



Thanks so much for visiting us!

We are looking forward to staying connected!

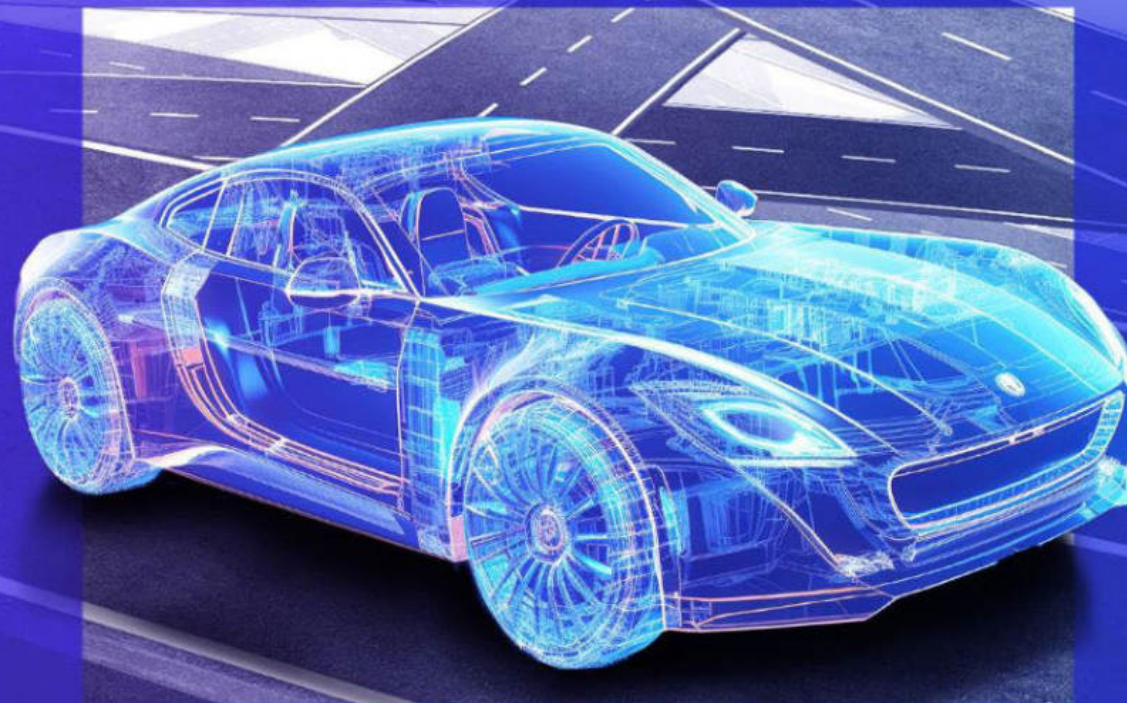
Elisabeth Zitz @elisabeth.zitz@kpmg.com

Anson Bailey @anson.bailey@kpmg.com

Iris Chen @iris.jw.chen@kpmg.com

KPMG. Make the Difference.

kpmg.com/automotive



Welcome to KPMG China

90 Minutes @ KPMG China

KPMG, China, Start-ups & Channels

- Hong Kong, GBA, Start-up ecosystem
- Future 50 Programme incl. AutoTech 50

KPMG automotive insights

- Investing in China's EV Market - Observations in the investment transactions related to the China EV market
- Future of Automotive
- Getting real about the EV transition – Global Automotive Survey

Austrocham

Mission

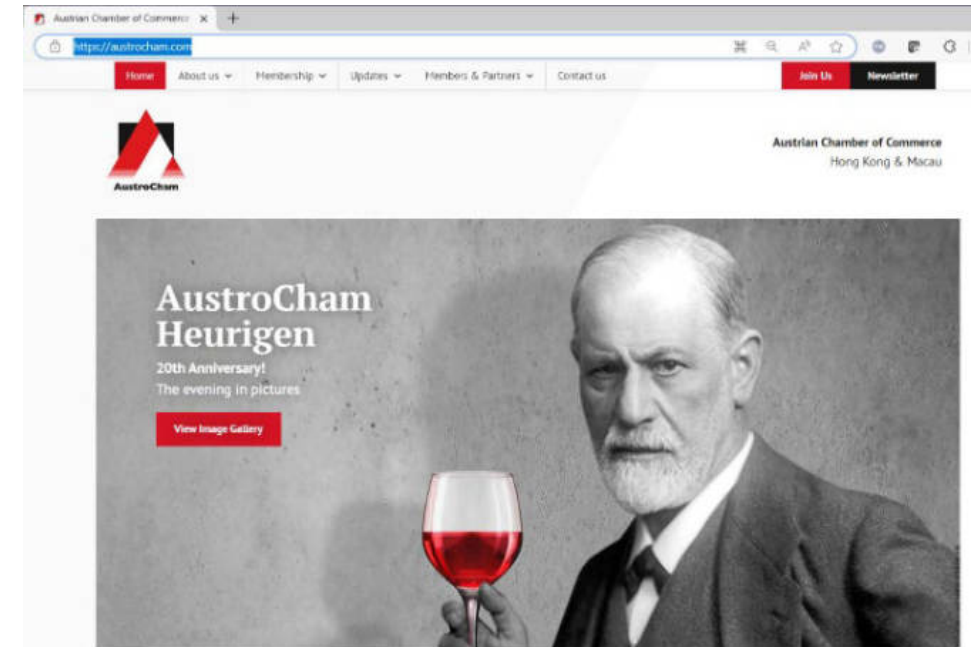
AustroCham serves as a networking platform for the Austrian community and its interests in Hong Kong & Macau and, in particular, to create, advance, and promote relations among Austria, Hong Kong & Macau.

Objectives

- To provide a channel of communication within the business community, with the Government of Hong Kong & Macau, local business associations, and trade institutions officially representing Austrian interests in Hong Kong & Macau.
- To provide a forum for Austrians in Hong Kong & Macau and promote personal contacts amongst AustroCham members and with local friends of Austria
- To facilitate and foster friendship, understanding, communication, and commerce between Austria, Hong Kong & Macau
- To promote measures benefiting and protecting the interests in Hong Kong & Macau of companies and citizens of Austria
- To advance education and training in commercial and technical matters and to support scholarships and exhibitions to be held by or otherwise assist young persons desiring to train for commercial careers and to support establishments and institutions for any of such purposes in Hong Kong & Macau
- To promote and support social, cultural, and educational events of interest to the Austrian community in Hong Kong & Macau

Affiliations in Hong Kong & Macau

AustroCham is a member of the International Business Committee chaired by the Financial Secretary of Hong Kong, the Macau European Chamber of Commerce, and InterCham to express concerns and contribute ideas of our membership to authorities and policymakers.



www.austrocham.com

China EV sales exceed one million units



Total monthly sales of [electric vehicles](#) (EVs) in China reached **1.026 million units in November, with Singles Day in early November**, local subsidies and automakers' efforts to increase sales at year-end contributing to soaring volumes, according to China Association of Automobile Manufacturers (CAAM).

Of the total, **plug-in electric vehicle (PEV)** sales increased by **13.5%** year on year to **702,000 units**, and plug-in hybrid sales spiked by 89.5% from a year earlier to 323,000 units.

Over January-November, China produced 8.43 million EVs, up by **34.5%** on a yearly basis, while total sales increased by **36.7% to 8.3 million** units over the same period.

[Source: Fastmarkets](#)

China's latest EV is a 'connected' car from smart phone and electronics maker Xiaomi



[Source: AP photo/Ng Han Guan](#)

- Xiaomi, a well-known maker of smart consumer electronics in China, is joining the country's booming but crowded market for electric cars with a sporty high-tech sedan.
- The tech company began accepting orders in China via an app on Thursday night, after founder Lei Jun wrapped up a more than two-hour presentation on the SU7 car by announcing the much-awaited price range: 215,900 yuan to 299,900 yuan (about \$30,000 to \$40,000).
- **Xiaomi said that it received 50,000 orders for the SU7 in the first 27 minutes after sales opened at 10 p.m. Beijing time (1400 GMT).**

China's EV Surge in Southeast Asia

Counterpoint's data reported a significant uptick in market share for Chinese auto companies in Southeast Asia last year, jumping from **38 percent** in 2022 to nearly **75 percent** in 2023.

China's share in Thailand's new-auto market more than **doubled to 11 percent in 2023**, driven by EV leader BYD.

Chinese automakers collectively controlled about 80 percent of the Thai EV market share, while Japanese brands lagged behind with less than 1 percent market share

Thailand's EV imports tripled in the first half of 2023 to 33,000 units; BYD accounted for approximately 30,000 units, surpassing competitors such as Nissan and Mazda .

Thailand, alongside other Southeast Asia nations like Vietnam, the Philippines, and Indonesia, is setting ambitious targets and policies to position itself as a manufacturing hub for EVs in the next decade. In alignment with its 30@30 policy, Thailand aims to have zero-emission vehicle production constitute at least 30 percent of the country's total automobile output by 2030.

The EV penetration outlook is maturing

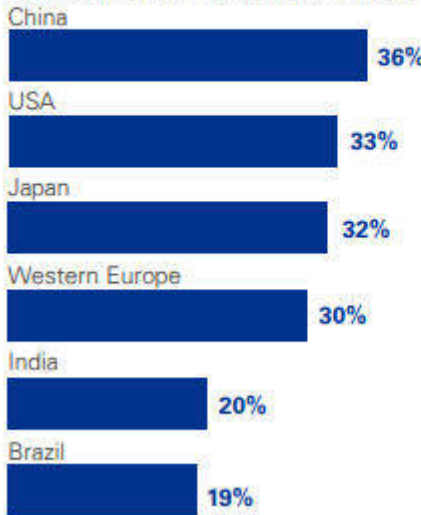


The EV penetration outlook is maturing—with less variation in estimates market share for 2030

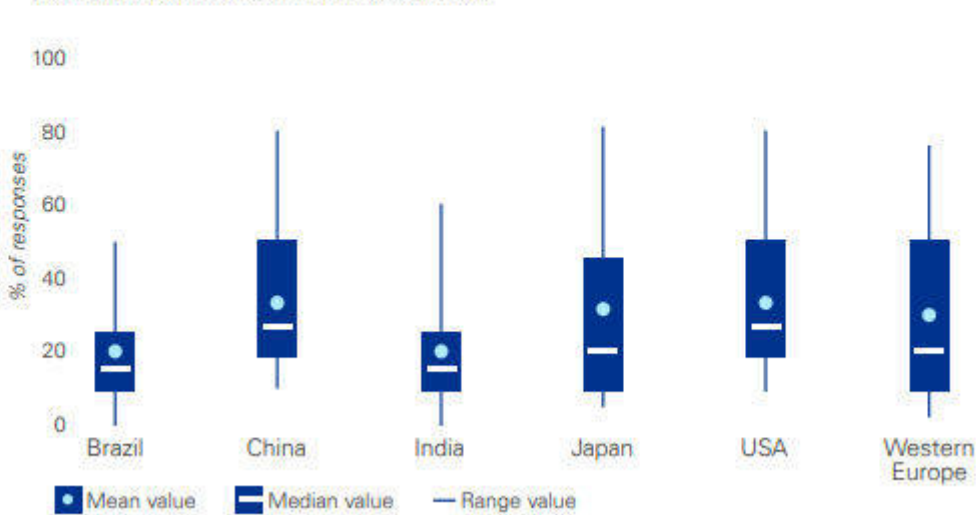
By 2030, what percentage of new vehicles sales do you believe will be battery-powered (excluding hybrids) within each market?

Estimated EV market share in 2030

Mean estimate of EV penetration by market



Distribution by market: Mean, median, and range



According to our survey, **China is expected to have the highest penetration of EVs in 2030 —36 percent of new car sales.** Respondents expect penetration in the US, Japan, and Western Europe to reach 30 to 33 percent.

Penetration is expected to be slower in India and Brazil, with sales limited by poor electricity infrastructure and lower incomes. The estimate of EV penetration by executives in our survey are far below those of clean energy advocates. The Rocky Mountain Institute in late 2023 predicted that EVs would account for more than two-thirds of global auto sales by 2030.*

* Green Car Reports, Stephen Edelstein (September 22, 2023)

Source: [KPMG 24th Annual global Automotive Executive Survey](#)

Automotive in China – Key highlights

1. In China, there's a clear **irreversible shift towards electrification**, with OEMs (Original Equipment Manufacturer) needing to adapt rapidly to stay competitive. Brand strategies are evolving, with Chinese consumers becoming more discerning, potentially impacting the premium pricing of multinational brands. Additionally, omnichannel operations are gaining importance, as they offer a seamless online and offline customer experience.
2. Globally, the **electrification of vehicles remains a major focus**, but the **pace of EV adoption may be slower** than initially anticipated, with a recent pullback in consumer sentiment in North America. However, the development of autonomous vehicle technologies continues, albeit with a longer timeline than expected.
3. The momentum for EVs is slowing, which may affect decarbonization timelines. Many consumers are considering switching vehicle brands, reflecting a **volatile brand loyalty landscape**.

In the headlines:

Government's reassured supportive attitudes towards EV transformation:

[China reaffirms EV commitment with new measures amid doubts · TechNode](#)

China EV in the global market:

[Chinese EVs can overcome headwinds in global markets - Opinion - Chinadaily.com.cn](#)

New player in the crowded market:

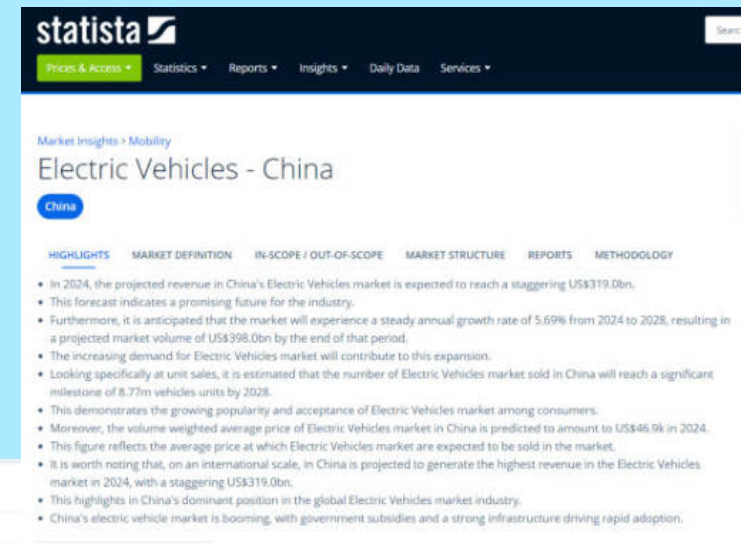
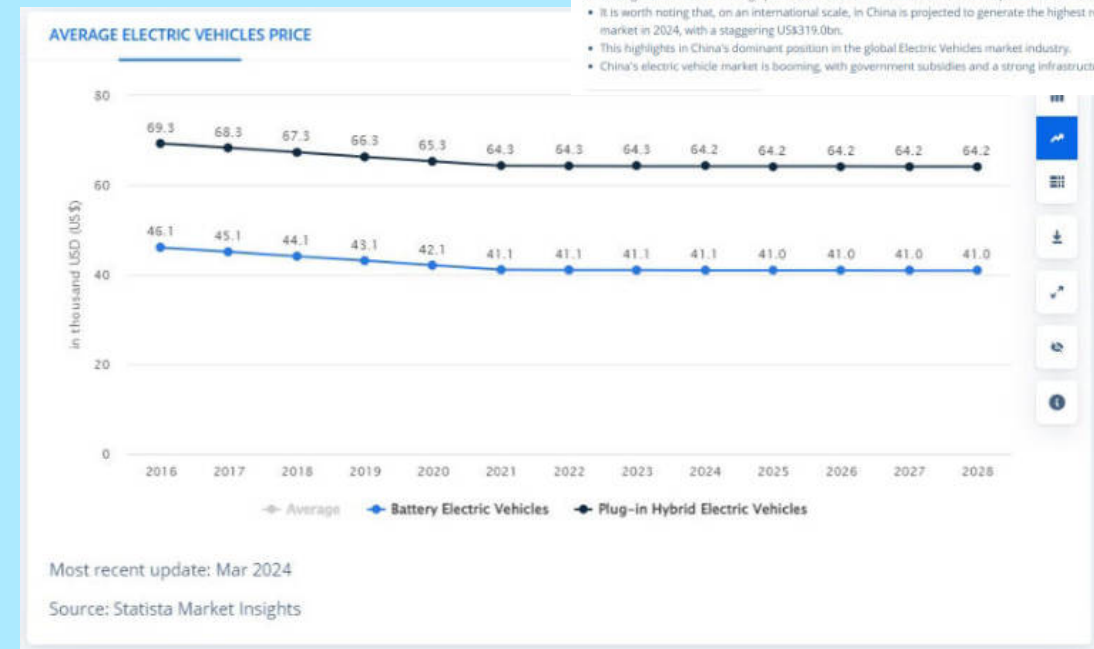
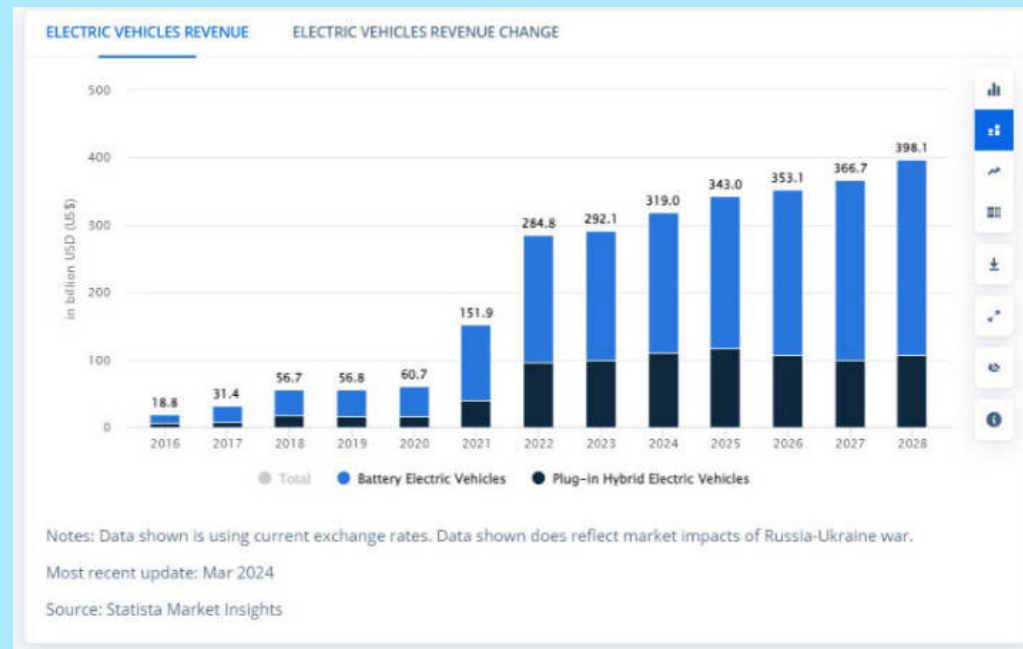
[China's latest EV is a 'connected' car from smart phone and electronics maker Xiaomi | AP News](#)

Latest sales:

[EV sales in China: March is the strongest month this year | electrive.com](#)

China EV market US\$ 319 b in 2024

China is projected to generate the highest revenue in the Electric Vehicles market in 2024, with a staggering US\$319.0bn.



Source: [Electric Vehicles - China | Statista Market Forecast](#), accessed on 16 April 2024

500 electric car makers



Source: SCMP online, accessed on 16 April 2024

BYD leads the charge

Bloomberg

Live TVMarketsEconomicsIndustriesTechPoliticsBusinessweekOpinionMore

Opinion

David Fickling, Columnist

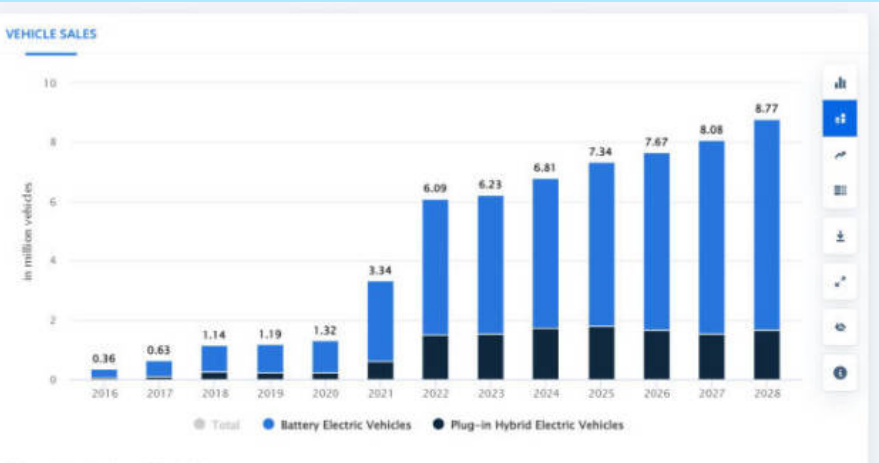
China's EV Market Shows the Future Is Already Here

By midyear, half of all cars sold in the country will come with a plug. BYD is leading the charge.

March 28, 2024 at 4:00 AM GMT+8

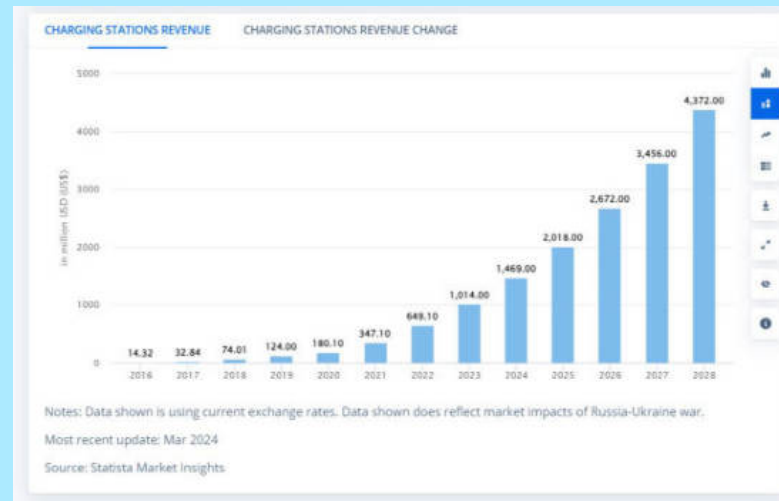
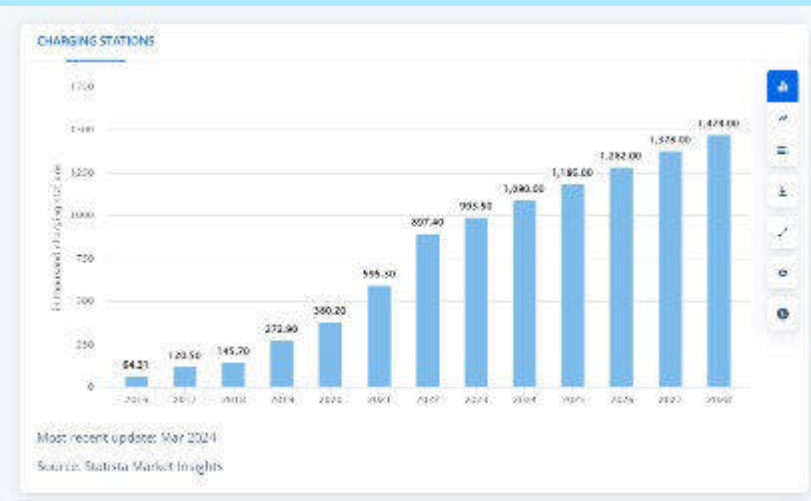
By David Fickling

David Fickling is a Bloomberg Opinion columnist covering climate change and energy. Previously, he worked for Bloomberg News, the Wall Street Journal and the Financial Times.

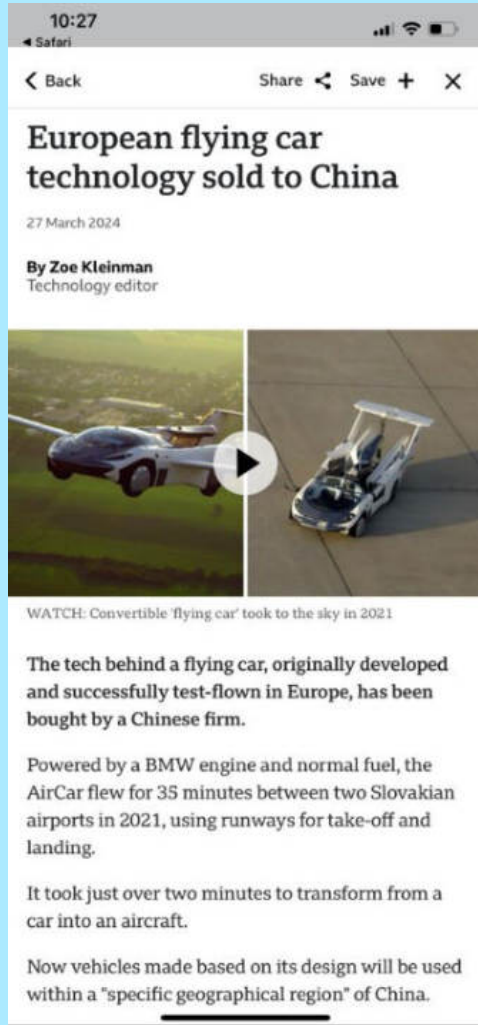


Source: [China's EV Market and BYD Show the Future Is Already Here - Bloomberg](#), accessed on 16 April 2024

Charging stations



Flying cars + hydrogen fuel cell powered trams



World's first commercial fuel cell-powered tram line – successfully in operation since 2019

Hydrogen fuel cell powered trams (since 2019 in Foshan)

Flying cars

Source: BBC Online 27 March 2024

“World’s first commercial fuel cell-powered tram line”

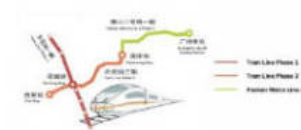
Hydrogen fuel cell powered vehicles



World’s first commercial fuel cell-powered tram line – successfully in operation since 2019

Foshan Gaoming Hydrogen Tram

The acknowledgement of climate change as a major global issue that requires rapid attention has seen the recent, swift development and adoption of clean and sustainable transportation solutions – such as hydrogen fuel cells to power vehicles. In December 2019, CRRC Qingdao Sifang, one of the world’s leading rolling stock manufacturers, and Ballard Power Systems launched the world’s first hydrogen tram line, operating in Gaoming District, Foshan City, China.



