

IBKRWEBINARS.COM



March 17, 2022

# Nikko Asset Management

## China Electric Vehicles and Future Mobility

---

### Calvin Neo

ETF Business Development  
Specialist  
Nikko Asset Management

Exchange and Industry Sponsored Webinars are presented by unaffiliated third parties. Interactive Brokers LLC is not responsible for the content of these presentations. You should review the contents of each presentation and make your own judgment as to whether the content is appropriate for you.

Interactive Brokers LLC does not provide recommendations or advice. This presentation is not an advertisement or solicitation for new customers. It is intended only as an educational presentation.



## Disclosure:

Options involve risk and are not suitable for all investors. For information on the uses and risks of options, you can obtain a copy of the Options Clearing Corporation risk disclosure document titled [Characteristics and Risks of Standardized Options](#) by calling (312) 542-6901.

Futures are not suitable for all investors. The amount you may lose may be greater than your initial investment. Before trading futures, please read the [CFTC Risk Disclosure](#). For a copy visit [interactivebrokers.com](http://interactivebrokers.com).

There is a substantial risk of loss in foreign exchange trading. The settlement date of foreign exchange trades can vary due to time zone differences and bank holidays. When trading across foreign exchange markets, this may necessitate borrowing funds to settle foreign exchange trades. The interest rate on borrowed funds must be considered when computing the cost of trades across multiple markets.

The Order types available through Interactive Brokers LLC's Trader Workstation are designed to help you limit your loss and/or lock in a profit. Market conditions and other factors may affect execution. In general, orders guarantee a fill or guarantee a price, but not both. In extreme market conditions, an order may either be executed at a different price than anticipated or may not be filled in the marketplace.

There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results.

Any stock, options or futures symbols displayed are for illustrative purposes only and are not intended to portray recommendations.

- IRS Circular 230 Notice: These statements are provided for information purposes only, are not intended to constitute tax advice which may be relied upon to avoid penalties under any federal, state, local or other tax statutes or regulations, and do not resolve any tax issues in your favor.
- Interactive Brokers LLC is a member of [NYSE](#) [FINRA](#) [SIPC](#)

# CHINA ELECTRONIC VEHICLE SECTOR

IBKR webinar, March 2022

# JOE BIDEN STATE OF THE UNION ADDRESS



The image shows a screenshot of a Twitter thread. At the top, Joe Biden (@JoeBiden) posts a tweet from March 2, 2022, as a United States government official. He mentions Ford's \$11B investment in electric vehicles (EVs) and GM's \$7B investment in EVs in Michigan. Below this, Elon Musk (@elonmusk) replies, stating that Tesla has created over 50,000 US jobs and is investing more than double GM and Ford combined. The tweet includes engagement metrics: 272.2K likes, a reply icon, and a share icon. A button at the bottom of the tweet says "Read 8.8K replies".

**Joe Biden**  @JoeBiden · Mar 2, 2022   
United States government official  
Ford is investing \$11B to build electric vehicles—creating 11,000 jobs across the country.  
GM is making the largest investment in its history—\$7B to build electric vehicles, creating 4,000 jobs in Michigan.

**Elon Musk**  @elonmusk  
Tesla has created over 50,000 US jobs building electric vehicles & is investing more than double GM + Ford combined  
[fyi to person controlling this twitter]  
11:11 AM · Mar 2, 2022 

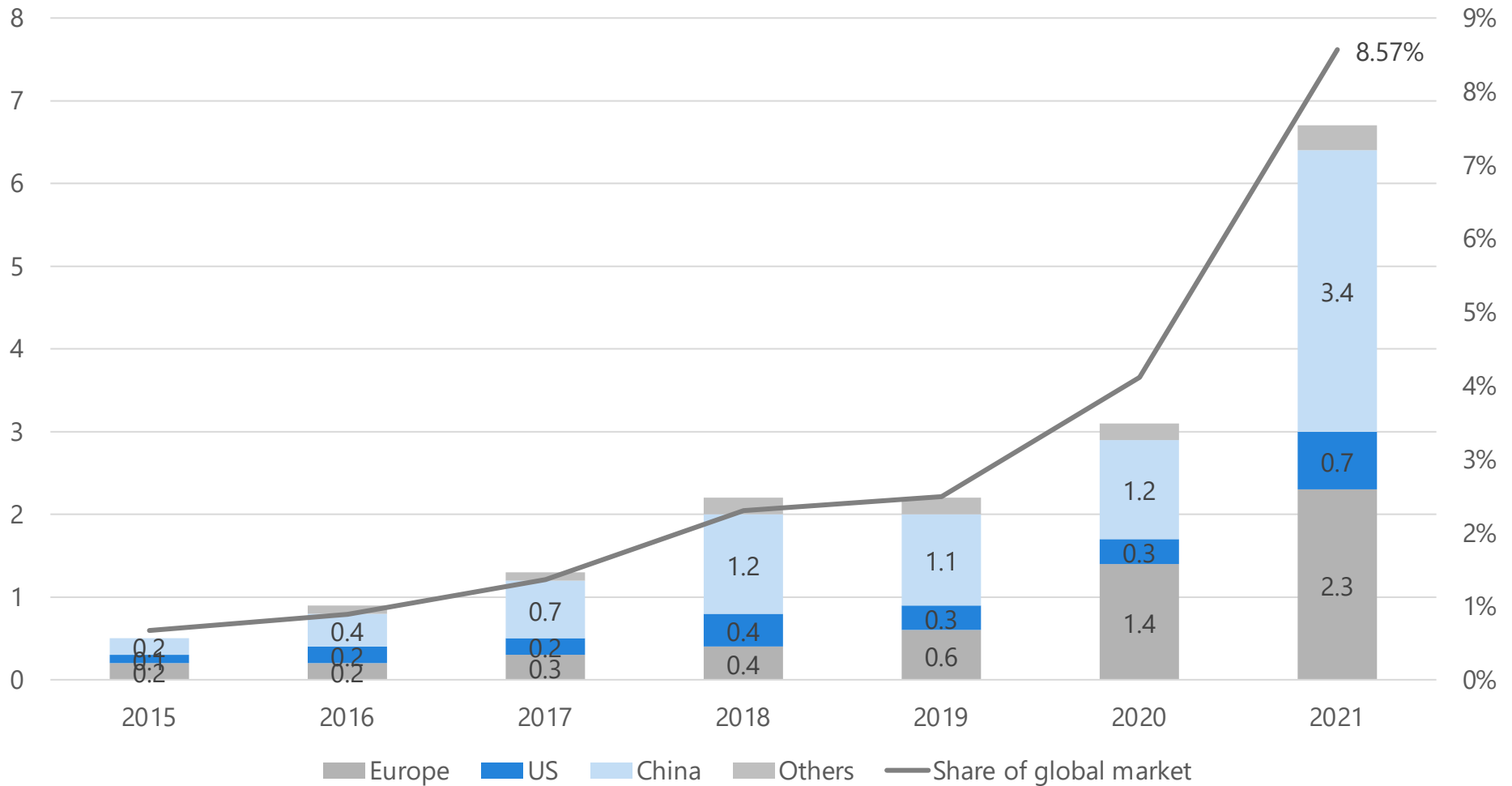
 272.2K  Reply  Share this Tweet

[Read 8.8K replies](#)

Source: Fortune.com, article by Nicholas Gordon "Elon Musk is fuming after President Biden snubbed Tesla once again during his State of the Union address"

