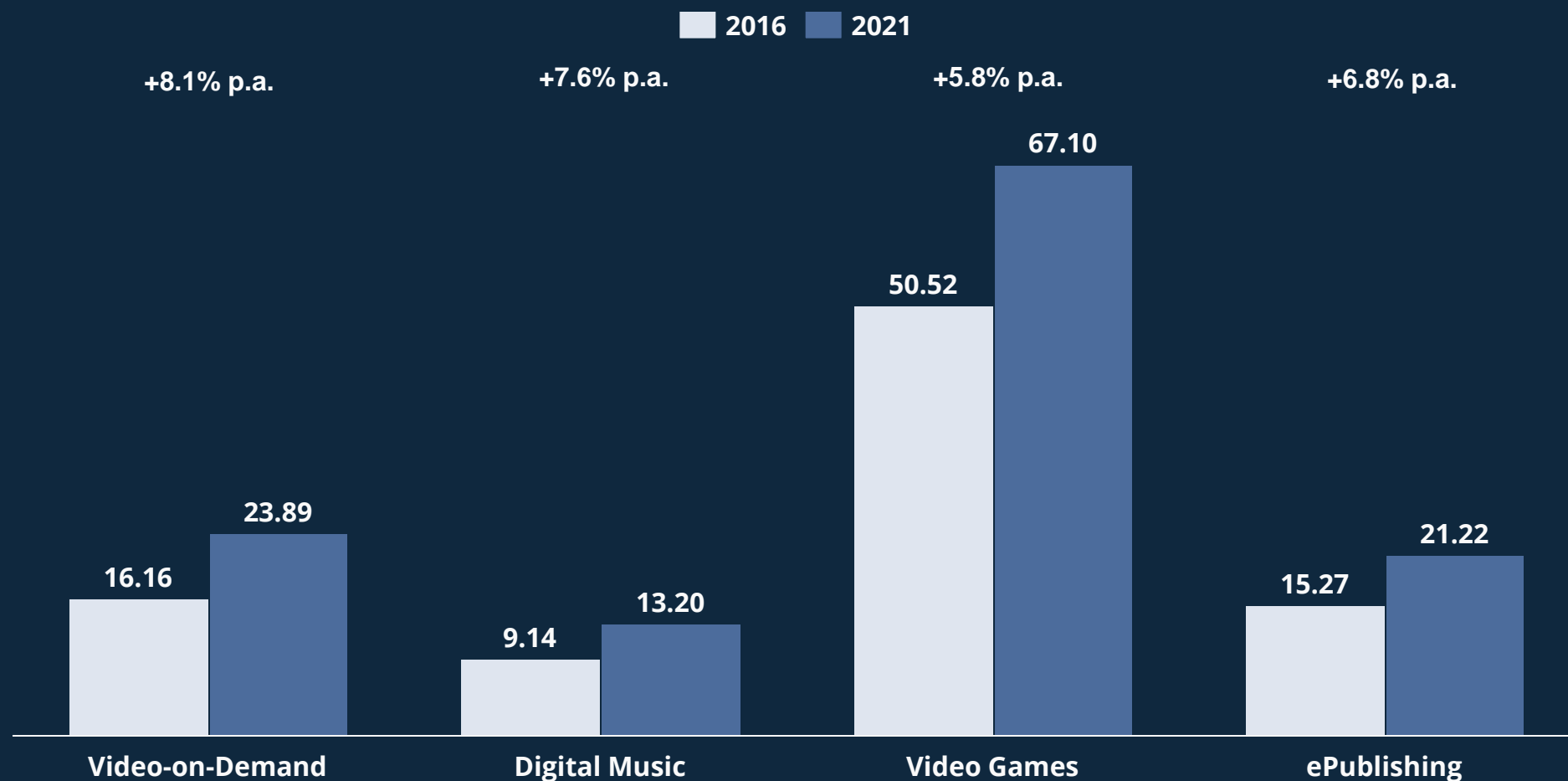


88,400,000

Virtual Reality is trending in Digital Media. In 2016 88.4 million **Google Cardboards** (Google's budget VR solution) were shipped, demonstrating how big a trend it really is.

Revenues generated by Video Games overshadow other Digital Media

Global¹ Digital Media revenue (in US\$ billion) and CAGR² 16-21 by segment



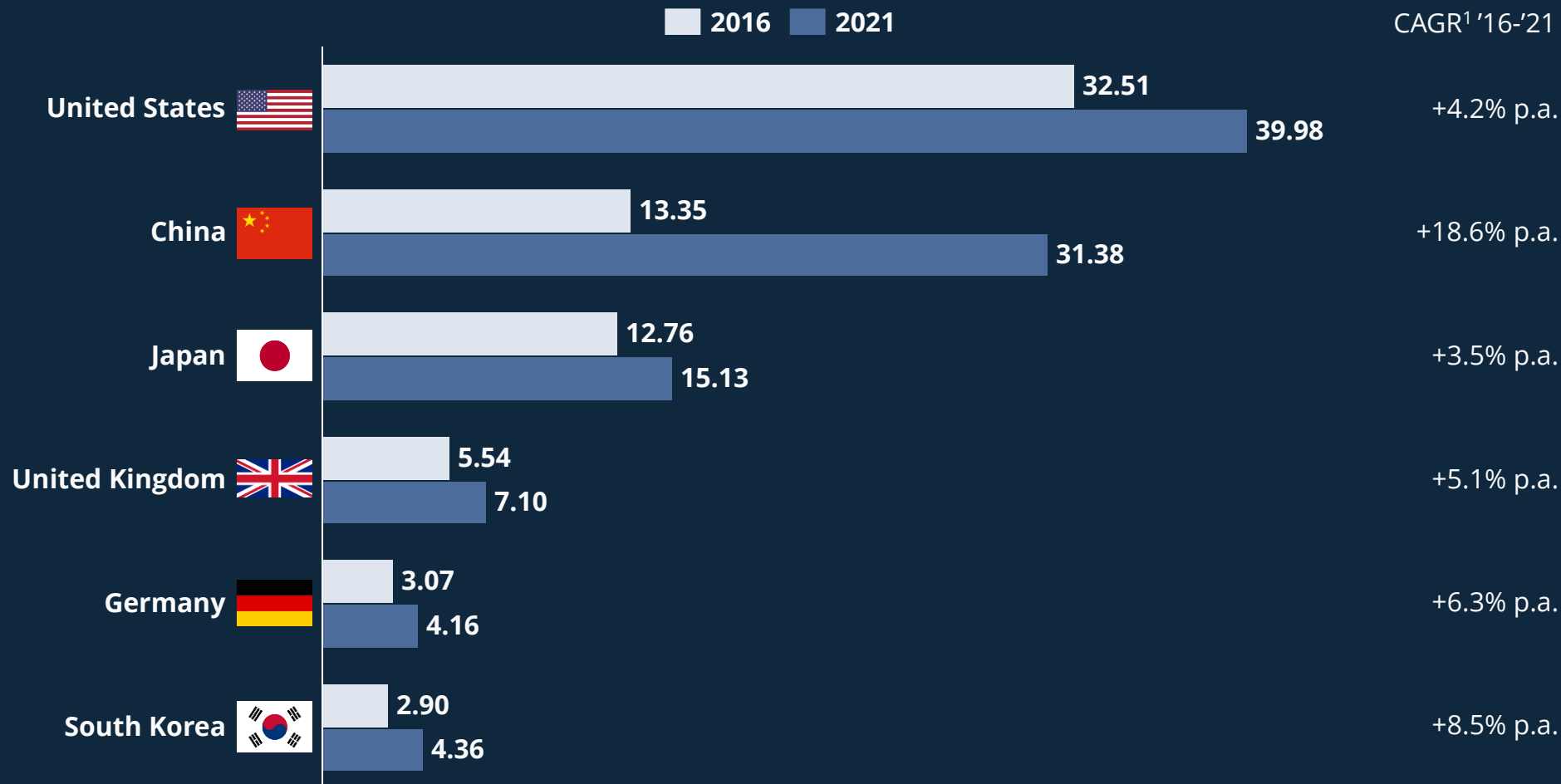
Source: **Statista Digital Market Outlook**

1: only includes countries of the Digital Market Outlook

2: CAGR: Compound Annual Growth Rate

The U.S. has the largest Digital Media revenues, while China shows promising development

Total Digital Media revenue by region (in US\$ billion)



In most Digital Media segments, very few players dominate the market

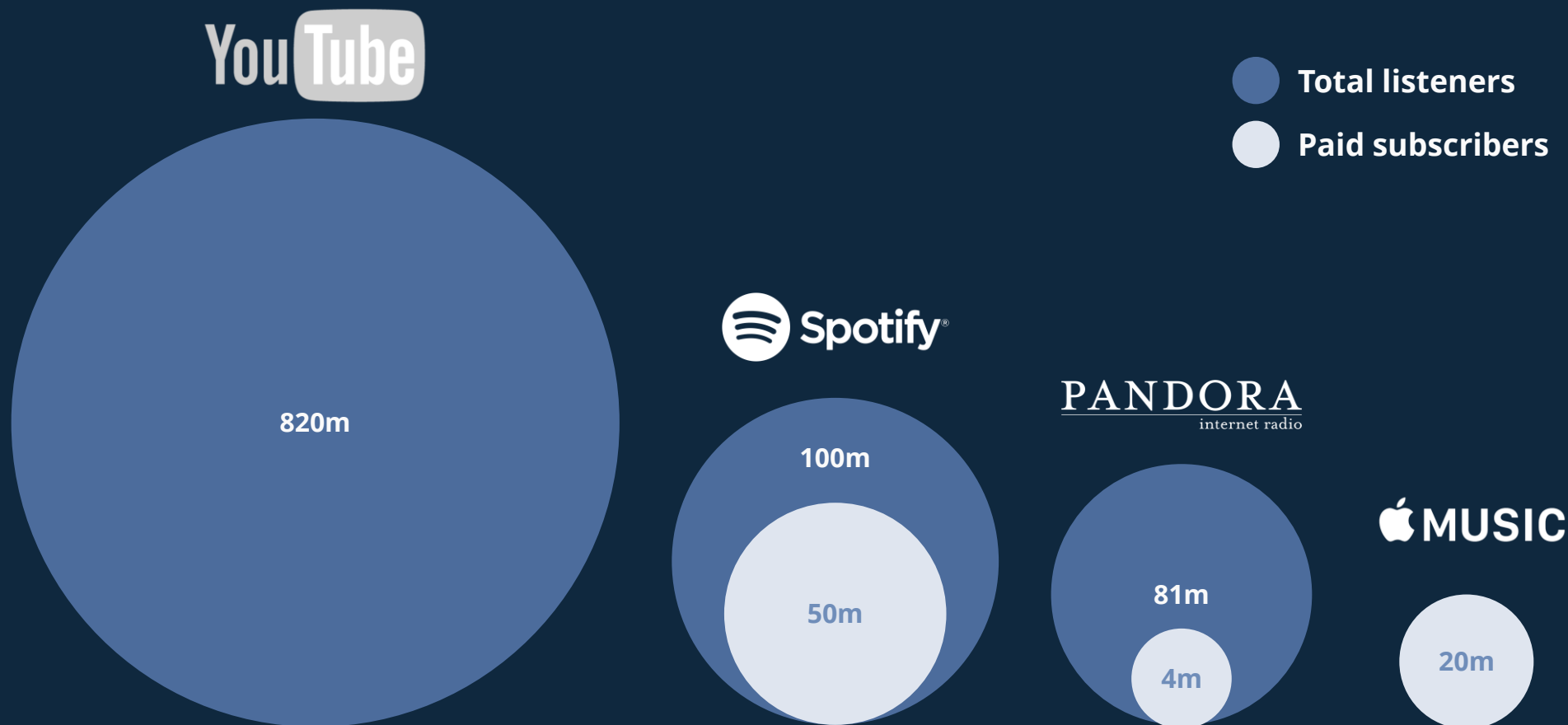
Selection of key players in Digital Media

Digital Music	Video-on-Demand	Video Games	ePublishing

Source: Statista Digital Market Outlook

Youtube is the world's largest music streaming service and at no charge to users

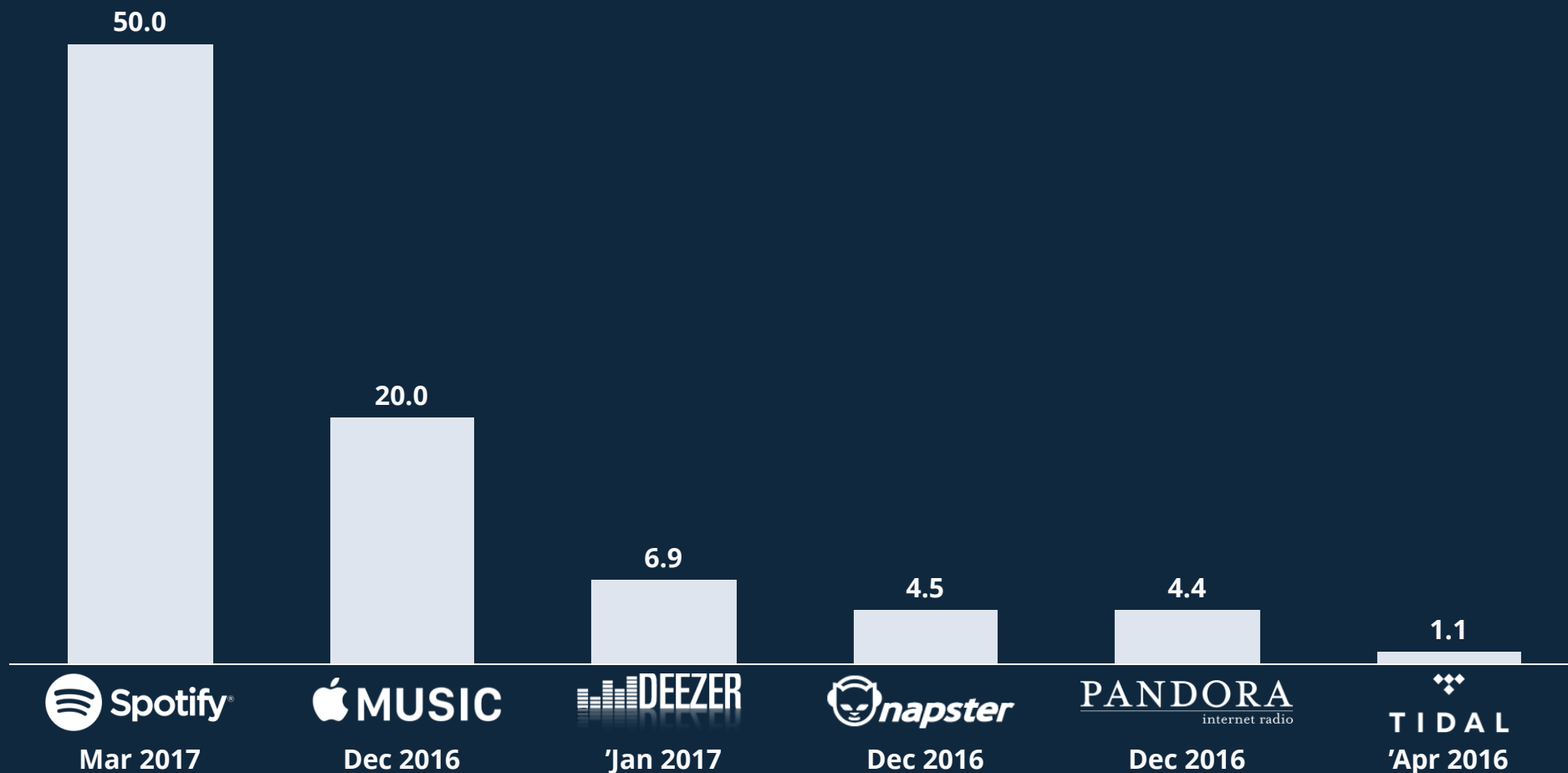
Largest services for online music consumption and their number of users