The heavy-duty fuel cell tram was jointly designed by CRRC and Ballard, meeting stringent rail safety and reliability standards.

Operating on the west bank of the Xijiang river, the tramline

consists of 10 stops across 6.5km, connecting Foshan’s urban center with Guangzhou South Railway Station – an expanding hub serving the high-speed rail network.

The hydrogen tram developed by CRRC is powered by a combination of hydrogen fuel cells, a lithium-ion battery, and electric motors. The fuel cells generate electricity by combining hydrogen and oxygen, producing water and electrical energy. The energy is then used to power the electric motors that drive the tram’s wheels. The lithium-ion battery serves as a secondary power source, providing additional energy for uphill climbs and acceleration.

Ballard fuel cell in numbers

Start of operation	2019
Passenger capacity	394
Total kilometers	>425,000
Top speed	70km/h
Range per refueling	125km
Ballard product	FCveloCity®-XD



The fuel cell tram has currently recorded a total of more than 425,000km driven during 35,000 operating hours, while meeting the target of 97% fuel cell availability.

The hydrogen refueling station at Zhihu depot has a daily capacity of 1,000kg of hydrogen and can serve a maximum of two trams at a time. It takes just fifteen minutes to refuel the hydrogen trams, which provides 125km of range. Having now completed more than 3,500 refuels for fuel cell trams, the concept has proven itself.

The tram line connects bus stations, large residential communities, administrative and commercial centers, parks and factories. Since the launch of the project, five hydrogen trams have provided clean and sustainable transportation for over 600,000 passengers, with residents appreciating its quiet operation and zero-emission.

Powered by two Ballard FCveloCity®-XD 200kW fuel cell modules, the tram achieves a maximum speed of 70km/h with a maximum passenger capacity of 394 people. With the fuel cell trams now successfully running for more than three years, Ballard and CRRC have gained significant experience with hydrogen-powered rail systems – which can be positively applied to future projects.

“After more than three years of operation and nearly half a million driven kilometers, we can say that hydrogen fuel cell technology is a solution for future commercial transportation.”

Jack Pang,
Customer Care, Ballard Power Systems



CRRC’s hydrogen tram project in Gaoming District, Foshan City, China is a promising example of how hydrogen fuel cell technology can be used to create clean and sustainable transportation solutions.

The project has achieved impressive results since its launch in 2019, and it is primed to continue to serve as an important model for an increasing number of transportation providers in the future.

About Ballard Power Systems

Ballard is a world leader in the development, manufacture, sale, and servicing of PEM hydrogen fuel cells. With more than 44 years of experience, Ballard represents decades of innovation and engineering leadership in clean energy solutions. Our fuel cell technology powers buses, trucks, trains and ships, as well as stationary power systems. To learn more about Ballard, please visit: www.ballard.com

Specific plans and descriptions in this document are in effect at the time of publication. Ballard Power Systems, Inc. reserves the right to change specifications, product appearance or to discontinue products at any time. © 2020 Ballard®. Powered by Ballard®. FCveloCity®, FCgen™ and Fuel for Life are trademarks of Ballard Power Systems Inc.

Here for life™

Ballard Power Systems Inc.
9000 Highway 104
Burnaby, BC V5N 3S9
Canada

Contact us
(+1) 604 454 0900
marketing@ballard.com

World's first commercial fuel cell-powered tram line

In action in Foshan - Gaoming District



Autotech 50 series

Autotech 50 series report – Smart sensors – 2024 March
Automotive sensors play an indispensable role as one of the key links in the development of intelligent vehicles and autonomous driving technology.

Against this backdrop, KPMG China's automotive sector team has conducted in-depth research on the latest technological developments in automotive sensors and published the industry report.

In this report, we review the evolutionary history of the automotive sensor industry and thoroughly analyze the current market structure and competitive landscape.

At the same time, we have explored future industry trends and comprehensively analyzed the opportunities and challenges the industry faces.

【[智慧之眼：开启汽车感知新时代 - 毕马威中国 \(kpmg.com\)](https://www.kpmg.com/zh/cn/issues-and-insights/industry-issues/autotech-50-series-report-smart-sensors-2024-march)】

[智慧之眼：开启汽车感知新时代 - 毕马威中国 \(kpmg.com\)](https://www.kpmg.com/zh/cn/issues-and-insights/industry-issues/autotech-50-series-report-smart-sensors-2024-march)





Hong Kong, GBA, Start-up ecosystem

Anson Bailey
Head of Consumer & Retail, ASPAC



01

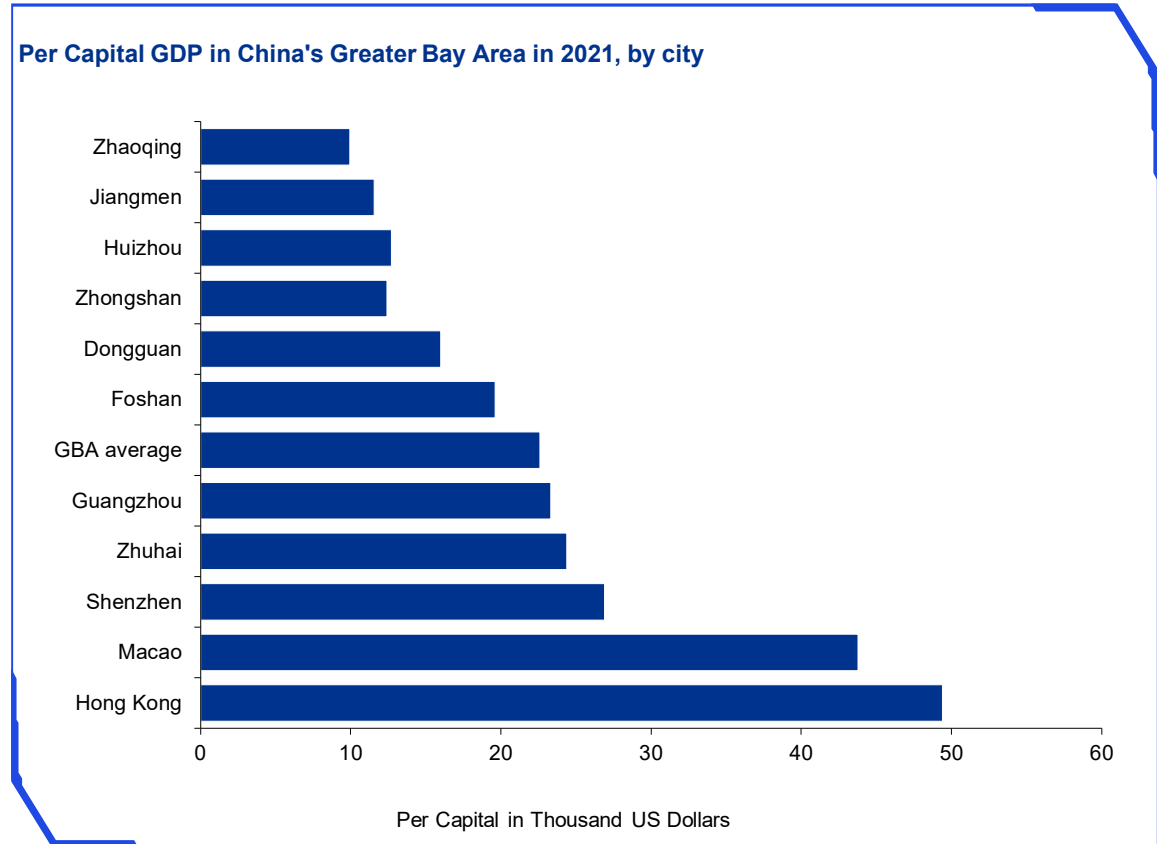
Greater Bay Area

The Greater Bay Area

Refers to the government scheme to link the nine cities in Guangdong's Pearl River Delta (Guangzhou, Shenzhen, Zhuhai, Foshan, Huizhou, Dongguan, Zhongshan, Jiangmen, and Zhaoqing), Hong Kong and Macao into an integrated economy and world class business hub

This will lead to:

- Improved transport infrastructure
- Creation of an international innovation and technology center
- Development of a globally competitive modern industrial system, while promoting the free flow of people, goods, capital, and information within the region



Source: Statista- Greater Bay Area

Over 20%
Of high-net-worth individuals in Mainland China are located in the Greater Bay Area

GBA Wealth Management Connect Scheme will facilitate growth of market in a region with over 86 million people and a combined GDP of **US\$1.95 trillion**

China's capital market is expected to grow to **US\$100 trillion** by 2030

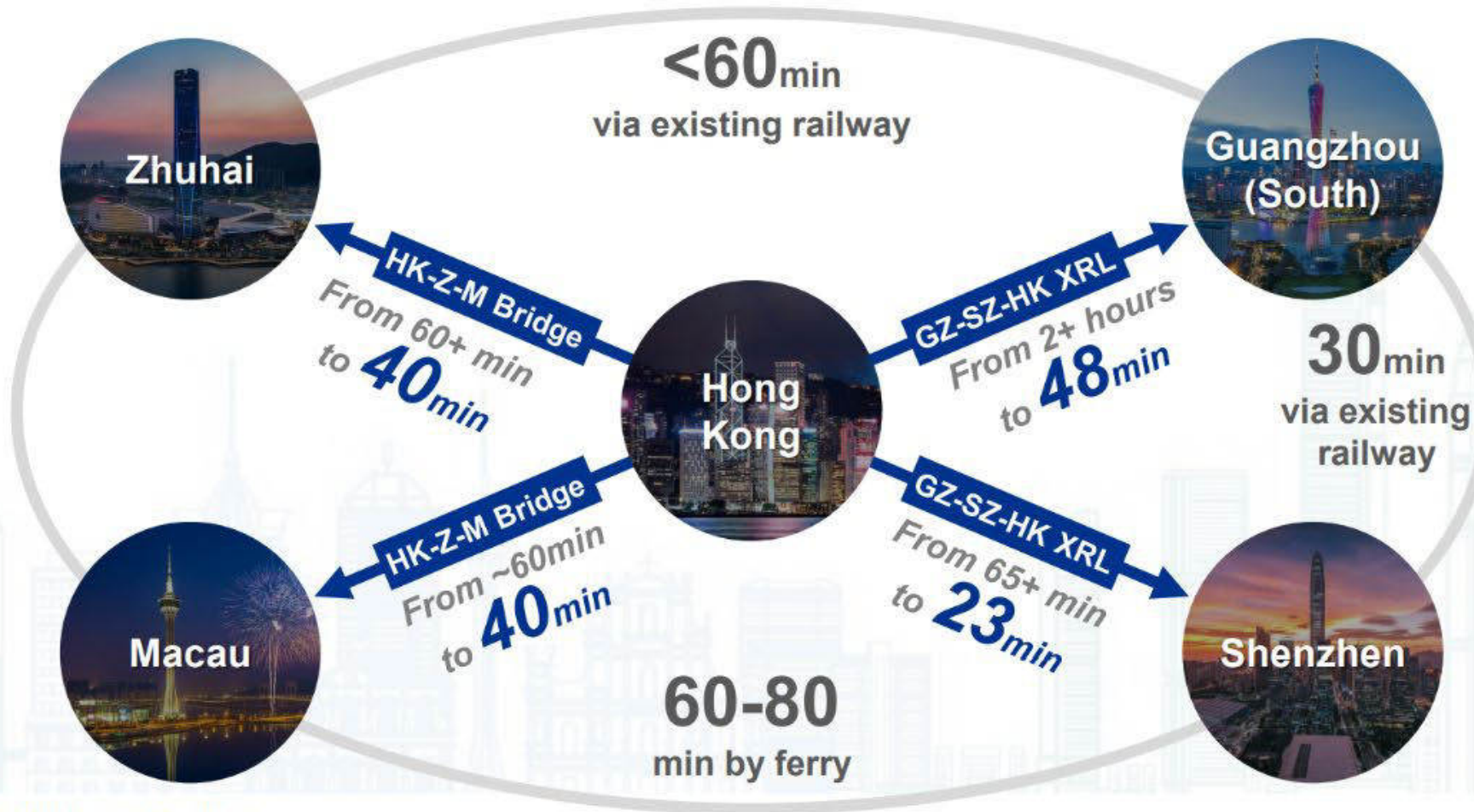
Source Greater Bay Area- KPMG China



© 2024 KPMG, a Hong Kong partnership and a member firm of the KPMG global organisation of independent member firms affiliated with KPMG International Limited ("KPMG International"), a private English company limited by guarantee. All rights reserved. Printed in Hong Kong, China.

Source: Hong Kong fast track your next success, InvestHK

Hong Kong acts as a connector within the Greater Bay Area



Source: MTR Corporation, China Railway, KPMG Analysis

GBA Development Plan

Consolidate and Enhance Hong Kong's status as a financial, transportation and trade centres, and aviation hub

Develop an International Innovation and Technology Hub

Strengthen Infrastructure Connectivity

Expand the Scope of Development for sectors in which Hong Kong's strengths lie

Foster Youth innovation and Entrepreneurship

Utilize Hong Kong's international connections and networks to promote the GBA overseas to attract capital and talent to the GBA

Source: InvestHK- Greater Bay Area



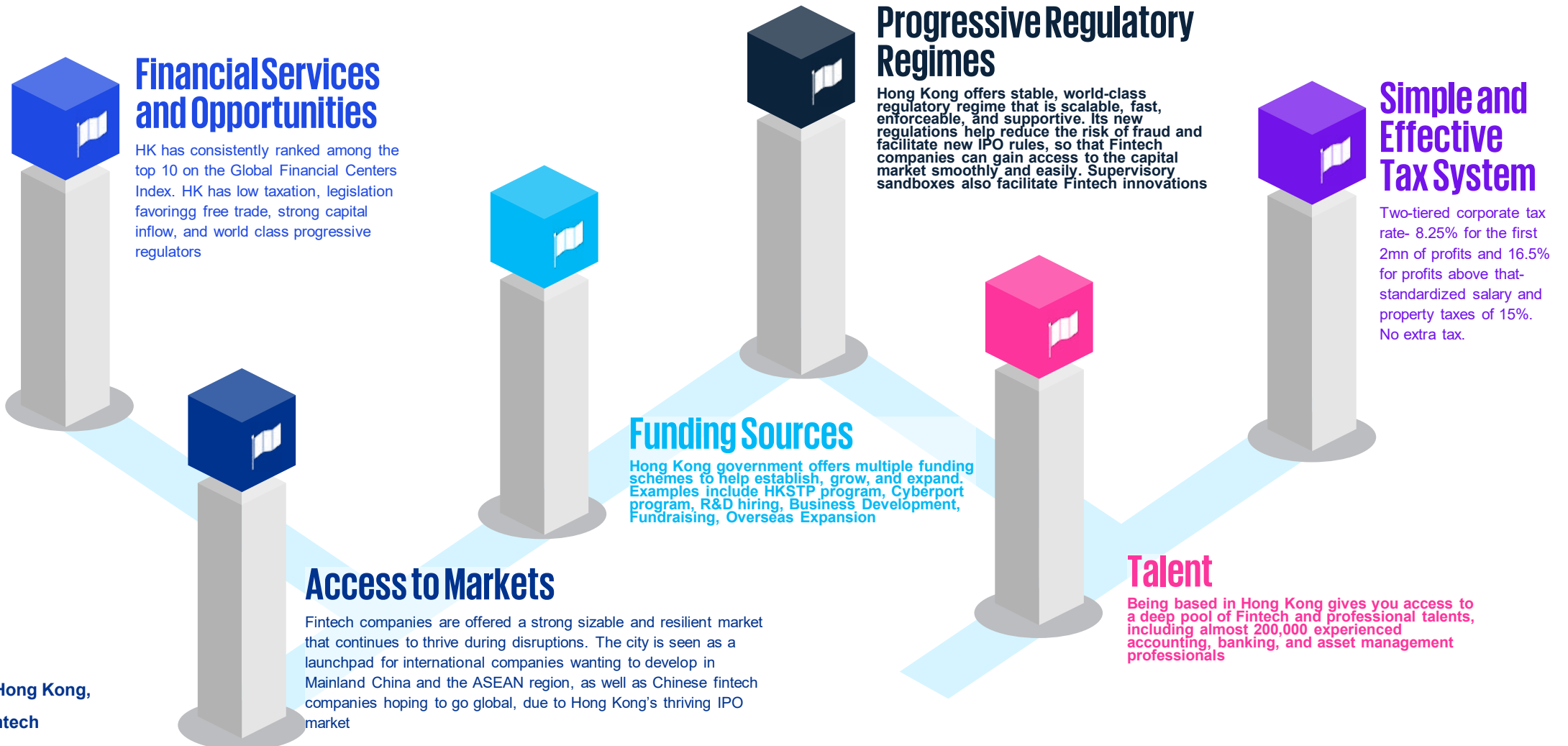
© 2024 KPMG, a Hong Kong partnership and a member firm of the KPMG global organisation of independent member firms affiliated with KPMG International Limited ("KPMG International"), a private English company limited by guarantee. All rights reserved. Printed in Hong Kong, China.

02

Hong Kong Economy

Hong Kong Economy

Why Hong Kong?



Source: Why Hong Kong,
HongKong-Fintech



© 2024 KPMG, a Hong Kong partnership and a member firm of the KPMG global organisation of independent member firms affiliated with KPMG International Limited ("KPMG International"), a private English company limited by guarantee. All rights reserved. Printed in Hong Kong, China.

Government Plans



Happy Hong Kong campaign



Electronic consumption vouchers-5000 to each eligible Hong Kong permanent resident aged 18 or above in two installments



6 billion for universities and research institutes to set up thematic research centers related to life and health technology



Press ahead with the “Airport City” development strategy



20 million to expedite strategic studies and exchanges of the high-end maritime service industry

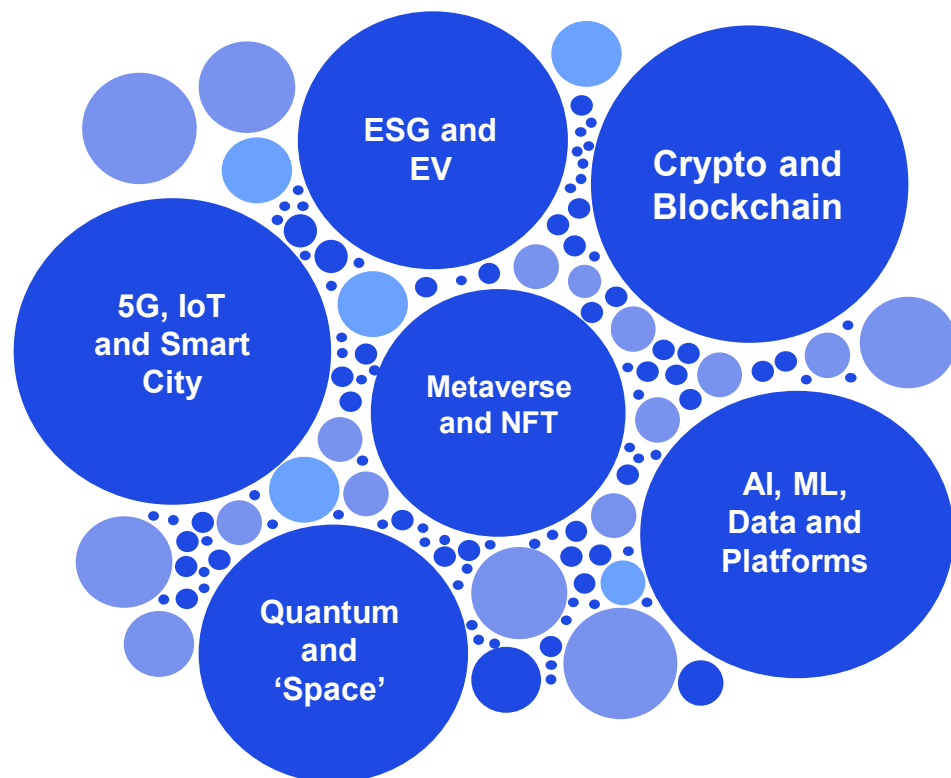


Commence consultation on the development proposals and land use planning of San Tin Technopole

Source: 2023-24 Budget Highlights

Hong Kong as a growing Tech & Innovation Hub.....

With barriers to adoption lowered, this has resulted in an exponential uptake in technology +investments here in Hong Kong and across the globe.



Metaverse and NFT – major investments including private equity and gaming.



Crypto and Blockchain and Web 3.0 – on cusp of mainstream e.g. Decentralised Finance



ESG driving a major shift in priorities and electrification



5G, IoT and Smart City will increase Data consumption across platforms.



Solving Data platform models via AI, ML, both within and between organizations.



Processing power demand has driven Quantum and connectivity options via Space

03

Hong Kong Startup Ecosystem

Hong Kong Startup Ecosystem

In 2022, the city ranked **1st** in Fraser Institute's Annual Report on Economic Freedom of the world

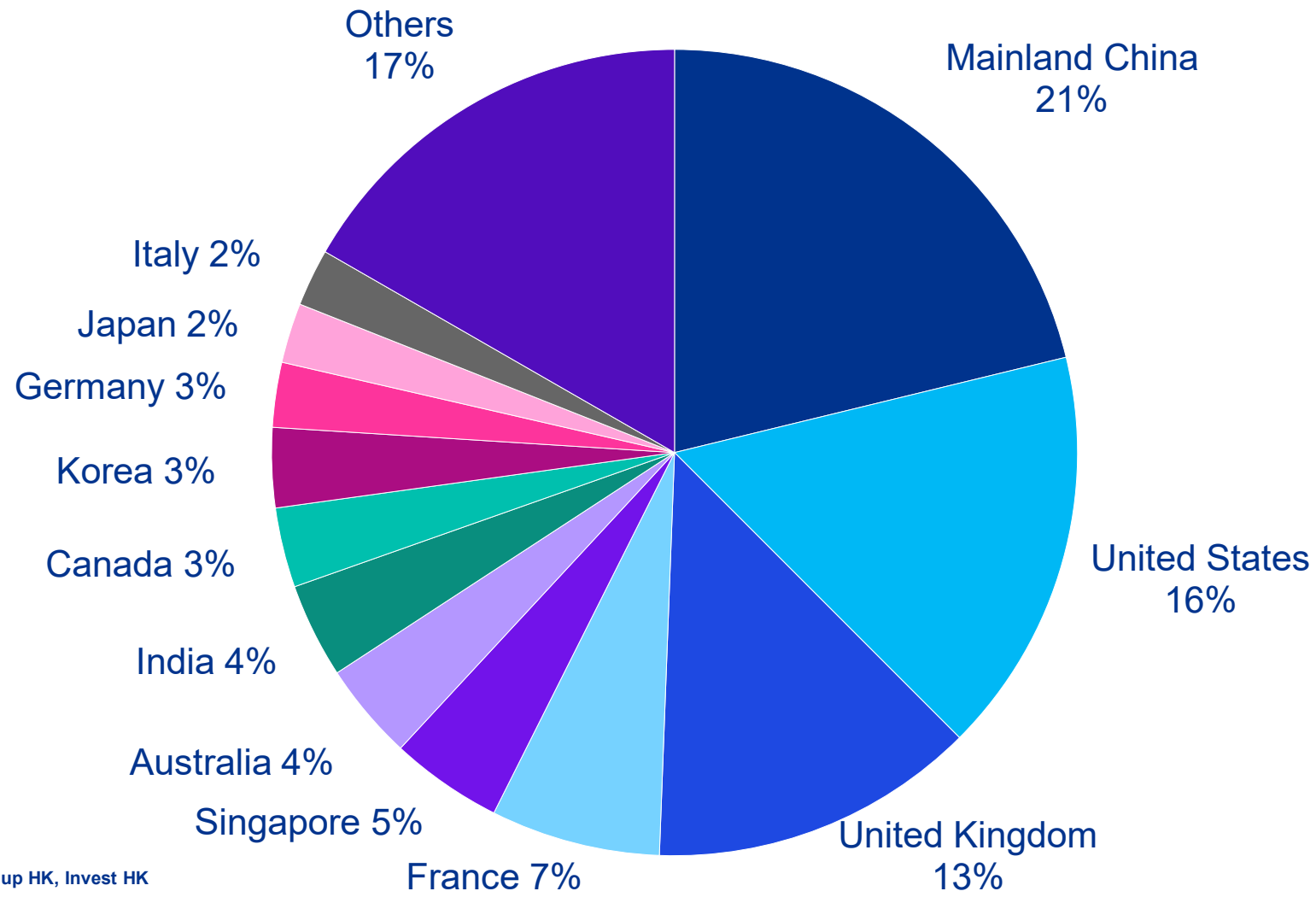
InvestHK's 2022 start-up survey found the number of start-ups in Hong Kong has increased to **3,985**, and increase of **52%** from 2018

Hong Kong start-ups employ **14,932** staff across **132** co-workspaces, incubators and accelerators

Source: A thriving Startup Ecosystem, InvestHK

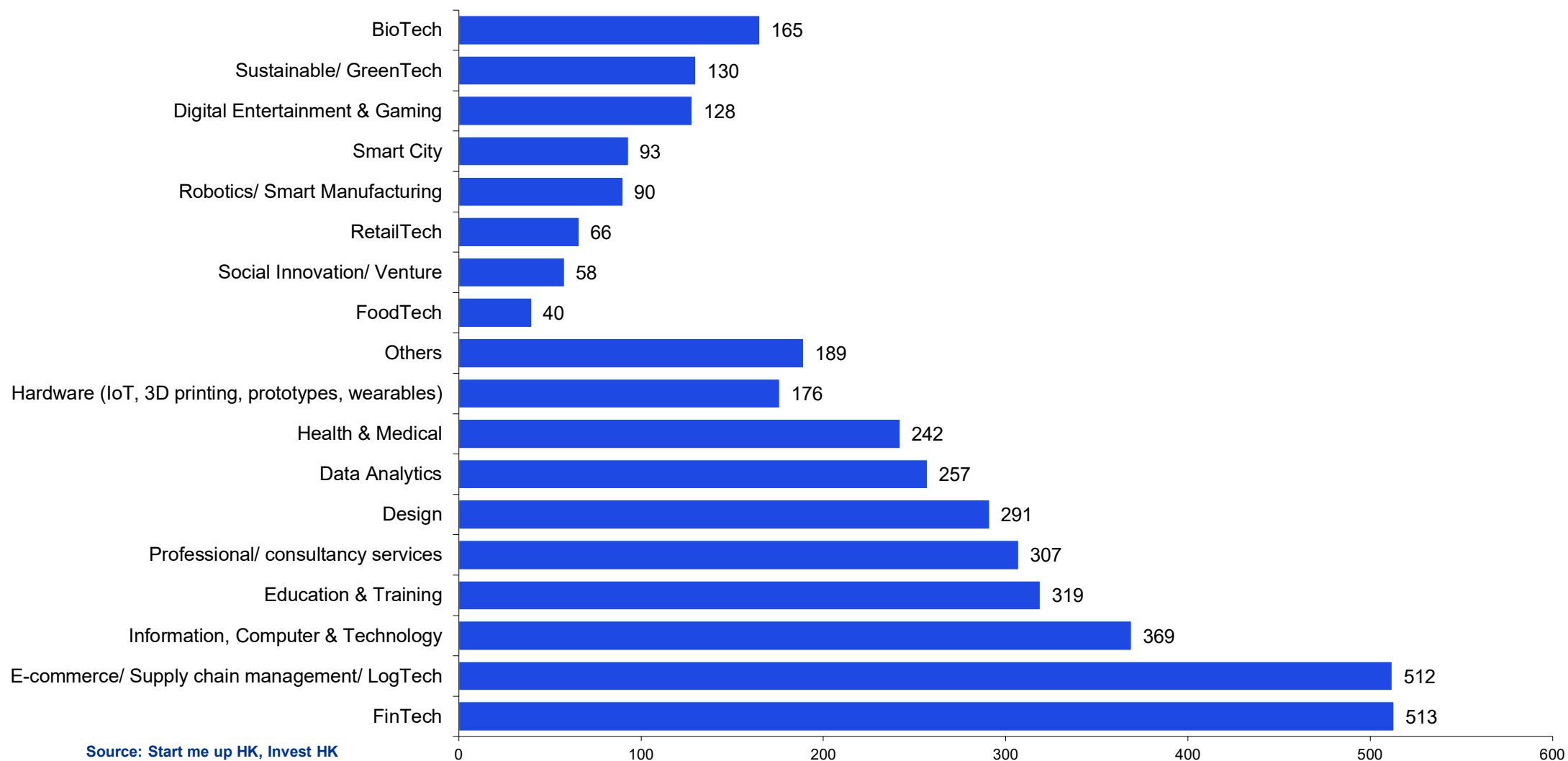


Number of Non-local Founders with Origins Provided



Source: Start me up HK, Invest HK

Number of Start-ups by Industry in Hong Kong



Source: Start me up HK, Invest HK



© 2024 KPMG, a Hong Kong partnership and a member firm of the KPMG global organisation of independent member firms affiliated with KPMG International Limited ("KPMG International"), a private English company limited by guarantee. All rights reserved. Printed in Hong Kong, China.