2 March 2022

# GLOBAL SALES AND SALES MARKET SHARE OF ELECTRIC CARS, 2010-2021



# VERY REAL IN SINGAPORE AS WELL



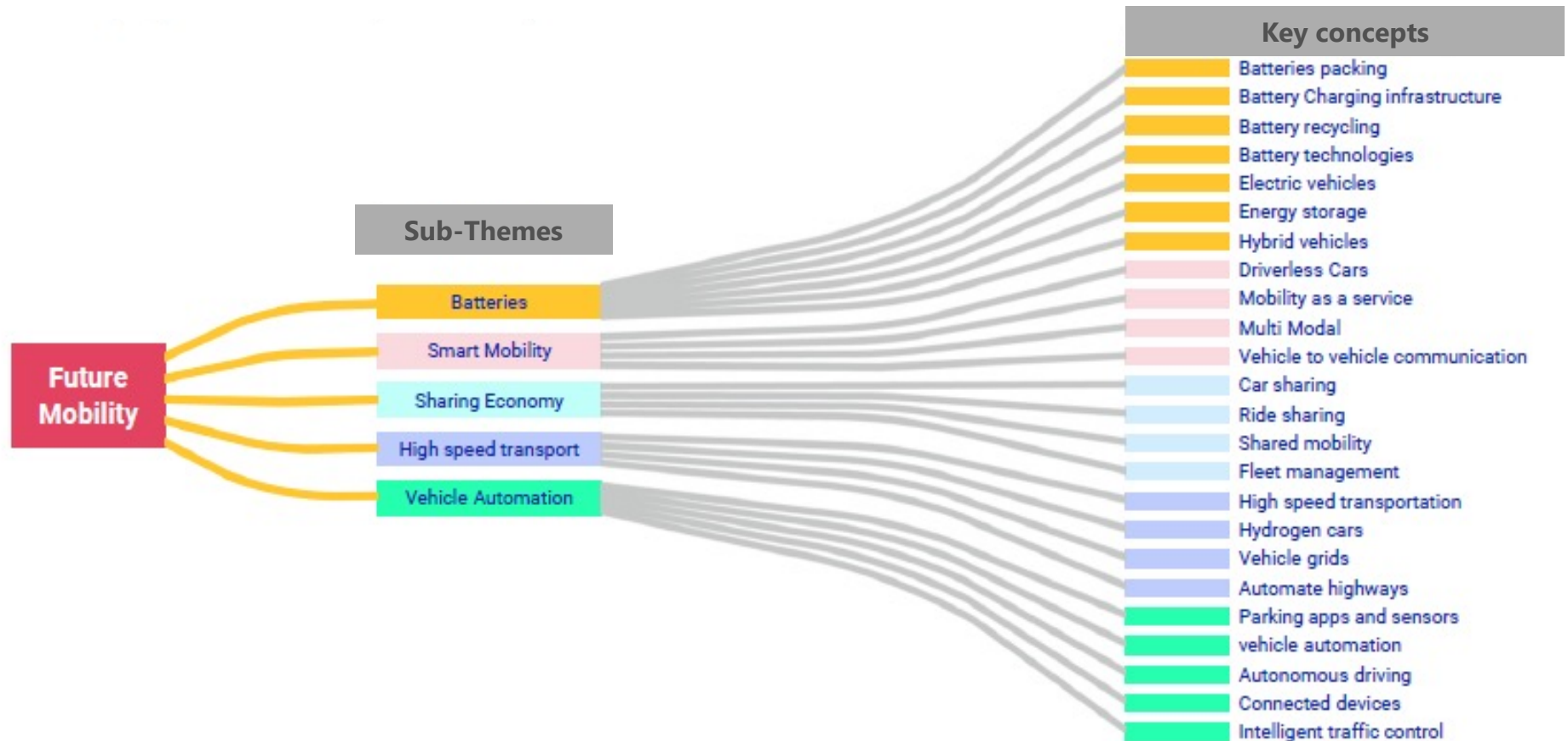


# VERY REAL IN SINGAPORE AS WELL



# THE FUTURE OF MOBILITY

## MSCI China All Shares IMI Future Mobility Top 50 Index





# MSCI CHINA ALL SHARES IMI FUTURE MOBILITY TOP 50 INDEX CONSTITUENTS

## TOP 10 HOLDINGS OF INDEX

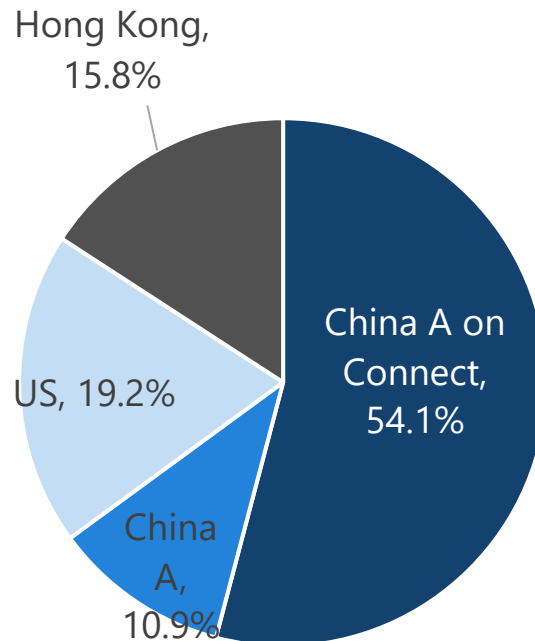
Name	Index Weight (%)	Description
<b>Contemporary Amperex Technology</b>	12.64	Battery manufacturer for electric vehicle and energy storage systems
<b>NIO</b>	9.71	Premium EV manufacturer
<b>Geely Automobile Holdings</b>	9.32	Automobile manufacturer with key brands Geely, Geometry, and Lynk&Co
<b>BYD (H-share)</b>	5.81	Automobile manufacturer with business in EVs, energy storage and rail
<b>BYD (A-share)</b>	5.13	
<b>Eve Energy</b>	4.78	Battery manufacturer for electric vehicle and energy storage systems
<b>XPeng</b>	4.51	Premium EV manufacturer
<b>Jiangxi Ganfeng Lithium (A-share)</b>	4.17	Mining of lithium and manufacturer of lithium chemicals
<b>Yunnan Energy New Material</b>	4.04	Manufacturer of film products including lithium ion isolation films
<b>Sungrow Power Supply</b>	3.60	Photovoltaic inverter manufacturer with business in power station system integration

# MSCI CHINA ALL SHARES IMI FUTURE MOBILITY TOP 50 INDEX CONSTITUENTS

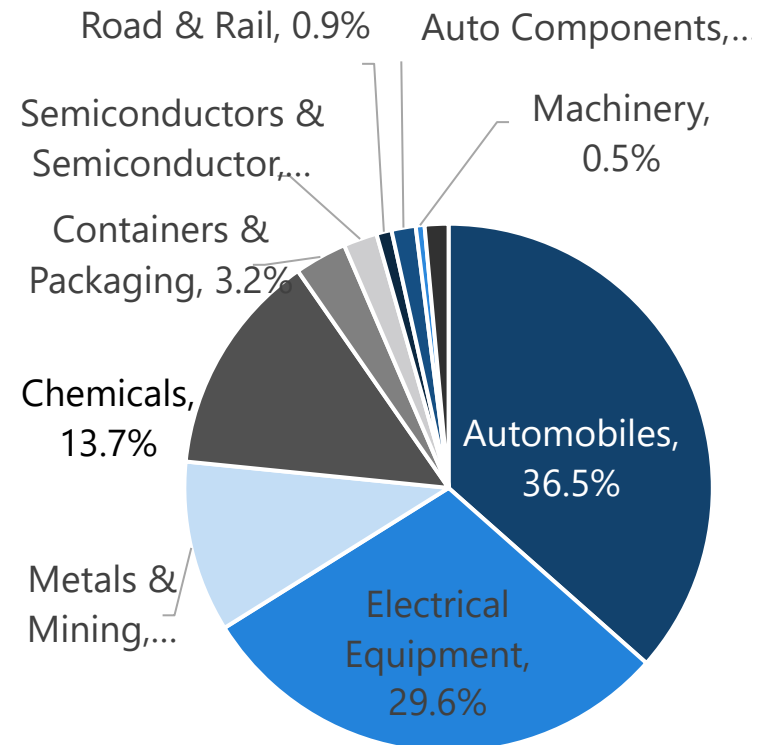
About 70% of Index constituents by weight are listed in Hong Kong and China.

EV, electrical equipment, chemicals, and metals & mining companies make up bulk of the Index

### Index Weight by Exchange



### Index Weight by Industry Classification



WHY THE CHINA ELECTRONIC VEHICLE SECTOR?

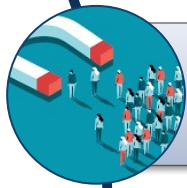


# WHY INVEST IN THE CHINA ELECTRONIC VEHICLE SECTOR?

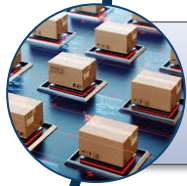
---



1. Policy – Tailwinds from government intervention and support



2. Demand – Leading the way in terms of consumer acceptance



3. Supply – Mega production capacity



4. Not Just EV – It's really about Future Mobility

# WHY THE CHINA ELECTRONIC VEHICLE SECTOR?

1. Policy - Tailwinds from government intervention and support





# CHINA IS COMMITTED TO CLIMATE CHANGE

## China's national climate targets (2020)

### CO2 emissions

Goal	By 2030	By 2060
Achieve	Peak	Carbon neutrality

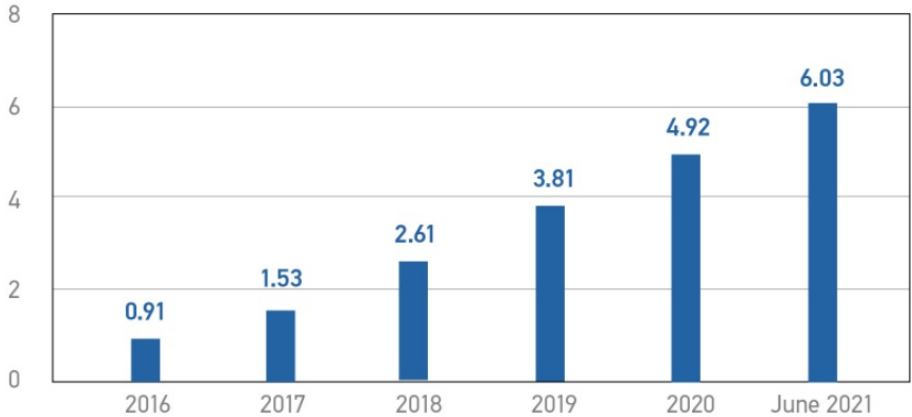
Note: Carbon peak refers the year of highest greenhouse gas emissions. Carbon neutral refers to a policy of not increasing carbon emissions

### Total installed capacity of wind and solar power

Goal	By 2030
Achieve	1.2 billion kW

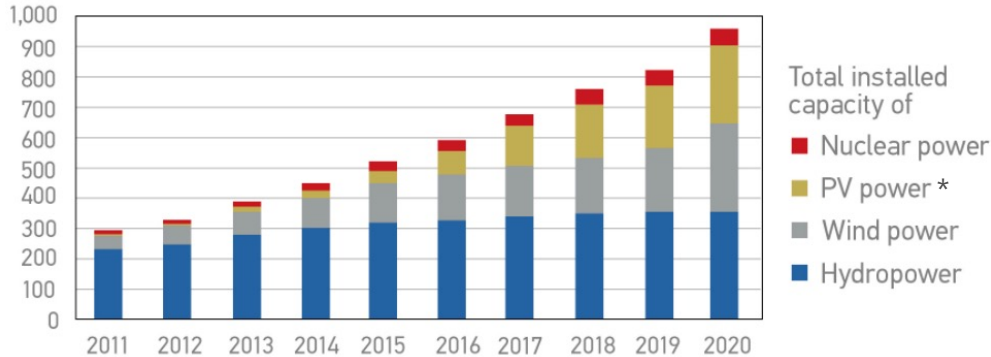
## New energy vehicle in China

(Million vehicles)