Source: YouTube, IFPI, Ipsos, Spotify, Apple, Pandora, Apple Music
 Youtube has 1+ billion users. According to a survey among 10,552 YouTube users from 13 countries, 82 percent use it to listen to music

Spotify is the leading streaming service with the largest number of paying subscribers

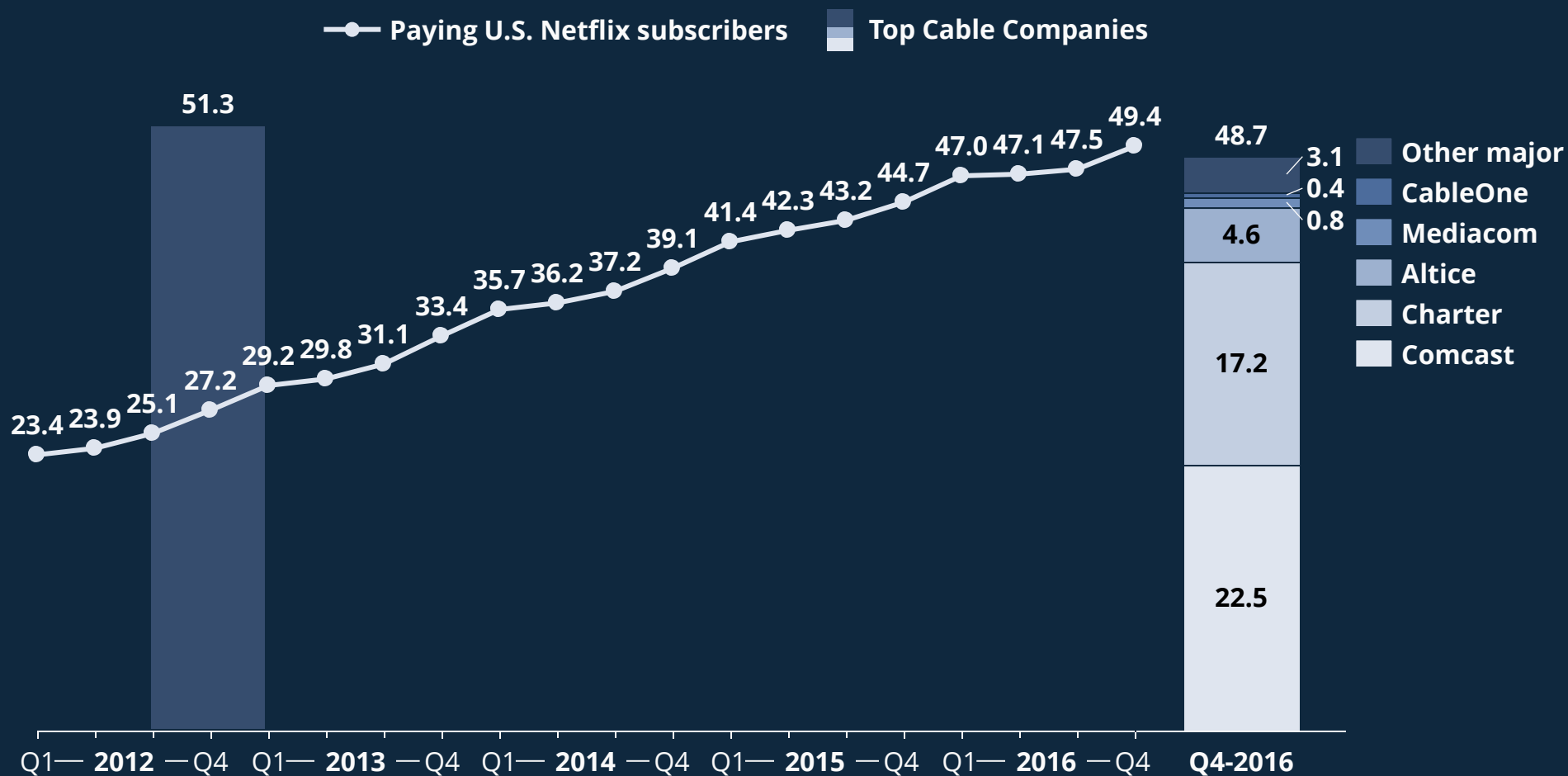
Worldwide paid subscribers of music streaming services (in million)



Source: Company Announcements, MIDIA

In Q4-'16, Netflix had more paying subscribers in the U.S. than the top cable companies combined

Netflix subscribers vs. top cable companies customers in the U.S. (in m)



Source: Company Information, MarketingCharts, Leichtman Research Group

eBooks and hardcovers are most expensive in Germany

Avg. price of the Top 10 bestsellers on Amazon (in US\$)



What comes after subscription in digital media?

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FinTech

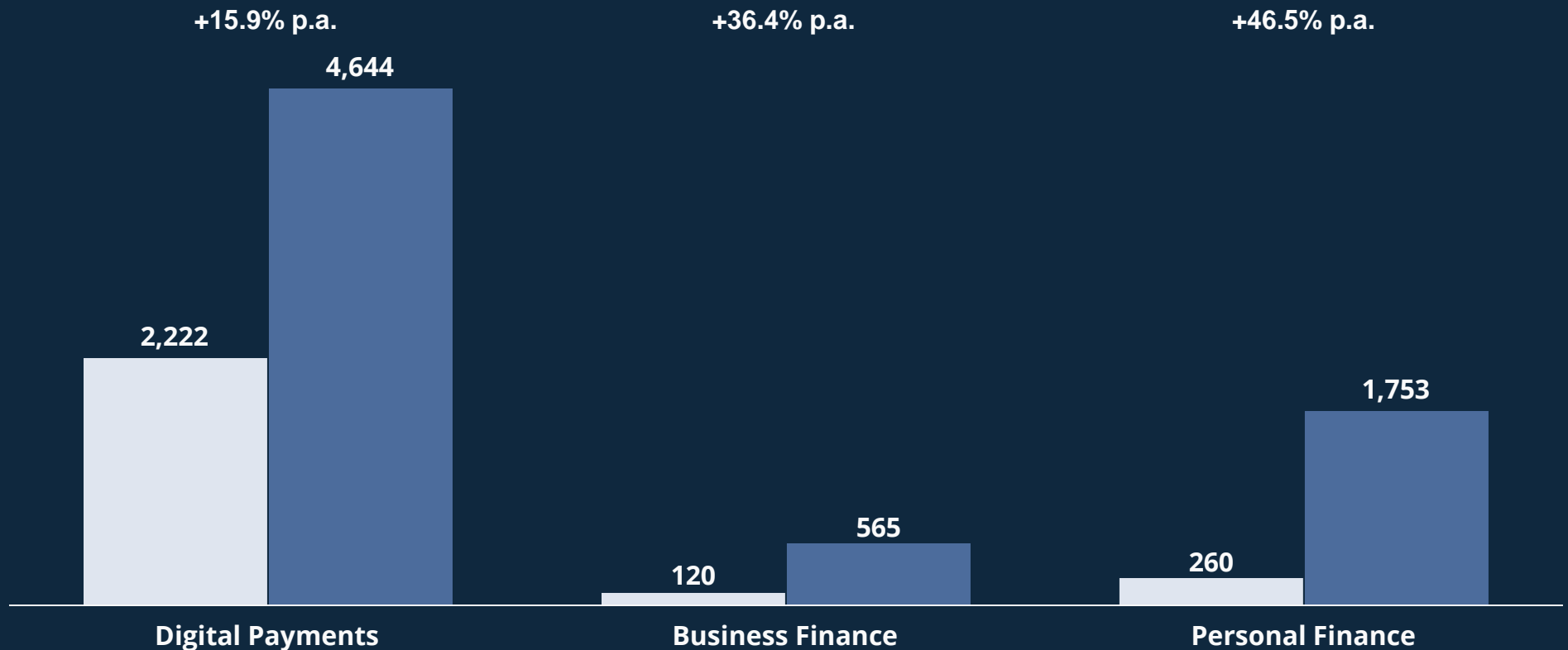
“If banks cannot truly be customer intimate, they are doomed to be just dumb commodities, acting behind the scenes, like utilities.”

JP Nicols,
Bank innovation consulting expert

Global¹ Digital Payments are expected to more than double by 2021

Global¹ FinTech transaction value and Assets under Management (in US\$ billion) and CAGR² 16-21 by segment

2016 2021



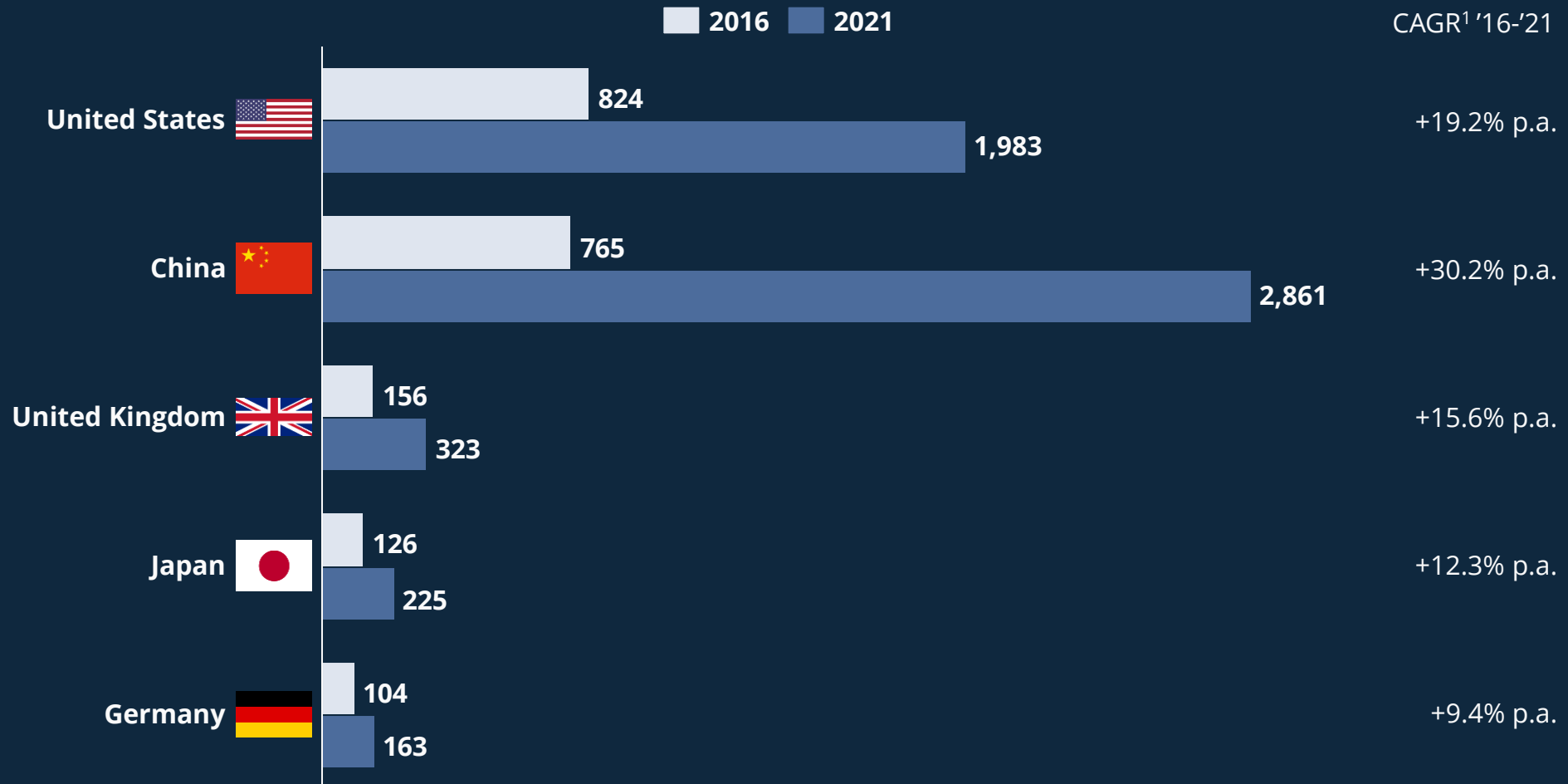
Source: **Statista Digital Market Outlook**

1: only includes countries of the Digital Market Outlook

2: CAGR: Compound Annual Growth Rate

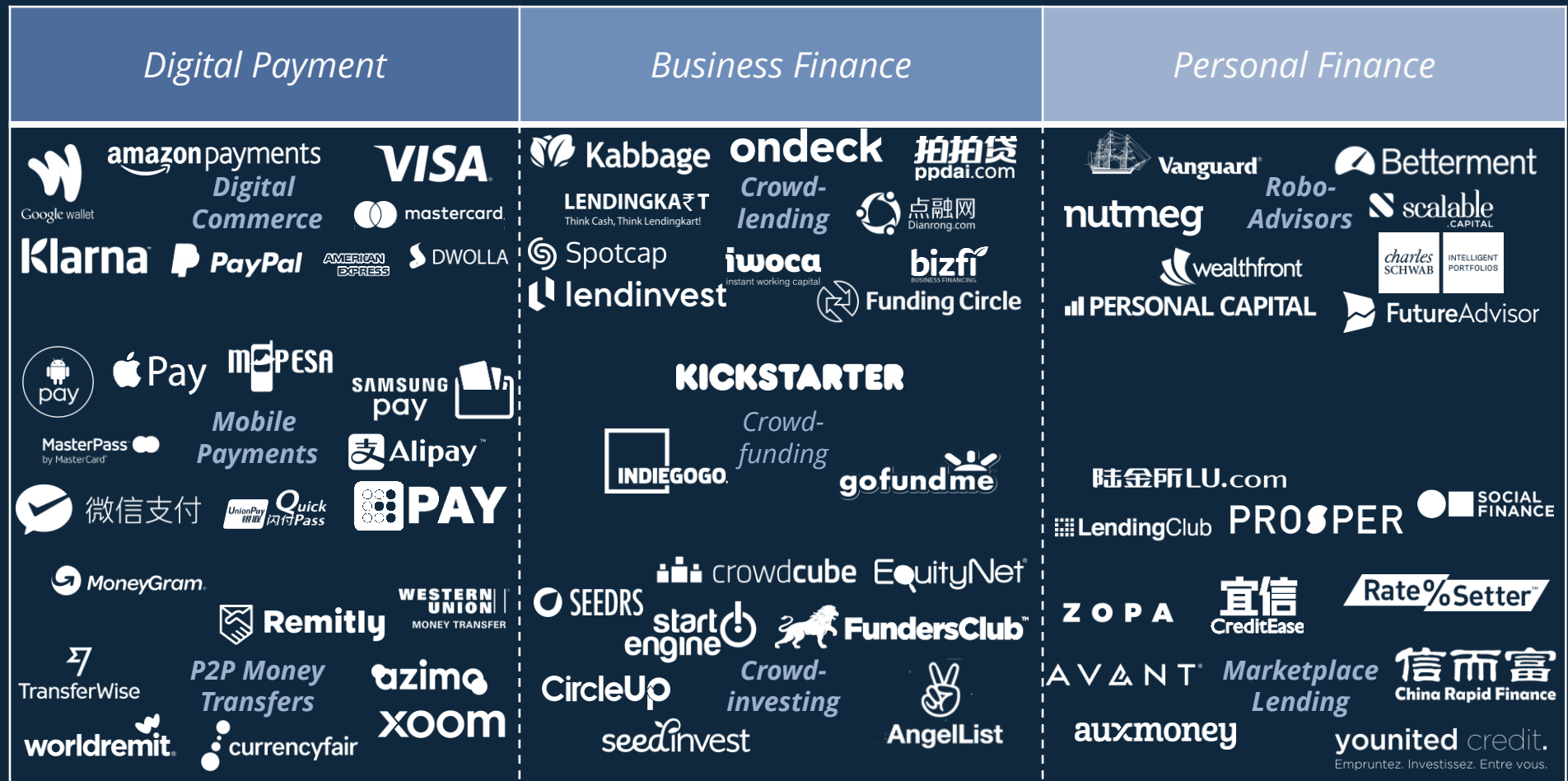
It's early days for FinTech markets; however, the U.S. and China have promising prospects