Case Study: Prenetics - The journey from start-up to IPO



We have worked and supported the client since it was a growth stage start-up and followed along its journey until their public listing on NASDAQ, navigating challenges and barriers along the way



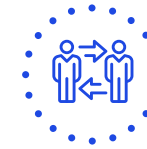
Client

- Genomics and precision oncology company
- Focus on precision oncology, specifically on early detection and treatment
- Headquartered in **Hong Kong**, with operations in **U.K., Taiwan, Singapore**
- Listed on **NASDAQ**



Challenge

- Worked with Prenetics since **2015** when it was still a **startup**
- Experienced **significant growth** and **opportunities** during COVID, Prenetics evaluated IPO options
- Kick-off **US listing** through a **merger** with a **SPAC** in **2021**
- Transaction required comprehensive assessment: **reverse acquisition, ESOP restructuring**, conversion of **preferred shares** and **convertible notes**



Impact

- Worked closely with Prenetics on **audit** to resolve all issues and **reply comments from SEC**
- **Collaboratively worked** with **SPAC's team** and other professional parties on the **financial information** included in **F-4**
- **First unicorn from Hong Kong** successfully listing in the **US market** in **May 2022**

04

View of Fin Tech

View of Fintech in Hong Kong



51%
Of companies
operating or planning
expand in the Greater
Bay area



74% Of Hong Kong
respondents use at least
two fintech services



67%
Consumer FinTech
adoption rate, one
of the highest in
the world



66%
Of FinTech
companies
focusing on the
B2B market



90% adopted
digital payment

Key Facts



- Home to 800 fintech companies, over 3,900 startups, and over 10 unicorn companies (startups valued over US\$1bn)
- Hong Kong stock exchange has been the world's top IPO market seven of the last 13 years and an increasingly popular choice for Asia's fintech companies
- In 2022, Hong Kong ranked first in Asia Pacific and top 5 globally in the smart centers index



ZA International



WeLab



Airwallex

Source: FinTech, InvestHK



© 2024 KPMG, a Hong Kong partnership and a member firm of the KPMG global organisation of independent member firms affiliated with KPMG International Limited ("KPMG International"), a private English company limited by guarantee. All rights reserved. Printed in Hong Kong, China.

FinTech 2025 strategy



All banks go FinTech be fully digitizing operations



Future-proofing Hong Kong for Central Bank Digital Currencies (CBDC's) at both wholesale and retail levels



Creating the next-generation data infrastructure by enhancing the city's existing data infrastructure and building new ones



Expanding the fintech-savvy workforce by collaborating with various strategic partners to groom an all round fintech talent

Nurturing the ecosystem with funding and policies by setting up a new fintech cross-agency co-ordination group

Source: Fact sheet: Hong Kong Fintech landscape



© 2024 KPMG, a Hong Kong partnership and a member firm of the KPMG global organisation of independent member firms affiliated with KPMG International Limited ("KPMG International"), a private English company limited by guarantee. All rights reserved. Printed in Hong Kong, China.



05

Platforms & Ecommerce

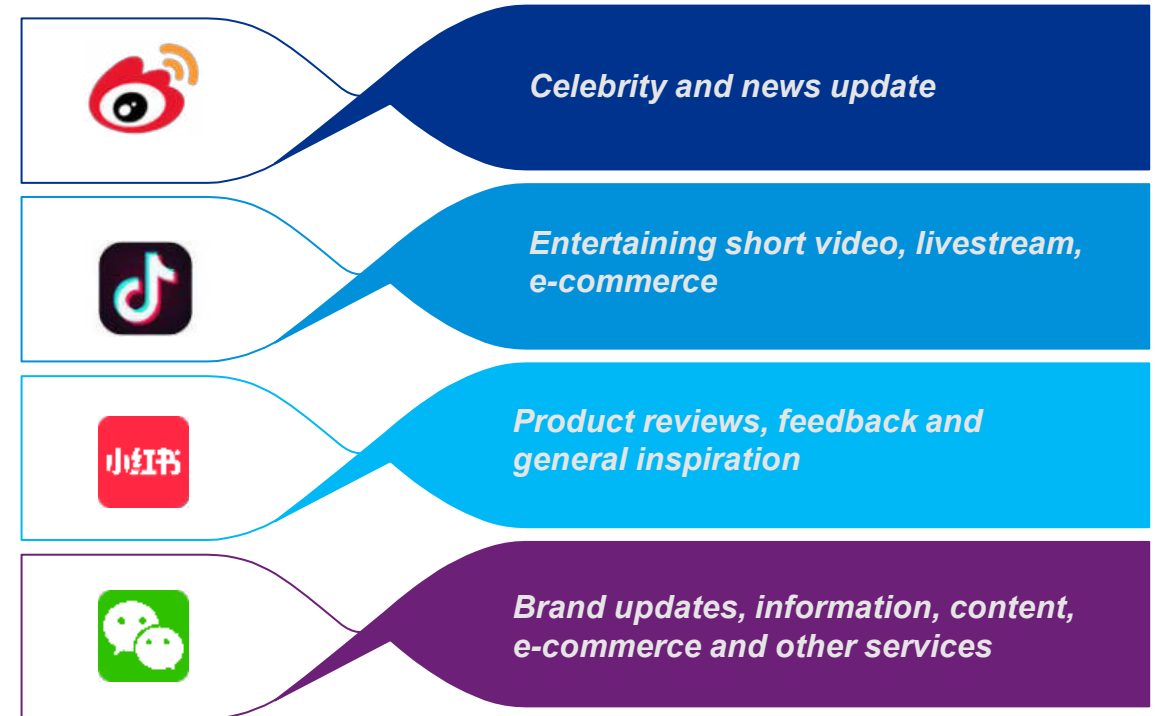
Platforms & Ecommerce



However, consumers may not interact with the same platform along the whole journey.

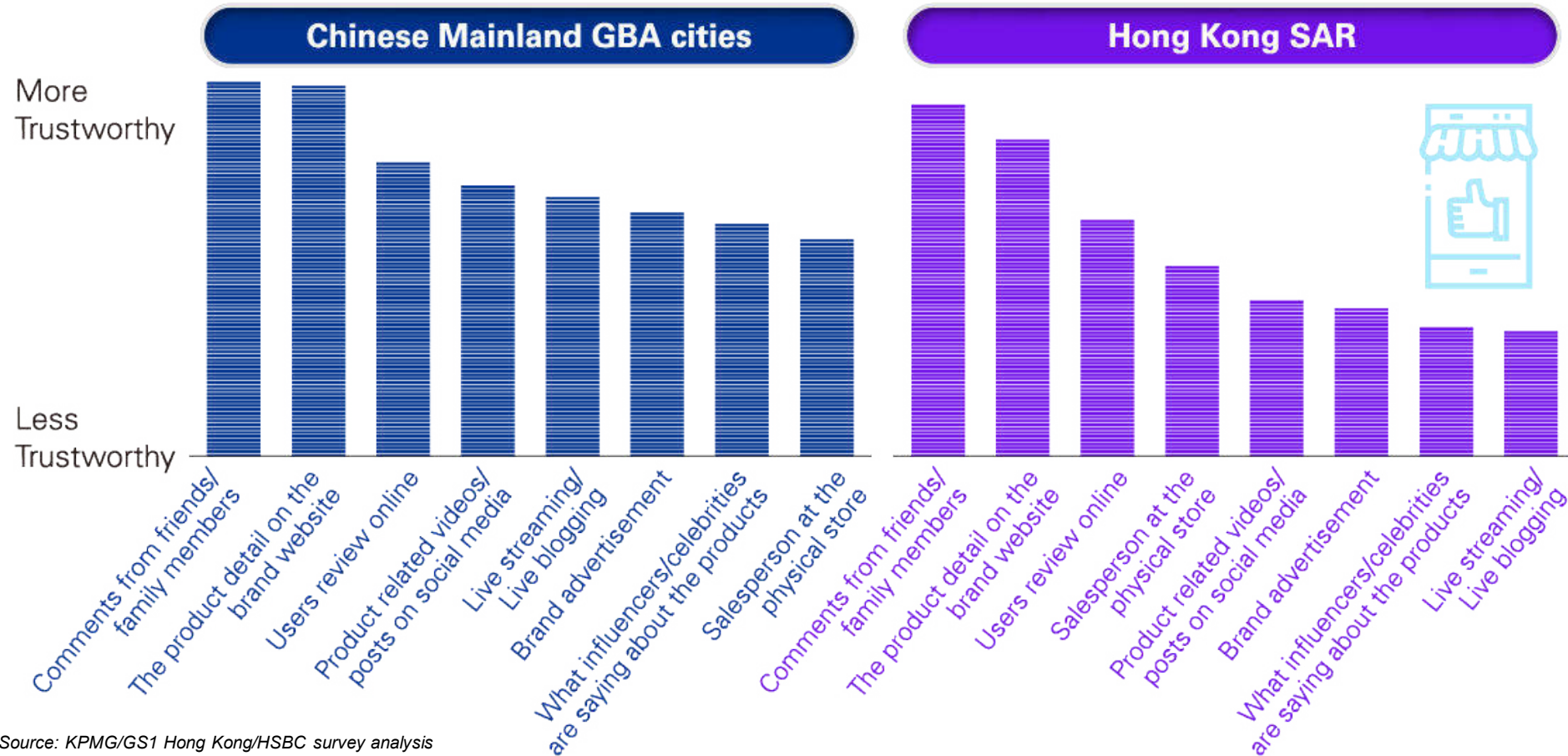
It is important for brands to consider the specific media type, tone of voice and topics popular on each channel to fully maximise the potential of each platform.

Consumers in China by and large access each social platform for specific purpose e.g.



Consumers trust brand websites and family and friends

Consumer level of trust in information sources when making purchasing decisions

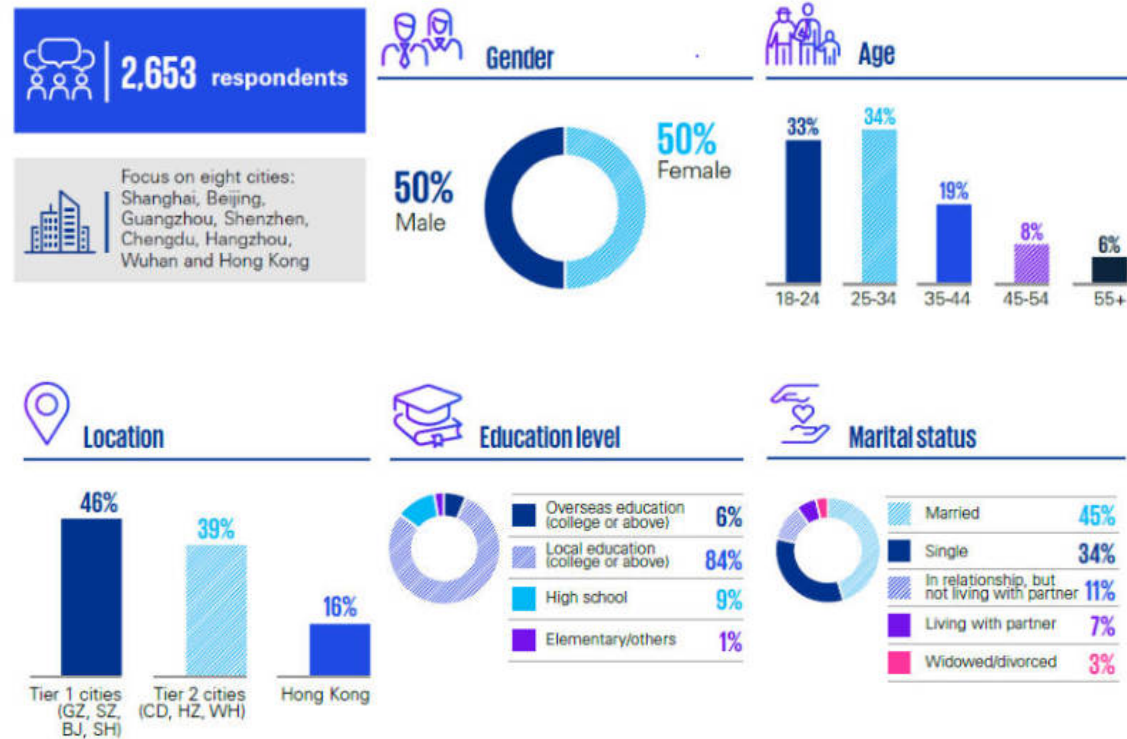


Source: KPMG/GS1 Hong Kong/HSBC survey analysis

About the study

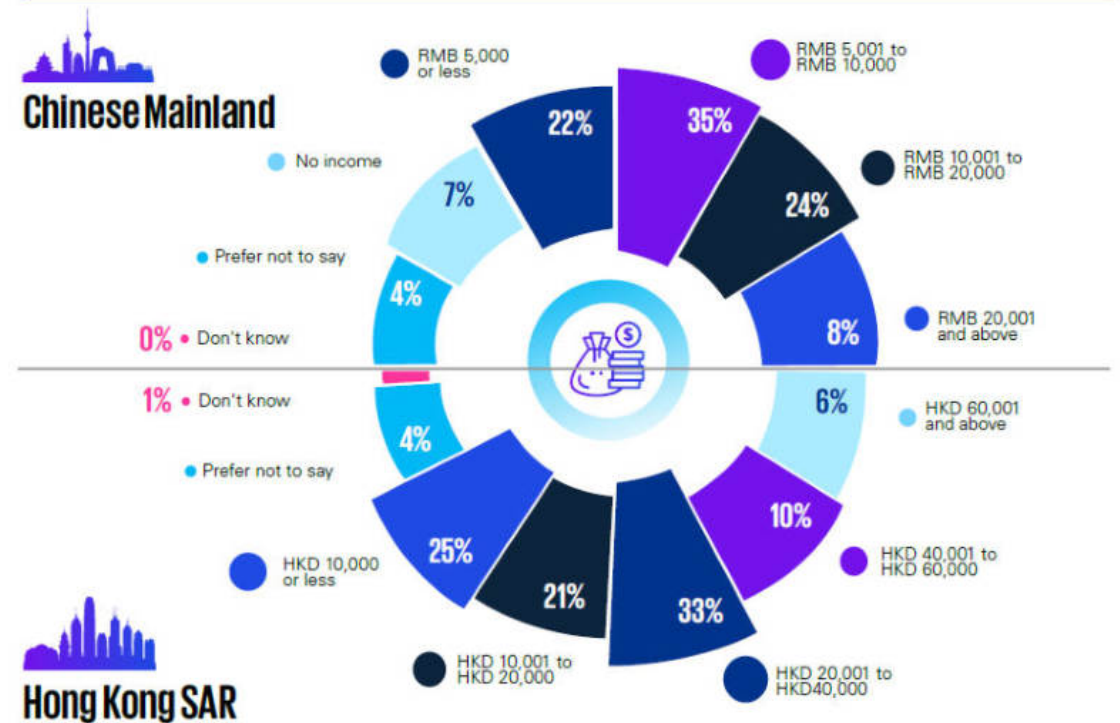
In order to better understand luxury consumers, we surveyed ~2.7k consumers across Mainland China & HK, and we spoke to various industry experts

Figure 1: Profile of survey respondents



Source: KPMG analysis

Monthly personal income



06

Smart Cities

The Connected Cities Conference was successfully held on 9 September 2022!

互联城市大会于2022年9月9日圆满举行！



Connected Cities Conference 2022

2500+

Participants from
48 countries



125+

speakers



100+

startups



13

strategic
organisers



40

supporting
organisations



1

NFT launch



The conference covered a wide array of topics, including the Greater Bay Area (GBA), sustainability, as well as the latest smart city trends in infrastructure, real estate, transportation, tech, biotech and consumer markets.

We had over 120 speakers and more than 2,500 participants from 20 countries join us for this hybrid event. Just like a connected city, this event is the result of a network of support from more than 40 organisations and 12 strategic partners including 3 Hong Kong, Cyberport, DLA Piper, essensys, JLL, Microsoft, MTR, Pico X, Siemens, Signify, Sino Group and theDesk.

Smart City Themes 2022



International financial hubs / regional technology ecosystem development



Emerging Giants in Asia Pacific



Net-zero goals and decarbonisation



ESG & Sustainable Finance



“Northern Metropolis” development / GBA Connectivity – “Digital Twins, Three Circles”



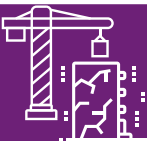
Connectivity to ASEAN



5G / Data Analytics / New Technologies



The Metaverse & Space Economy



Urban regeneration and PropTech adoption



Future of Sports & Arts & Education



Social inclusion and diversity



Talent of Tomorrow

al Limited ("KPMG International"), a private English company limited by guarantee.

Key messages



In order to be future-proof, smart cities must be sustainable



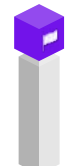
A shared economy/circular economy must be created to minimise consumption, promote zero waste and increase the length of life of materials. It is not enough to encourage recycling, but demand must also be created for recycled materials



The government is an enabler and an infrastructure provider, but if a connected city is to be successful, it requires not just government involvement, but also participation from the private sector and individuals



People must be at the centre of a smart city. Trust must be built up to encourage everyone to be part of a connected city



There is a need to develop a digital twin of Hong Kong to accelerate development, as well as collect, store, use and share data efficiently. People and companies should not be afraid to share data



© 2024 KPMG, a Hong Kong partnership and a member firm of the KPMG global organisation of independent member firms affiliated with KPMG International Limited ("KPMG International"), a private English company limited by guarantee. All rights reserved. Printed in Hong Kong, China.



The technology needed to create a connected city is already there, what is lacking is adoption and collaboration



Technology can be used to reduce inequality. Tokenisation enables the democratisation of assets. It takes bundles of rights and ownership and puts them into a digital format. It is the internet of ownership. It can ultimately enable things to interact in autonomous relationships



The metaverse creates important opportunities for collaboration, offering a digital space in which people can come together and build something. Brands should leverage the metaverse to improve the customer experience, using AI and digital humans to create an interactive interface



Technology must be used to future-proof young talent



Smart city innovation represents a significant business opportunity, with the smart city market in China estimated to be worth US\$4 trillion

The soundbites...

“Everything is connected in this world, be it by people or by things, and cities are no exception.”

Professor Dong Sun, Secretary for Innovation, Technology and Industry Government of the Hong Kong Special Administrative Region

“Some of the leading technology start-ups globally have been born out of a Hong Kong university ecosystem.”

Karena Belin, Co-founder and CEO, WHub, Co-founder and COO/CFO/RO (Responsible Officer), AngelHub

“There is a definite need for a circular economy. Resources are finite and we are putting a burden on the world.”

Norman Cheng, Business Development and Performance Director, Veolia Hong Kong

“The technology is already there. It is a question of how we use it.”

Benson Tam, Founder and CEO, Venturous Group

“Partnerships are a huge part of sustainability. Without collaboration, we are not going to move forward at the rate we need to.”

Chris Brown, Founder and Director, ReThink Hong Kong

“For many decades people have put effort into recovering material for recycling but not creating the demand for it.”

Kim Siu, Business Innovation and Planning Director, A.S. Watson Group

“Sustainability is not just doing good for the environment but also for the bottom line as well.”

Kent Jan, Director and Head of Digital Transformation and Innovation, Hongkong Land

“Smart isn’t an object. It’s about creating liveable cities where people interact with each other, utilising opportunities tech is providing.”

Joris van Etten, Senior Urban Development Specialist, Asian Development Bank

“There has been a paradigm shift in who is responsible for getting people into the office. Asset owners need to bring people back in through their product. We see proptech as being key to this.”

Eric Schaffer, CEO, Asia Pacific, essensys

“A connected city is the hybridisation of the physical city and the people in it. It really is all about the people.”

Scott Thiel, Founder and Entrepreneur-in-Residence, TOKO

“Climate change is affecting everyone, not just the government but also businesses and people in the community. We can all do something to minimise it.”

Angus Choi, Partner, ESG Advisory, KPMG China

“The cities we are shaping will blend virtual space and physical space. [Within this] one of the most fundamental things is culture. Every city has a culture and that is crucial to create trust.”

Anant Deboor, Head of Strategy, Wunderman Thompson

The soundbites...