## Installed capability of non-fossil energy power generation

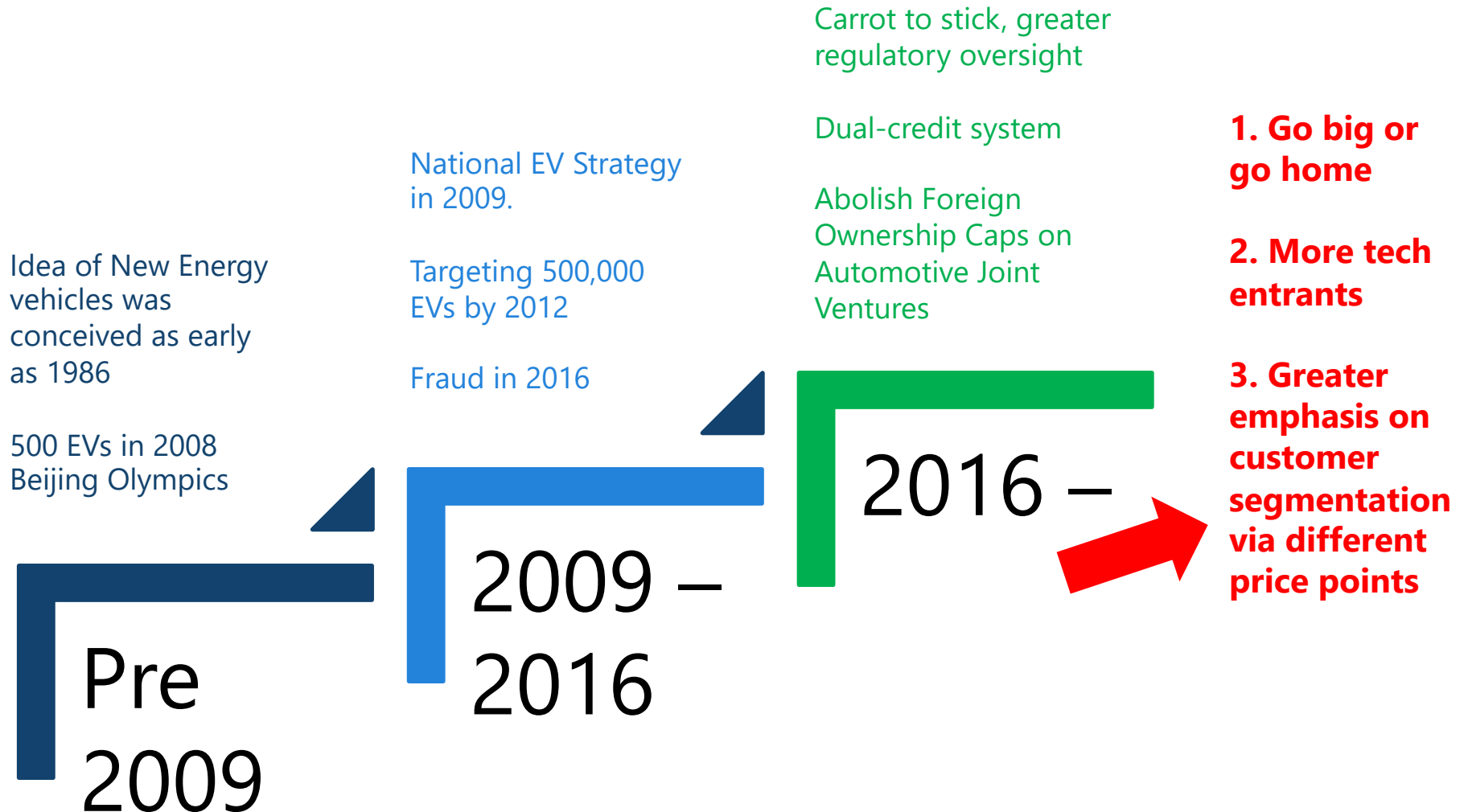
(Million kW)



\* Photovoltaics is the conversion of light into electricity using semiconducting materials

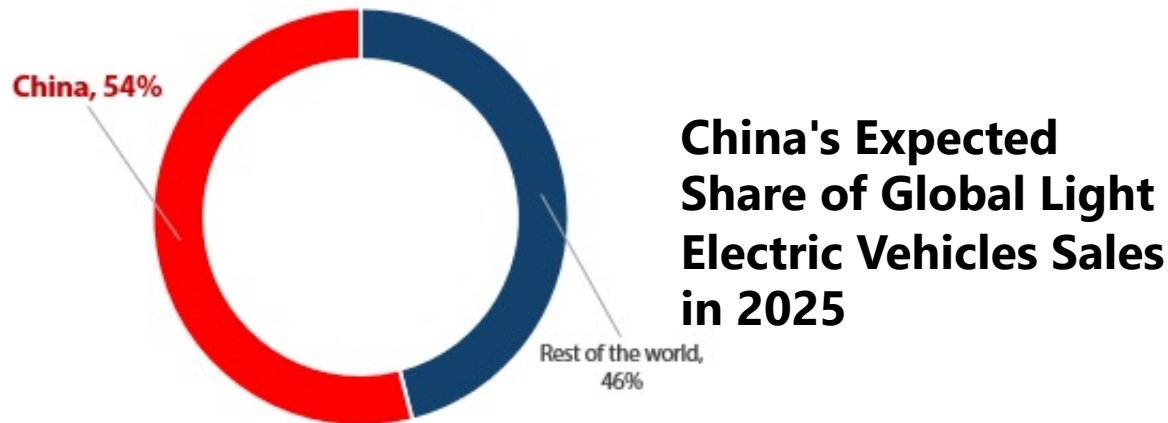
Source: CGTN news, China's National Bureau of Statistics, White Paper Responding to Climate Change: China's Policies and Actions released by Chinese State Council Information Office in October 2021.

# DEVELOPMENT OF CHINA FUTURE MOBILITY MARKET



# MSCI CHINA ALL SHARES IMI FUTURE MOBILITY TOP 50 INDEX CONSTITUENTS

- **State Council blueprint** released in November 2020 advocated for the development of NEV sector from 2021 – 2035. Aim for EVs to be 20% of new car sales by 2025.
- Further highlighted in the **14th 5-year plan (2021 – 2025)** that NEVs will be one of the strategic emerging industries to account for almost one-fifth of China's GDP by 2025

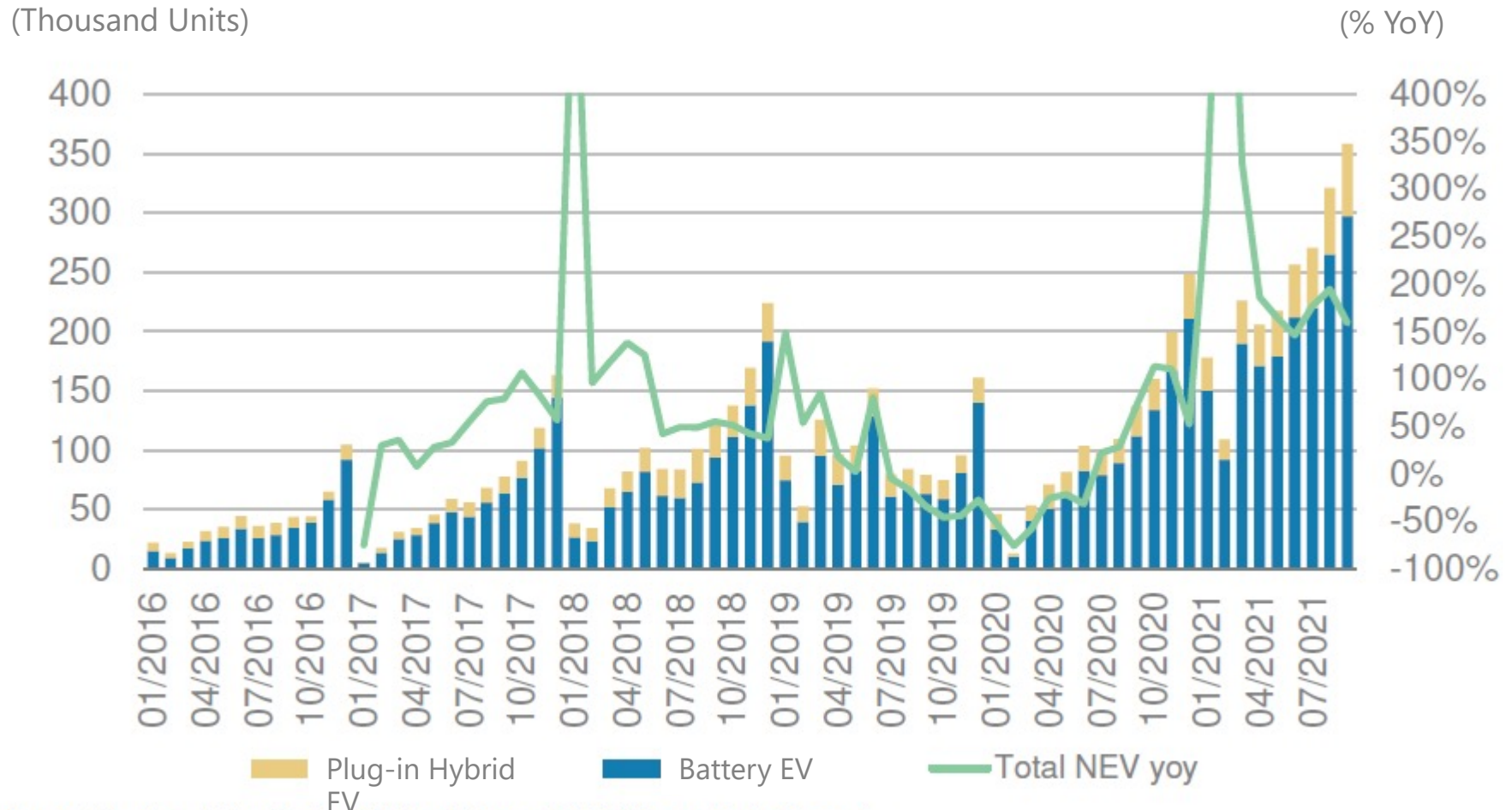


Source: Bloomberg NEF Report, December 2020.