Total FinTech transaction value by region (in US\$ billion)



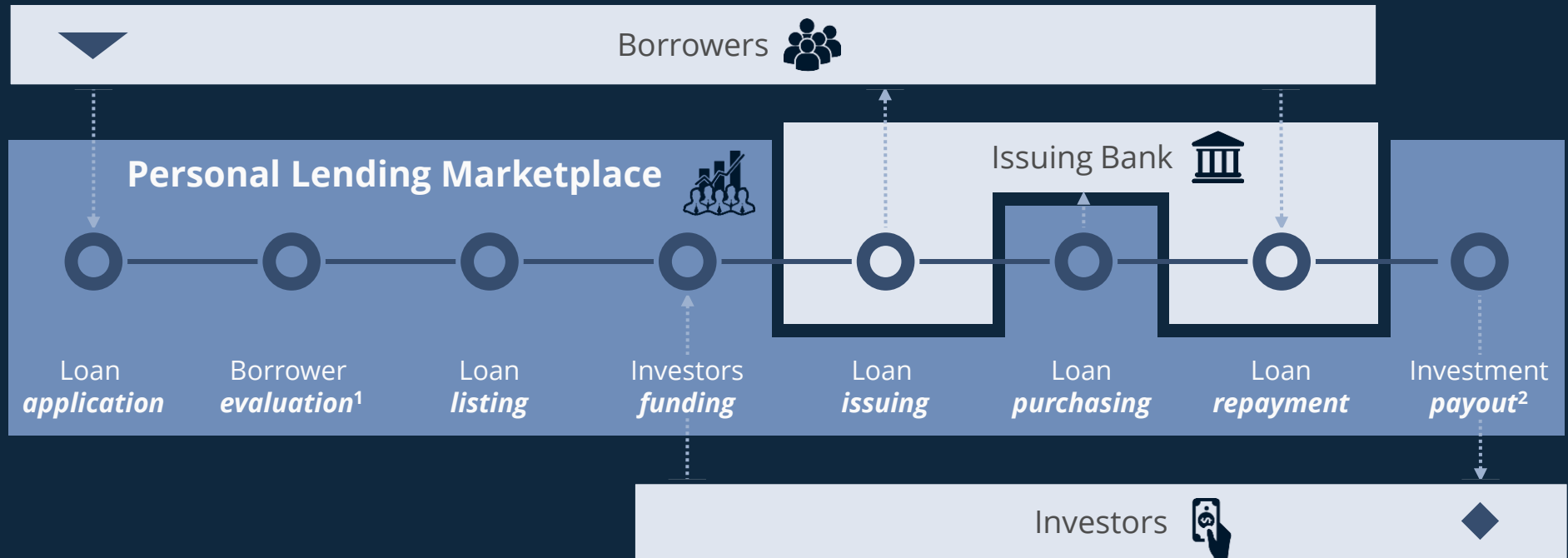
Most prominent FinTech players can be found in the Digital Payment segment

Representative FinTech key player by segment



Profiteers in Marketplace Lending are Borrowers, Marketplaces, Banks and Investors alike

Generic process overview and revenue streams



Financial Benefits for parties involved

Borrower:

Loan granted

Lending Market Place:

Transaction fee from Bank,
service fee from Investors

Issuing Bank:

Interest rate from
loan issuance³

Investor:

Return on investment
from Marketplace

Source: **Statista Digital Market Outlook**

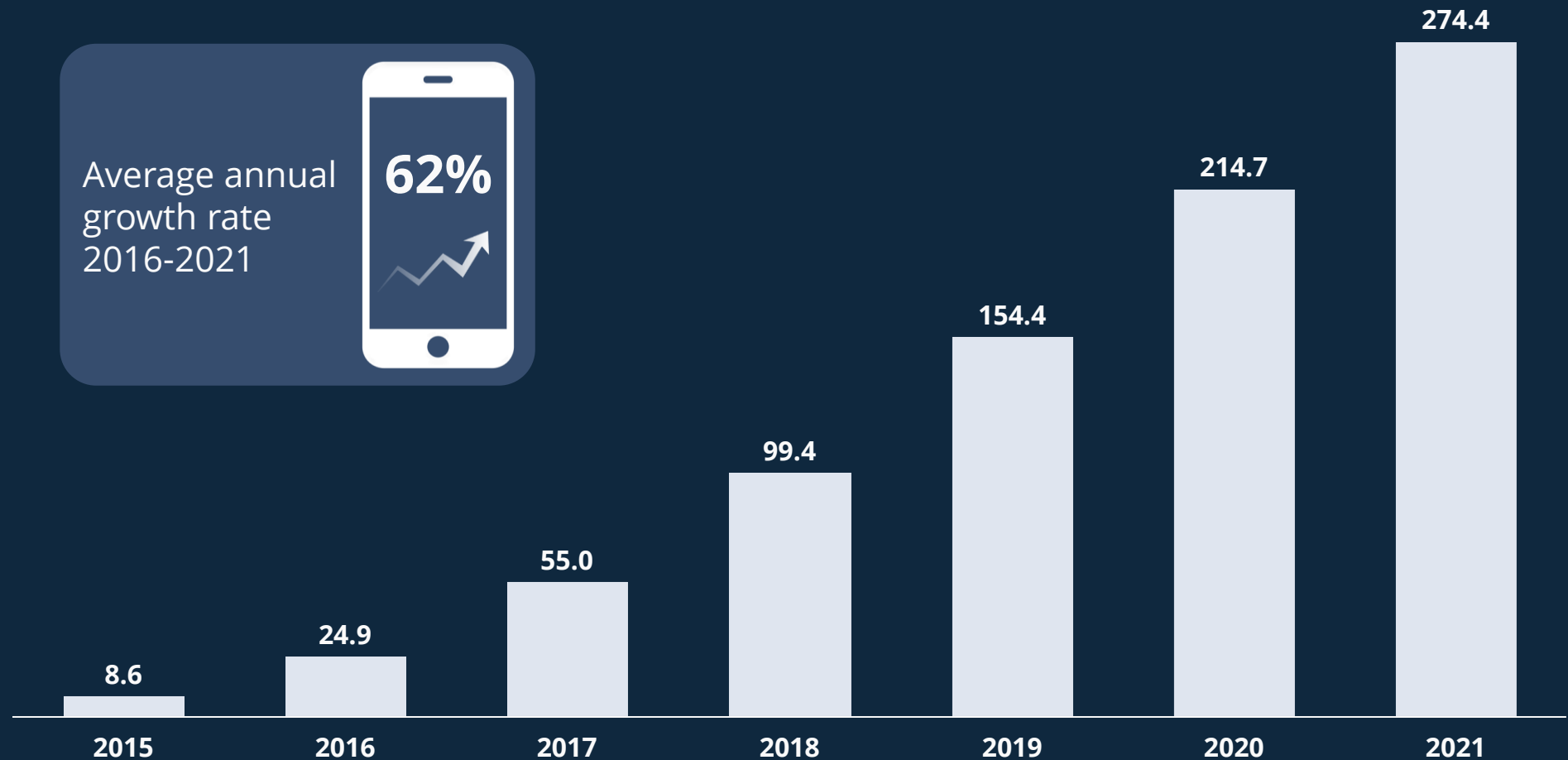
1: Includes determination of loan interest rates, based on a prior credit scoring

2: Including initially agreed interest rate

3: Interest rate is based on credit worthiness of marketplace and therefore lower than for individual borrowers

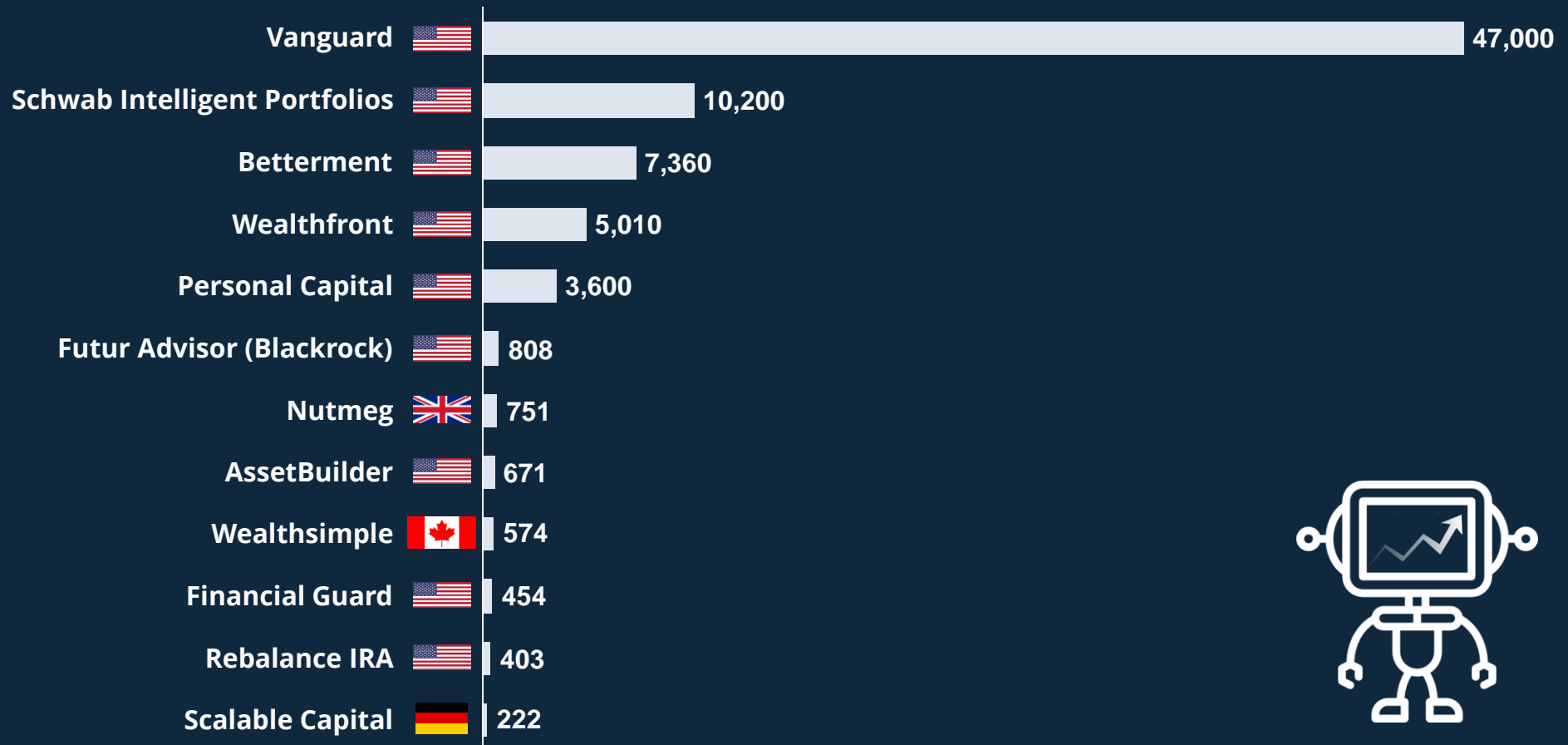
U.S. Mobile Payment transaction volume is expected to increase tenfold from '16 to '21

Estimated U.S. Mobile Payment transaction volume (in US\$ billion)



Robo-Advisors are most prevalent in the U.S.; only two of the biggest advisors are from Europe

Top Robo-Advisors by assets under management (in US\$ million)



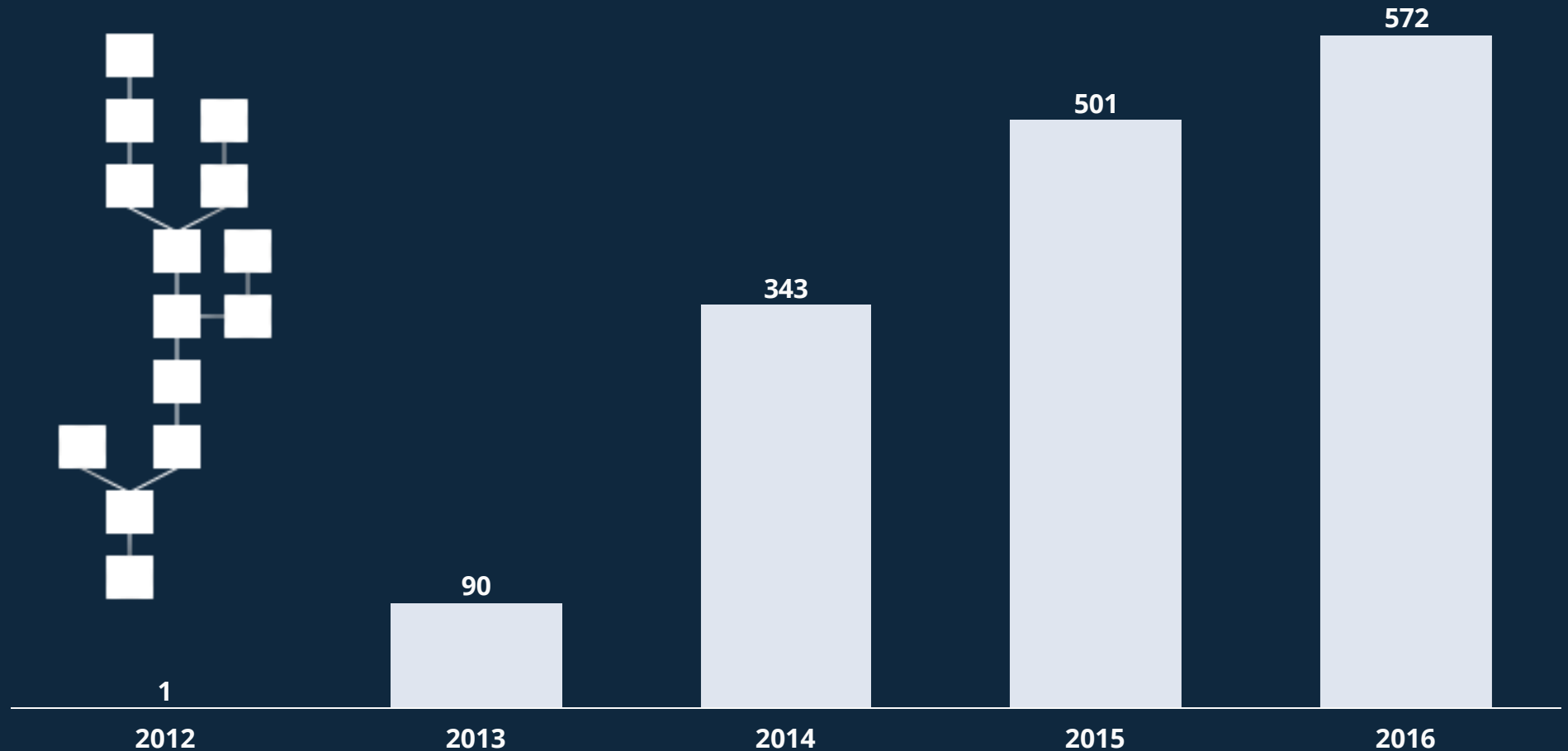
Bitcoin remains the largest crypto-currency with a market cap of more than US\$14 billion

Market caps of the ten largest crypto-currency markets (in US\$ million¹)



In 5 years, Bitcoin & Blockchain start-up funding increased from US\$1m to over US\$570m