“

Andrew Weir, Regional Senior Partner, Hong Kong and Global Chair, Asset Management and Real Estate, KPMG, says:



The coming decades hold great promise for Hong Kong's continued development as a smart and sustainable city. The city's status as a logistics hub and global financial centre enables innovation in the areas of logistics and digital supply chain, fintech, Reg-tech and sustainable finance, while its dense urban landscape offers opportunities for the development of prop-tech solutions. Hong Kong is in a strong position to develop use cases that can be applied to other markets in the rest of the GBA and ASEAN. ”

“

Anson Bailey, Head of Consumer & Retail, ASPAC and Head of Technology, Media & Telecom, Hong Kong, KPMG in China, says:



Asia Pacific will soon be home to half a billion tech-savvy, socially aware Gen Z consumers, who expect a seamless consumer experience across all walks of life. We are in a great position to be the super connector between the GBA and the rest of China and Asia, as Hong Kong increasingly becomes the international tech and innovation hub. ”

“

Fareeda Cassumbhoy, Group Chief Digital Officer, Pico Group, says:



We need to look at the way we leverage technology to be more inclusive and reduce inequality. ”

“

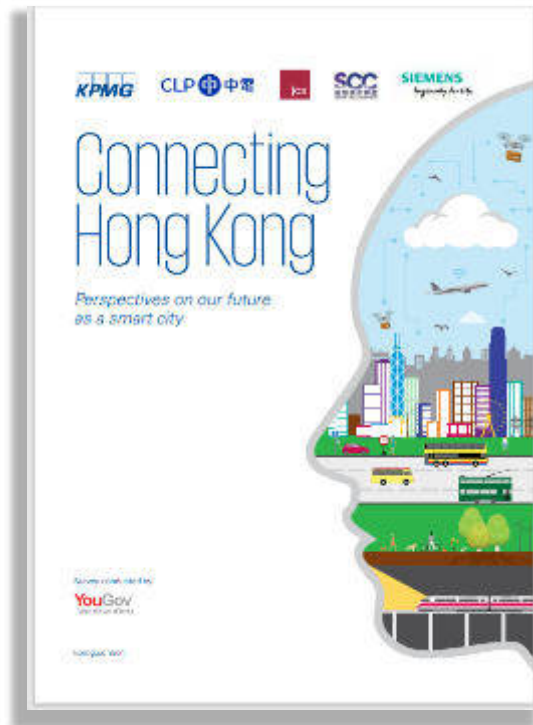
Irene Chu, Head of New Economy & Life Science, Hong Kong, KPMG China, says:



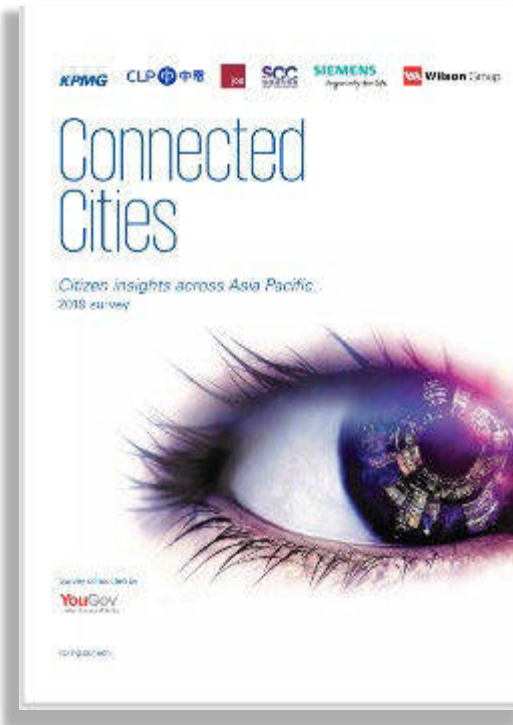
We expect ESG and sustainability-focused Emerging Giants will continue to grow as governments and the private sector across Asia Pacific put more emphasis on climate change, community and business resilience. They will play an important role in developing the technology needed for sustainable development. ”

Tracking Hong Kong's Smart City Journey

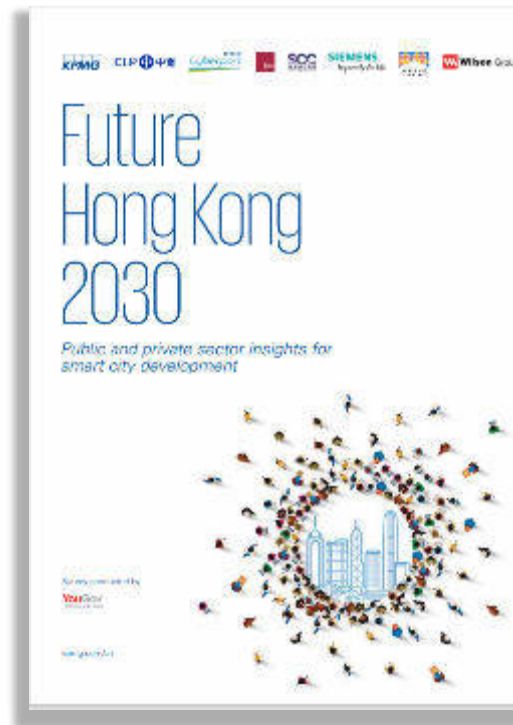
2018



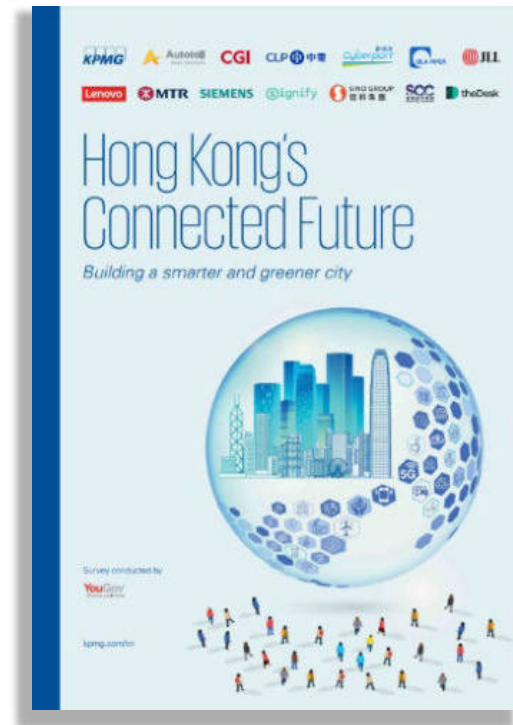
2019



2020



2022



07

Logistics & Transportation

Trading and Logistics



Trading and logistics industry is the largest among the four main economic pillars in Hong Kong

- Trading and logistics industry accounted for 19.8% of the city's GDP and provided some 622,600 jobs in 2020
- Logistics industry alone contributed 3.2% of Hong Kong's GDP and 177,400 jobs in that year
- Transport services made up 41.8% of Hong Kong's exports in 2021



2

Key Facts

Hong Kong International airport is one of the world's busiest airports for international cargo

Hong Kong's port was ranked the ninth busiest container port in the world in 2021, trailing Shanghai, Singapore, Ningbo-Zhoushan, Shenzhen, Guangzhou, Qingdao, Busan and Tianjin

Log Tech in Hong Kong:

- Supply chain efficiency and accuracy can be enhanced through real-time data sharing and asset tracking
- JD logistics (one of the leading Chinese logistics service providers) launched Asia's largest integrated smart logistics centre in Dongguan
 - Leverages technologies such as algorithms, facilitating daily operations such as scheduling, co-ordination and data monitoring



Source: Logistics Industry in Hong Kong, HKTDC Research



© 2024 KPMG, a Hong Kong partnership and a member firm of the KPMG global organisation of independent member firms affiliated with KPMG International Limited ("KPMG International"), a private English company limited by guarantee. All rights reserved. Printed in Hong Kong, China.

Transport Links Within Hong Kong

MTR

- Safe, efficient, reliable, environmentally friendly mass carriers
- Account for 42% of all trips made on public transport each day
 - Airport Express
- Guangzhou, Shenzhen, Hong Kong express rail link
 - Light rail

Bus

- Franchised bus
- Non-franchised bus- to relieve Heavy demand on the franchised Bus and minibus service during The peak hours

Ferry

- 9 ferry operators providing 20 regular licensed passenger ferry services to outlying islands across the harbour
- 2 Franchised ferry services operated by 'star ferry'

Minibus

- Green minibus- operate on fixed routes, scheduled headway, fixed fares
- Red minibus- non-scheduled service

Taxi

- 18,163 taxis in Hong Kong
- Average daily taxi patronage is near one million
 - Red- urban taxi
 - Green- New territories
 - Blue- Lantau island

Tram

- Operating in Hong Kong Island since 1904
- World's largest double decker tram fleet in service
 - 131,000 passenger trips daily

Northern Metropolis

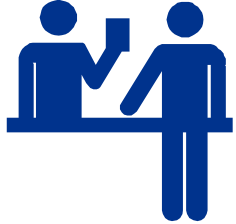
- Connect the East Rail line and Tuen Ma line
- Will serve the transport needs of the new development areas
- Will support the development potential- aid long term development of the Northeastern New Territories and Hong Kong
- Keep the city moving sustainably

Source: Transport, Public Transport



© 2024 KPMG, a Hong Kong partnership and a member firm of the KPMG global organisation of independent member firms affiliated with KPMG International Limited ("KPMG International"), a private English company limited by guarantee. All rights reserved. Printed in Hong Kong, China.

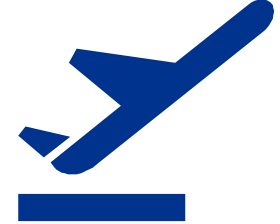
Network Improvements in the Greater Bay Area



- To connect the Hong Kong – Zhuhai – Macao bridge (HZMB), the Guangzhou – Shenzhen – Hong Kong Express Rail link and the Hong Kong International Airport, the airport authority Hong Kong has made check-in services at the West Kowloon station and the Hong Kong port of HZMB



- Airport authority Hong Kong (AAHK) enhancing their intermodal facilities, including the implementation of the SkyPier Terminal to provide air-to-bridge/ bridge-to-air bonded bus service
- This will strengthen HKIA's role as an aviation hub in connecting passengers from PRD region via the HZMB for outbound flight to the restricted area of HKIA direct



- Civil aviation administration of China has agreed to expand the scope of flight destinations to be served by cross-boundary helicopter services to and from Hong Kong to cover the whole Guangdong province

Source: Guangdong-Hong Kong-Macao Greater Bay Area- Transportation and Logistics

08

How KPMG can help

KPMG China

Early and long-term commitment to the Chinese market

78 years in Hong Kong SAR

The Hong Kong office can trace its origins to 1945.

First to be granted a licence in China

In 1992, KPMG became the first international accounting organization to be granted a joint venture license in Chinese Mainland.

First approved special general partnership (SGP)

As of 1 August 2012, KPMG China was the first among the Big Four in Chinese Mainland to convert from a joint venture to a special general partnership.

- **KPMG China in 2024**
around **15,000** partners and staff
- KPMG China has offices located in 31 cities

KPMG operates across China in a single management structure

KPMG offices are located close to our clients. KPMG benefits from a single management structure across Chinese Mainland, Hong Kong SAR and Macau SAR. This enables efficient and rapid deployment of resources wherever the client is located and allows us to effectively serve companies across the country.



KPMG China (cont'd)

KPMG GCP Network

KPMG’s Global China Practice (GCP) assists Chinese businesses with their globalisation strategy and helps multinational companies enter or expand into the China market.

China Practice Team Locations (All countries and regions)							
Australia	Canada	Germany	Kazakhstan	Cambodia	France	Japan	United Arab Emirates
Austria	Chile	Greece	Korea	Thailand	Venezuela	Vietnam	Serbia
Argentina	Colombia	Hungary	Kosovo	New Zealand	Singapore	Portugal	Switzerland
Albania	Croatia	India	Luxembourg	Nigeria	Slovakia	Romania	Taiwan, China
Belgium	Cyprus	Indonesia	Malaysia	Pakistan	South Africa	Uruguay	US
Brazil	Czech Republic	Ireland	Mexico	Peru	Spain	Ukraine	Turkey
Bulgaria	Denmark	Isle of Man	Macedonia	Philippines	Sri Lanka	UK	Sweden
Bolivia	Ecuador	Israel	Montenegro		Finland	Poland	Netherlands
Bosnia-Herzegovina	Egypt					Italy	



The GCP connects our network of nearly

Local China Practices

KPMG China Service Capabilities

Our professionals from different service lines work together in:

Audit and Assurance

At KPMG we act in the interest of global capital markets, individual investors, and the public. With the ultimate goal of inspiring trust in financial information and data provided to markets, we also aim to deliver efficiency and value to our clients.

We are committed to driving the future of audit for our clients, providing exceptional audits that leverage cutting-edge technology solutions to deliver both superior audit quality and a wider range of insights.

In addition to financial statement audit, we also provide a wide range of other audit, assurance and other services, including, Environmental, Social and Governance (ESG) reporting, measurement and assurance services.

Tax

KPMG China's Tax professionals have a deep understanding of complex regulatory environments, as well as in-depth industry knowledge and experience. Through delivering high-quality tax services, our KPMG professionals help clients implement effective tax risk management and compliance practices and put in place tax-efficient business and investment structures that are aligned with clients' business strategies and goals.

Advisory

KPMG's Advisory professionals assist clients through a range of services including Strategy & Operation Consulting, Management Consulting, Risk Consulting and Deal Advisory. Together, these services help address a client's strategic needs in terms of growth (creating value), performance (enhancing value) and governance (managing value).



KPMG China Service Capabilities (cont'd)

Focused on your goals and challenges



Strengthening reporting

Many of KPMG China's services support the drive towards better governance and more effective reporting. Demands for higher standards of accountability, performance and corporate governance have brought new requirements to achieve more comprehensive, accurate and insightful financial reporting. To inspire confidence in the capital markets, companies will increasingly be expected to explain their responses to business risks and the link between objectives and performance.



Raising finance

Many companies operating in China are looking at different ways to raise capital to be able to act swiftly and respond to changes in the market as they face increasing competition. Raising equity or debt gives companies the financial resources to pursue sustained growth and achieve a variety of other strategic goals. However, choosing the right professional advisor is critical. KPMG China has a strong track record of successful listings both within China and internationally. We can assist and provide services to our clients at the various stages of the listing process.



Growing value

Many companies operating in China seek growth through joint ventures and mergers and acquisitions (M&A). Quality partners can be hard to find and require a considerable investment of time and effort. In this context, KPMG China can provide timely professional advice and support to help companies respond to opportunities and secure value.



Sustaining performance

Companies are under constant pressure to deliver improved results while managing a wide range of risks that can threaten the very survival of the business. It is important for companies to identify and manage the risks surrounding the business while addressing the most pressing problems. They must also continue to build value and communicate effectively with relevant stakeholders. KPMG China's breadth of experience allows the firm to help companies achieve a well-rounded view of their risks and better understand potential gaps and actionable areas through data-driven insights.



Structuring the business

Many companies are faced with the challenge of operating within the local requirements of numerous countries and jurisdictions, with different legal, regulatory and fiscal standards. In many cases, the organisation has been formed over time through a variety of acquisitions and alliances, with each separate business having its own legacy systems, procedures and standards. This can lead to a high level of complexity, but also the potential for efficiency gains through organisational or tax restructuring, improved processes and more effective information management.

Professional Support Team

KPMG Tech Innovation

KPMG China's Lighthouse developed AI Factory deployed in Microsoft's largest AI lab!

- This AI lab is one of the largest AI&IoT labs for Microsoft globally, and KPMG is the first and only firm so far amongst the 'Big Four' to obtain such AI product recognition and deployment at this lab.
- Joint go-to-market activities, including but not limited to WeChat, Solution white paper and 'Demo Day' events, are planned by both sides to promote AI Factory together with Microsoft technology to showcase how AI Factory based solutions can help our clients with their AI requirements covering sectors such as Banking and Automotive and others.

KPMG China's mainland Audit practice is granted a Multi-Level Protection Scheme certificate

- KPMG Huazhen LLP, the KPMG legal entity performing audits in the Chinese mainland, has recently been awarded Multi-Level Protection Scheme (MLPS) 2.0 Level 3 certification.
- This certification, together with ISO/IEC 27001 and ISO/IEC 27017 certifications previously obtained, proves our commitment and ability to protect client information.

KDi now ISO9001 certified

This certification provides us with three key benefits:

- The establishment of the ISO 9001 Quality Management System enables KDi to optimize and integrate holistically the project management and software engineering processes that have been implemented and proved effective at KDi with the processes of other departments within KPMG.
- KDi formally established organizational quality goals which are incorporated into the framework of our KPMG quality system.
- As ISO 9001 has increasingly become an important reference standard for companies to evaluate suppliers' comprehensive capabilities, KDi's ISO9001 certification undoubtedly reflects KPMG's high-standard quality management level.

Professional Support Team (cont'd)

KPMG Delivery Centre (KDC)

The KDC combines business process outsourcing with intelligent automation, and has offices in two cities:



Foshan

KDC Foshan was founded in July 2013



Nanjing

KDC Nanjing commenced operations in October 2017

01

Improve quality and internal processes and drive efficiency and consistency

02

Modernise, simplify and standardise general processes

03

Operate as a team within KPMG China

04

Provide services for KPMG offices across China on a centralised basis

05

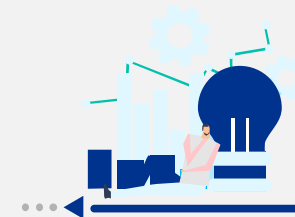
Deploy technologies to enhance the delivery of client services

06

Develop new solutions for clients

07

Serve as a cross-functional centre offering a full range of services



Professional Support Team (cont'd)

KPMG Digital Ignition Centre (KDi)

Nanjing, Shenzhen, and Dalian

- ⊕ The KPMG Digital Ignition Centre (KDi) was established in Nanjing in 2017. It provides end-to-end one-stop services covering business needs analysis, project management, technical architecture setup, back-end software development, big data processing and system launch to cater to clients' needs for technical solutions.
- ⊕ To meet growing demand for digitalisation services and align with KPMG's expanding global delivery network, the China firm set up its second KDi in Qianhai, Shenzhen in 2021, and a third one in Dalian's High-tech Zone in August 2022.



KDi's back-end development team has set up Capability Towers to provide services related to different technologies and capabilities, including System Integration, Powered Enterprise, Emerging Technology R&D, Data & Analytics, and Managed Services.

01

System Integration

The System Integration line mainly provides technical solutions as well as application development, integration and utilisation services to address the comprehensive needs

02

Powered Enterprise solutions

The Powered Enterprise line leverages shared and proprietary enterprise management systems to provide clients with tailored enterprise management solutions. Its current products include Powered Finance, Powered HR, Powered IT Management, Powered Procurement, and Powered CRM

03

Emerging Technology R&D

The Emerging Technology R&D line carries out R&D based on industrial and corporate trends and harnesses the latest technologies, such as cloud computing, block chain, and robotic process automation (RPA), to develop innovative technology-driven business models

04

Data & Analytics

Using data processing technologies such as data warehouses and big data processors, the Data & Analytics line provides clients with robust solutions for data analysis, data processing and data development

05

Managed Services

Using enterprise management processes and technologies, the Managed Services line offers a full set of automated managed services to facilitate clients' qualification reviews

Thank you!



Anson Bailey

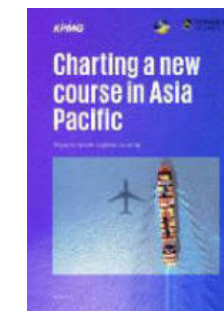
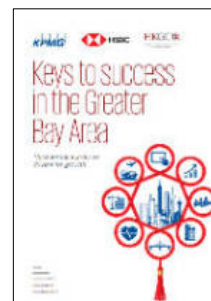
Head of Consumer & Retail, ASPAC
KPMG China

anson.bailey@kpmg.com
+852 2978 8969



kpmg.com/cn/socialmedia

Download these reports



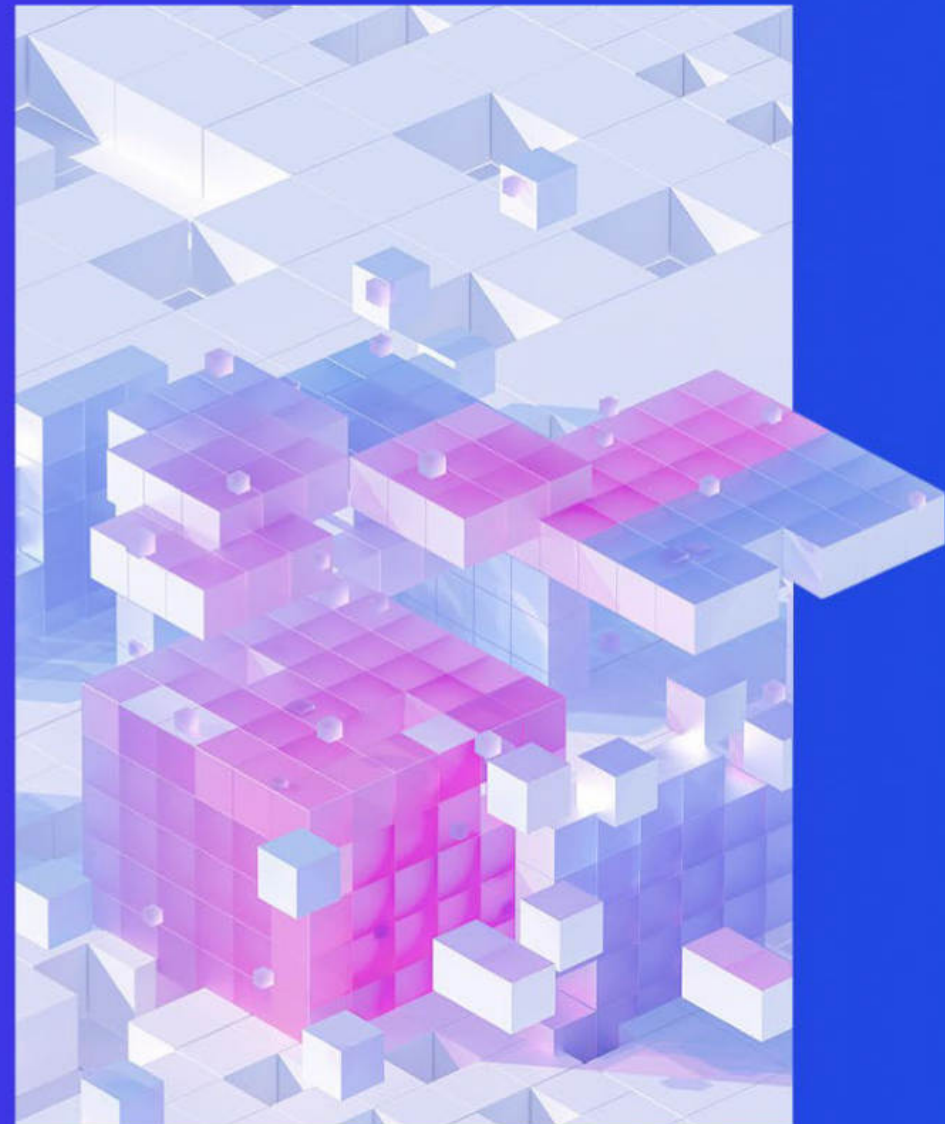


Future 50 Programme



毕马威中国未来行业50榜单系列
KPMG China Future Sector 50 Ranking Series

National Sectors Programme



Contents

- **Deep China Sector Insights with the Future50 Programme**
- **Supporting companies growing their business**
 - Go China
 - Go Global
- **One-stop shop for ease of doing business**

Sector focus in China “Future 50”

Recognising the Top 50 technological startups in a range of sectors in China including:
Financial Services, Automotive, Life Sciences, TMT Semiconductors, Real Estate, Healthcare, Retail



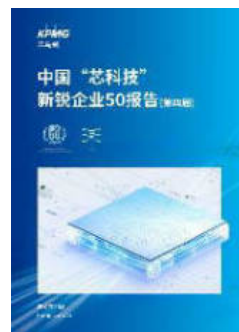
FinTech50



AutoTech50



BioTech50



ChipTech50



PropTech50



Dental50



Consumer50



Rehabilitation50



RetailTech50



- Deep industry insights of the hot newcomers in China’s key sectors
- Future 50 is a brand asset in China, with great media impact in China and overseas
- Transparent selection and ranking process

Future 50 programme – details

Deep industry insights of the newcomers in China's key sectors

- With the “Future 50” series, KPMG sheds light on **future industry trends**, drive innovation and change within industries, and provide additional market opportunities for enterprises across these sectors.
- Recognising the Top 50 technological startups in a wide range of sectors: Financial Services, Automotive, Life Sciences, Healthcare, TMT Semiconductors, Real Estate, Retail and Consumer Markets.

Future 50 is a brand asset in China

KPMG China's Future 50 platform is well established in the China market and well recognized in the sectors, particularly in the FinTech industry (also the industry we started with).

7+ years, a long-established programme

This is a programme we have committed to in the long-term, and we have built a strong brand around the Future 50.



Transparent selection and ranking process

- Selection process for the rankings
- KPMG partners with external experts form review committees
- Professional and fair evaluation of candidate companies
- Multiple dimensions such as teams, technologies, products, markets and financing

Future 50 – video introduction

Link: [Future 50 Programme Introduction](#)



The KPMG team supports your business growth with...

Fundraising



Angela Chiu



Kevin Lai

- Equity story and financing models
- Fundraising preparation and investor readiness
- Vendor due diligence



Regional and Global Expansion



Thomas Tang



Barnaby Robson

- Corporate structuring and tax planning
- Merger & acquisition advisory
- Due diligence
- Regulatory compliance



Business and Finance



Eugene Yeung



Irene Chu

- Employee incentive scheme and executive recruitment
- Accounting advisory on complex transactions
- Financial statements audit
- Business strategy



Our services and the subject matter experts for delivery

Going Public



Irene Chu



Alva Lee

- IPO readiness
- Corporate governance
- ESG readiness and advisory
- Internal controls and processes



Our services will help position your business for sustainable and greater growth, ensuring your foundations are covered when you expand.