Any forecast is not necessarily indicative of the future performance of the market or the related ETF.

Confidential – Not For Redistribution. This material must be read in conjunction with the 'Important Information' statement on the last page

# CHINA MONTHLY NEW ENERGY VEHICLE (NEV) SALES



Source: China Association of Automobile Manufacturers (CAAM), Morgan Stanley Research.

# WHY CHINA ELECTRONIC VEHICLE SECTOR?

2. Demand - Leading the way in terms of consumer acceptance





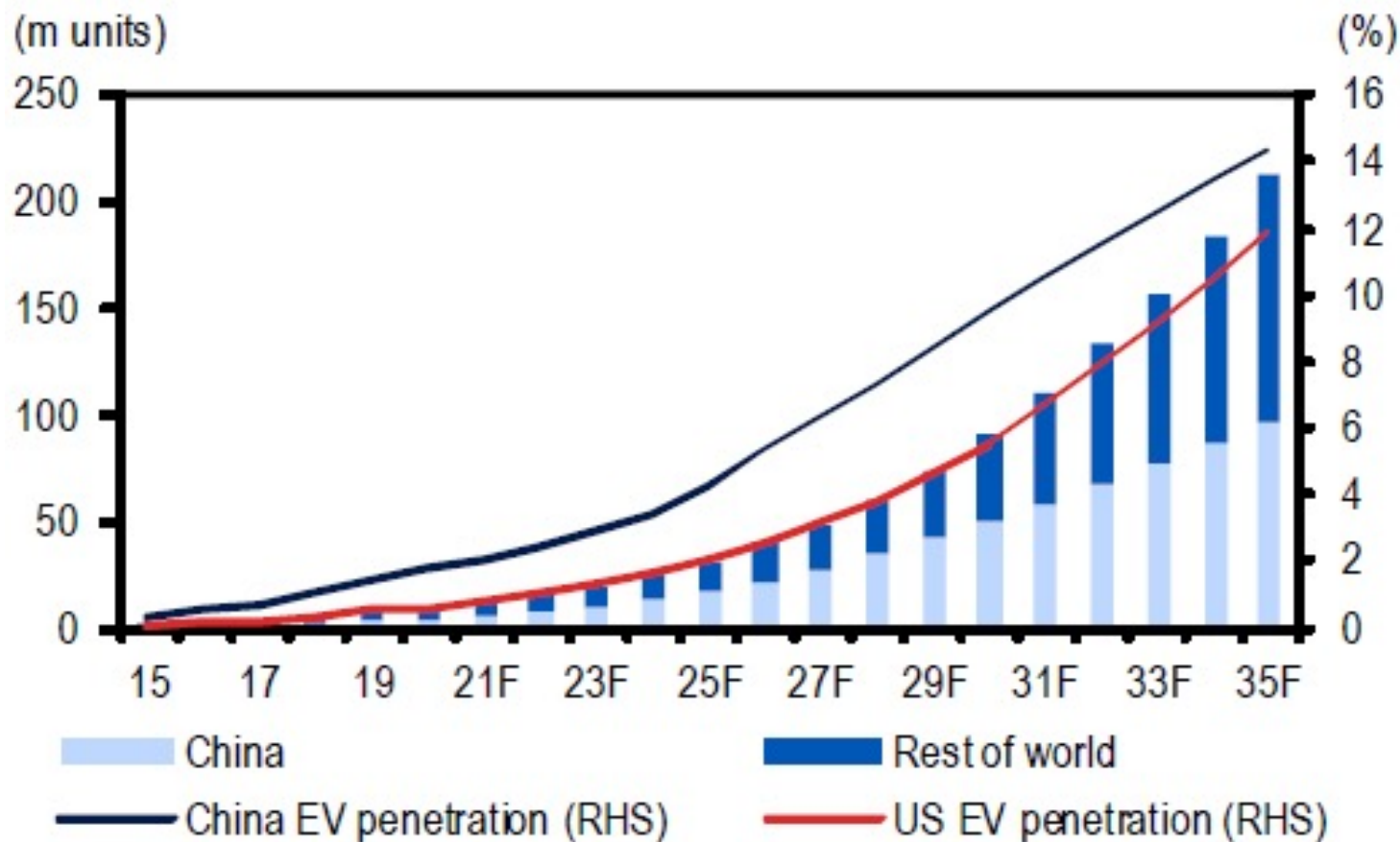
# GLOBAL EV OWNERSHIPS AND EV PENETRATION IN AUTO OWNERSHIPS

Electric Vehicle penetration in China is currently low at under 5% and has a long runway for growth.

**BYD**, an important Index constituent, is the largest seller of new energy vehicles in China (including pure EVs and plug-in hybrids)

Index companies such as **Geely, NIO, Li Auto and XPeng** will also benefit from the expected rising EV penetration rates.

Other beneficiaries are **Contemporary Amperex Technology**, the largest battery producer in the China (53% market share) and **BYD**, second largest in China (21% share).



Source: Wards Intelligence, IEA, UOB Kay Hian research report, 17 December 2020

Any forecast is not necessarily indicative of the future performance of the market or the related ETF.

Confidential – Not For Redistribution. This material must be read in conjunction with the 'Important Information' statement on the last page

# INNOVATION AND AFFORDABILITY

Baojun E100. Tiny, dirt cheap EVs that cost around USD 7,000

Top speed: 100km/h  
Range: 250 km/charge  
Battery: Lithium Iron-Phosphate (LFP)

More for urban driving than long road trips.



Wuling Hong Guang Mini EV.

One of the cheapest EV cars. Costs around USD 5,000. Range: 120/170km per charge

Top selling EV model for first ten months of 2021. Sells even better than Tesla Model 3.

**CATL or Comtemporay Amperex Technology**

is one of the main suppliers of EV batteries to SAIC- GM- Wuling, the company which produces this car.

CATL also supplies EV batteries to Tesla, BMW, Honda, Volkswagen, Volvo, Dongfeng Motor



Wuling Hong Guang Mini EV. Wuling Motors.

Source: Business Insider article, "This tiny \$4,500 EV with just 27 horsepower is crushing the Tesla Model 3 in China", 17 May 2021

Confidential – Not For Redistribution. This material must be read in conjunction with the 'Important Information' statement on the last page