Bitcoin & Blockchain funding and investment of start-ups (in US\$ million)

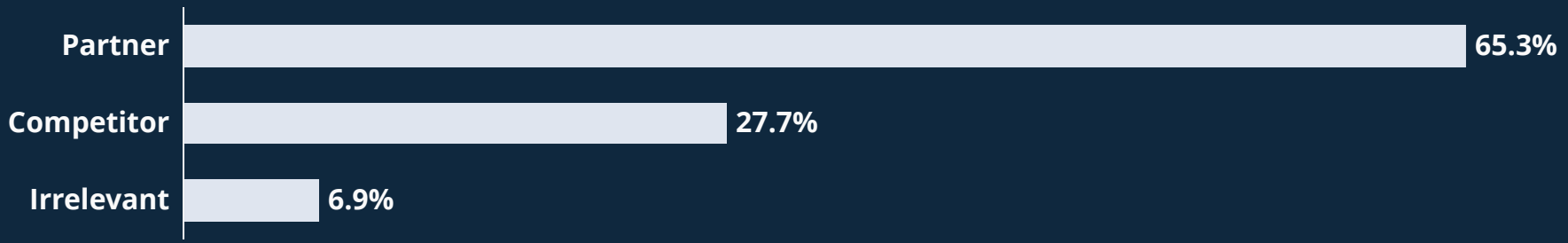


If you can't beat the FinTechs, join them

No. of major bank investments in VC-backed FinTechs (Q3-'15 – Q3-'16)



Competitor, partner or irrelevant? How banking executive view Fintech firms¹



Sources: KPMG, CB Insights, Capgemini
1: Worldwide survey; 2016

How FinTech is reshaping the financial world

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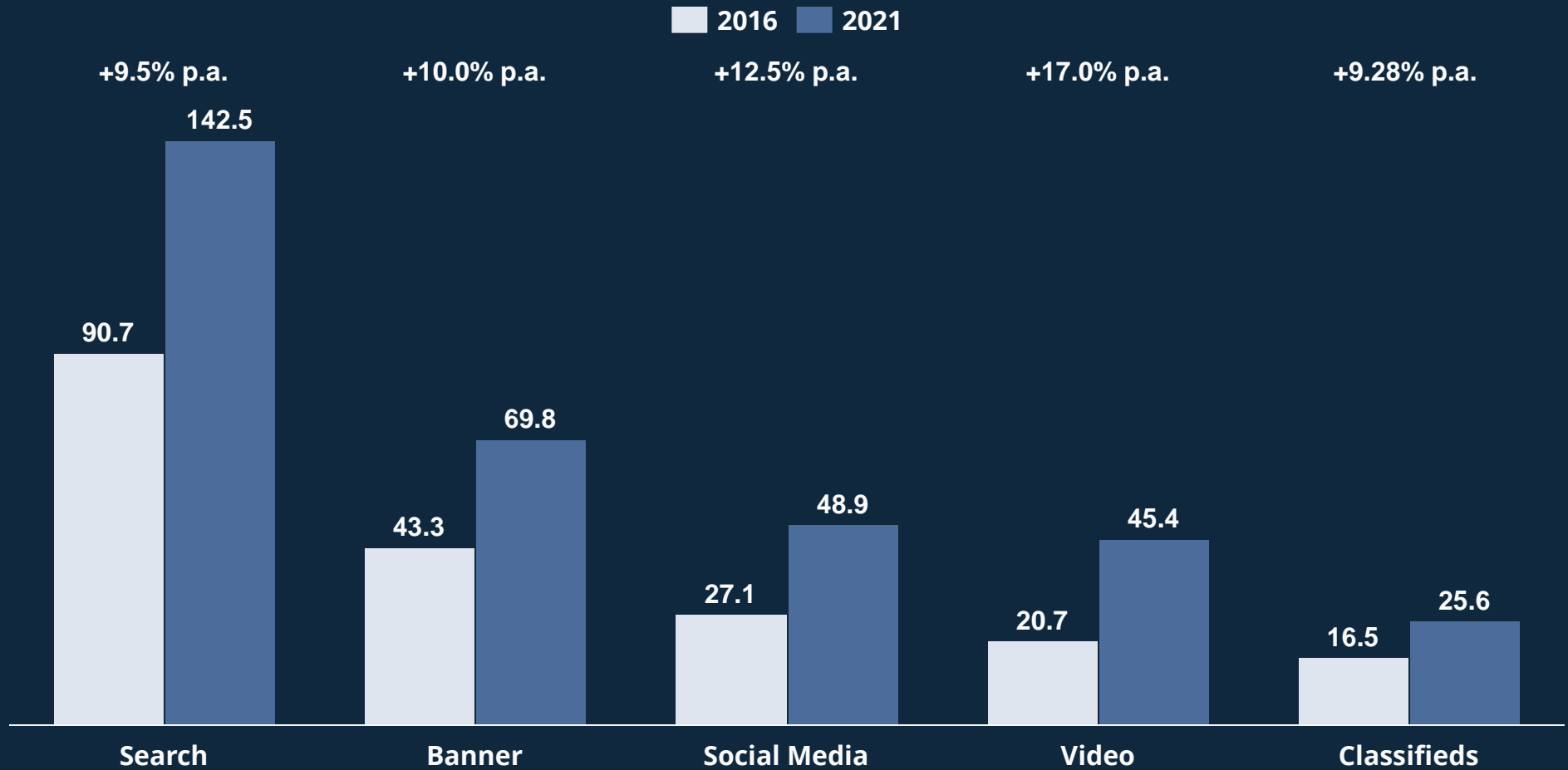


US\$935.71

The most expensive keyword for **Google AdSense** (best mesothelioma lawyer) was closing in on a truly incredible cost of US\$1,000 per click in March 2016.

Digital Ads are expected to grow across all categories, with Search Ads taking the top spot

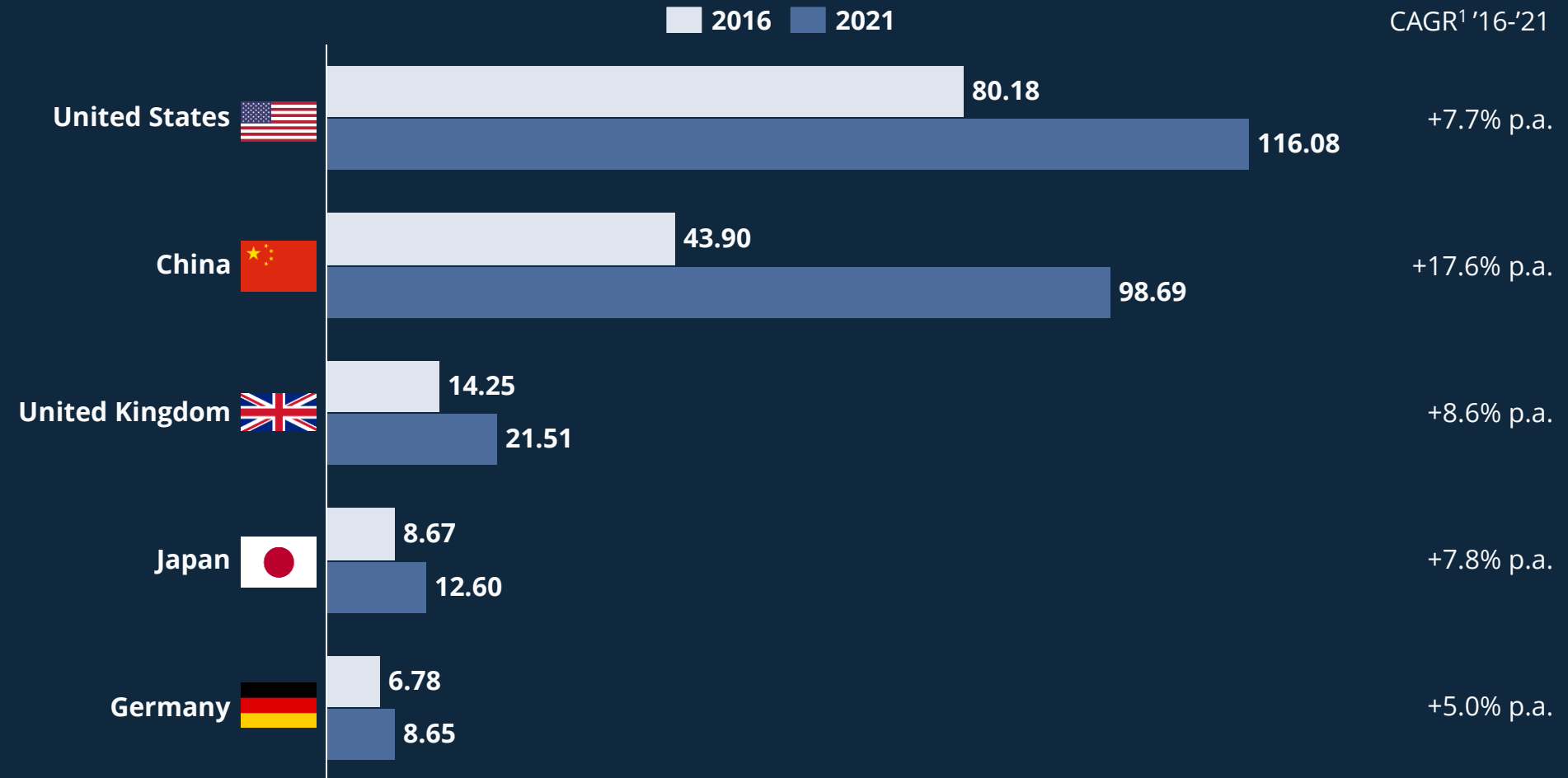
Global¹ digital advertising revenue forecast (in US\$ billion)



Source: Statista Digital Market Outlook
 1: only includes countries of the Digital Market Outlook
 2: CAGR: Compound Annual Growth Rate

Digital Advertising revenues in China are expected to more than double by 2021

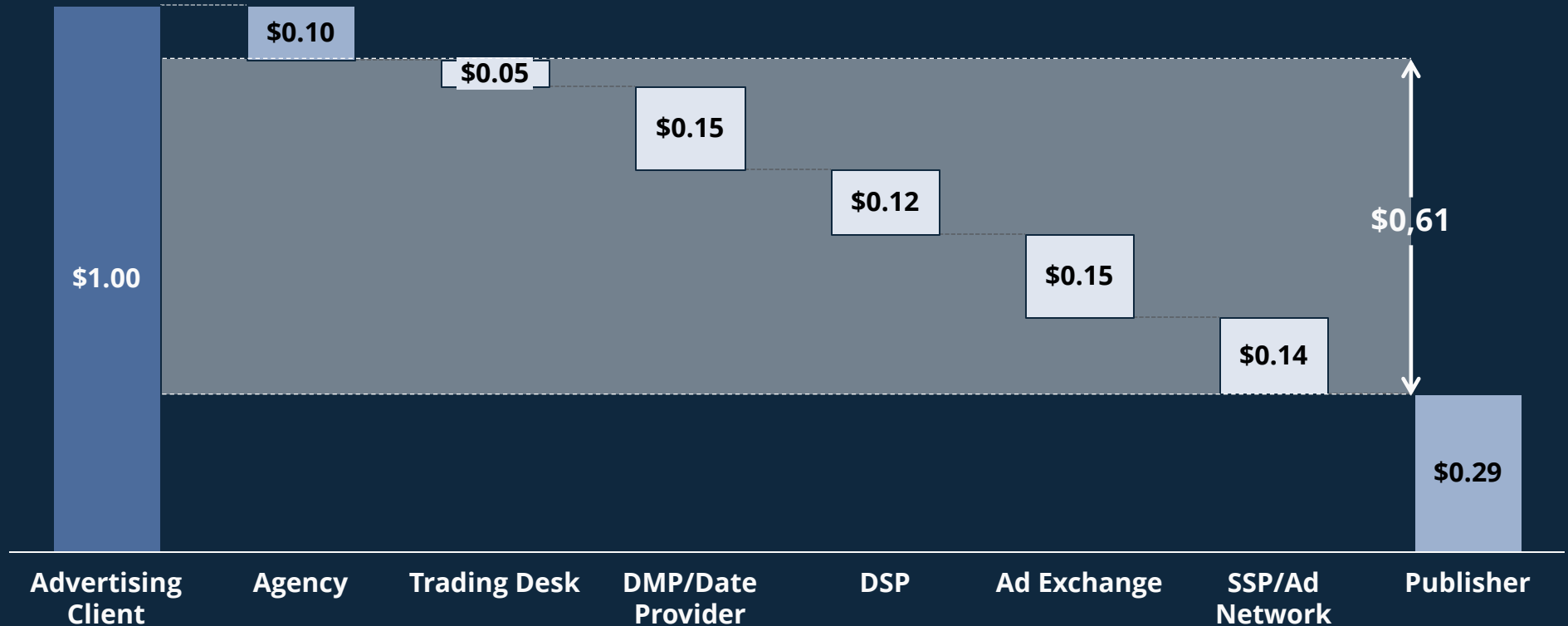
Total Advertising revenue by region (in US\$ billion)



Source: Statista Digital Market Outlook
 1: CAGR: Compound Annual Growth Rate

In programmatic advertising 60% of the budget can be allocated to service contractors

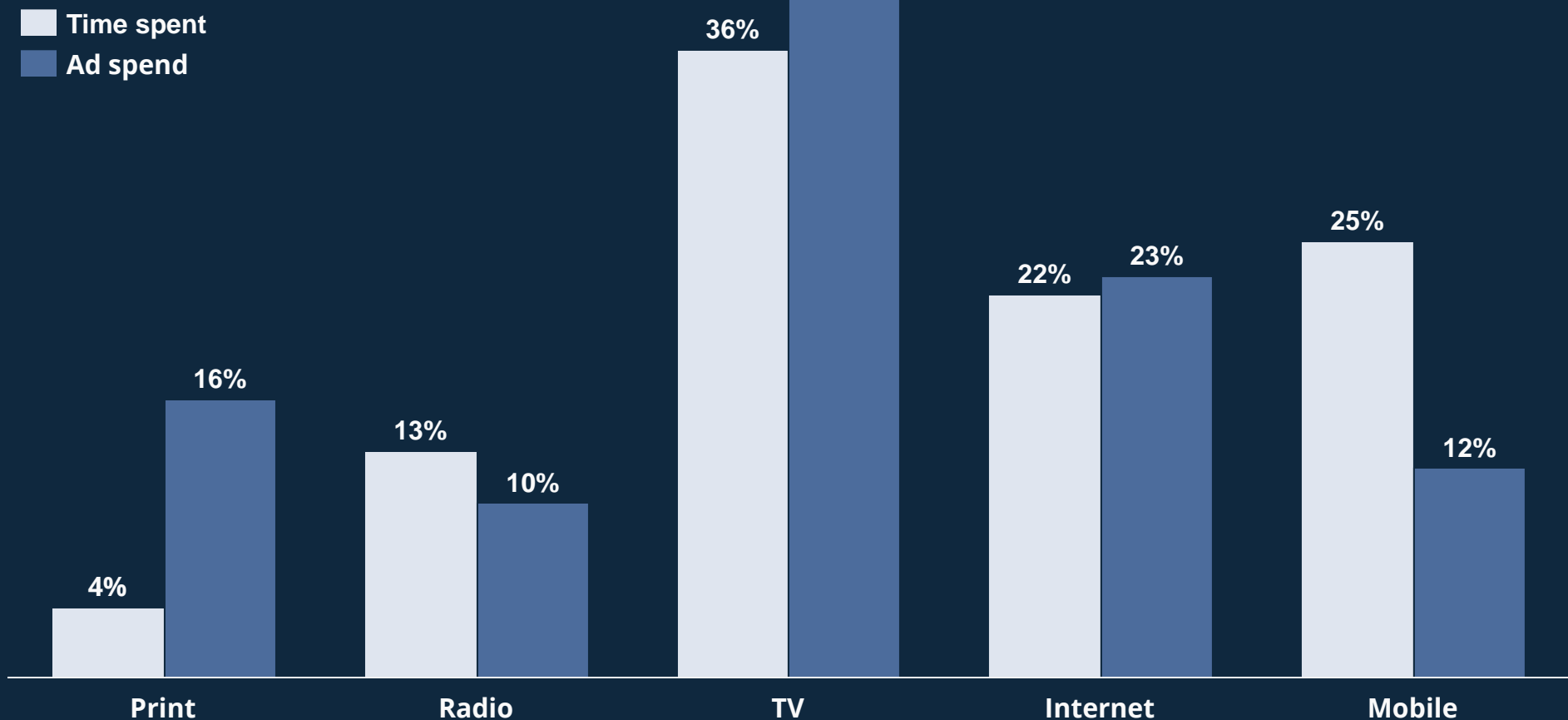
Allocation of US\$1 in programmatic advertising