KPMG offers you a one-stop shop

KPMG's multidisciplinary and collaborative approach allows you to benefit from our 'one-stop shop'

Trusted advisor for entrepreneurs

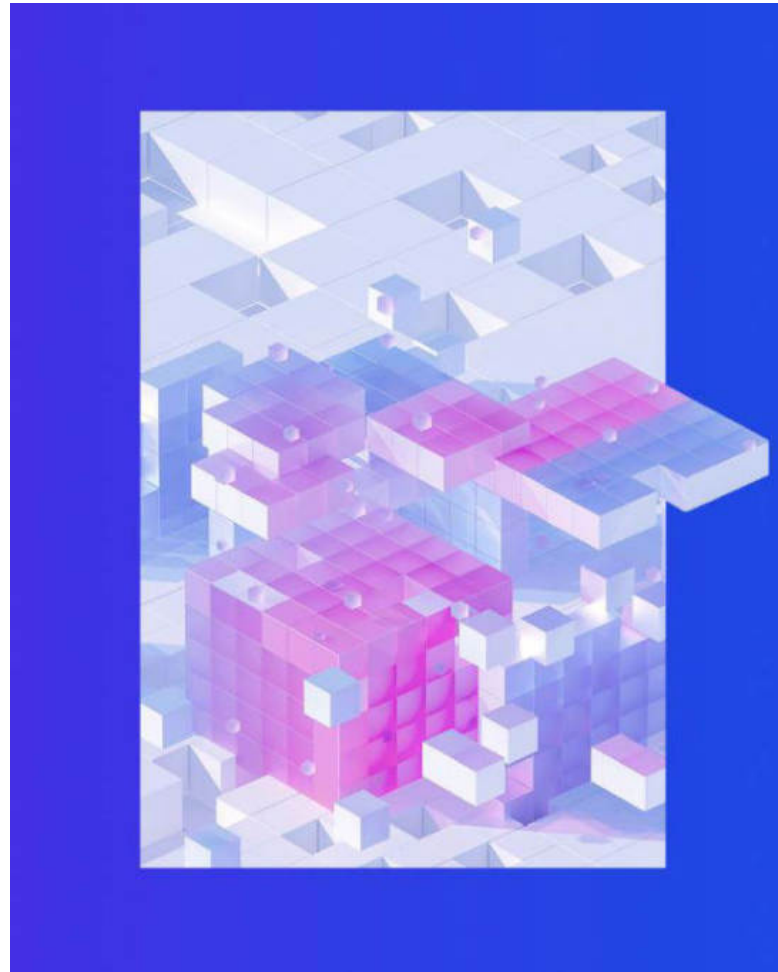
We ensure that our trusted subject matter experts is experienced with working with startups and have proven strong track record to support your business

Curation of a team of experts

The New Economy team has been carefully selected to cover and provide support problems you will encounter throughout your growth journey

KPMG's extensive industry knowledge

Our professional team cuts across 17 industries, offering deep knowledge and subject matter experts in each one to provide you valuable insight towards the market



Breadth of professional services

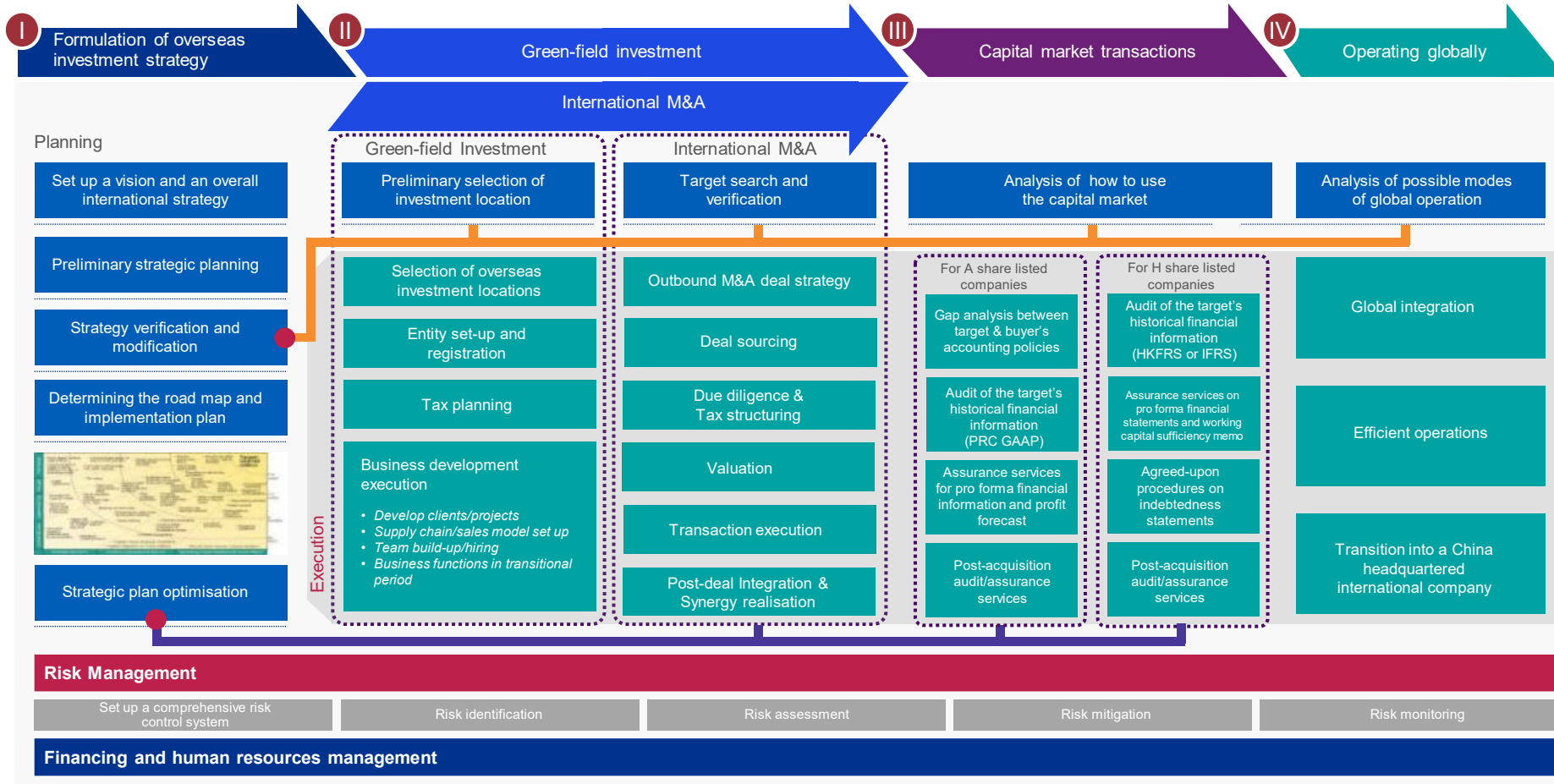
We offer a range of professional services that we have catered to support every stage of your growth journey

Access to global corporations

Leverage our wide network of global clients to discover opportunities for collaboration, partnership and strategic investments.

KPMG provides a one-stop solution to support Chinese enterprises as they "Go Global"

Example roadmap



KPMG's Global China Practice

Local China Practice (Countries and regions covered)		
Australia	Hungary	Peru
Austria	India	Philippines
Argentina	Indonesia	Poland
Albania	Ireland	Portugal
Belgium	Isle of Man	Romania
Brazil	Israel	Singapore
Bulgaria	Italy	Slovakia
Bolivia	Japan	South Africa
Bosnia-Herzegovina	Kazakhstan	Spain
Cambodia	Korea	Sri Lanka
Canada	Kosovo	Sweden
Chile	Kuwait	Serbia
Colombia	Laos	Switzerland
Croatia	Luxembourg	Taiwan, China
Cyprus	Malaysia	Thailand
Czech Republic	Mexico	Turkey
Denmark	Macedonia	United Arab Emirates
Ecuador	Montenegro	Ukraine
Egypt	Myanmar	UK
Finland	Netherlands	US
France	New Zealand	Uruguay
Germany	Nigeria	Venezuela
Greece	Pakistan	Vietnam

KPMG's Global China Practice (GCP) assists Chinese businesses with their globalisation strategy and helps MNCs enter or expand into the China market.

The GCP connects our network of nearly **60** Local China Practices



KPMG's Involvement in seven out of Top 20 China Outbound Deals in 2022 including six of the top 10 transactions

	No.	Acquiror	Target	Target Country	Industry/Sector	Deal Value (\$mil)
KPMG	1	Zijin Mining Group Company Limited	Neo Lithium Corp.	Canada	Metals and Mining	4,674.99
KPMG	2	China Three Gorges Renewables (Group) Co.,Ltd.	181 MW Operating Wind Portfolio	Spain	Renewable Energy	2,238.53
	3	Huafon Group Co., Ltd.	Biomaterials business of DuPont de Nemours, Inc.	United States	Chemicals	1,611.43
	4	Tencent Holdings Limited	Guillemot Brothers S.A.	France	Finance	1,377.79
KPMG	5	China Rubber Investment Group Co., Ltd.	Halcyon Agri Corporation Limited	Singapore	Chemicals	1,281.44
	6	Sichuan Road & Bridge (Group) Co., Ltd.	Colluli Mining Share Company	Eritrea	Mining	1,180.92
	7	Xinhai Investment Limited	Roc Oil Company Limited	Australia	Oil and Gas	1,134.48
KPMG	8	GD Midea Holding Co., Ltd.	KUKA Aktiengesellschaft	Germany	Industry	1,083.76
KPMG	9	Ganfeng Lithium Group Co., Ltd.	Bacanora Lithium Plc	United Kingdom	Mining	1,004.55
KPMG	10	Sinosteel Corporation	Tubatse Chrome Corporation	South Africa	Metals	854.74
	11	JCHX Mining Management Co.,Ltd.	CMH Colombia S.A.S.	Colombia	Metals and Mining	696.54
	12	MINISO Group Holding Limited	YGF Investment V Limited	British Virgin Islands	Finance	694.50
	13	Shanghai Zhineng Industrial Electronics Co., Ltd.	Silicon Mobility	France	Technology	601.46
	14	Inventronics (Hangzhou), Inc	Digital Systems business in Europe and Asia	Germany	Technology	520.37
	15	Hong Kong Yu Jia International Technology Company Limited; JYJH LIMITED	EviDenS De Beauté SAS	France	Consumer goods	305.14
	16	Zijin Mining Group Company Limited	KhuiTen Metals Pte Ltd	Singapore	Metals and Mining	223.78
	17	Midu (Nanjing) Biotechnology Co., Ltd.	XingImaging, LLC	United States	Healthcare	210.08
	18	Shenzhen Aoyuheng Industrial Co., Ltd	P.G. Logistics Property Investment Limited	Cayman Islands	Finance	192.80
KPMG	19	Fibocom Wireless Inc.	Rolling Wireless S.A' R.L.	Luxembourg	Auto Software	165.00
	20	Kaishan Group Co., Ltd.	Transmark Turkey Gülpınar Yenilenebilir Enerji Üretim Sanayi ve Ticaret Anonim Şirketi	Turkey	Renewable Energy	151.09

Source: CIQ; KPMG analysis

Note:

(1) Deals with target in HK SAR China, Macao SAR China and Taiwan Province are excluded

(2) Deal information as at 1 February 2023

(3) For No.1, 9 and 10, KPMG provided due diligence on the same Target but for other investors

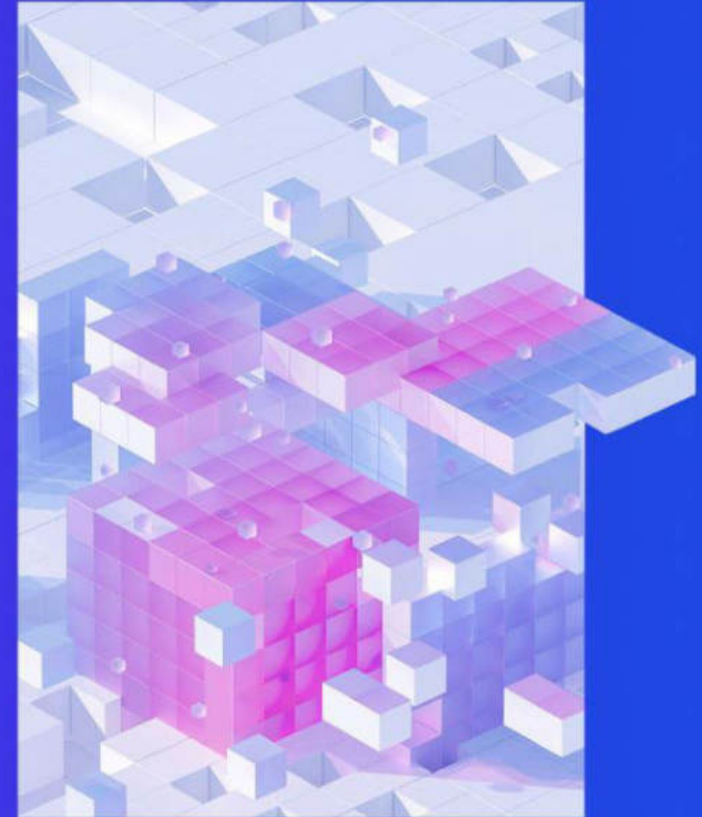
Future 50 Database

Connecting investors with companies of the future

- Top 50 emerging players in a particular sector in China
- Sectors include Financial Services, Automotive, Life Sciences, Healthcare, TMT Semiconductors, Real Estate, Retail and Consumer Markets
- KPMG teams have met the founders and KPMG teams have access to investors

Future 50 Database

- Across the sectors we have built a database over the years
- KPMG can help to connect rising stars with potential investors
- Potential investors are PE/VC firms, private investors such as investment arms or family offices of POEs or institutional investors
- We help create a link where business makes sense for both parties
- KPMG can help match buy-side with sell-side interests



Our world class thought leadership on New Economy

The Future50 Collection

Recognising the Top 50 technological startups in respective industries



Whitepapers with Tech Giants and Corporates

Closely worked with key players in the ecosystem to produce thought leaderships

KPMG + HSBC
“Emerging Giants”



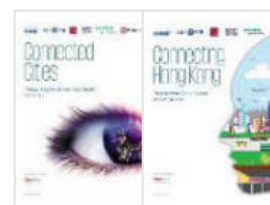
KPMG + Google
“AI for Everyone”



KPMG + Alibaba
“Transforming Hong Kong through Entrepreneurship”



KPMG + Corporates
“Connected Cities”,
“Connecting Hong Kong”



KPMG Global Publications

Venture Pulse and Pulse of FinTech

Quarterly report on global VC landscape and biannual analysis of global fintech investments



Global Tech Report2023



Trust in Artificial Intelligence



Generative AI survey Report (TMT and Industrial Manufacturing)



Privacy in the new world of AI



GCP's Flagship Publications

The Middle East Economy in Transition (Chinese)



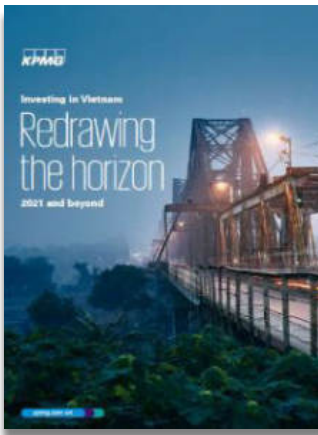
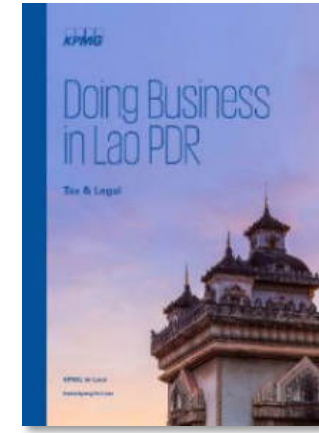
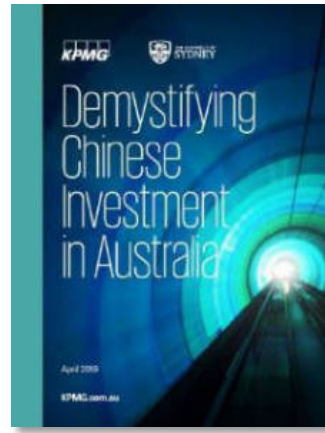
Chinese New Energy Vehicles Heading into Europe (Chinese)



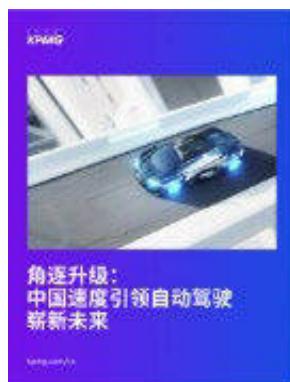
Charting the course of 'Belt and Road' cooperation together (Synopsis)



Selected KPMG's Investment Guide Publications



毕马威中国汽车科技50 (Autotech 50 since 2017)



智慧交通



车辆工程



自动驾驶
解决方案



毕马威汽车行业社群 (AutoTech community)

汽车行业社群

- 毕马威 (KPMG) 旨在建立一个汽车行业社群平台，在这一平台上整车厂、供应商和初创企业们可以共同讨论讨论行业当前面临的机遇和挑战。



毕马威汽车行业社群23年活动介绍 – sample activities to share insights in the China market

汽车行业社群

- 毕马威汽车行业团队在6月期间在北京、上海两地分别主办两场以“智能座舱”为主题的线下社群活动，邀请到毕马威合伙人及行业嘉宾，并吸引到诸多行业客户参与并互动。

- 1) 4月27日：重磅发布汽车科技智能座舱白皮书
- 2) 6月1日：北京线下社群活动
- 3) 6月6日：上海“智能座舱”主题线下社群活动



We look forward to collaborating with you!

Sector 50

Elisabeth Zitz

elisabeth.zitz@kpmg.com



毕马威中国未来行业50榜单系列
KPMG China Future Sector 50 Ranking Series

Global China Practice

Lisa Li

lisa.l.li@kpmg.com



毕马威全球中国业务

KPMG Global China Practice



Some or all of the services described herein may not be permissible for KPMG audit clients and their affiliates or related entities.



kpmg.com/cn/socialmedia

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

The KPMG name and logo are trademarks used under license by the independent member firms of the KPMG global organisation.

© 2024 KPMG, a Hong Kong (SAR) partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Document Classification: KPMG Public



Future of automotive



Changing the way cars are built, used and sold in a connected world

In the past few years, automakers and nearly everyone in the automotive ecosystem — from component manufacturers to design engineers to marketing and finance executives to investors, dealers and customers — have been confronted with massive changes.

The way in which cars work and are built, used, sold and regulated are changing dramatically. In this presentation, we discuss how these changes are expected to continue to challenge and remake the auto industry. We look at how the shifts in consumer preferences and regulation can create new strategic imperatives for players across the automotive value chain.

Signals of change

Future success for automakers can be determined by their ability to adapt to five categories of change that require strategic responses and changes in business and operating models.

By acting on these new strategic imperatives and becoming truly connected enterprises, automakers can respond to customer demands, manage supply chains and talent, and make data-driven decisions.

Future success for automakers can be determined by their ability to adapt to five categories of change that require strategic responses and changes in business and operating models.

Automotive signals of change



01

How automobiles work

- Switch to electric powertrains is accelerating.
- Connectivity is transforming the driving and ownership experience.



02

How automobiles are built

- Chassis modularization is improving efficiency.
- New electric vehicle (EV) entrants are shaking up the competition.
- Fast-rising sales in Asia.
- Supply chain challenges reduce production are reducing volumes.
- War for technology talent are impacting industry effectiveness.



03

How automobiles are used

- Mobility-as-a-service (Maas) is becoming mainstream.
- Alternative ownership models are on the rise.
- Subscription services are becoming more popular.



04

How automobiles are sold

- Direct sales are increasing — especially for EVs.
- Dealer consolidation is concentrating power — but dealers are also threatened by direct sales.



05

Regulatory challenges

- Significant and increasing regulations are accelerating the shift to EVs.
- Mixed approach to EV incentives, with some countries and territories scaling back subsidies.
- Investment in autonomous vehicles, but regulatory and consumer barriers remain.

A close-up photograph of a car's front wheel and tire, showing the multi-spoke alloy rim and the tread of the tire. The car is white, and the background is blurred, suggesting an outdoor setting.

Strategic imperatives

A combination of changing competitive dynamics, evolving consumer expectations, economic challenges and regulatory changes are impacting the automotive landscape. Automakers, technology companies, parts manufacturers, dealers, energy companies and financial services organizations are all jostling to own the customer interface and win brand loyalty as a mobility provider.

A combination of changing competitive dynamics, evolving consumer expectations, economic challenges and regulatory changes are impacting the automotive landscape. Automakers, technology companies, parts manufacturers, dealers, energy companies and financial services organizations are all jostling to own the customer interface and win brand loyalty as a mobility provider. We see eight strategic imperatives to help address these challenges.



Strategic imperatives [1/3]

Organize for the EV transition

- EVs and internal combustion engine (ICE) vehicles have different requirements.
- Automakers are separating EVs ICE and commercial businesses.
- Joint ventures (JVs) are also emerging to share the cost of EV development.

Rethink manufacturing, supply chains and partners

- As cars become 'computers on wheels', more value can come from digital technology design and software.
- Manufacturing is going modular, with less in-house production and greater focus on design and assembly.
- The shift to EV and supply chain challenges are causing a rethink of manufacturing footprints.

By 2028, it is forecasted that over 70% of global sales will be connected.

(Source "Vehicle Connectivity is Surging, but Consumer Paid Subscription Share is in Sharp Decline," ABI Research, April 13, 2022).

Strategic imperatives [2/3]

Monetize the connected vehicle experience

- Connected vehicle services offer revenue streams for original equipment manufacturers (OEMs).
- Automakers can strengthen customer relationships via infotainment.
- Business-to-business (B2B) revenues from fleet management technology, tax and expense management, and software upgrades are possible.

Build out as-a-service models

- Subscription models are expected to grow rapidly with a wide range of options, including time- or mileage-based pricing, insurance and maintenance.
- OEMs offer subscriptions to ride-sharing and/or mobility services, while some owners could have the option to lend their vehicles to public ride-sharing services.
- New mobility entrants can bring competition and partnership opportunities.

Create a seamless direct sales experience

- Customers buy direct from OEMs with vehicles delivered through dealers.
- Recent US consolidation has seen a rise in brand-agnostic digital mega-dealers.
- Shifting from traditional dealership models to direct sales is a major operational and cultural change.

Strategic imperatives [3/3]

Harness data to boost customer lifetime value

- Aftermarket services can improve customer experience, with remote services like maintenance and spare parts delivered at home or at hubs.
- 3D printing makes parts available faster and closer to the customer.
- OEMs could own the entire aftermarket experience or outsource to third parties.

Finance mobility

- Increasing demand for financing presents opportunities to grow captive finance businesses.
- Financing remains a revenue source for dealers and OEMs as they sell more vehicles direct and become one-stop-shops for vehicle services.
- Fleet management services, vehicle insurance, extended warranty, and payment processing offer further revenue opportunities.

Attract talent to the sector

- Automakers struggle to attract and retain the talent to design and build connected electric vehicles.
- Some OEMs have set up R&D and design shops in Silicon Valley and recruited technology leaders.
- The sector should adopt Silicon Valley mindsets and ways of working, reduce working hours and improve employee benefits.

Building connected automotive enterprises

KPMG Connected Enterprise helps you harness technology to build a connected enterprise.

That's an enterprise where your front, middle and back offices are aligned. An enterprise where you're more connected with your customers, employees and business partners. An enterprise that enables you to respond quickly to market signals and pivot to help seize opportunities as they arise.

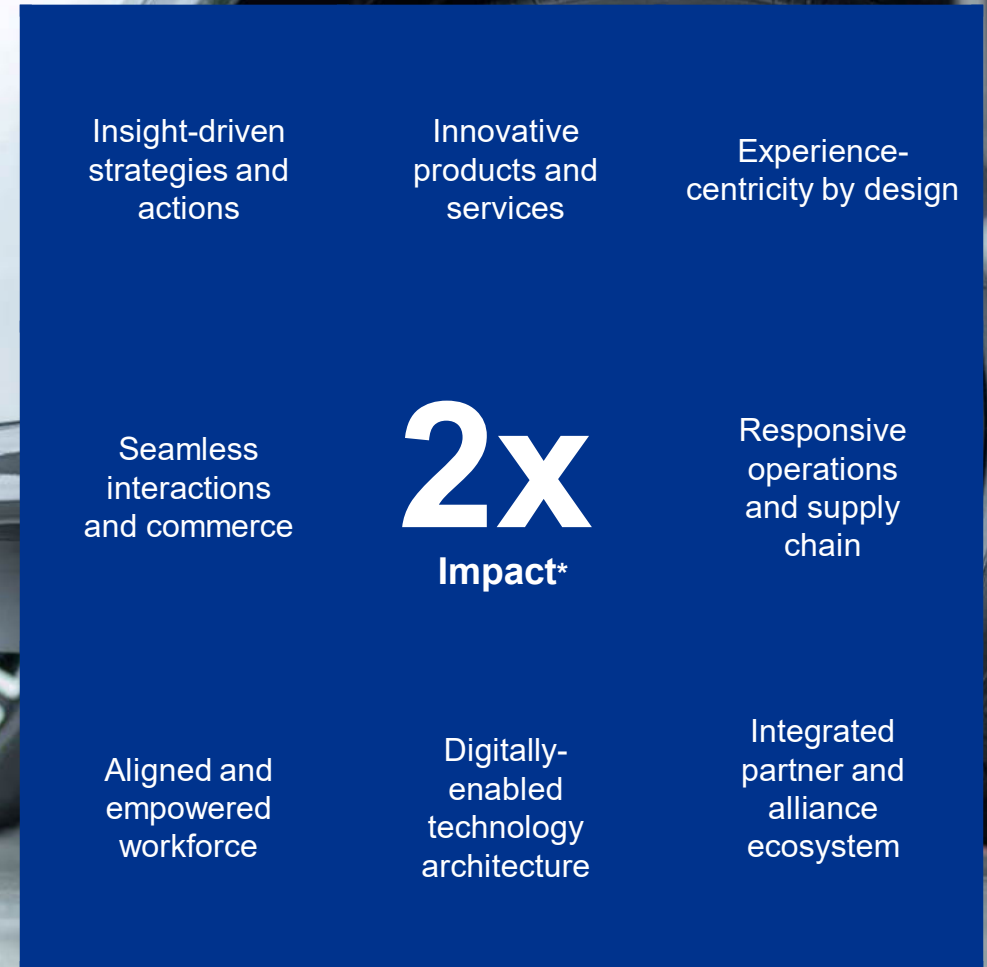
Looking ahead to a connected ecosystem

For automotive companies to take full advantage of the changes in the industry — and tackle the challenges — we believe they need to operate in new ways. They must become more agile and flexible. Like their products, they need to be more connected, both internally and with suppliers, partners and customers.

KPMG International research shows that companies that make a moderate or significant investment in all eight capabilities of the connected enterprise are two times more likely to deliver a customer experience that exceeds expectations, achieve customer-centric objectives, and increase return on investment (ROI) across one or more metrics.*

*Note: (a) Base: 1,299 professionals involved with customer-centric strategy decisions.

Source: A commissioned study conducted by Forrester Consulting on behalf of KPMG, September 2018.



Digitally enabled services in the connected enterprise [1/2]



01

Insight-driven strategies and actions

Leverage customer life time value (CLV) and voice of customer data (VoC) to understand and anticipate customer expectations across channels, using real-time insights from analytics to personalize the customer journey and make faster, better-informed decisions.

02

Innovative products and services

Invest in traditional and new channels to market, developing connected platforms to link with new and existing partners. Develop new services that satisfy shifting mobility/ownership trends, including battery replacement and connected services.

03

Experience centricity by design

Deliver a seamless, personalized experience across mobility and connected services via multiple channels and partners with tailored, timely and easy-to-access products and services.

04

Seamless interactions and commerce

Provide omnichannel engagement options across channels that are fully aligned with customer expectations, working closely with mobility, connectivity and captive finance partners.

Digitally enabled services in the connected enterprise [2/2]



05

Responsive operations and supply chain

Collaborate with partners to help drive efficiency through artificial intelligence (AI)/automation and manage complex operations, proactively engaging with suppliers and customer-facing teams/partners.

06

Aligned and empowered workforce

Align OEM and dealer resources around common strategic goals to help drive transformation, embedding a culture of innovation and agility to foster a mobility and software mindset.

07

Digitally powered technology architecture

Transition from legacy platforms to digital technology to help deliver enhanced client experiences, greater flexibility and reduced costs, creating ecosystems and architecture to enable third parties to use connected vehicle platforms.

08

Integrated partner and alliance ecosystem

Help maximize value from existing partnerships while educating partners on shifting to a new cross-channel engagement model, enabling third parties to seamlessly provide services through the connected platform.

Closing thoughts...

- Keep close to what your clients want.
- Make use of new technologies, but keep it human.
- Do things in an agile way.
- Build in resilience.
- Stay connected at all levels of your organization.



How KPMG can help

KPMG Connected Enterprise is a digital transformation approach that's industry-specific and customer-centric. It focuses on the critical processes, functions and relationships of a business on meeting customer expectations with the purpose of creating business value and driving sustainable growth in a digital world.

KPMG professionals' experience in digital transformation, combined with our in-depth automotive knowledge and experience, has informed a set of transformation accelerators to help clients get connected — faster.

Why KPMG Connected Enterprise?