# WHY THE CHINA ELECTRONIC VEHICLE SECTOR?

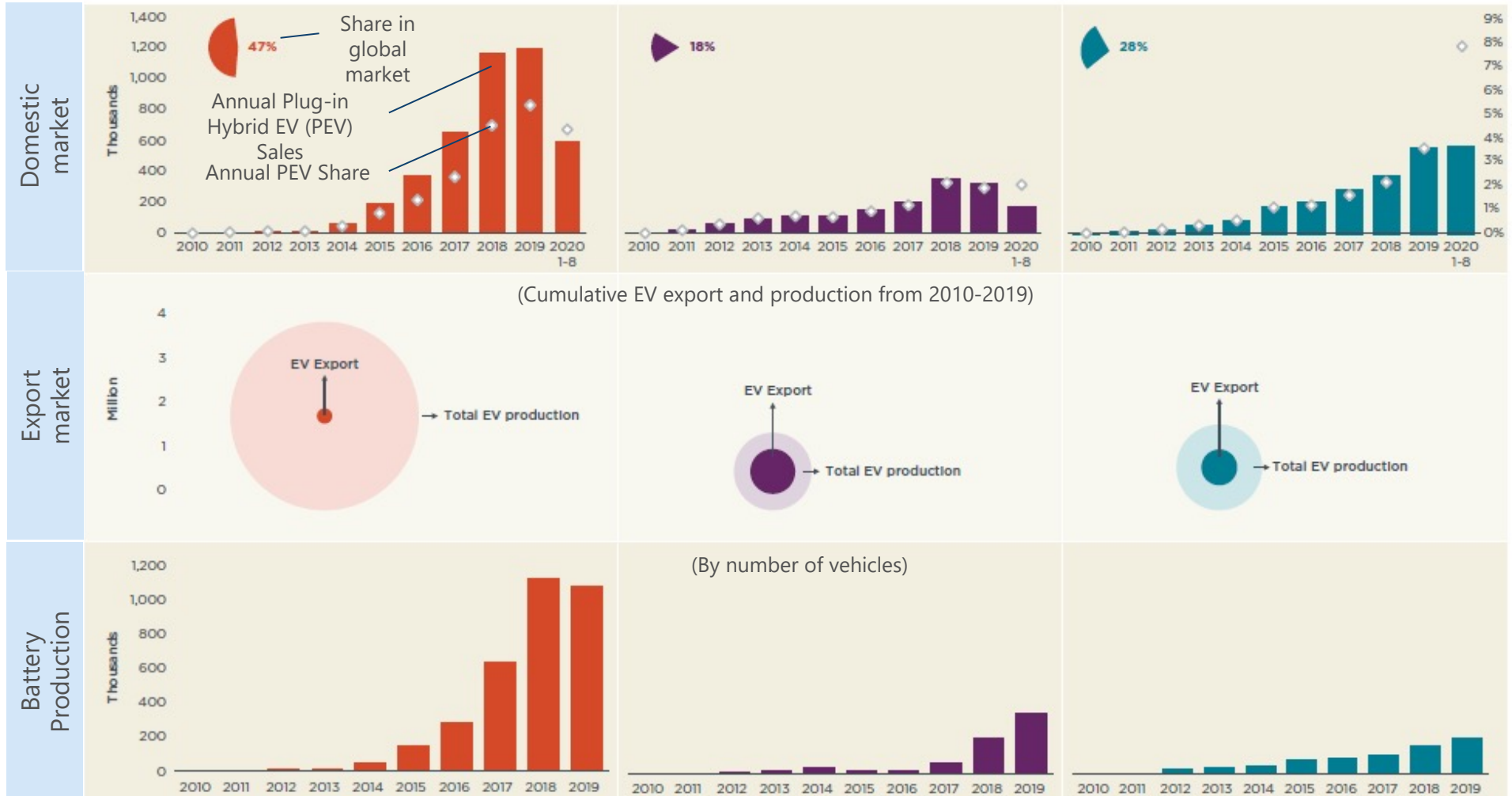
3. Supply – Mega production capacity





Leader in PEV sales, EV & battery production

# CHINA HAS SUPPLY SIDE LEADERSHIP



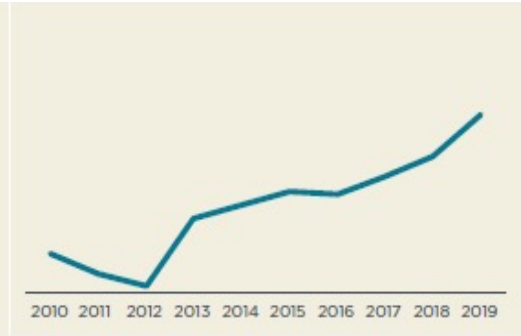
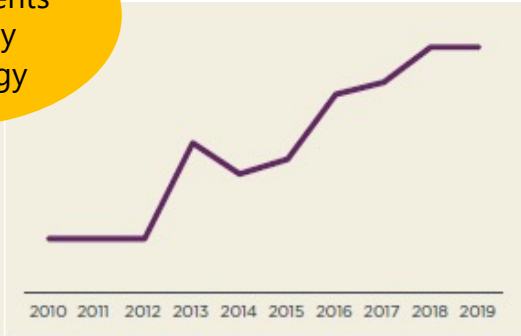
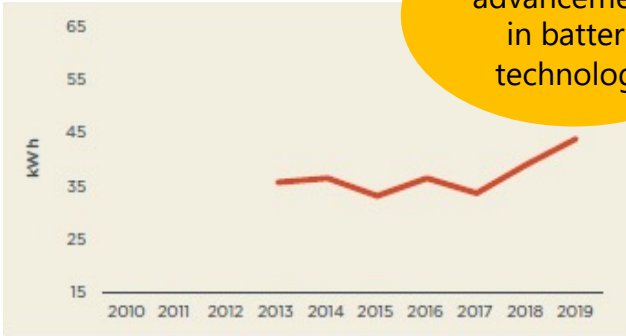


# CHINA HAS SUPPLY SIDE LEADERSHIP

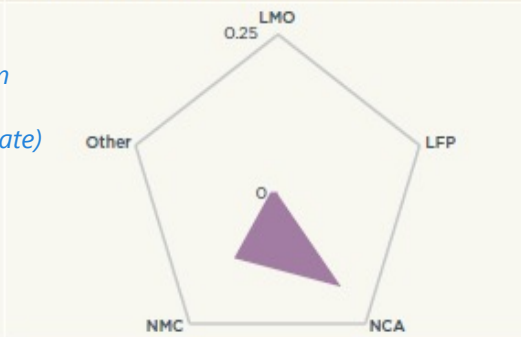


Rapid advancements in battery technology

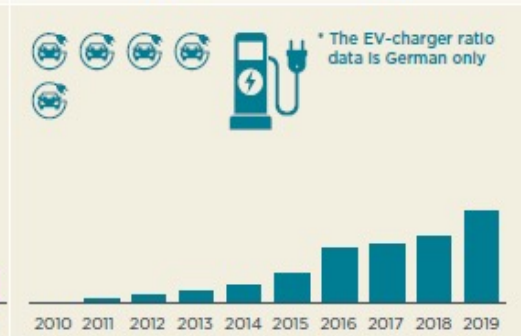
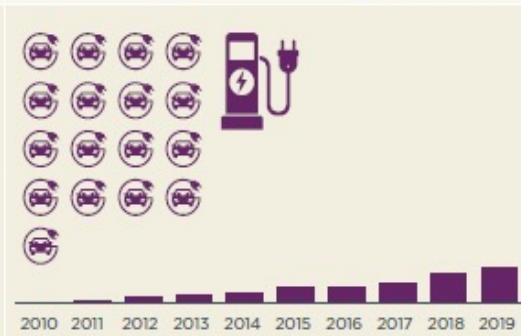
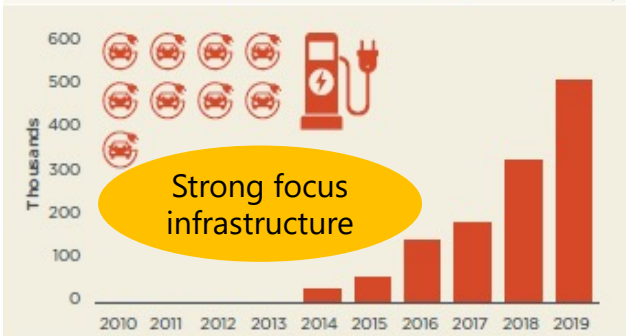
Battery capacity



Battery technology



Public chargers

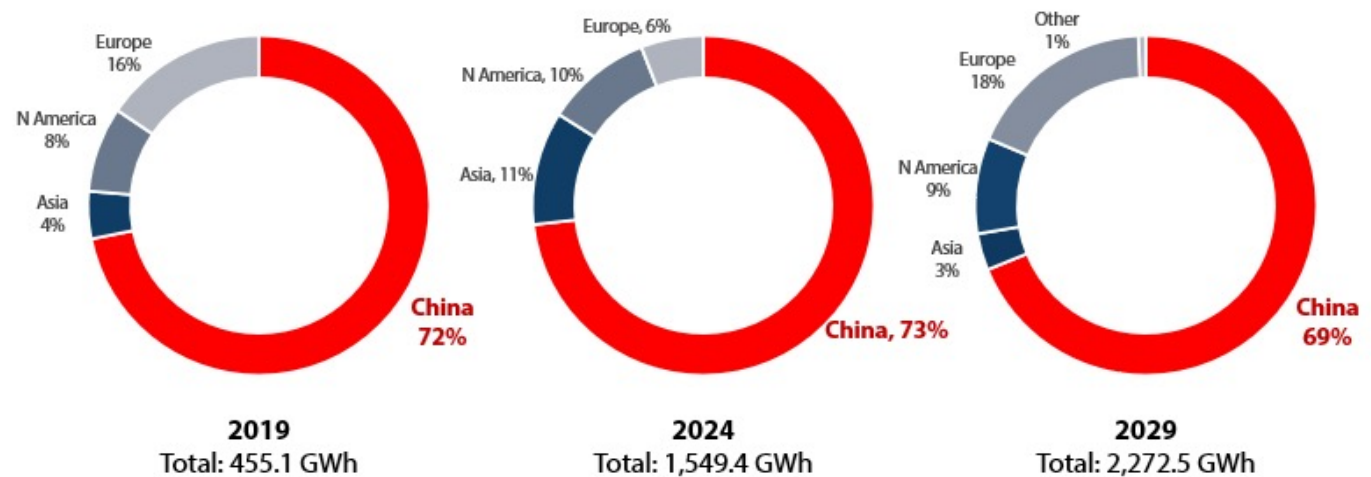


# DOMINANT SHARE OF LITHIUM-ION MEGA-FACTORY PRODUCTION CAPACITY

Chinese EV makers will benefit from a highly developed value chain domestically, due to the country's key strength in critical components such as batteries as well as important battery raw materials.

For 9m21, **Contemporary Amperex Technology** is the largest battery producer in the world with 31% market share. **BYD** is fourth largest (8% share).