Source: IHS Markit 2016, interviews with over 100 market players
 Note: share of DMP/Date Provider and DSP might be slightly higher

There is a significant 'ad spend gap' for mobile

Percent of time spent by consumers with media & percent of ad spend allocate to media in the U.S. 2015

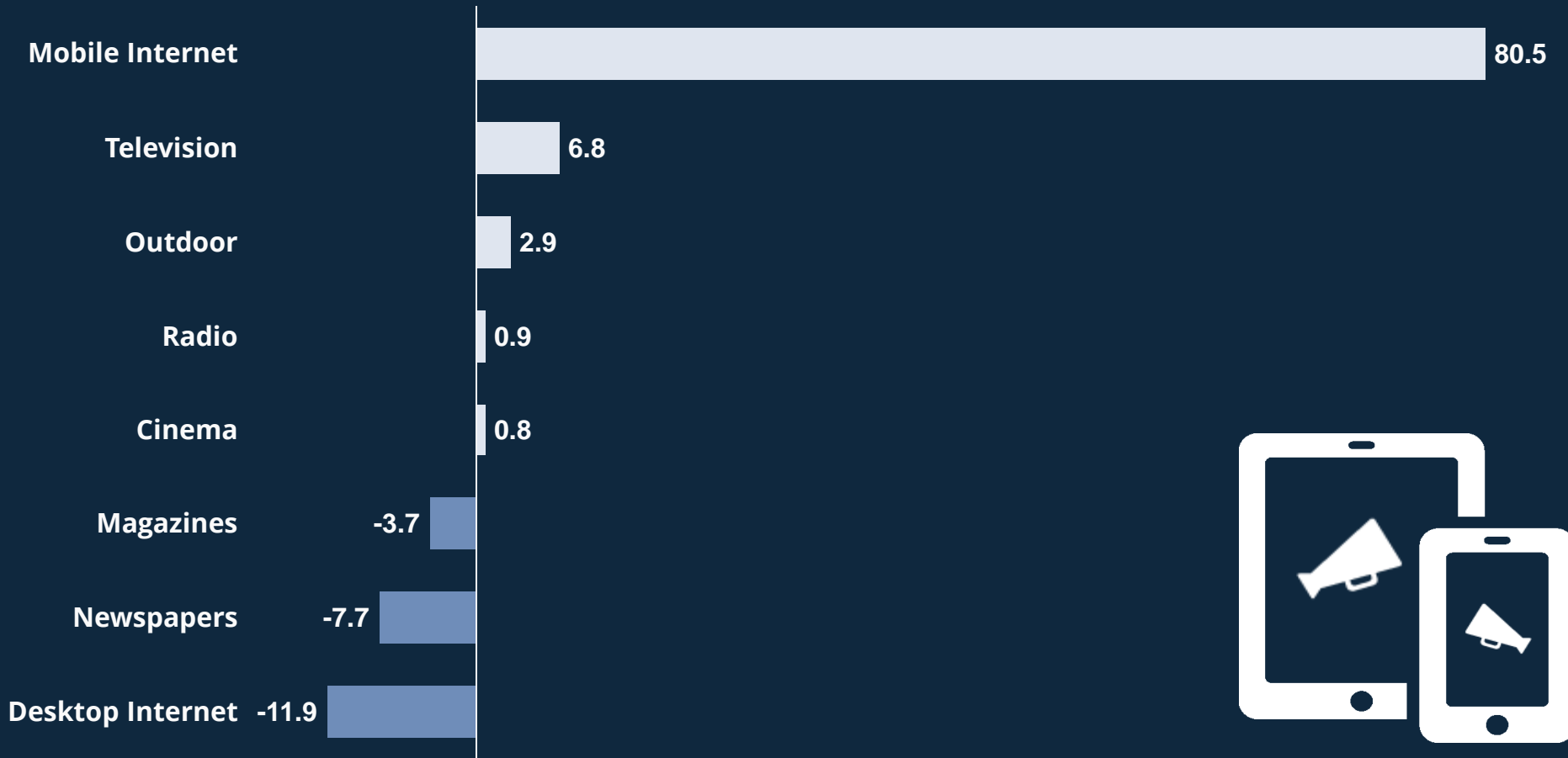


Source: KPCB

Note: Print includes newspaper and magazine. Internet includes desk top, laptop & other connected devices; Excludes out of home, video games, and cinema advertising.

Mobile Ad spending will continue to boom over the next three years

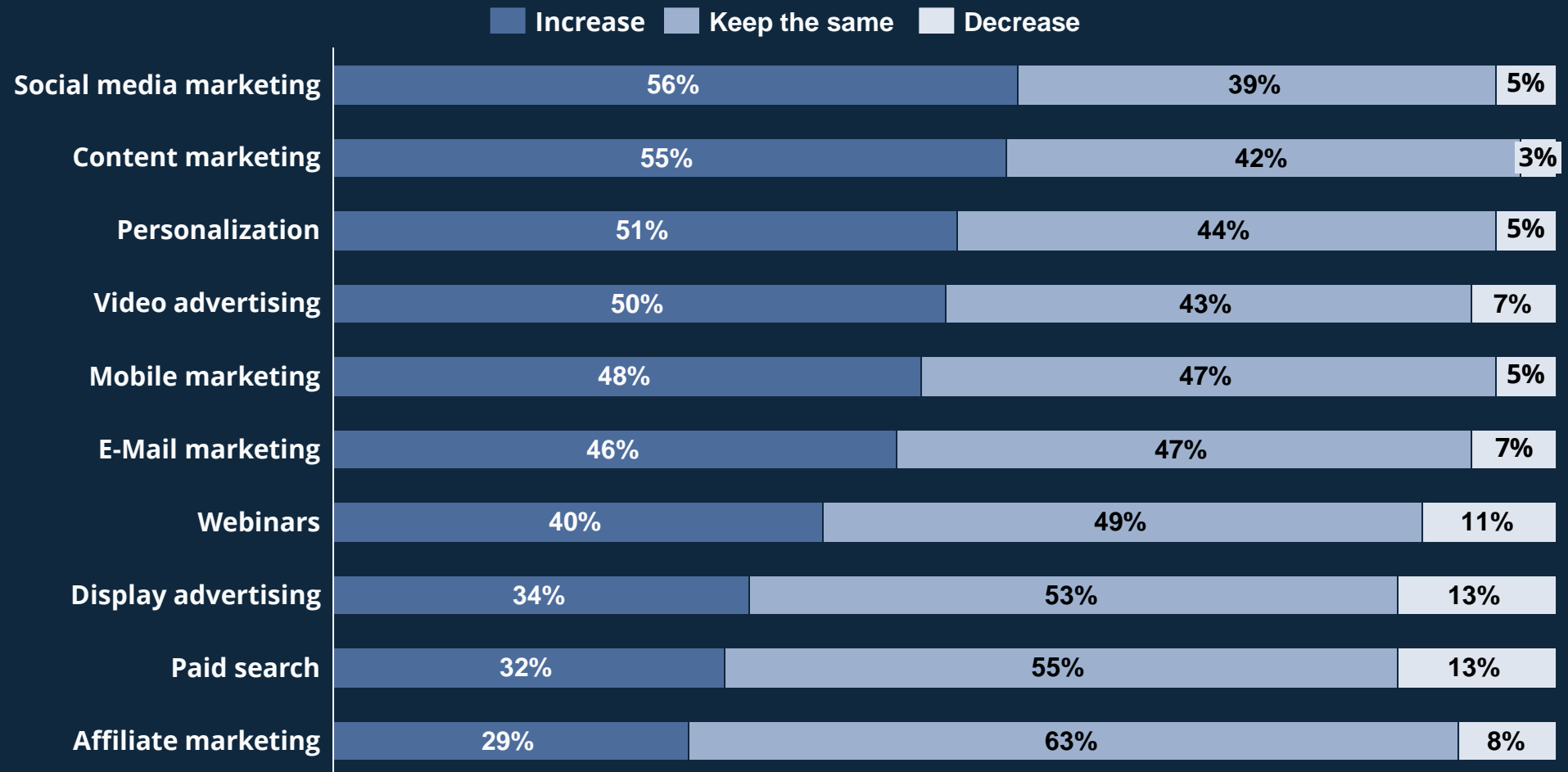
Estimated change in advertising spending between '16 – '19 in US\$bn p.a.



Source: Zenith Optimedia

Social media & content marketing are top priorities for marketers

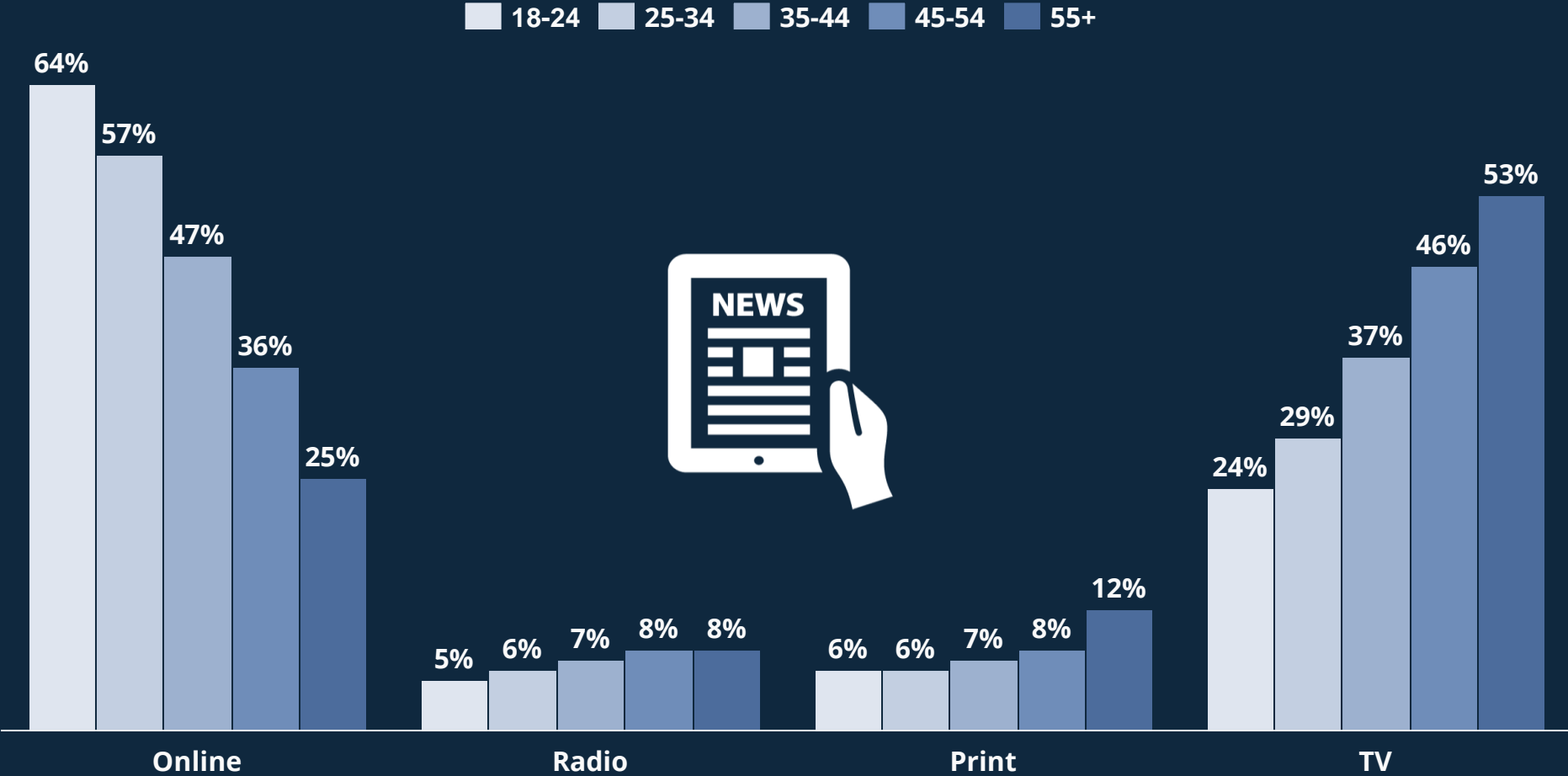
Digital marketing budget plans for 2017 (in % of respondents)¹



Source: Econsultancy, Adobe
 1: based on a survey of 3,347 marketing professionals around the world

There is a clear generational divide in news consumption

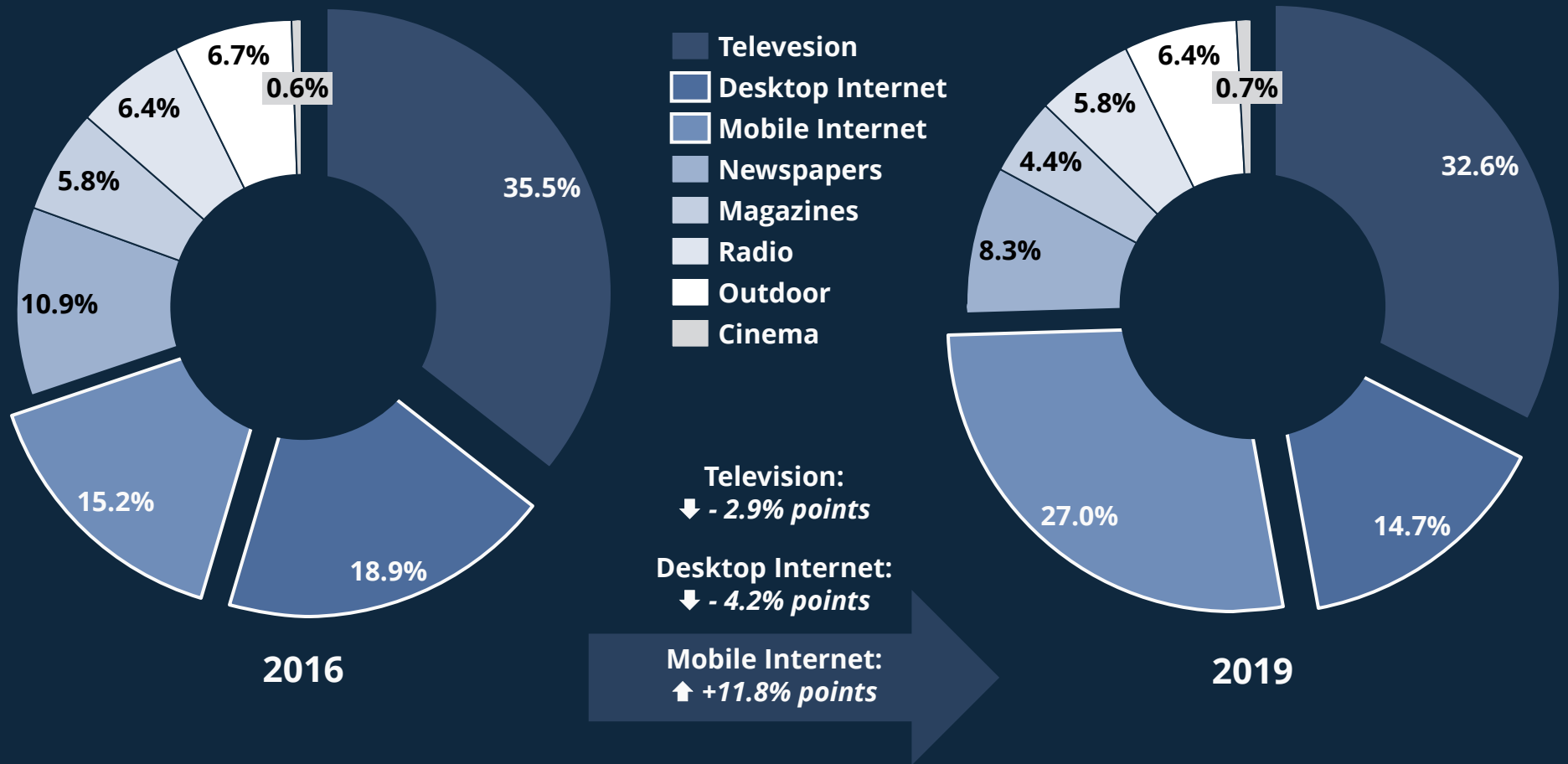
Main news source by age group



Source: Reuters Institute for the Study of Journalism
 Note: Based on a survey of 52,225 news consumers across 26 countries; numbers may not add up to 100% due to rounding