KPMG Connected Enterprise offers a sustainable, risk-averse route to achieving customer centricity — from strategy through to execution — which helps organizations achieve the following:

- Generate business value at various stages of the transformation journey.
- Build an insights-driven, digital and customer-centric business.
- Align and empower your workforce to perform in an agile organization.
- Engineer secure architectures to enable agile, high-speed innovation.



Some or all of the services described herein may not be permissible for KPMG audit clients and their affiliates or related entities.

kpmg.com/socialmedia



The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

© 2024 Copyright owned by one or more of the KPMG International entities. KPMG International entities provide no services to clients. All rights reserved.

KPMG refers to the global organization or to one or more of the member firms of KPMG International Limited ("KPMG International"), each of which is a separate legal entity. KPMG International Limited is a private English company limited by guarantee and does not provide services to clients. For more detail about our structure please visit kpmg.com/governance.

The KPMG name and logo are trademarks used under license by the independent member firms of the KPMG global organization.

Document Classification: KPMG Confidential

Investing in China's EV Market

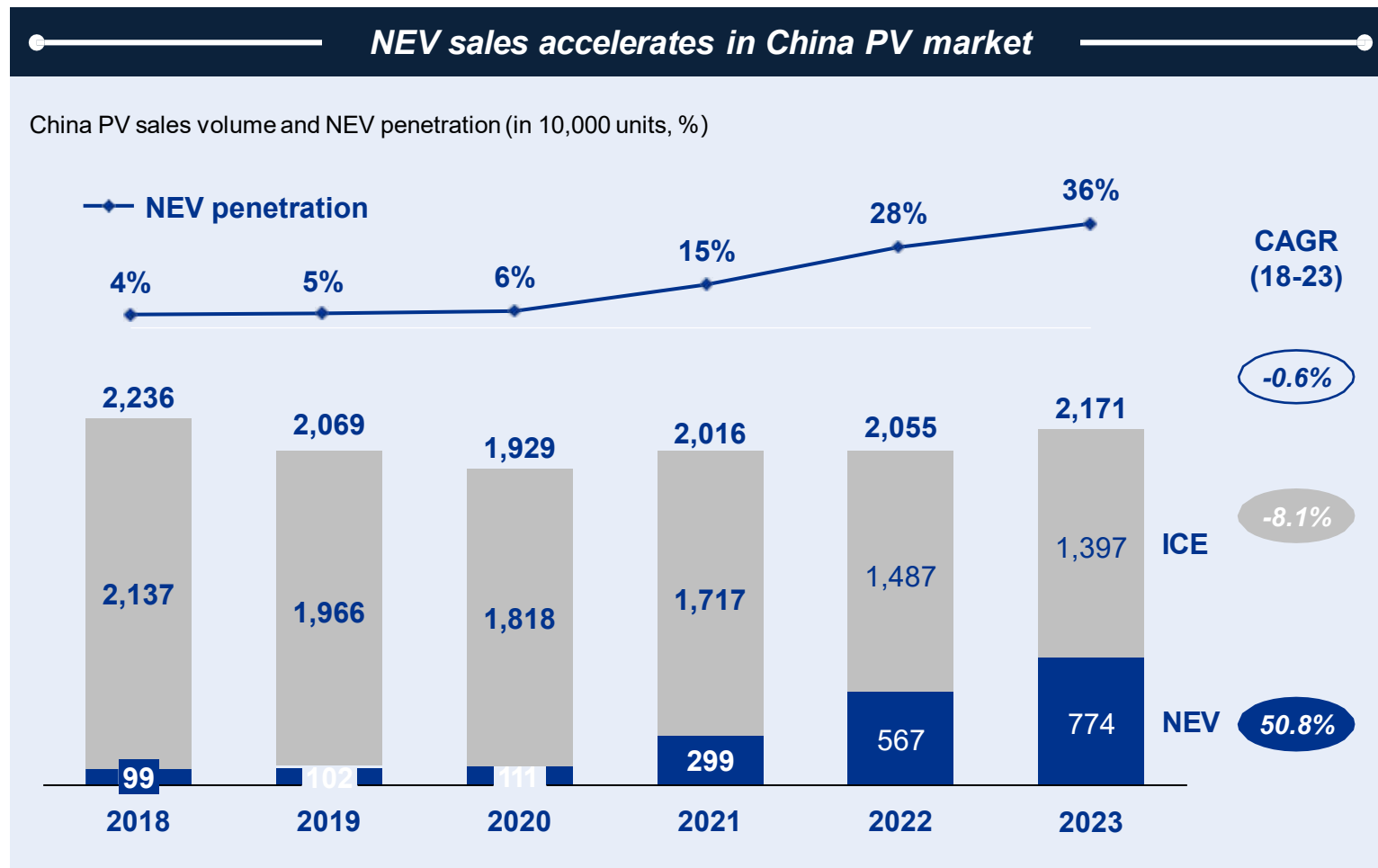
KPMG Advisory (Hong Kong) Limited
Feb 2024



© 2024 KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG Advisory (Hong Kong) Limited, a Hong Kong (SAR) limited liability company, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Document Classification: KPMGPUBLIC/Confidential

NEV is accelerating its penetration in China's Passenger Vehicle (PV) market



- Overall PV remains moderate growth
- The trend of replacing ICE vehicles with NEV is significant, whose penetration is expected to hit 50% within 2025 (CADA)

Notes: NEV – New Energy Vehicle (including BEV – Battery Electric Vehicle, PHEV – Plug-in Hybrid Electric Vehicle), ICE – Internal Combustion Engine

Source: CADA, KPMG analysis



© 2024 KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG Advisory (Hong Kong) Limited, a Hong Kong (SAR) limited liability company, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

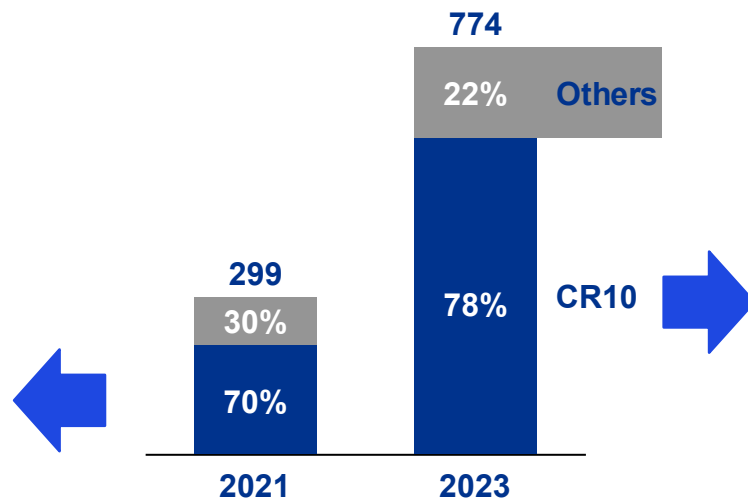
Document Classification: KPMGPUBLIC/Confidential

NEVmarket further concentrated and changed in leading players' ranking: with BYD prevails difference among second tier players narrows

Comparing 2021 with 2023, China's NEV market became more concentrated by BYD's outperformance; other traditional brands' focus in NEV strengthened

#	Brand	2021 NEV sales volume & market share (in 10,000 units, %)
1	BYD	58.4 (20%)
2	SAIC Wuling	43.1 (14%)
3	Tesla	32.1 (11%)
4	Great Wall	13.4 (4%)
5	GAC Aion	12.7 (4%)
6	SAIC	11.0 (4%)
7	Xiaopeng	9.8 (3%)
8	Chery	9.8 (3%)
9	NIO	9.1 (3%)
10	Lixiang	9.0 (3%)

2021 v.s. 2023 in China NEV market concentration and brand domination (in 10,000 units, %)



#	Brand	2023 NEV sales volume & market share (in 10,000 units, %)
1	BYD	270.6 (35%)
2	Tesla	60.4 (8%)
3	GAC Aion	48.4 (6%)
4	Geely	46.9 (6%)
5	SAIC Wuling	45.8 (6%)
6	Chang'an	38.5 (5%)
7	Lixiang	37.6 (5%)
8	Great Wall	23.7 (3%)
9	NIO	16.0 (2%)
10	Leap Motor	14.4 (2%)

NEW New in top 10 compared to 2021 ➡ Rise in rank

Notes: NEV – New Energy Vehicle (including BEV – Battery Electric Vehicle, PHEV – Plug-in Hybrid Electric Vehicle), ICE – Internal Combustion Engine

Source: CADA, KPMGanalysis

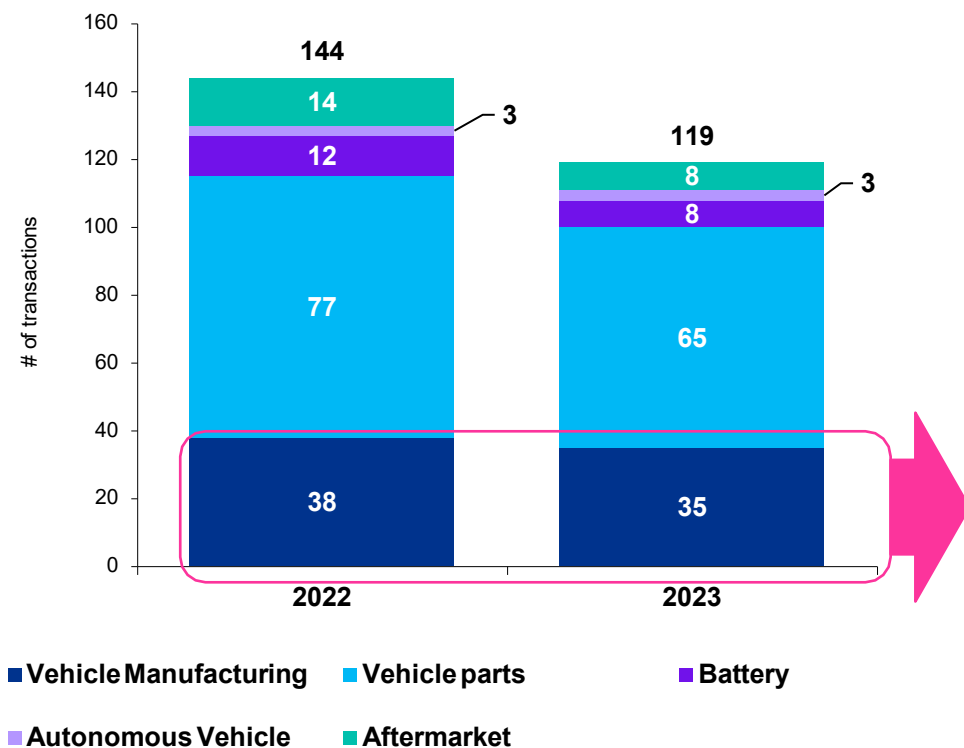


© 2024 KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG Advisory (Hong Kong) Limited, a Hong Kong (SAR) limited liability company, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Document Classification: KPMGPUBLIC/Confidential

Transactions in China's vehicle sector

Numbers of completed transactions in the autovehicle sector in China



Among the transactions of the vehicle manufacturing companies ...

In 2023

28 out of the 35 transactions are investments in the EV and EV-related companies, including the landmark transactions of:

- Emirate of Abu Dhabi through its subsidiary CYVN Holdings LLC, acquired significant minority shares in NIO Inc
- Stellantis NV acquired significant minority shares in Leapmotor
- Volkswagen AG acquired 4.99% of XPeng Inc

The remaining is the investment in the integrated vehicle manufacturers, such as Yutong Bus and Jiangxi Changhe

In 2022

24 out of the 38 transactions are investments in the EV and EV-related companies, with the landmark transaction of GAC Aion's Series A fund raising

Source: Mergermarket, KPMG analysis

Search criteria: Automobile and automobile parts, electronic vehicles and parts, and tech-autonomous vehicles. Only the completed transactions are counted

Are there any barrier for loss-making EV companies to go listing?

Not barrier for listing



- Hong Kong: Market cap \geq HK\$ 4B, revenue \geq HK\$500M
- NASDAQ Global Select: Market cap \geq US\$ 850M, revenue \geq US\$90M

Business sustainability



- Required to demonstrate pathway to breakeven and profitability with the support of cash flow forecast
- Build up a cash flow forecast model at an early stage

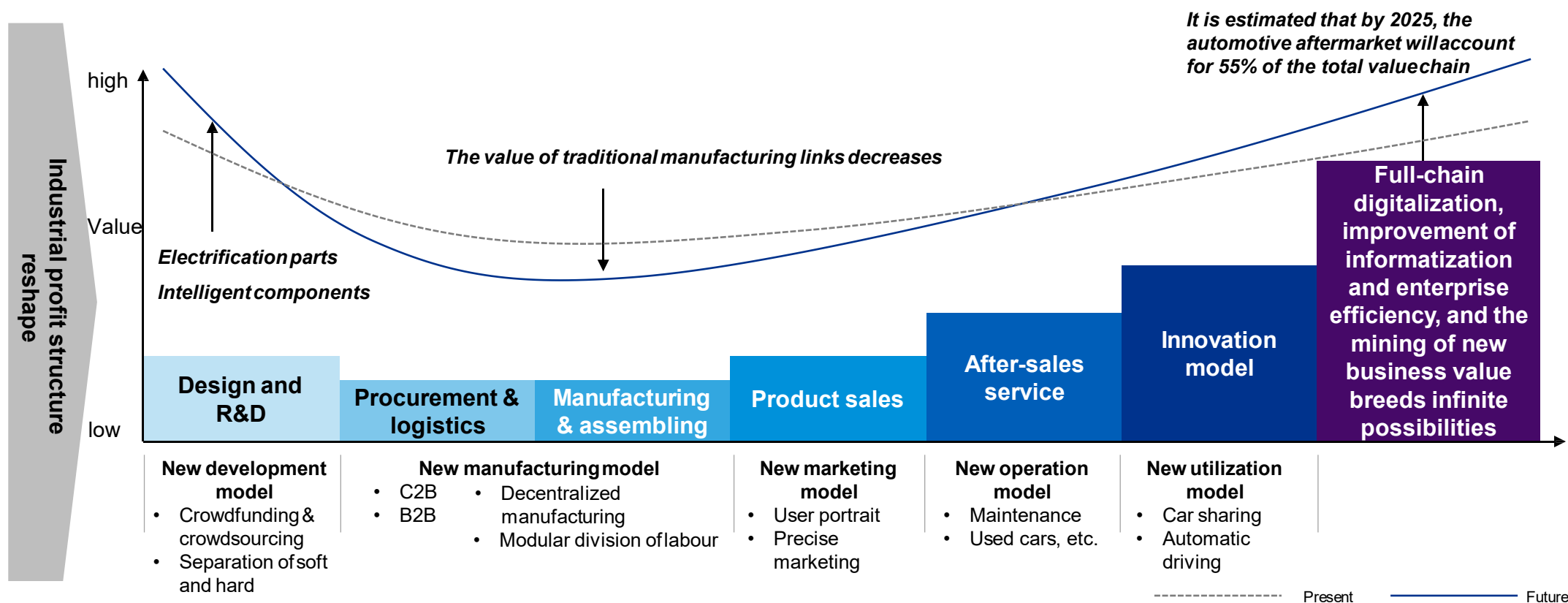
Valuation



- Discounted future cash flow method often used for valuation
- A well-developed cash flow forecast model makes pricing process more efficient

The NEV value chain is being reshaped, and the upstream and downstream high value-added areas give EV companies new opportunities

The smile curve of automobile value chain and the change of profit structure



Notes: NEV – New Energy Vehicle (including BEV – Battery Electric Vehicle, PHEV – Plug-in Hybrid Electric Vehicle), ICE – Internal Combustion Engine

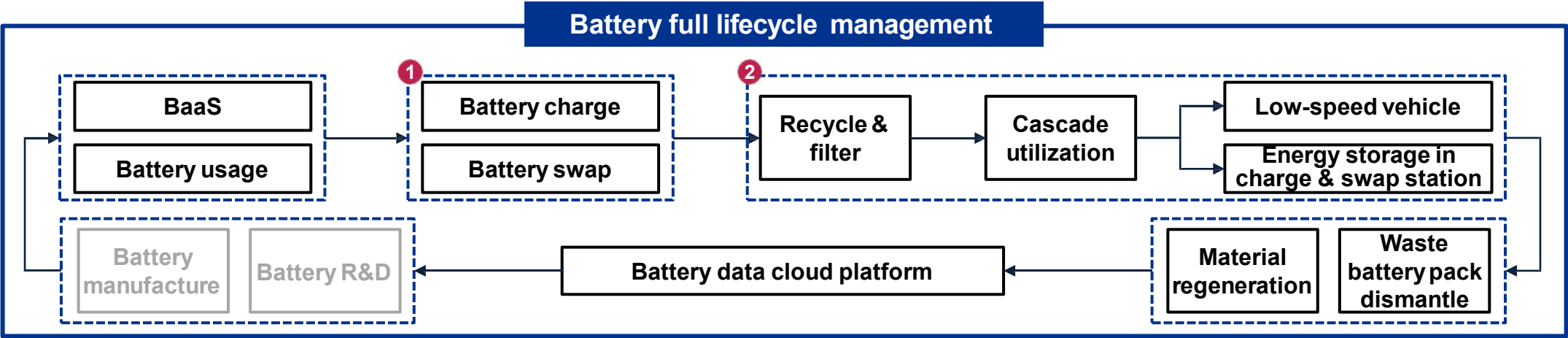
Source: KPMG analysis



© 2024 KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG Advisory (Hong Kong) Limited, a Hong Kong (SAR) limited liability company, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Document Classification: KPMGPUBLIC/Confidential

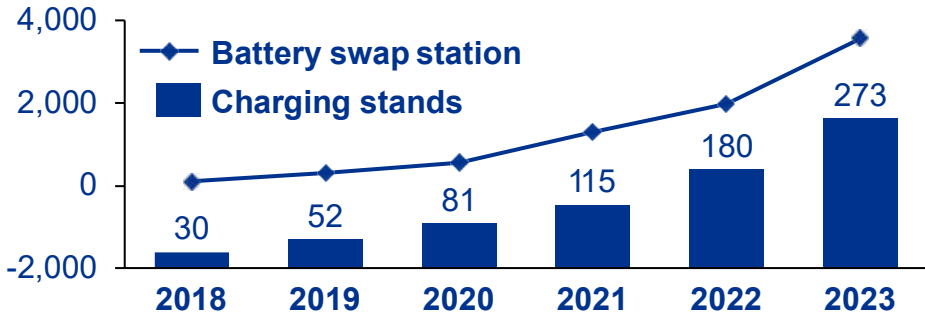
NEV's unique ecosystem provides abundant opportunities along the energy lifecycle



Take battery charge & swap and recycle as examples:

① Battery storage facilities are becoming more mature

of public chargingstands and battery swap stations (units in 10,000 and 1)



Notes: NEV – New Energy Vehicle (including BEV – Battery Electric Vehicle, PHEV – Plug-in Hybrid Electric Vehicle), ICE – Internal Combustion Engine

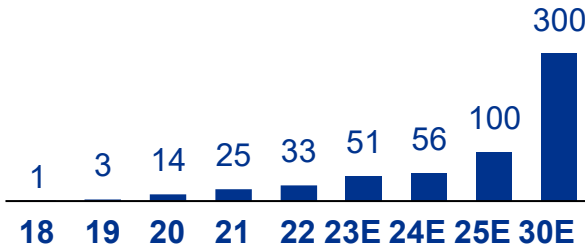
Source: China Charging Alliance, MOB research, KPMG analysis



© 2024 KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG Advisory (Hong Kong) Limited, a Hong Kong (SAR) limited liability company, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

② Given unearthed utilization, battery's recycle also unveils great potential

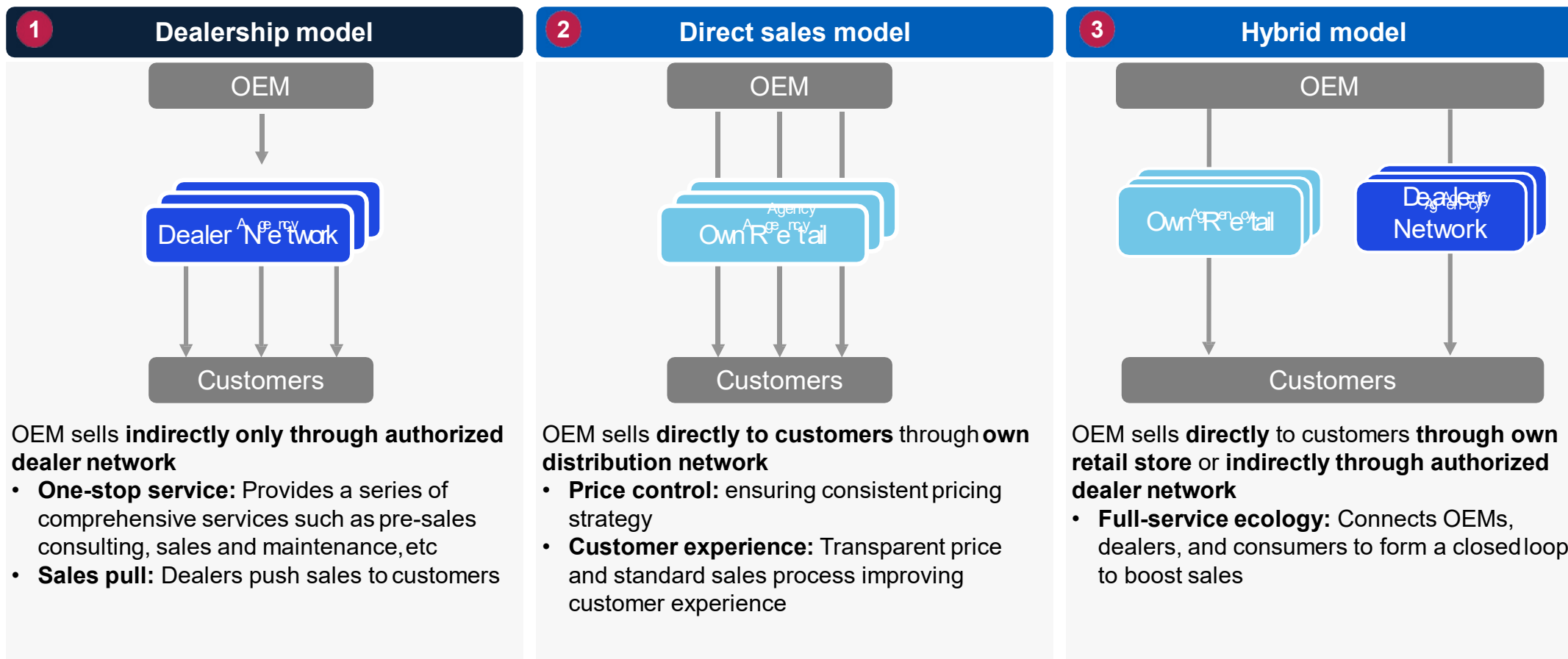
Total recyclable amount of power batteries in China (unit in gwh)



Battery stage	Times of use	Percentage of use
New battery	2500	100%
Personal use	500	20%
Cascade utilization	2000	80%
Material recycle	-	-

In addition to the dealership model, new sales models of direct sales and hybrid are utilized by OEMs to realize NEV sales

Overview of existing auto distribution models



Notes: NEV – New Energy Vehicle (including BEV – Battery Electric Vehicle, PHEV – Plug-in Hybrid Electric Vehicle), ICE – Internal Combustion Engine

Source: KPMG analysis



© 2024 KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG Advisory (Hong Kong) Limited, a Hong Kong (SAR) limited liability company, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Document Classification: KPMGPUBLIC/Confidential

10
1

Common issues in the transactions of EV transactions

Key financials of the selected EV makers														
	BYD		Li Auto		NIO		XPeng		Leapmotor		Seres		Tesla	
in CNY million	FY2022	9M2023	FY2022	9M2023	FY2022	9M2023	FY2022	9M2023	FY2022	9M2023	FY2022	9M2023	FY2022	9M2023
Listed market	A+H	A+H	H+US	H+US	H+US	H+US	H+US	H+US	H	H	A	A	US	US
P&L														
Revenue	424,061	422,275	45,287	82,119	49,269	38,515	26,855	17,626	12,385	11,469	34,105	16,680	567,350	514,117
GP	72,245	83,548	8,790	17,710	5,144	1,773	3,088	(358)	(1,911)	(274)	3,861	1,128	145,233	94,931
EBITDA	41,523	ina	(2,441)	ina	(11,647)	ina	(7,404)	ina	(4,898)	ina	(2,492)	ina	122,431	126,214
Balance Sheet														
Trade receivables	38,828	52,970	48	87	5,118	5,372	3,873	3,244	1,685	ina	1,781	2,052	20,559	18,093
Inventory	79,107	92,712	6,805	6,027	8,191	7,063	4,521	5,288	1,749	ina	3,993	2,860	89,418	98,514
Trade payables	(140,437)	(181,590)	(20,024)	(40,561)	(25,224)	(28,118)	(14,223)	(16,566)	(5,987)	ina	(9,559)	(7,275)	(106,245)	(100,065)
NWC	(22,502)	(35,908)	(13,171)	(34,448)	(11,914)	(15,682)	(5,829)	(8,035)	(2,553)	ina	(3,785)	(2,362)	3,733	16,542
NAV	121,390	141,067	45,186	53,950	24,090	15,910	36,911	28,794	8,259	ina	9,802	6,502	319,661	391,263
Cash flow														
OCF	140,838	97,860	7,380	33,399	(3,866)	ina	(8,232)	ina	(2,400)	ina	(1,169)	(860)	102,547	63,800
Free cash flow	40,841	ina	3,353	ina	9,101	ina	(405)	ina	(4,140)	ina	(5,280)	(3,690)	8,474	(14,021)
KPIs														
GP%	17.0%	19.8%	19.4%	21.6%	10.4%	4.6%	11.5%	(2.0)%	(15.4)%	(2.4)%	11.3%	6.8%	25.6%	18.5%
EBITDA%	9.8%	ina	(5.4)%	ina	(23.6)%	ina	(27.6)%	ina	(39.6)%	ina	(7.3)%	ina	21.6%	24.5%
DSO	32	29	1	0	29	37	44	55	36	ina	15	31	11	10
DIO	74	76	42	27	42	56	54	74	31	ina	52	73	55	61
DPO	109	128	145	127	154	196	201	231	108	ina	93	146	75	68
EV/EBITDA		16		(109)		(9)		(12)		(5)		(32)		45
P/E		41		(130)		(7)		(12)		(6)		(22)		63