China is expected to take the lion's share of global lithium-ion battery production

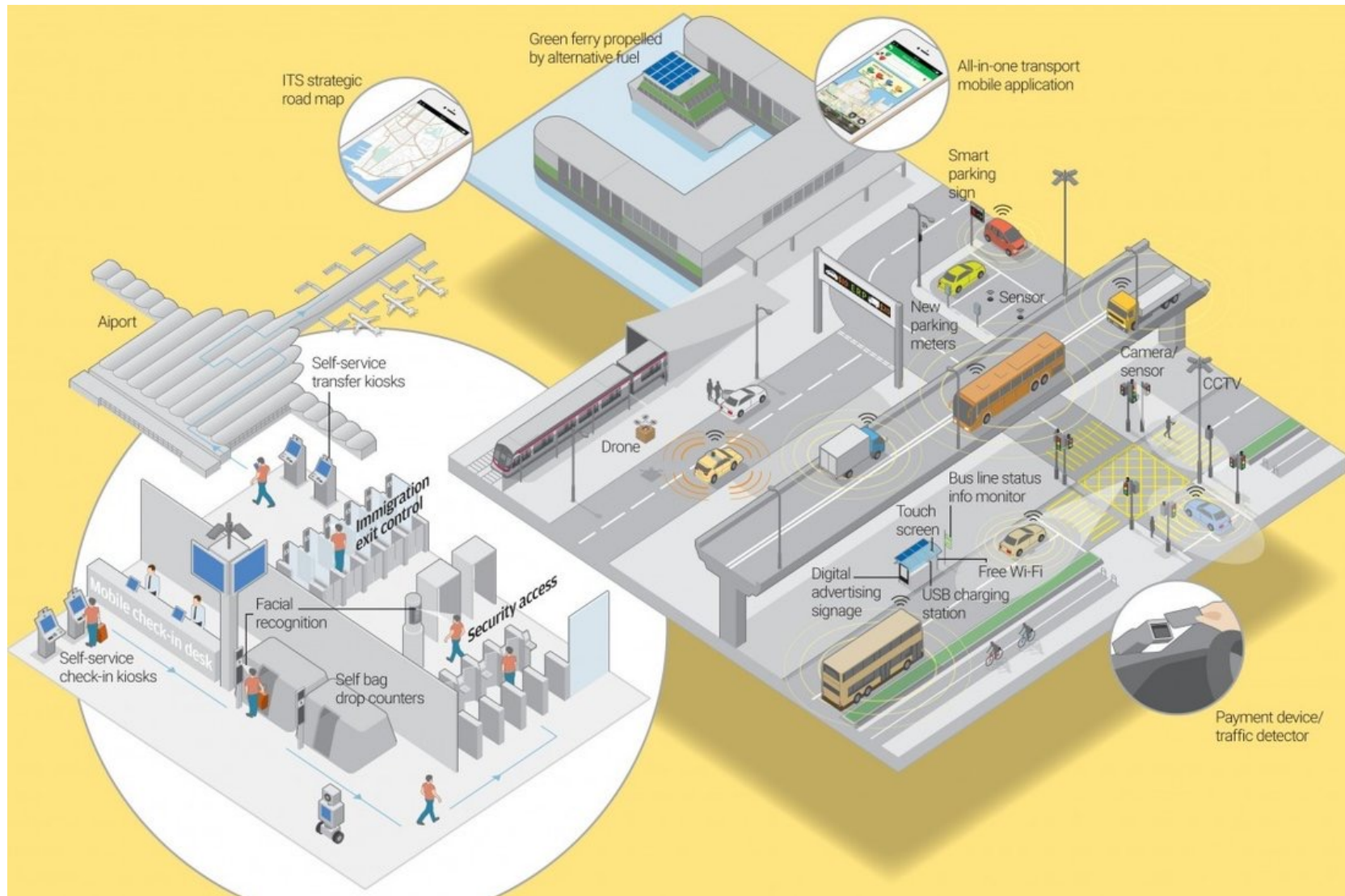


# WHY THE CHINA ELECTRONIC VEHICLE SECTOR?

4. Not Just EV – It's really about the Future of Mobility



# THE GRAND PLAN OF FUTURE MOBILITY AT A GLANCE

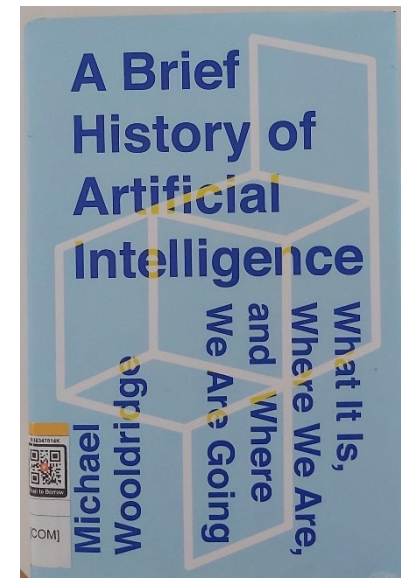
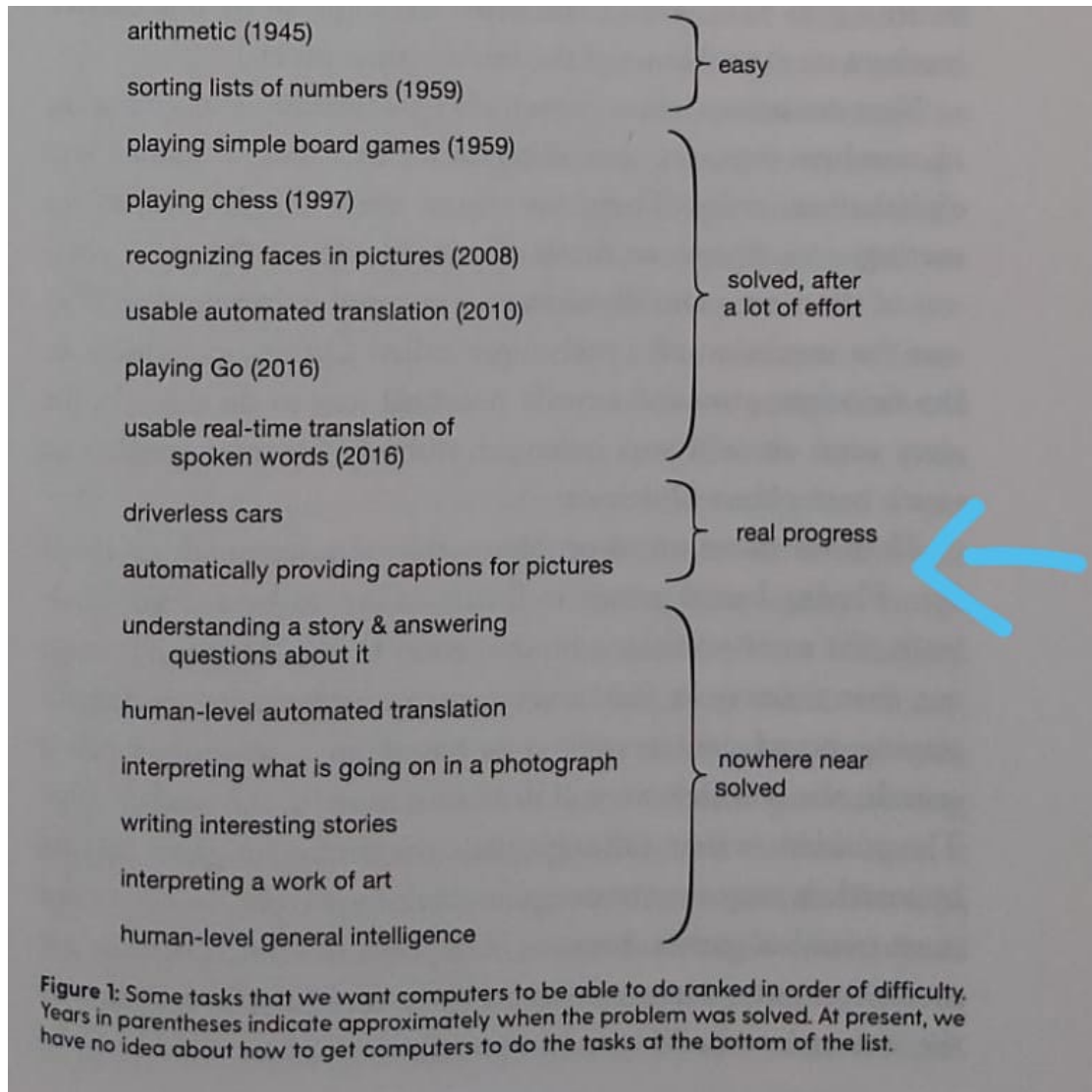


An illustration by Dennis Wong on the smart mobility segment of Hong Kong's smart city initiative includes the development of an intelligent transport system. Source: South Morning China Post article "How Hong Kong's smart mobility ambitions will be boosted by 5G roll-out", 8 June 2020.

Confidential – Not For Redistribution. This material must be read in conjunction with the 'Important Information' statement on the last page

# ARTIFICIAL INTELLIGENCE IS RIPE FOR ELECTRIC VEHICLES

Why is AI Hard?