2019 will be a paradigm change: mobile/desktop internet ad spend is expected to overtake TV

Share of global ad spend by medium (in percentage)



Source: Zenith Advertising Expenditure Forecast

The future of advertising is 'fewer, better ads'

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- › Online Classifieds

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Smart Home

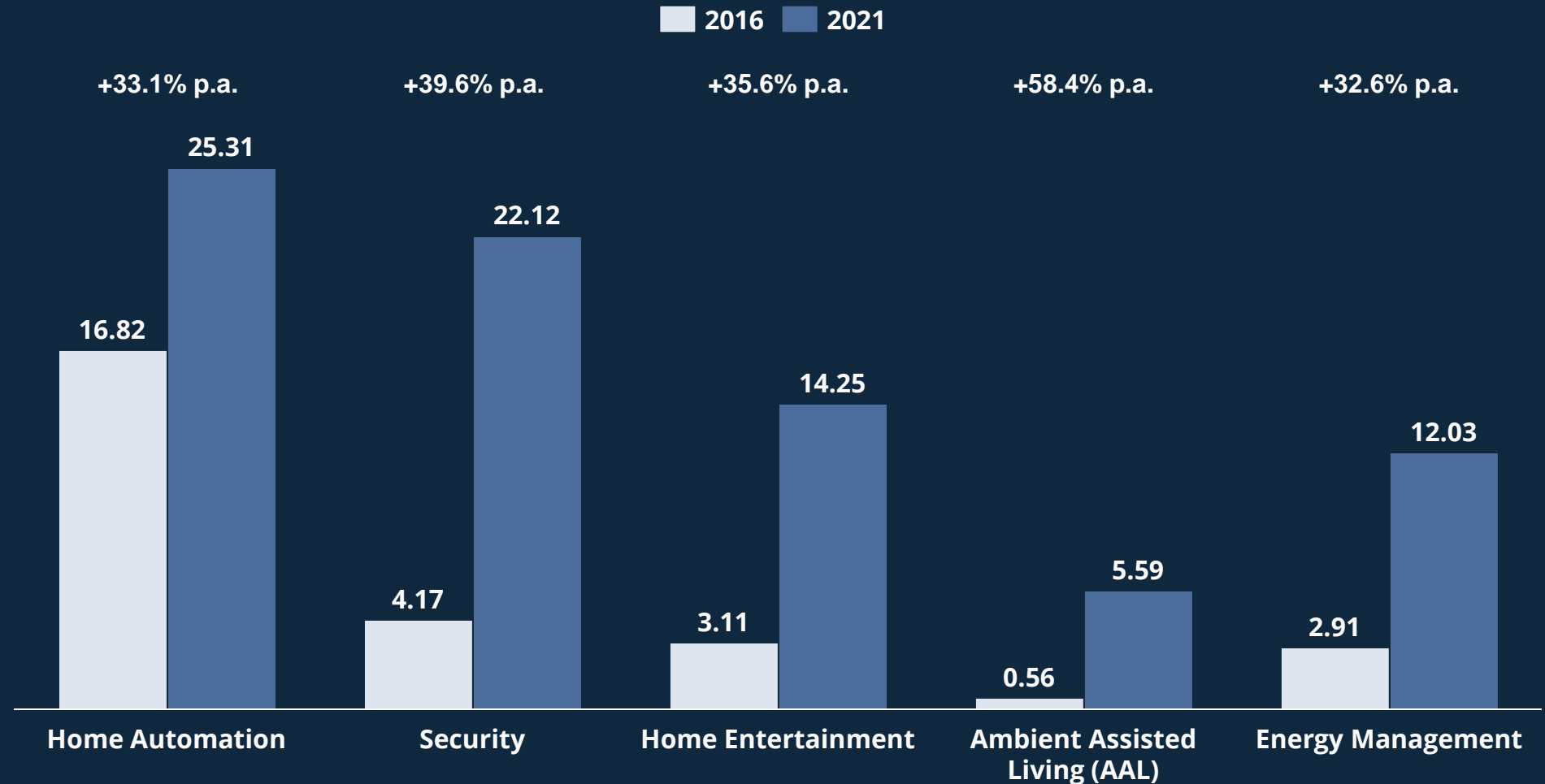


57%

of all Smart Homes in 2016 were located in the United States

The global Smart Home market will more than quadruple by 2021

Global¹ Smart Home Revenue (in US\$bn) and CAGR² 16-21 by segment



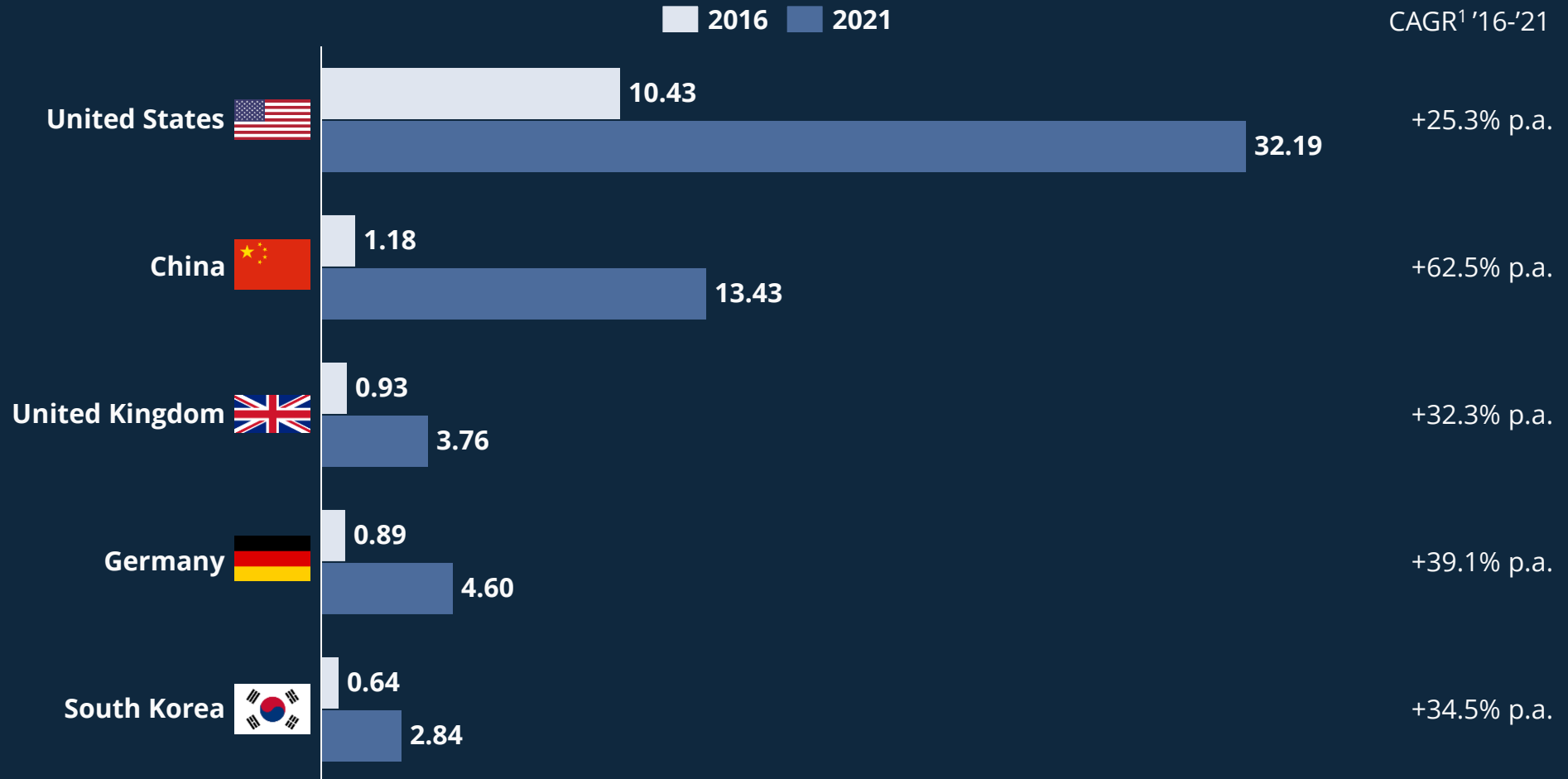
Source: **Statista Digital Market Outlook**

1: only includes countries of the Digital Market Outlook

2: CAGR: Compound Annual Growth Rate

Smart Home market development is most dynamic in China and Germany

Total Smart Home revenue by region (in US\$ billion)



The Smart Home ecosystem consists of many intersections and entry points

Illustration of the Smart Home ecosystem and value chain

Supply side



Manufacturer
Offers devices



Service provider
Offers control software/
platform, connectivity,
additional services

Retail



Websites
Owned or third party



Stores
Owned or third party

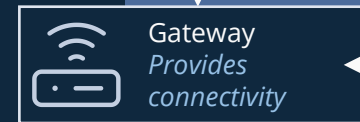


Technicians
Sells, installs and
maintains system

Demand side/ Customer ecosystem

Control devices
e.g. Smartphone, tablet
or connected buttons

Internet
Enables remote access



Gateway
Provides
connectivity

Platform
Software to
control
devices

Smart Home devices
Sensors/ actuators to
automate the home

Devices and/ or services

data and/ or revenue

↔: Data

The Smart Home company landscape comprises all kinds of origins

Key players by segment¹ and integration potential

	Generalists and Home Automation	Security	Home Entertainment	Ambient Assisted Living (AAL)	Energy Management
Dedicated Smart Home companies					
Players entering the market from foreign industries					
Integration potential ²					

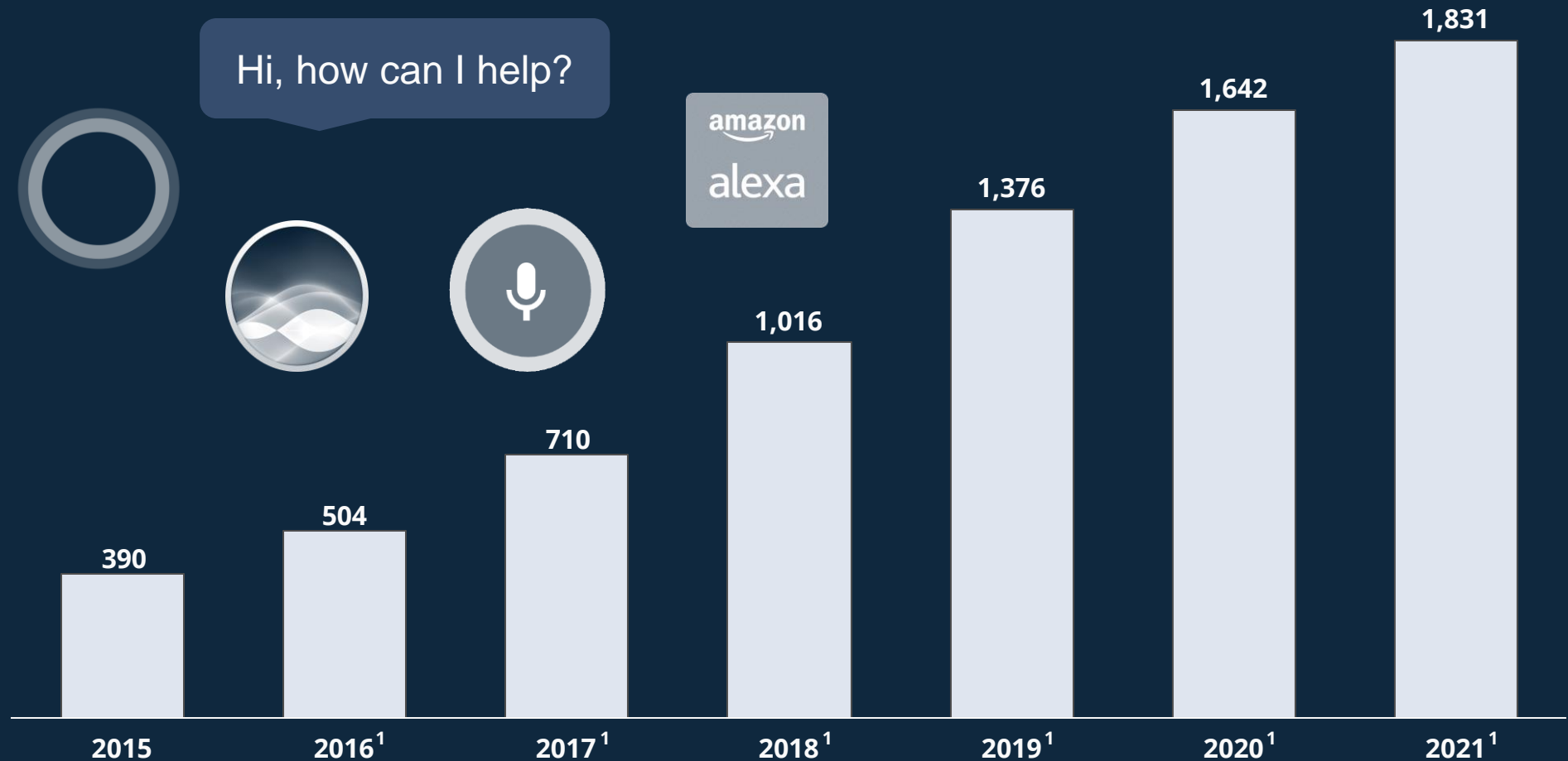
Source: Statista Digital Market Outlook

1: Using the most relevant segment as most companies are active in multiple product segments

2: Estimate; considers the potential for integration with devices from other segments

Digital Assistants will become increasingly more common in people's homes

Estimated global number of virtual digital assistant users (in mio)