Source: Wind, KPMG analysis

Note 1: Exchange rate, FY2022 USD:CNY = 1:6.9646; 9M2023: USD:CNY = 1:7.1798

Note 2: DSO = average trade receivable balance × 360 days(or 270 days) ÷ Revenue

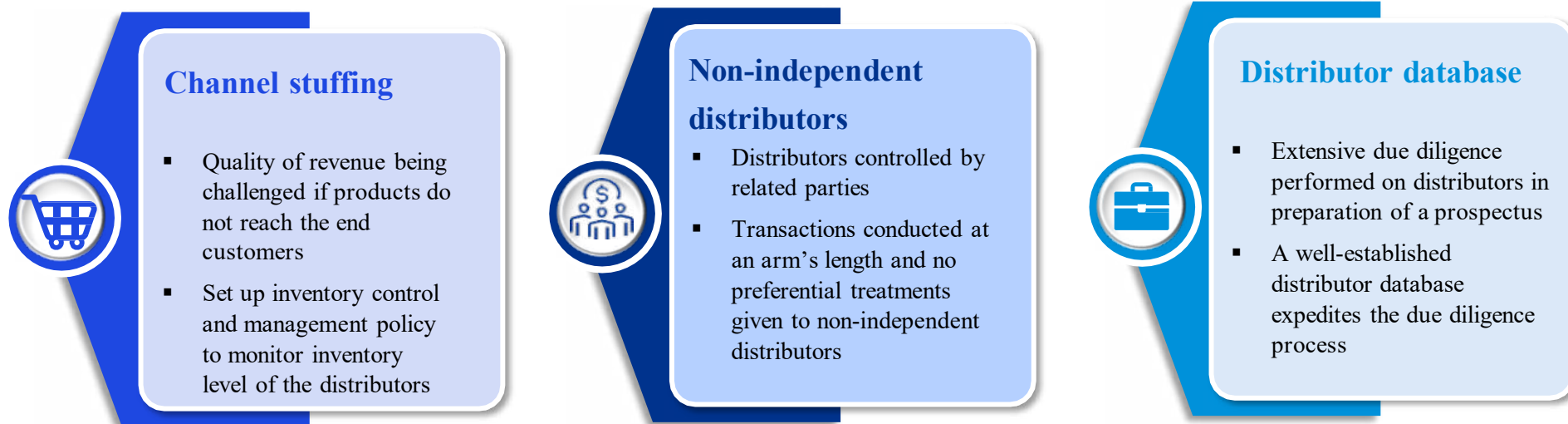
DIO = average inventory balance × 360 days(or 270 days) ÷ COS

DPO = average trade payable balance × 360 days(or 270 days) ÷ COS

Note 3: EV = Equity value (from stock market) + net debt

Note 4: EV/EBITDA and P/E were calculated with the market price quoted on 14 Dec 2023, and the earnings of the FY2022 financial statements

Common vetting issue during IPO process - Distributorship



Financial focuses for the EV's future development




Emerging trends for EV companies - Spin-off listing



Independence from parent company

- Clear delineation of businesses
- Minimum overlapping of key management and directors
- Separate administrative functions



Connected transactions

- Transactions conducted at an arm's length
- Set an appropriate annual cap for continuing connected transactions

Market consolidations will continue happening across sales, supply chain and brands



Consolidation across sales

As the competition becomes more fierce, manufactures need to pay attention to:

- **Market positioning:** considering competition and self-advantages, clarify who to attract, in order to strengthen the brand's market place
- **Tailored product and service:** be sensitive to the real needs of target customers to outperform in the game



Notes: NEV – New Energy Vehicle (including BEV – Battery Electric Vehicle, PHEV – Plug-in Hybrid Electric Vehicle), ICE – Internal Combustion Engine

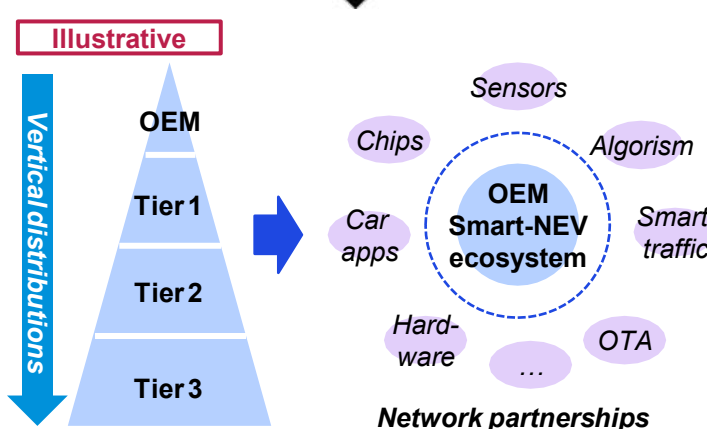
Source: Company announcements, KPMG analysis



Consolidation across supply chain

NEV market is also reshaping the supply chain into a more collaborative environment:

- **From vertical to network:** manufactures should not solely focus on tier 1 suppliers, but build trusted cooperations among the smart-NEV ecosystem
- **From specification to innovation:** innovation in technology and functionality is key in the long run, manufactures will seek partnerships to grow with together



Consolidation across brands

Overseas brands are seeking cooperations with leading China NEV brands:

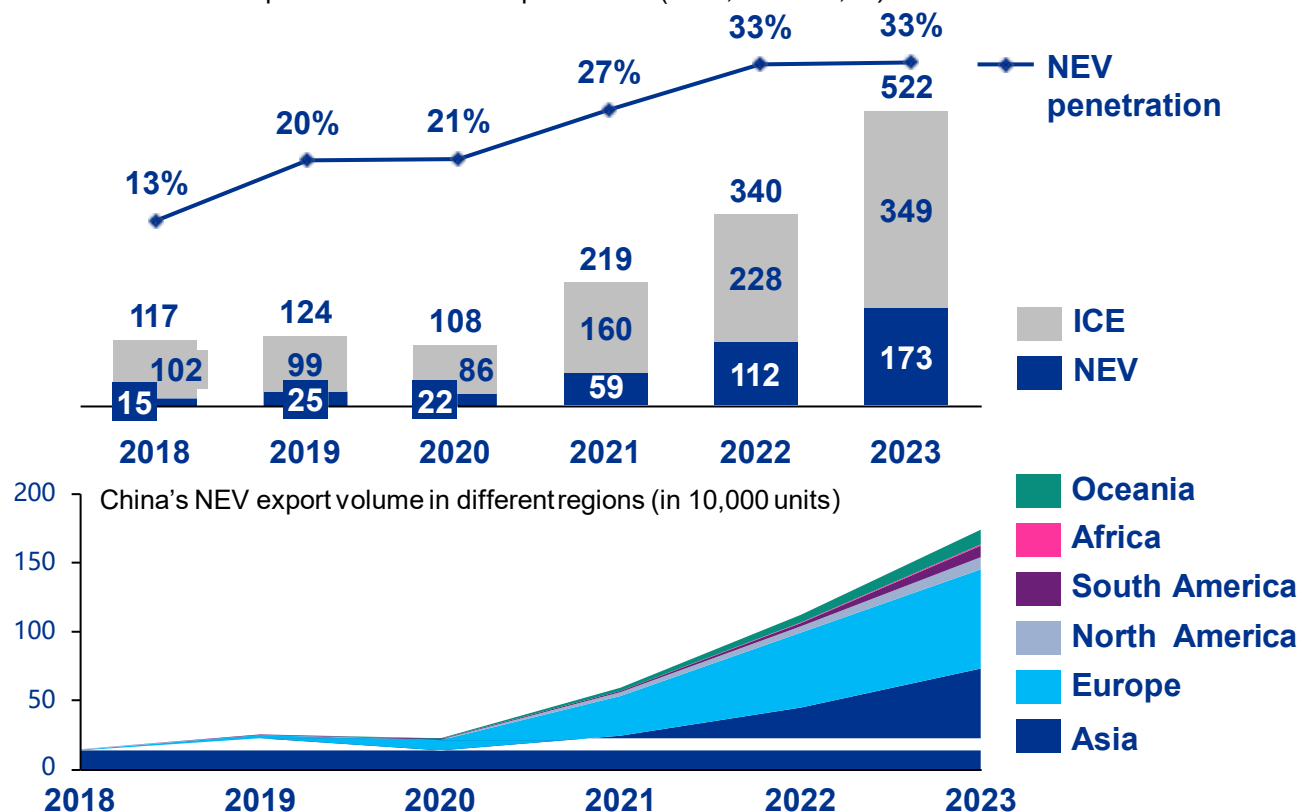
- **Resource exchange:** in terms of supply chain and technology capabilities
- **Fast-trek for expansion:** China brands are also trying to take the opportunity for a more rapid expansion in the international markets

2023 announced cooperations	
11 July	Geely & Renault to establish a JV
26 July	Volkswagen & Xiaopeng to develop together two new models
14 Oct.	Great Wall & BMW announced new MINI Copper model to be manufactured from their JV
26 Oct.	Stellantis & Leap Motor to establish a JV

China's exports of NEV will grow stronger, especially to developed regions like Europe, which accounts for nearly half of China's NEV exports

While expanding export, China is leaning the focus from ICE to NEV and from Asia to “Europe+Asia”...

China's PV export volume and NEV penetration (in 10,000 units, %)



...with developed countries' targets ahead on NEV development, China's NEV penetration in overseas markets is expected to grow

Country / District	Targets of NEV development
Japan	By 2030: 30-40% of HEV, 20-30% of BEV&PHEV, 3% of FCEV; By 2050: ICE restricted to sell
Korea	By 2030: 7.85 million units sales of NEV
USA	By 2030: 50% of NEV penetration
Canada	By 2030: 30% of EV; by 2040: 100% of EV
EU	By 2035: ICE of traditional fuel restricted to sell with EU, except for ICE with added e-fuels
Norway	By 2025: 100% of ZEV
UK	By 2030: 50-70% of NEV, ICE restricted to sell By 2035: HEV restricted to sell

Notes: NEV – New Energy Vehicle (including BEV – Battery Electric Vehicle, PHEV – Plug-in Hybrid Electric Vehicle), ICE – Internal Combustion Engine, FCEV – Fuel Cell Electric Vehicle, ZEV – Zero Emission Vehicle, HEV – Hybrid Electric Vehicle

Source: CADA, IEA, official websites of different countries, KPMG analysis



© 2024 KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG Advisory (Hong Kong) Limited, a Hong Kong (SAR) limited liability company, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Document Classification: KPMGPUBLIC/Confidential



Thanks!



kpmg.com/socialmedia

© 2024 KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG Advisory (Hong Kong) Limited, a Hong Kong (SAR) limited liability company, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Contacts:

Vanessa Xu

Partner

Strategy & Operation

Tel: +86 20 3813 8805

Email: vanessa.xu@kpmg.com

Iris Chen

Partner

Deal Advisory

Tel: +852 3927 3068

Email: iris.jw.chen@kpmg.com

Mike Tang

Partner

Audit

Tel: +852 2833 1636

Email: mike.tang@kpmg.com



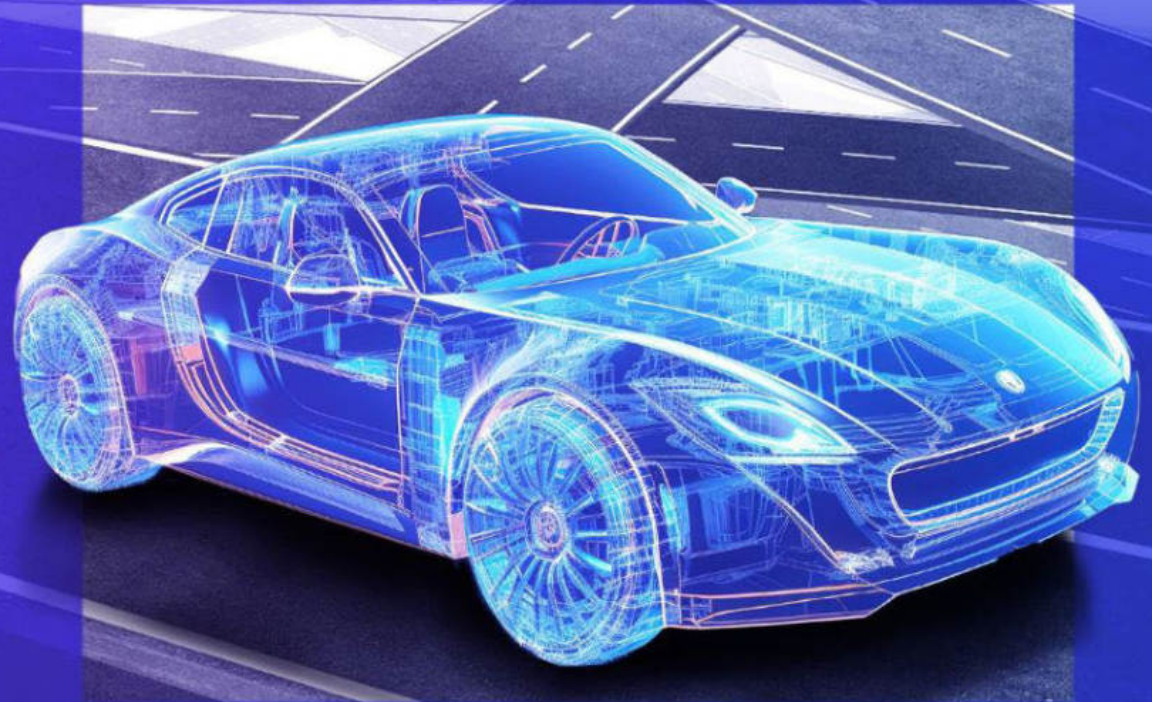
24th Annual Global Automotive Executive Survey

Getting real about the EV transition

It's still an exciting — and rewarding — journey, but it may take longer and the ride won't be smooth

KPMG. Make the Difference.

kpmg.com/automotive



Understanding the survey report

KPMG International conducted a survey of **1,041** executives across the **automotive and adjacent industries** in Oct 2023.

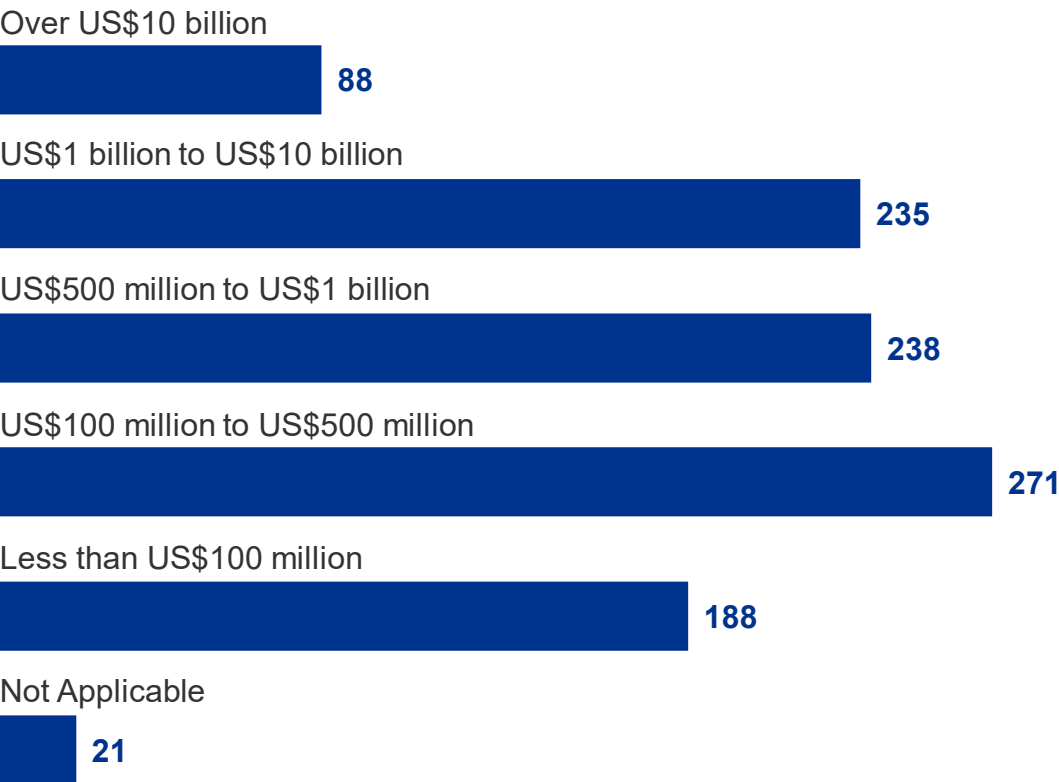
Global reach



30 Countries and territories represented from

Europe, Asia, Middle East, Africa, Latin America, and North America, with largest pools of respondents being US (277) and in China (154)

Corporate size



Main findings



The global outlook

Less confidence in profitable growth.

Executives are less confident that the industry will achieve more profitable growth over the next five years due largely to concerns over the global economy and rising costs.



Powertrains

Executives have a more mature view of the EV transition.

Auto executives now hold a more realistic view of the EV transition and are less optimistic about how soon EVs can reach cost parity with conventional cars.



Digital consumers

Customer experience is a key differentiator.

Customer experience moves up in importance. Challenges include reliable software, generating subscription revenue, and concerns about cybersecurity.



Supply chains

Just in case is overtaking just in time.

Shift to "just in case" supply chains due to ongoing complexities. Concerns persist about supply continuity for commodities and components in the next five years despite improved strategies.



Technology

The technology challenges grow more complex.

Automakers feel less prepared for advancing technologies, attributing it to rapid AI progress. Powertrain strategies shift, with hybrid tech gaining prominence.

The global outlook



Less confidence in profitable growth

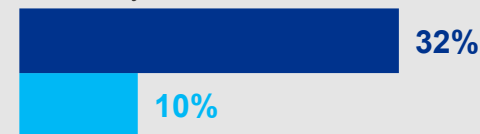
- Auto executives worldwide express reduced confidence in industry growth over the next 5 years
- 34% expressed extreme confidence in profitable growth, down from 41% last year
- Supplier confidence in profitable growth fell sharply from 55% to 23%
- Increased concern about electric propulsion with weakening demand amid increased competition
- Two-thirds of automakers anticipate price increases of 5 to 10 percent in 2024, though their ability to charge more may be limited with rising competition and declining inflationary pressure

Expectations for profitable growth are weakening (except in China)

How confident or concerned are you that the industry will achieve more profitable growth over the next 5 years?

Japan

Extremely confident



US

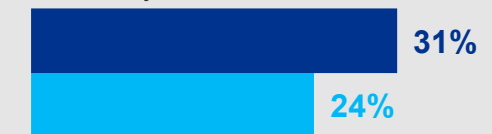
Extremely confident



■ 2022 ■ 2023

Western Europe

Extremely confident



China

Extremely confident



DTC - New channel – Agency model added in the survey, and dealerships turns out to be most promising compared with 2022 results

In 2030, what percent of new cars will be sold directly to consumers by automakers in your home market?

2022

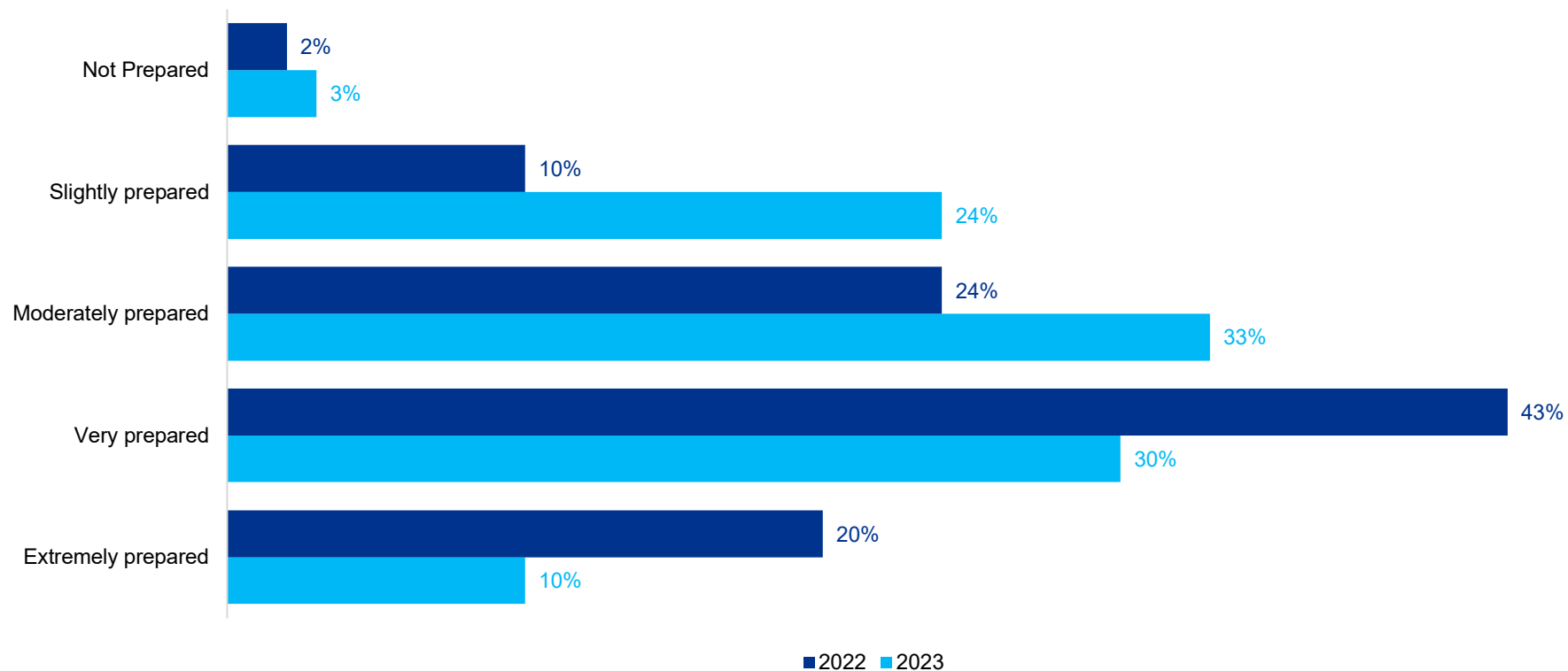


2023



AI-Enabling Auto - Growing sentiment that automakers are less prepared for advanced technologies (AI, digital twins, advanced robotics) than in previous year.

How prepared is your company for advanced manufacturing technologies (e.g., artificial intelligence, machine learning, digital twins, advanced robotics)



AI has become the most important skill



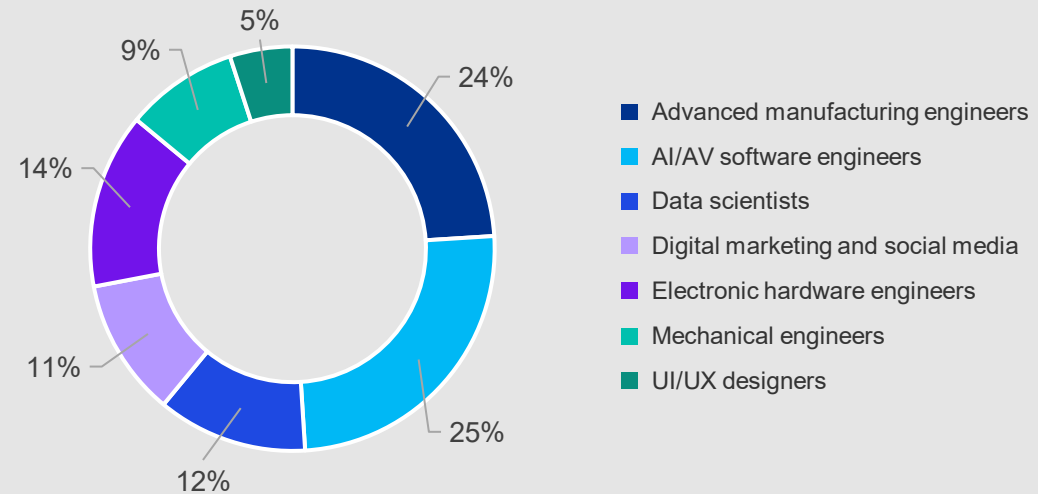
The technology challenges grow more complex

- Companies may feel less prepared due to the proliferation of new AI systems
- Across industries, a rush to adopt generative AI necessitates job redesign, training, and hiring
- Automotive sector faces increasing competition with other industries for talent with advanced AI skills

AI has become the most important skill

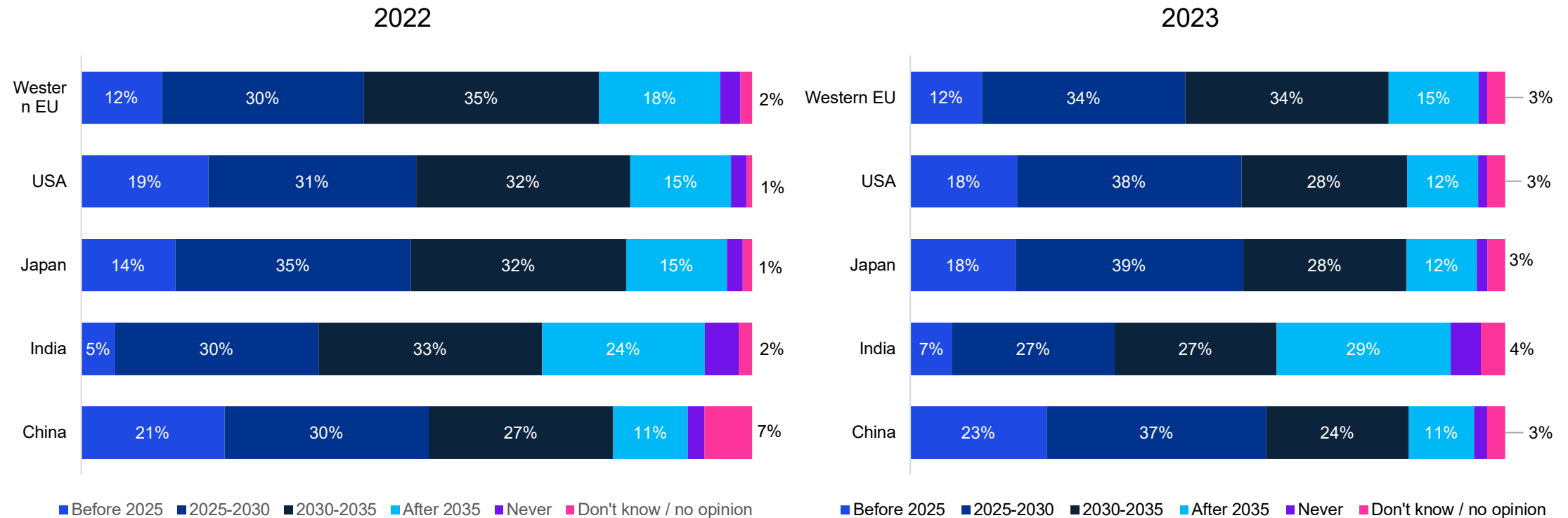
Which of the following jobs/skills do you believe is the most important to your business in the next several years?