# POSSIBLE FLYING CARS IN 3 YEARS!

**XPeng** HT Aero New Flying Car to be launched in 2024

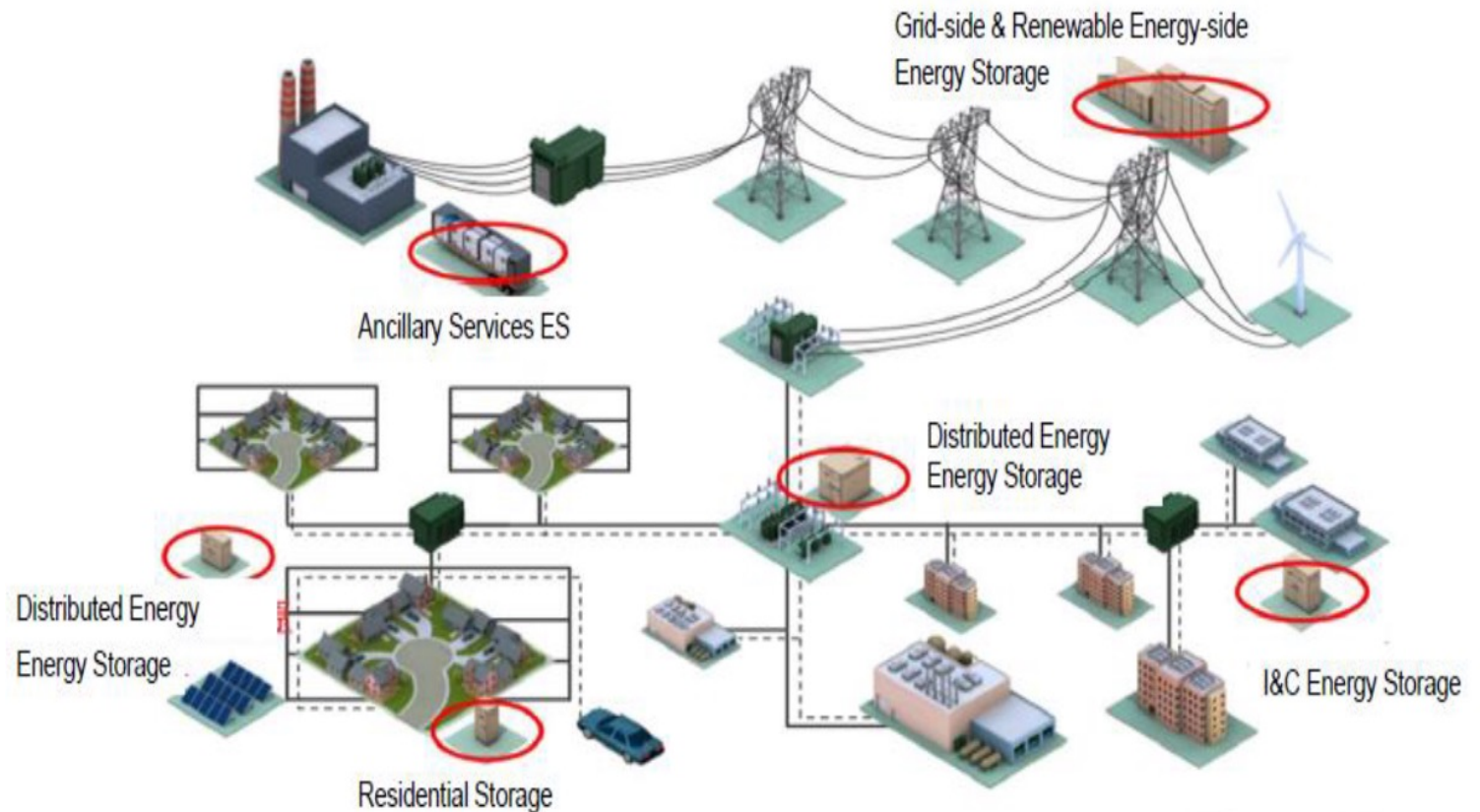




# DISTRIBUTED ENERGY STORAGE

Electric vehicle battery advancements applies to broader distributed (electrical) energy storage solutions for consumer electronics, in power generation, and off-grid electricity transmission

Index constituent companies such as **Beijing Easpring Material Technology**, **Yunnan Energy** and **Guangzhou Tinci Materials** are actively developing battery technologies



Source: China Energy Storage Alliance (CNESA), ESA, and Macquarie Research, 30 June 2021. Reference to any particular securities is purely for illustrative purposes only and does not constitute a recommendation to buy, sell or hold any securities or to be relied upon as financial advice in any way.

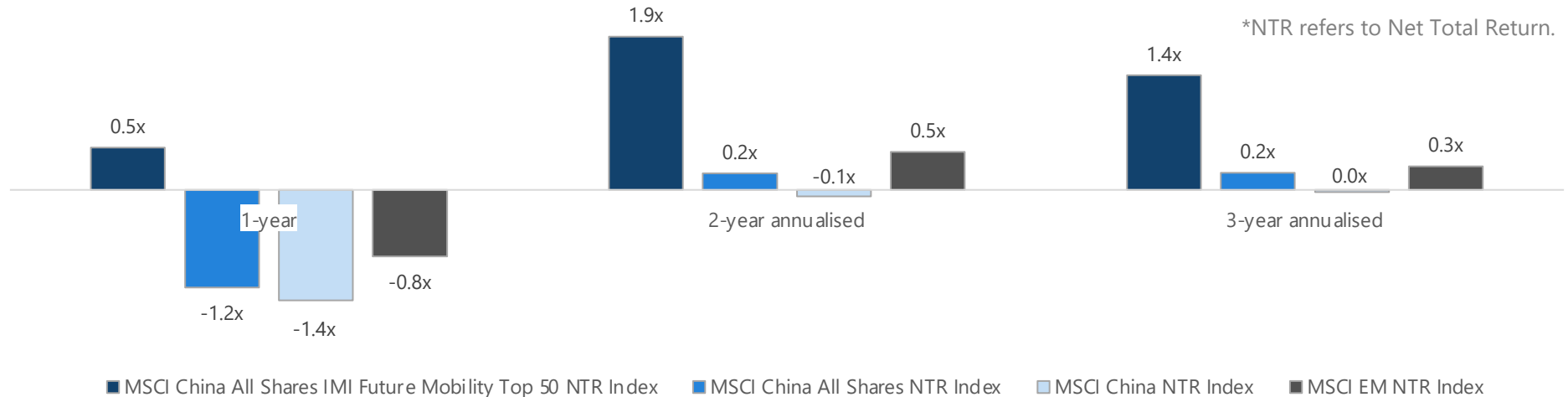
# MSCI CHINA ALL SHARES IMI FUTURE MOBILITY TOP 50 INDEX



# HISTORICAL RISK ADJUSTED RETURNS

Demonstrated superior risk adjusted returns against broad based China and Emerging Market indices

Sharpe Ratio Comparison across the 1, 2 and 3-year Periods (x)



	Total Returns (USD)			Annualized Returns (USD)			Annualized Volatility <sup>^</sup>			Sharpe Ratio <sup>^</sup>		
	1-year	2-year	3-year	1-year	2-year	3-year	1-year	2-year	3-year	1-year	2-year	3-year
MSCI China All Shares IMI Future Mobility Top 50 NTR Index	19.2%	196.6%	239.1%	19.2%	72.2%	50.2%	36.6%	37.9%	34.8%	0.5x	1.9x	1.4x
MSCI China All Shares NTR Index	-24.6%	9.3%	16.0%	-24.6%	4.6%	5.1%	20.3%	21.8%	20.4%	-1.2x	0.2x	0.2x
MSCI China NTR Index	-33.4%	-3.7%	0.6%	-33.4%	-1.9%	0.2%	24.5%	25.1%	22.7%	-1.4x	-0.1x	0.0x
MSCI Emerging Market NTR Index	-12.2%	20.1%	19.1%	-12.2%	9.6%	6.0%	14.9%	20.0%	17.9%	-0.8x	0.5x	0.3x

Source: Bloomberg as of 28 February 2022

<sup>^</sup> Volatility is a measure of risk, expressed as the standard deviation of returns.

<sup>^</sup> Sharpe Ratio is calculated taking index returns less the risk free rate and dividing the result by the volatility of the index returns.

Performance of the index presented here are for illustrative purposes only and do not represent the actual performance of the corresponding or related ETFs.

Index performance does not factor in any management fee, transaction costs or fund expenses of an ETF. One cannot invest directly in an index. Past

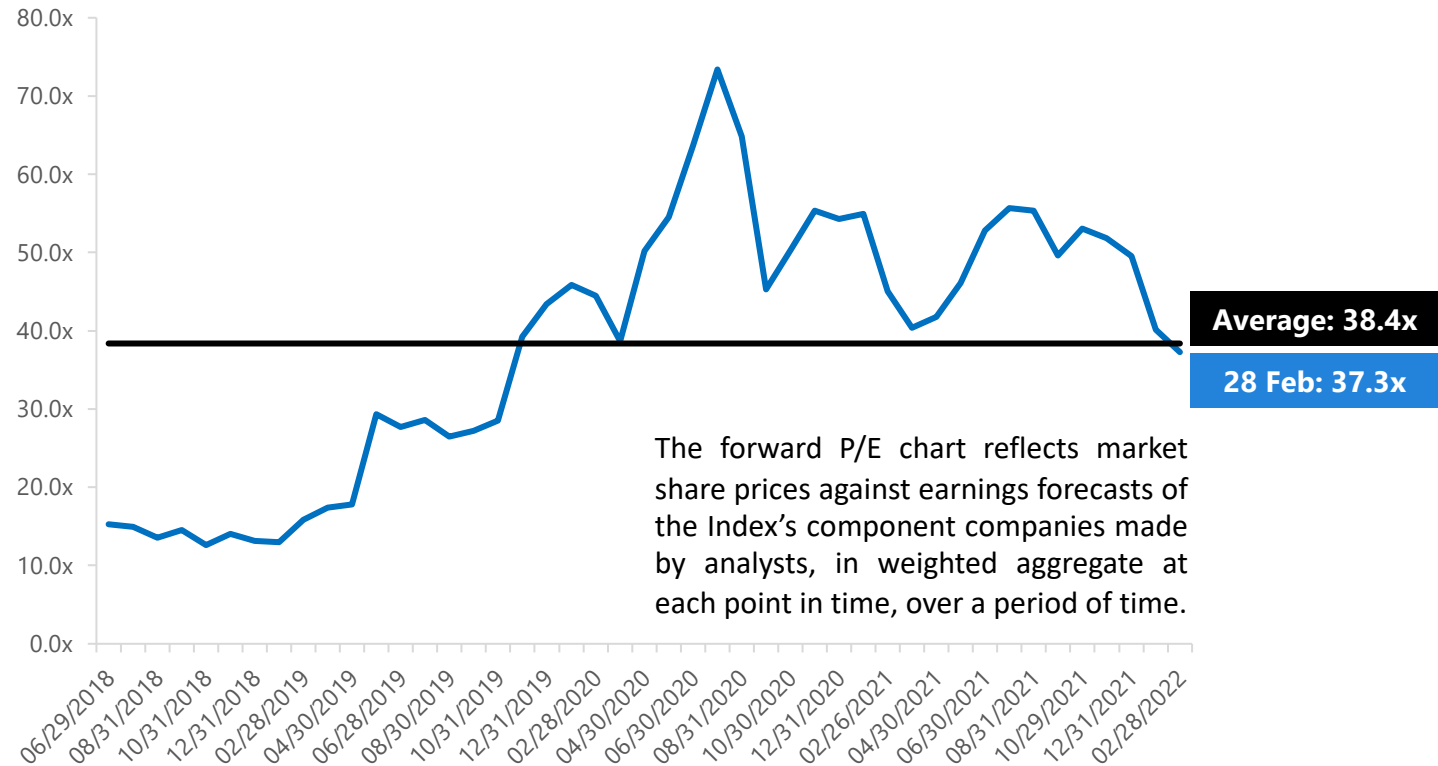
performance is not necessarily indicative of the future performance.