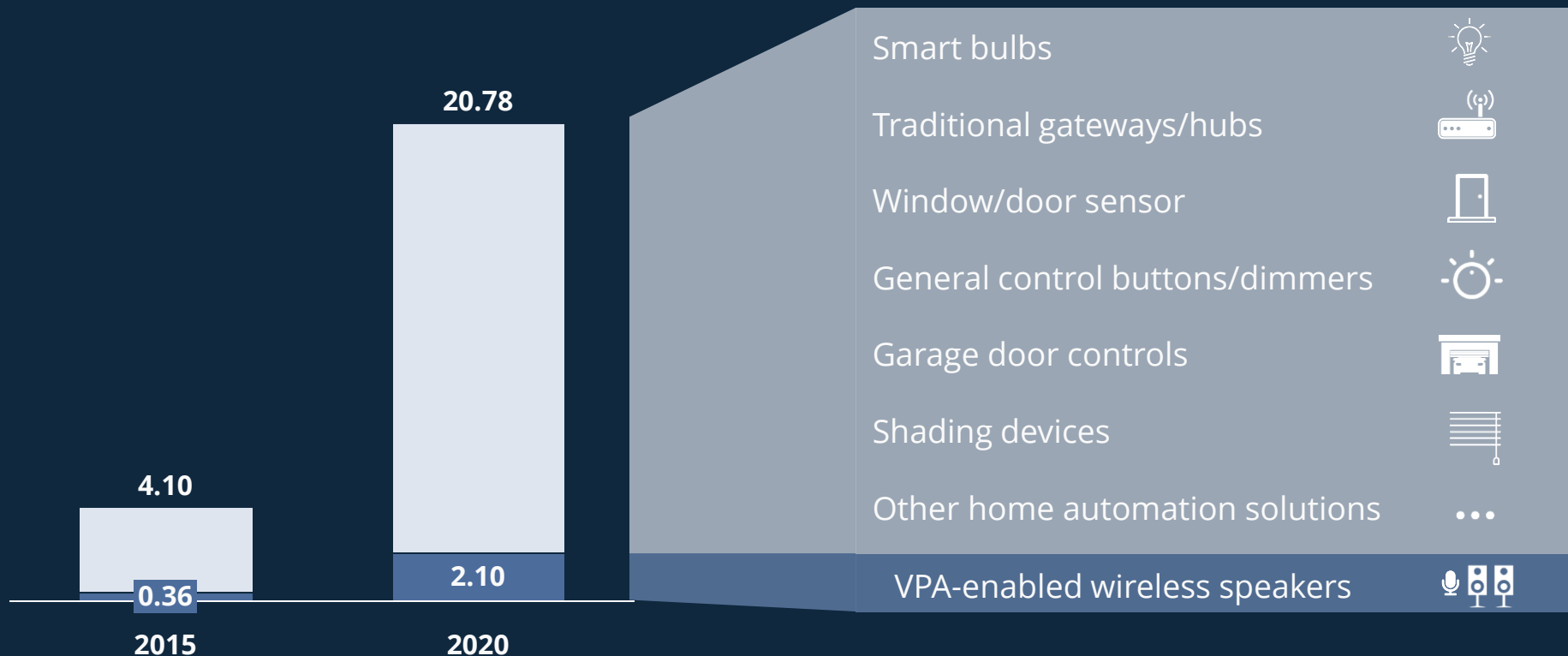
Source: **Statista Digital Market Outlook**; Tractica, 2015 to 3rd quarter 2016

1: Forecast, figures do not include business usage

Echo & Co. will enter the Home Automation market and increase revenues fivefold by 2021

Smart Home automation market revenue (in US\$ billion)

■ Total home automation market ■ Thereof VPA-enabled wireless speakers



Americans are keen on Smart Home Security; could it be due to the high burglary rate?

Domestic burglaries per 100,000 inhabitants



290



282

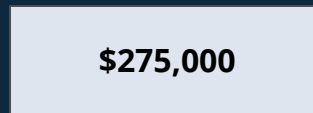


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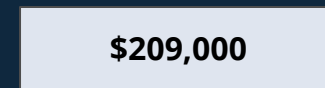
Smart Home security revenue per 100,000 inhabitants



United States



United Kingdom



Germany

Smart Home = Connected devices + integration

Discover more of our topic-related research for Smart Home

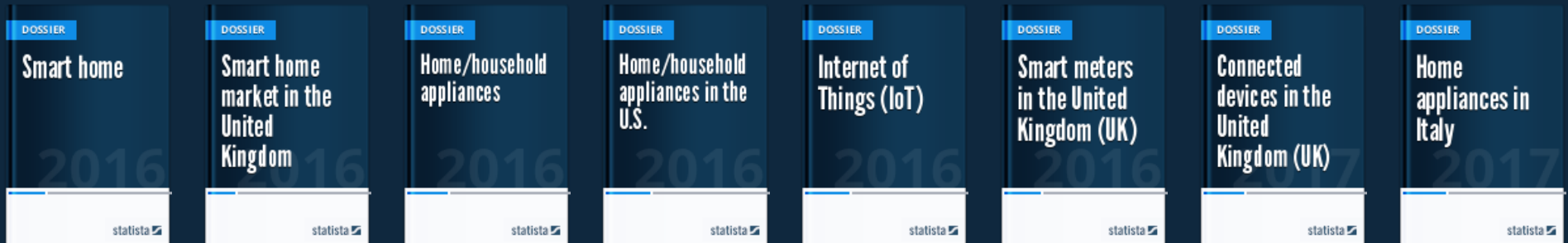


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Connected Car



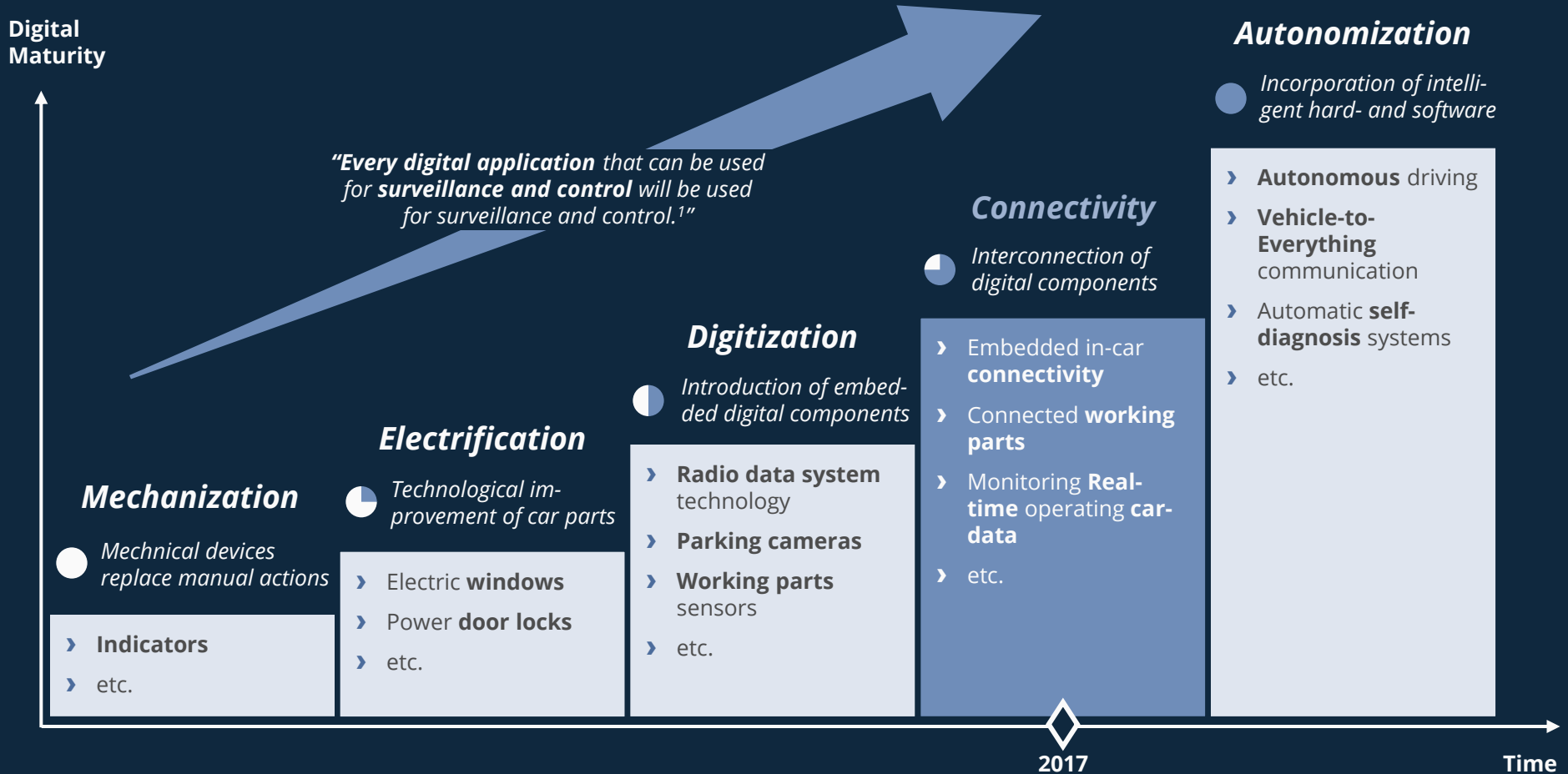
190,850,000

Connected Cars

The predicted global number of Connected Cars on the road in 2021

Widespread connectivity is a prerequisite for the development of self-driving cars

Gradual automotive development towards autonomous vehicles



Source: **Statista Digital Market Outlook**

1: Following Zuboff's Laws about the implications of information technology
 Note: Width and height of bars does not correspond to the actual timeline or digital maturity

ABC Mass market focus

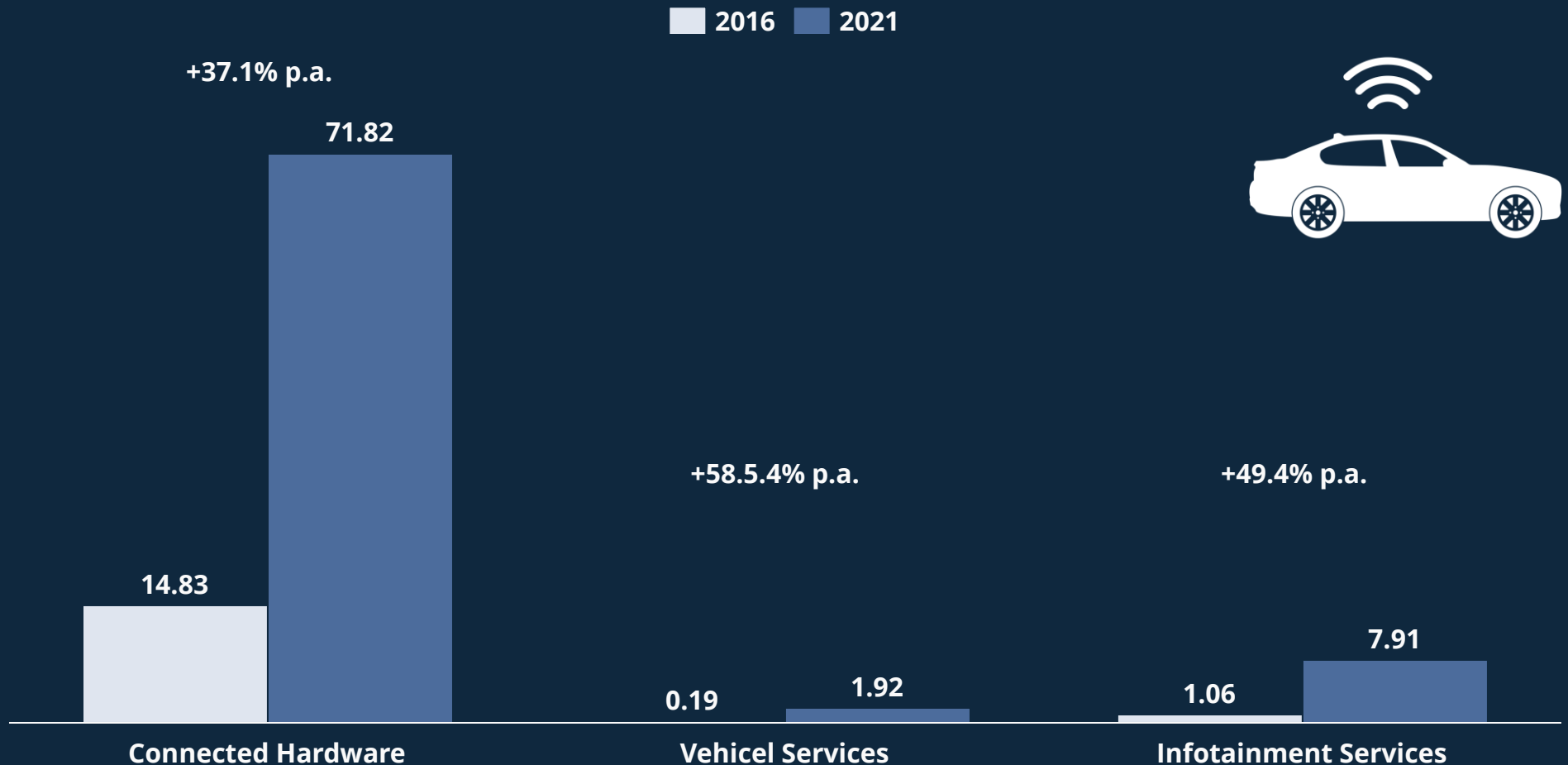
● Digital maturity level

Selected focus technologies per stage

Technological status quo in the mass market

Connected Car service subscription revenues are still falling short of OEM's expectations

Global¹ Connected Car revenue in US\$ billion and CAGR² by segment



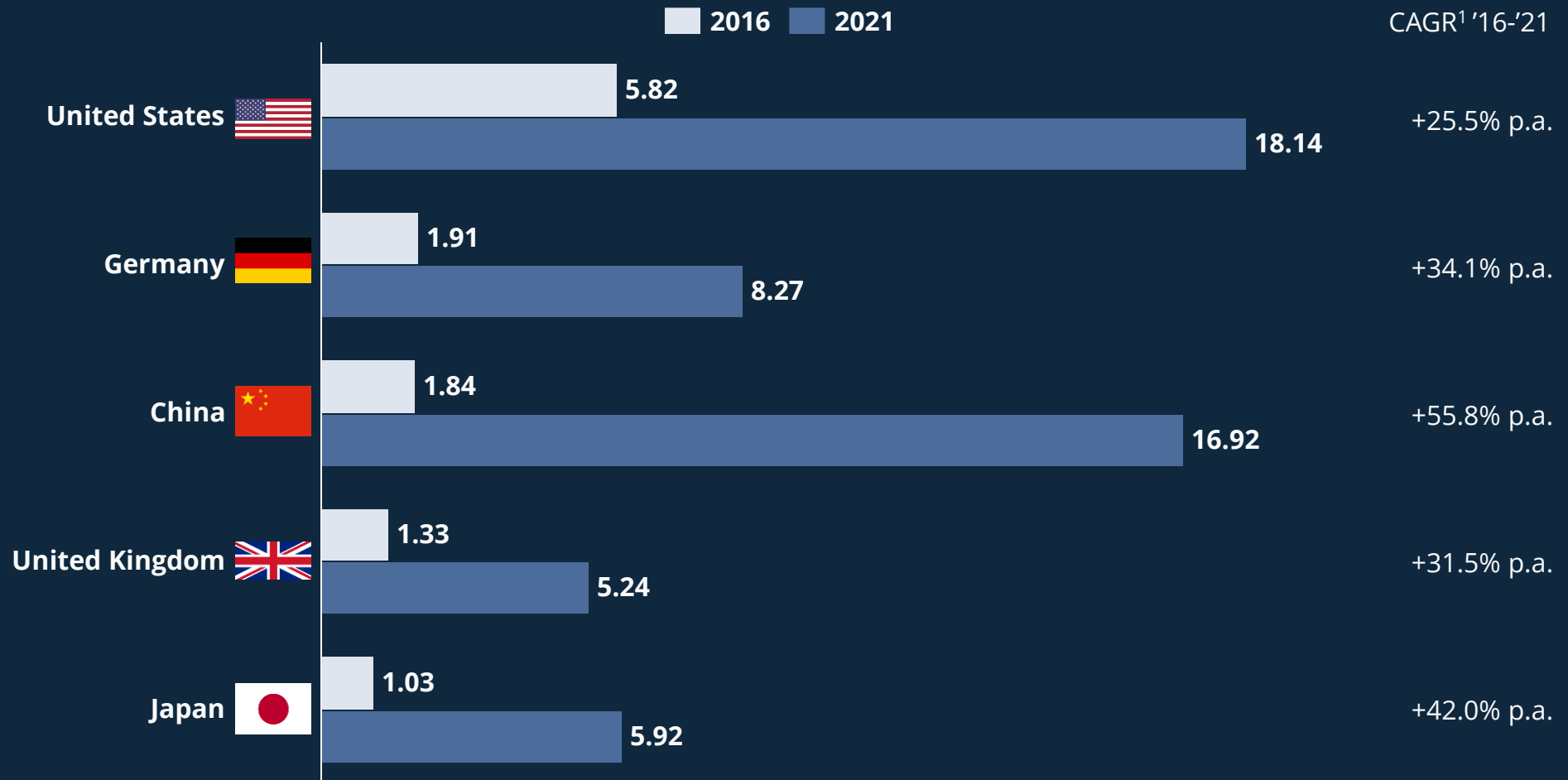
Source: **Statista Digital Market Outlook**