Anticipated automotive roles and skills for the near future



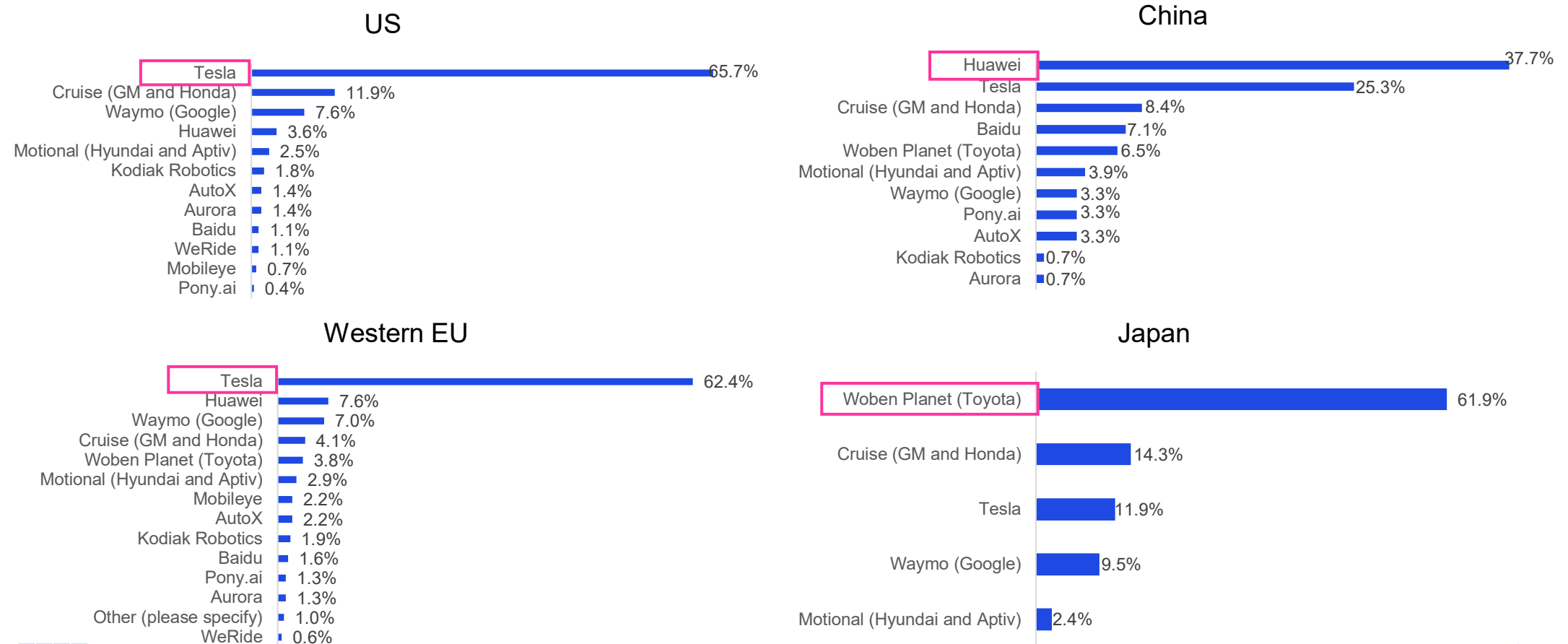
Autonomous driving – Attitudes towards autonomous driving commercialization is slightly more optimistic comparing with previous year

When do you believe autonomous ride hailing and / or delivery will be commercially available within major cities in the following markets?



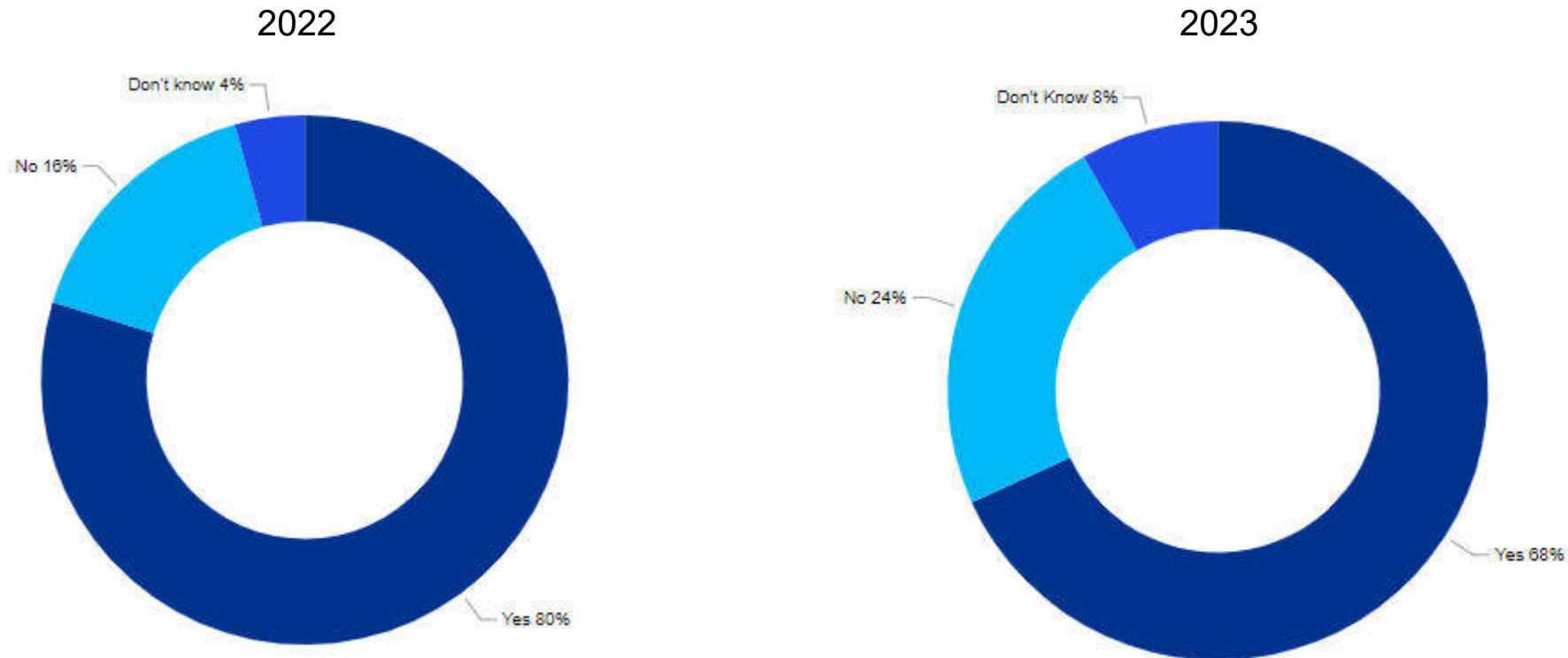
Autonomous driving – Executives in US and Western EU believe that Tesla will be the market leader while China's and Japan's view will be Huawei and Woben Planet.

Who do you think will be the leader in autonomous vehicle solutions? – 2023



Cyber Security – Growing concern that OEMs are not prepared with cyber security and customer data privacy protections

Do you believe automakers have adequate cyber security and customer data privacy protections in place?



Powertrains



Executives have a more mature view of the EV transition

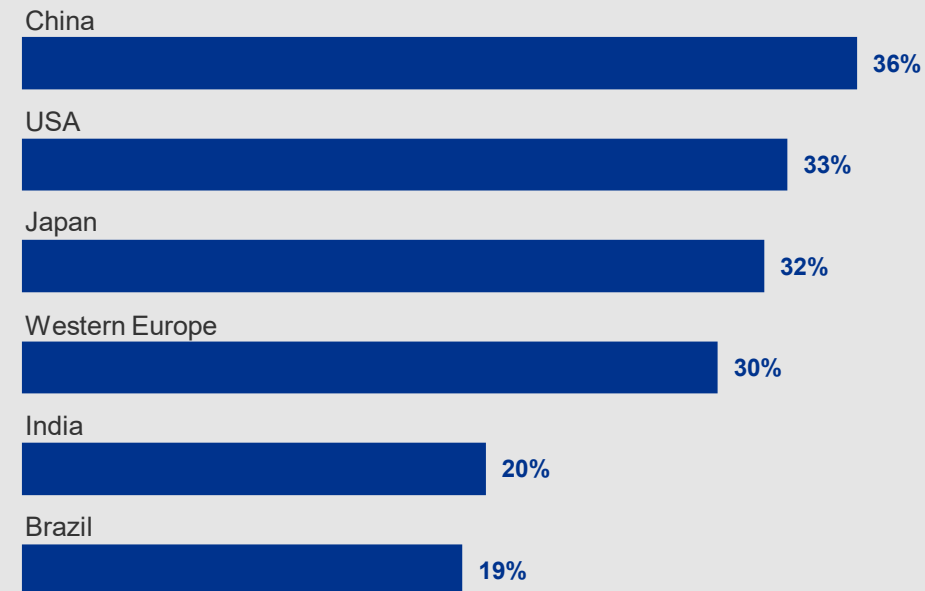
- When asked 2 years ago what percentage of new car sales would be EVs in 2030, responses ranged between 20% to 80%
- Estimates have narrowed in latest survey indicating mature view of EV penetration
- EV penetration outlook for 2030 across key markets: China 36%, USA 33%, Japan 32%, Western Europe 30%, India 20%, Brazil 19%
- OEM executives and suppliers are generally less optimistic than the previous year about how soon EVs will achieve cost parity with internal-combustion engine (ICE) vehicles without subsidies

The EV penetration outlook is maturing — with less variation in estimates

By 2030, what percentage of new vehicles sales do you believe will be battery-powered (excluding hybrids) within each market?

Estimated EV market share in 2030

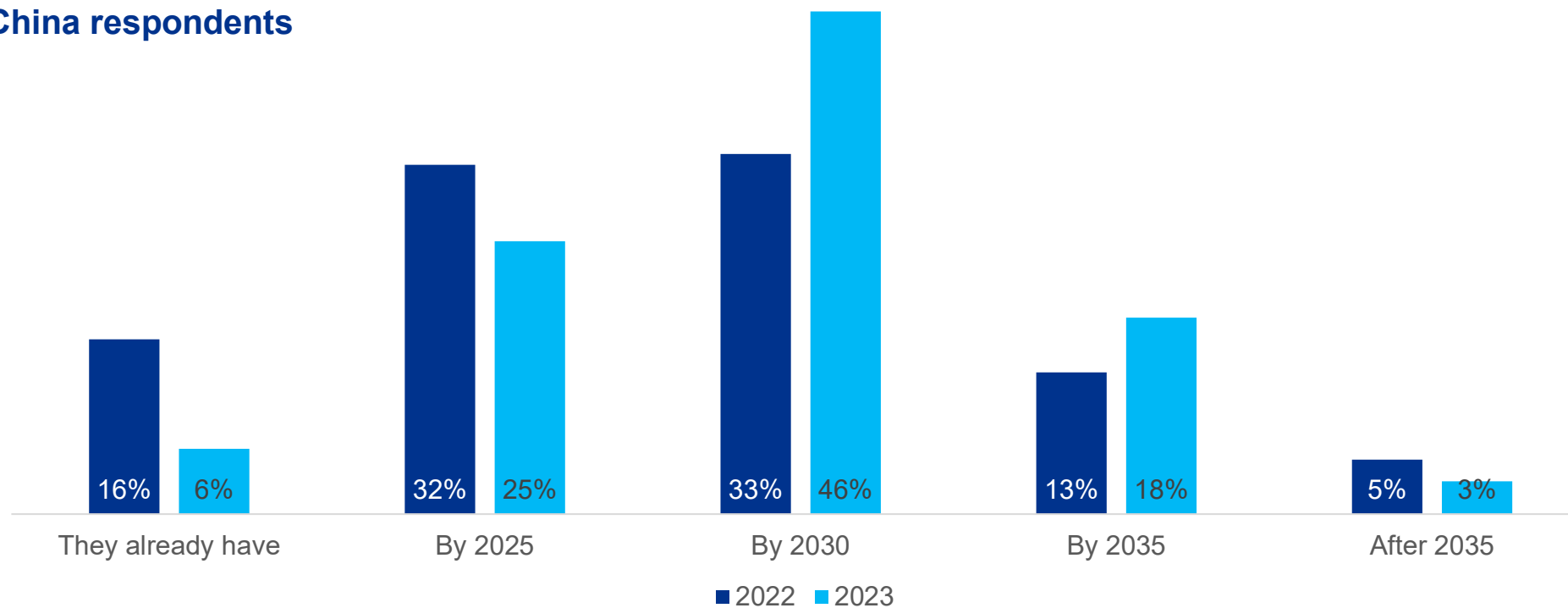
Regional response (percentage mean)



Executives are less optimistic than the previous year about how soon EVs will achieve cost parity with internal-combustion engine (ICE) vehicles without subsidies

When do you believe battery electric vehicles will reach cost / affordability parity with ICE without any subsidies?

China respondents



Powertrains



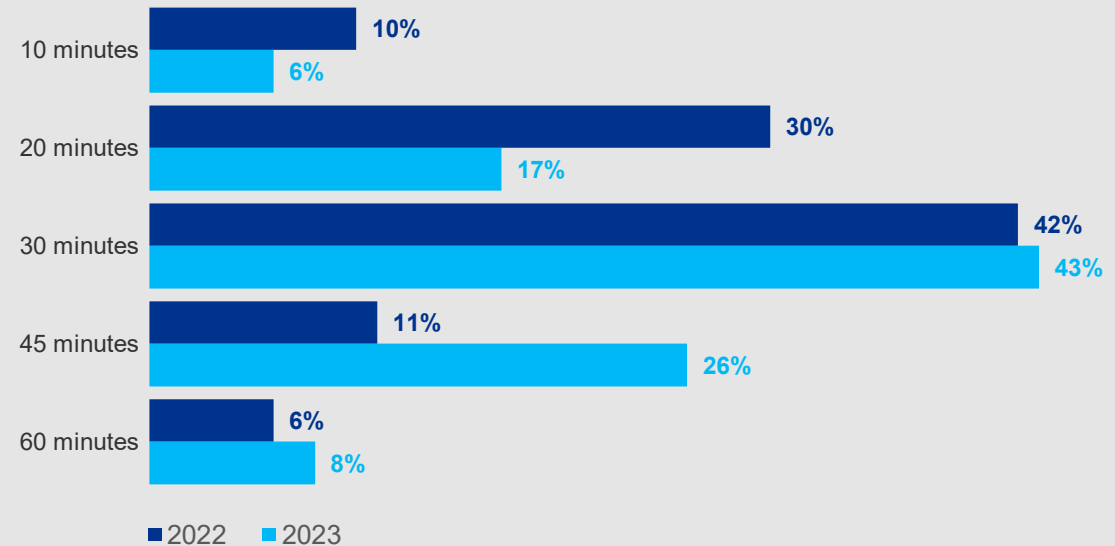
Executives have a more mature view of the EV transition

- Pressure to build an effective charging network will only grow
- Car owners are becoming increasingly demanding about charge times in secure locations

More consumers demand quick charge times, executives say

While traveling and running low on battery charge, how long will the typical consumer be willing to wait for an 80 percentage or greater recharge?

Automotive executive insights on consumer expectations: EV recharge wait times (≤80%)



Digital consumers



Customer experience is a key differentiator

- Consumers are perceived to be changing their priorities when it comes to buying a car
- A seamless and hassle-free customer experience has moved up to second place in perceived importance after driving performance
- Brand and image importance decline, moving from 3rd to the 6th most crucial factor for consumers
- Executives predict more than two-thirds of car sales will be non-dealer by 2030, emphasizing a shift towards online platforms
- Confidence in consumers paying for monthly subscription services is declining
- Share of respondents who believe consumers will trust automakers with their data has dropped from 80% to 40%

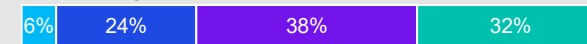
Increasingly, customer experience is seen as a differentiator

How important do you think the following features will be for consumers when deciding to purchase a car in the next 5 years?

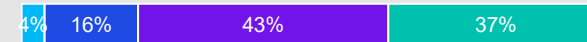
Automotive executive insights: The top consumer priorities in car purchasing over the next five years

2022

Brand image



Data privacy and security



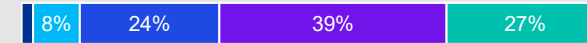
Driving performance



Infotainment/personal connectivity features



Seamless and hassle-free experience



Self-driving cars/active driver assist



Vehicle maintenance connectivity features



Zero-emission/sustainable electric mobility

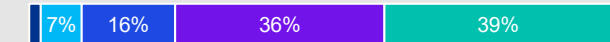


2023

Brand image



Data privacy and security



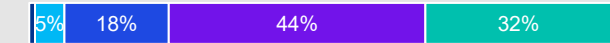
Driving performance



Infotainment/personal connectivity features



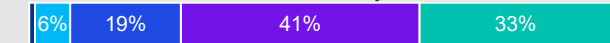
Seamless and hassle-free experience



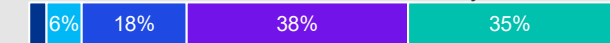
Self-driving cars/active driver assist



Vehicle maintenance connectivity features



Zero-emission/sustainable electric mobility



■ Not at all important ■ Slightly important ■ Moderately important ■ Very important ■ Extremely important

Supply chains



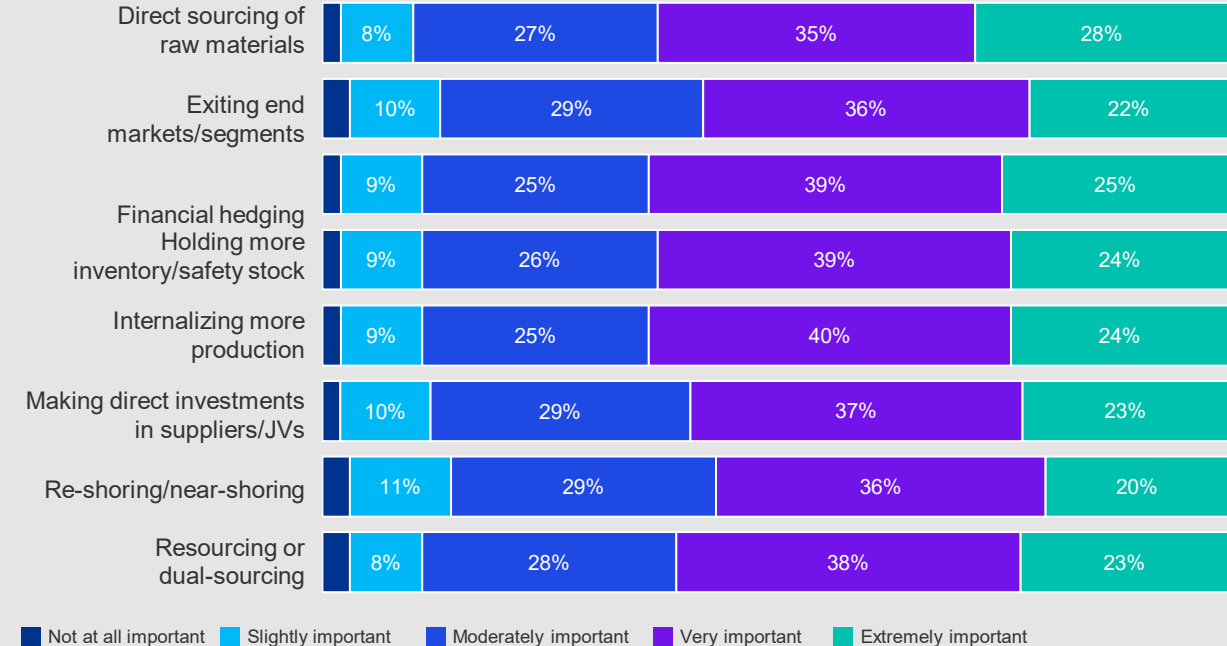
Just in case is overtaking just in time

- Shift to "just in case" supply chains due to ongoing complexities
- Despite improved strategies, concerns persist about supply continuity for various commodities and components in the next five years
- 45% (outside China) very or extremely concerned about access to lithium, cobalt, and other battery components
- In China only 28% of OEMs and suppliers are very or extremely concerned about lithium and critical battery component supplies
- China outlook likely attributed to fact that China has been setting the supply of many of these commodities

Companies are using a variety of strategies to mitigate supply chain risks

How important are each of the following to your future supply chain strategy?

Strategies to manage supply chain risks



Key takeaways for automotive executives



Faced with so many challenges and opportunities, executives need to recalibrate strategies — and act. These are four priorities for top leaders to ensure they are winners in the altered automotive business:

Hedge your bets — and commit to a future vision

- Manufacturers should hedge their bets about the trajectory of both the internal combustion engine and all the alternatives
- If they spread themselves too thin, they risk losing to competitors that more successfully predict the future and focus more narrowly
- The answer, then, is to entertain heretical theories, employ a diverse array of talent with different perspectives, and make your best bets.

Do CEOs have teams that are up to the task?

Find the collaborators you need

- Traditionally, car manufacturers pursued independent development of automotive technologies with modest success.
- Limited business opportunities and a constrained skills pool prompt auto companies to seek external ideas and expertise for enhancing their R&D operations.
- Recognition that collaboration and seeking expertise outside the organization is essential in the dynamic automotive landscape.

How effective is your ability to work the ecosystem and find alliances and business partnerships?

Key takeaways for automotive executives



Faced with so many challenges and opportunities, executives need to recalibrate strategies — and act. These are four priorities for top leaders to ensure they are winners in the altered automotive business:

Get ready to embed AI everywhere

- Artificial intelligence (AI) power and range are rapidly expanding.
- Generative AI captivates business leaders and significantly broadens AI accessibility.
- Anticipate AI technology influencing every facet of the automotive industry, from design and manufacturing to sales and driving experiences.

Is your AI strategy sufficiently comprehensive and forward-looking?

Face up to global challenges

- EV demand surges in Europe, the US, and China.
- Slower growth in electric cars expected in India, Latin America, and Africa due to low incomes and inadequate infrastructure.
- Global automakers must address these diverse markets given their growing populations and unique needs.
- Concurrently, automotive companies must enhance resilience to geopolitical changes and global economic fluctuations impacting supply chains and markets.

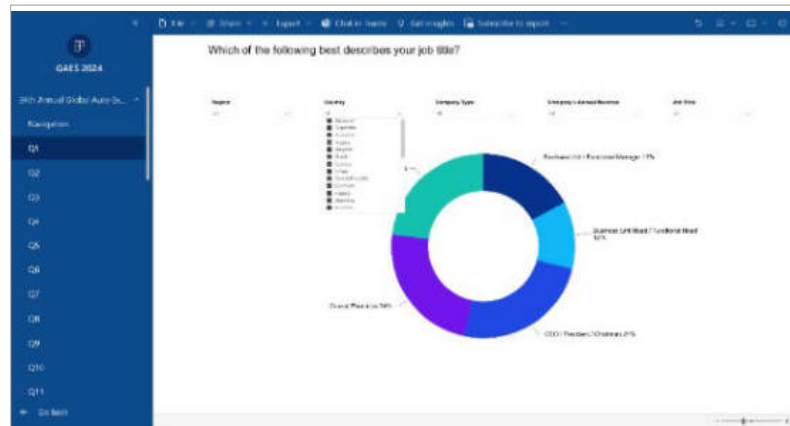
Does your company have a global strategy that can help you profit from the differences among markets, not just their similarities? Are you resilient to global disruptions?

Learn more

Interact with the data

Interact with the data and view graphical results by country, company type and job title.

[Explore now](#)



Read the full report

Access the full report for survey insights and analysis.

[Download full report](#)



How KPMG can help

KPMG automotive services

- Offers tax, audit, and advisory services globally to automotive companies in Europe, EMEA, Asia, and the Americas.
- Expertise in identifying and translating critical trends — mobility, autonomy, electrification — into actionable strategies.
- Global automotive practice collaborates with industry leaders to plan and execute strategies harnessing key trends.

Data-driven impact assessment

- Utilizes a data-driven approach to quantify the impact of trends (e.g., mobility) for automakers, dealers, and stakeholders.
- Enables identification and prioritization of emerging opportunities in the automotive sector.

Technology roadmap development

- KPMG professionals assist clients in defining technology investment and development roadmaps.
- Aims to guide clients in pursuing opportunities derived from critical automotive trends.

Business transformation support

- Supports clients with operating-model and business transformations.
- Prepares organizations for developing new products and adopting innovative business practices.
- Recognized leadership in supply chain strategy.





Norbert Meyring
Partner, Head of Automotive Sector
KPMG China

Tel: +86 (21) 2212 2707

Email: norbert.meyring@kpmg.com

kpmg.com



The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

© 2024 Copyright owned by one or more of the KPMG International entities. KPMG International entities provide no services to clients. All rights reserved.

KPMG refers to the global organization or to one or more of the member firms of KPMG International Limited ("KPMG International"), each of which is a separate legal entity. KPMG International Limited is a private English company limited by guarantee and does not provide services to clients. For more detail about our structure please visit kpmg.com/governance.

The KPMG name and logo are trademarks used under license by the independent member firms of the KPMG global organization.

Document Classification: KPMG Public



Some or all of the services described herein may not be permissible for KPMG audit clients and their affiliates or related entities.



kpmg.com/cn/socialmedia

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

The KPMG name and logo are trademarks used under license by the independent member firms of the KPMG global organisation.

© 2024 KPMG, a Hong Kong (SAR) partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Document Classification: KPMG Public