# FORWARD PRICE EARNINGS RATIO (P/E)

China future mobility sector trades at a forward P/E ratio of 37x of as 28 February 2022.

This is slightly below the 3-year average of 38x

Forward P/E ratio chart of the MSCI China All Shares IMI Future Mobility Top 50 Index



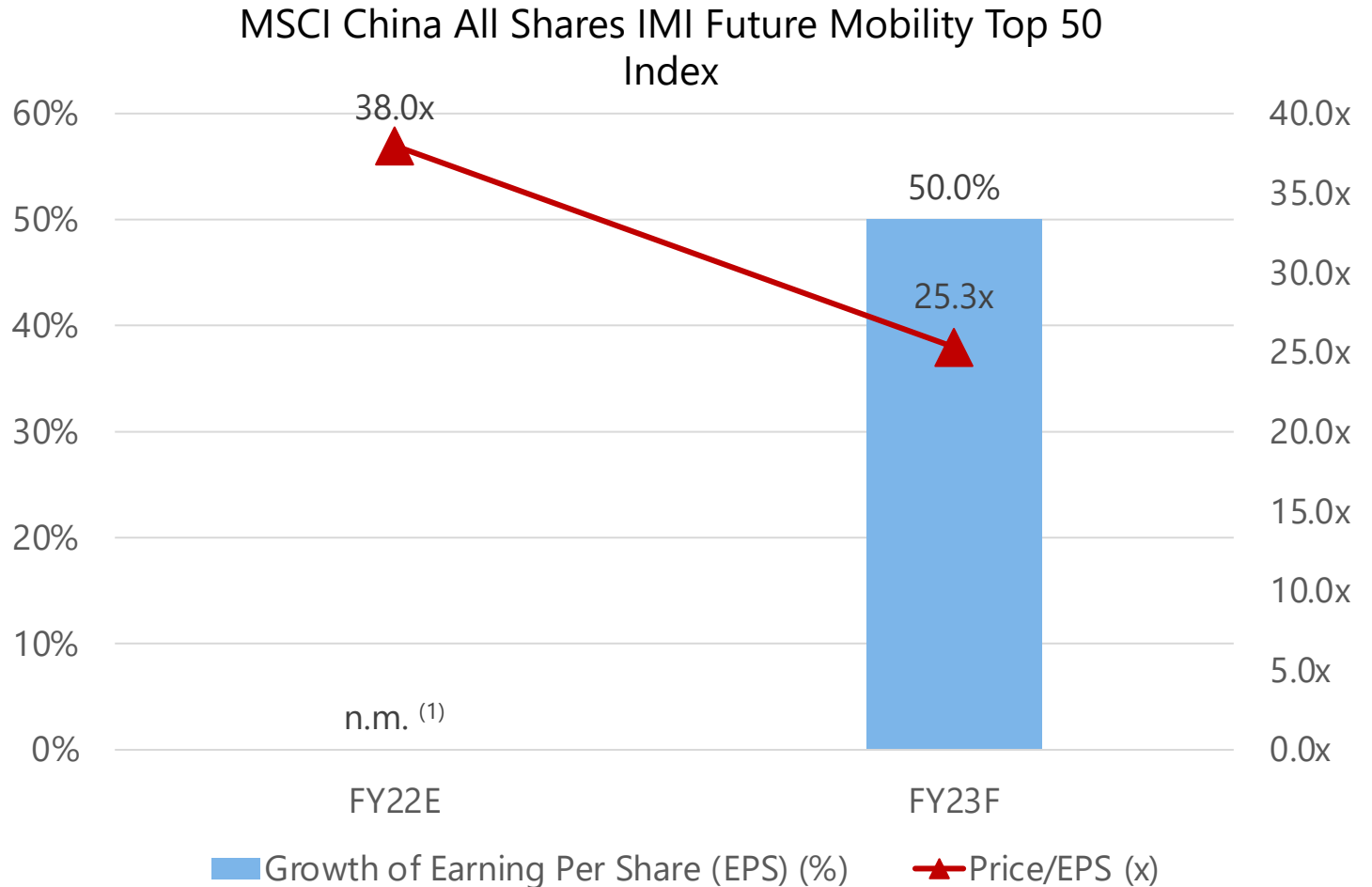
Source: MSCI as of 28 February 2022.

^ Forward Price to Earnings is a financial ratio comparing the market value of a company to its future earnings forecasted in this case for the next 12 months

**Forward P/E ratio of the Index presented here are for illustrative purposes only and do not represent the actual performance of the corresponding or related ETFs.** Index performance does not factor in any management fee, transaction costs or fund expenses of an ETF. One cannot invest directly in an index. **Past performance or any forecast is not indicative of future performance.**

# ... EXPECTED TO DECLINE ON STRONG EARNINGS GROWTH

Strong earnings are forecasted for the China future mobility sector and this is expected to lower the forward price/earnings ratio of the Index to cheaper levels over the next two years, based on current price level.



Source: Bloomberg as of 28 February 2022.

**The chart presented here is for illustrative purposes only and do not represent the actual performance of the corresponding or related ETFs.** Index performance does not factor in any management fee, transaction costs or fund expenses of an ETF. One cannot invest directly in an index. **Past performance or any forecast is not indicative of future performance.**

Note: (1) "n.m." denotes not meaningful as EPS was negative in FY21

*Confidential – Not For Redistribution. This material must be read in conjunction with the 'Important Information' statement on the last page*

# IMPORTANT INFORMATION

## **Important Information:**

This document is purely for informational purposes only with no consideration given to the specific investment objective, financial situation and particular needs of any specific person. It should not be relied upon as financial advice. Any securities mentioned herein are for illustration purposes only and should not be construed as a recommendation for investment. **You should seek advice from a financial adviser before making any investment. In the event that you choose not to do so, you should consider whether the investment selected is suitable for you.** Investments in funds are not deposits in, obligations of, or guaranteed or insured by Nikko Asset Management Asia Limited ("Nikko AM Asia").

**Past performance or any prediction, projection or forecast is not indicative of future performance. The Fund or any underlying fund may use or invest in financial derivative instruments.** The value of shares and income from them may fall or rise. Investments in the Fund are subject to investment risks, including the possible loss of principal amount invested. You should read the relevant prospectus (including the risk warnings) and product highlights sheet of the Fund, which are available and may be obtained from appointed distributors of Nikko AM Asia or our website ([www.nikkoam.com.sg](http://www.nikkoam.com.sg)) before deciding whether to invest in the Fund.

The information contained herein may not be copied, reproduced or redistributed without the express consent of Nikko AM Asia. While reasonable care has been taken to ensure the accuracy of the information as at the date of publication, Nikko AM Asia does not give any warranty or representation, either express or implied, and expressly disclaims liability for any errors or omissions. Information may be subject to change without notice. Nikko AM Asia accepts no liability for any loss, indirect or consequential damages, arising from any use of or reliance on this document. This advertisement has not been reviewed by the Monetary Authority of Singapore.

The performance of the ETF's price on the Singapore Exchange Securities Trading Limited ("SGX-ST") may be different from the net asset value per share of the ETF. The ETF may also be delisted from the SGX-ST. Transaction in shares of the ETF will result in brokerage commissions. Listing of the shares does not guarantee a liquid market for the shares. Shares of the ETF may be bought or sold throughout trading hours of the SGX-ST through any brokerage account. Investors should note that the ETF differs from a typical unit trust and shares may only be created or redeemed directly by a participating dealer in large creation or redemption shares. Investors may only redeem the shares with Nikko AM Asia under certain specified conditions.

**Nikko Asset Management Asia Limited. Registration Number 198202562H.**

The funds or securities referred to herein are not sponsored, endorsed, or promoted by MSCI, and MSCI bears no liability with respect to any such funds or securities or any index on which such funds or securities are based. The prospectus contains a more detailed description of the limited relationship MSCI has with Nikko AM Asia and any related funds