1: Only includes countries listed in the Digital Market Outlook

2: CAGR: Compound Annual Growth Rata/ average growth rate per year

A pioneer in integrated connectivity, the U.S. will stay the biggest Connected Car market by 2021

Total Connected Car revenue in US\$ billion by region



Connectivity-related service packages are now available from most OEMs

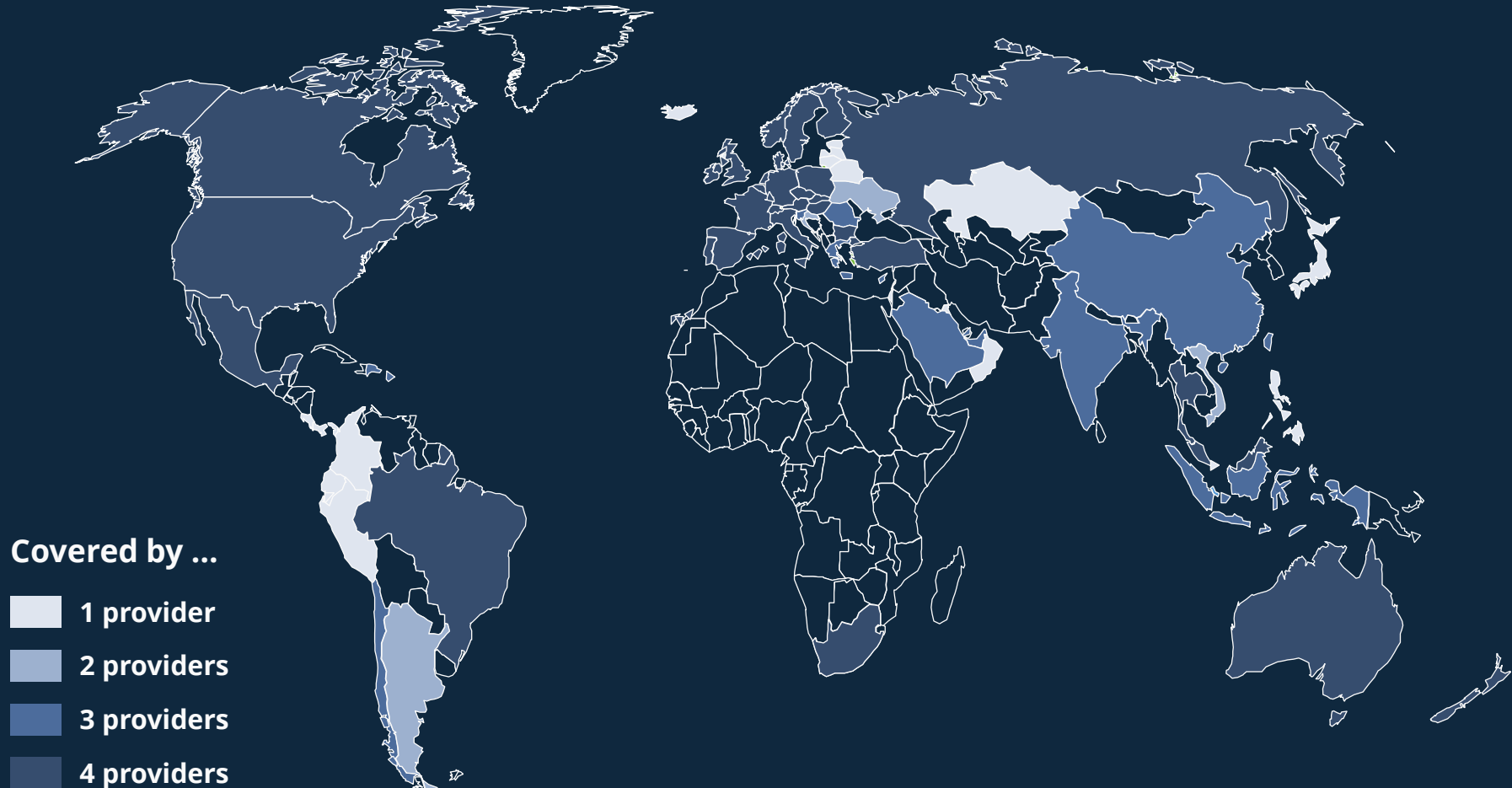
Key players and their digital service programs¹

	Europe	North America	Asia
Manufacturer	 Audi Connect  Connect  Škoda Connect  ConnectedDrive  OnStar  Porsche Connect  Car-Net  Sensus Connect  InControl  R-Link  MercedesMe	 OnStar  Cadillac OnStar  Jeep UConnect  CHRYSLER UConnect  OnStar  GMC OnStar  DODGE UConnect  Ford SYNC3  EVE	 KIA UVO  NISSAN Nissan Connect  Honda Honda Connect  Toyota Entune  STARLINK  Mazda MZD Connect  Mitsubishi Mitsubishi Connect  Infiniti InTouch / Connection  ISUZU Connect World

Source: Statista Digital Market Outlook

Real-time traffic information is already widespread across the Western world and Asia

Availability of real-time traffic information by the four largest providers¹

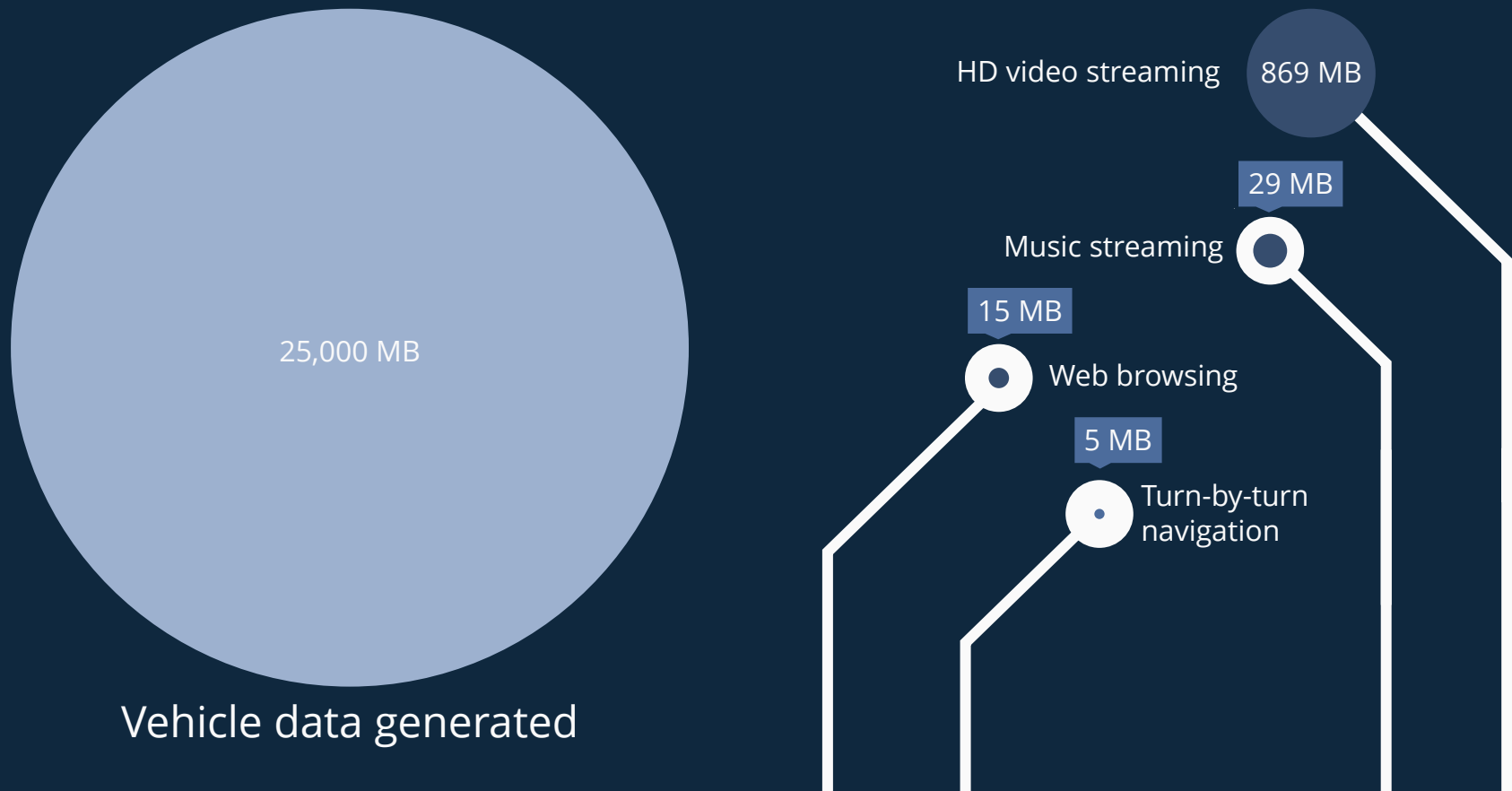


Source: Company Information, **Statista Digital Market Outlook**

1: the four providers are Google (available in 61 countries), Here (52), TomTom (52) and Apple (46)

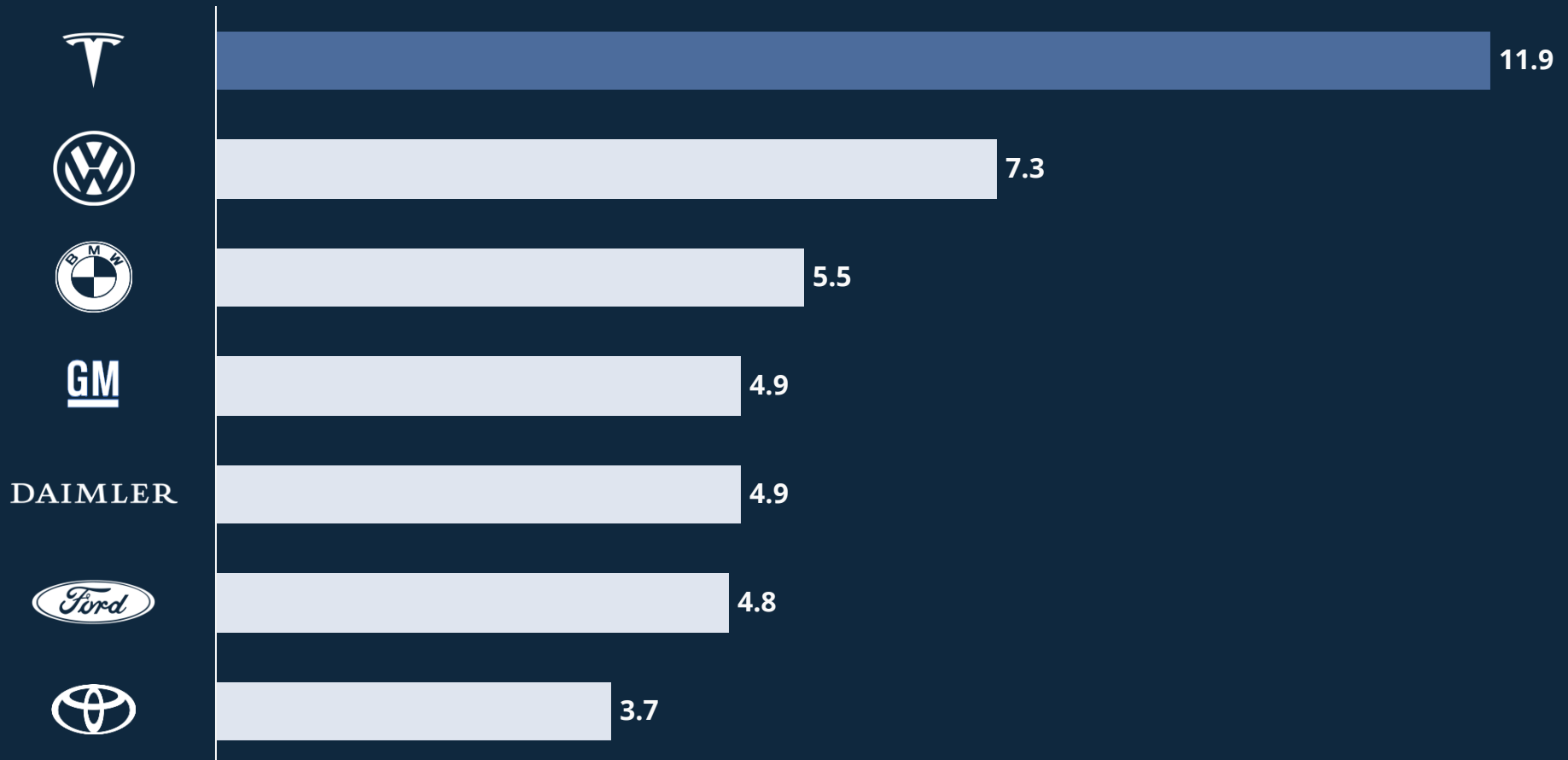
Operating data collected from connected cars generates both potential and challenges

Data generate per hour by Connected Cars compared to online activities



Tesla's investment intensity in R&D is much bigger than that of VW and BMW

R&D intensity of Tesla and selected car manufacturers in 2016¹



Sources: Company Information, Statista

1: R&D intensity is defined as the ratio between a company's investment in research and development and its revenue

Monetizing vehicle data – the future for OEMs?

Discover more of our topic-related research for Connected Car



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About the Digital Market Outlook

9 Markets, 34 segments & 85 sub-segments

e-Commerce
 Fashion, Electronics & Media, Food & Personal Care, Furniture & Appliances, Toys, Hobby & DIY

FinTech
 Digital Payments, Business Finance, Personal Finance

eServices
 Event Tickets, Fitness, Dating Services, Food Delivery

Connected Car
 Connected Hardware, Vehicle Services, Infotainment Services

eTravel
 Online Travel Booking, Mobility Services

Smart Home
 Home Automation, Security, Home Entertainment, Ambient Assisted Living, Energy Management

Digital Media
 Video-on-Demand, Digital Music, Video Games, ePubublishing

Digital Advertising
 Banner Ads, Video Ads, Search Ads, Social Media Ads, Classifieds

Exclusive part of the Statista Corporate Account

Access to more than 1,000,000 statistics and all digital markets

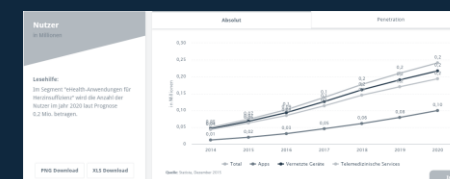
[more information](#)

Details

- > 50 countries
- > Direct access & downloads
- > 7-Year coverage: 2015 – 2021
- > Revenue forecasts



- > User count & penetration



- > Comparable data

