

Automotive Trends China – Selected Materials (Status June 2023)

FTI-Andersch Automotive Practice

30 June 2023



01

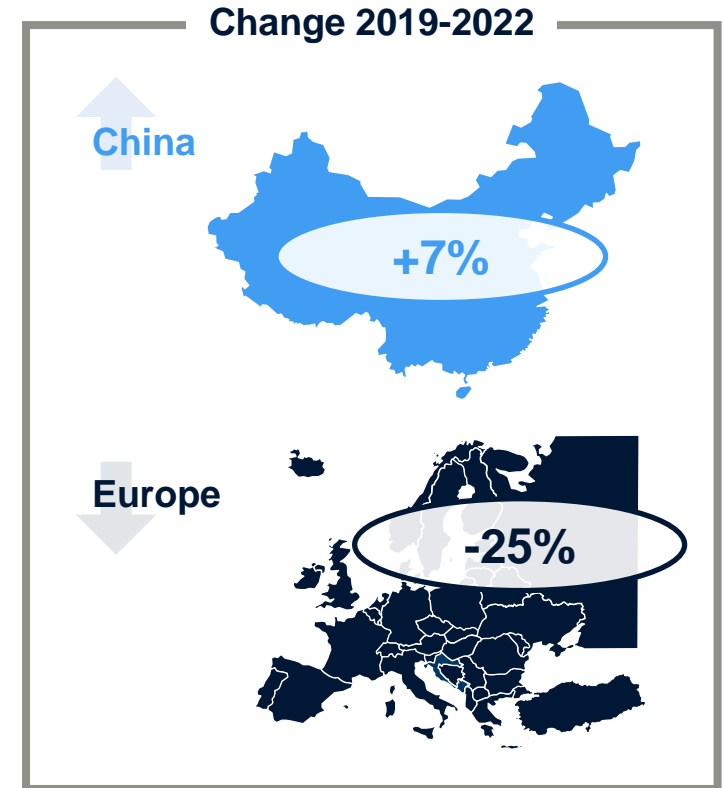
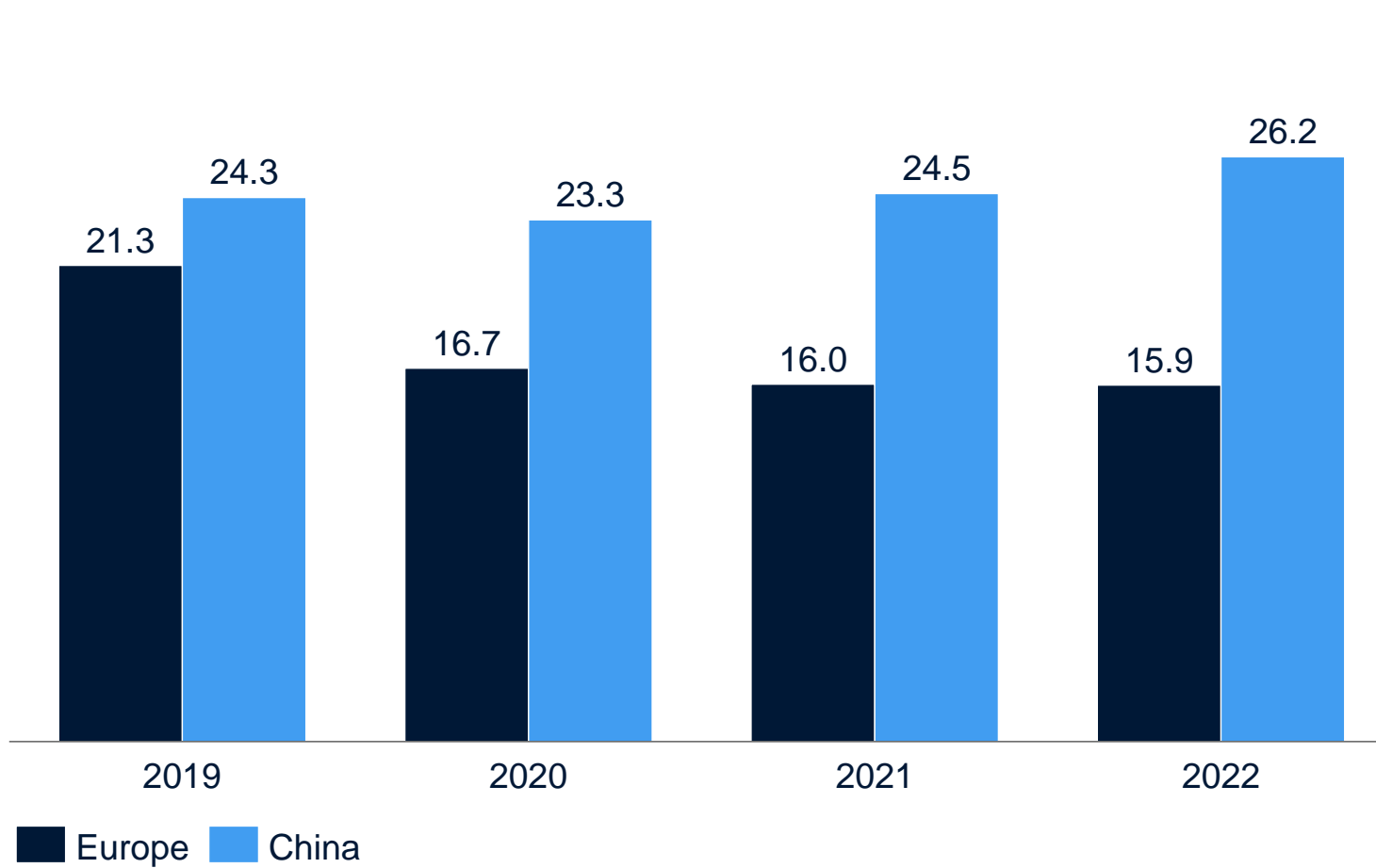
Market recovery China



The automotive market in China has recovered much faster from covid-19 than Europe



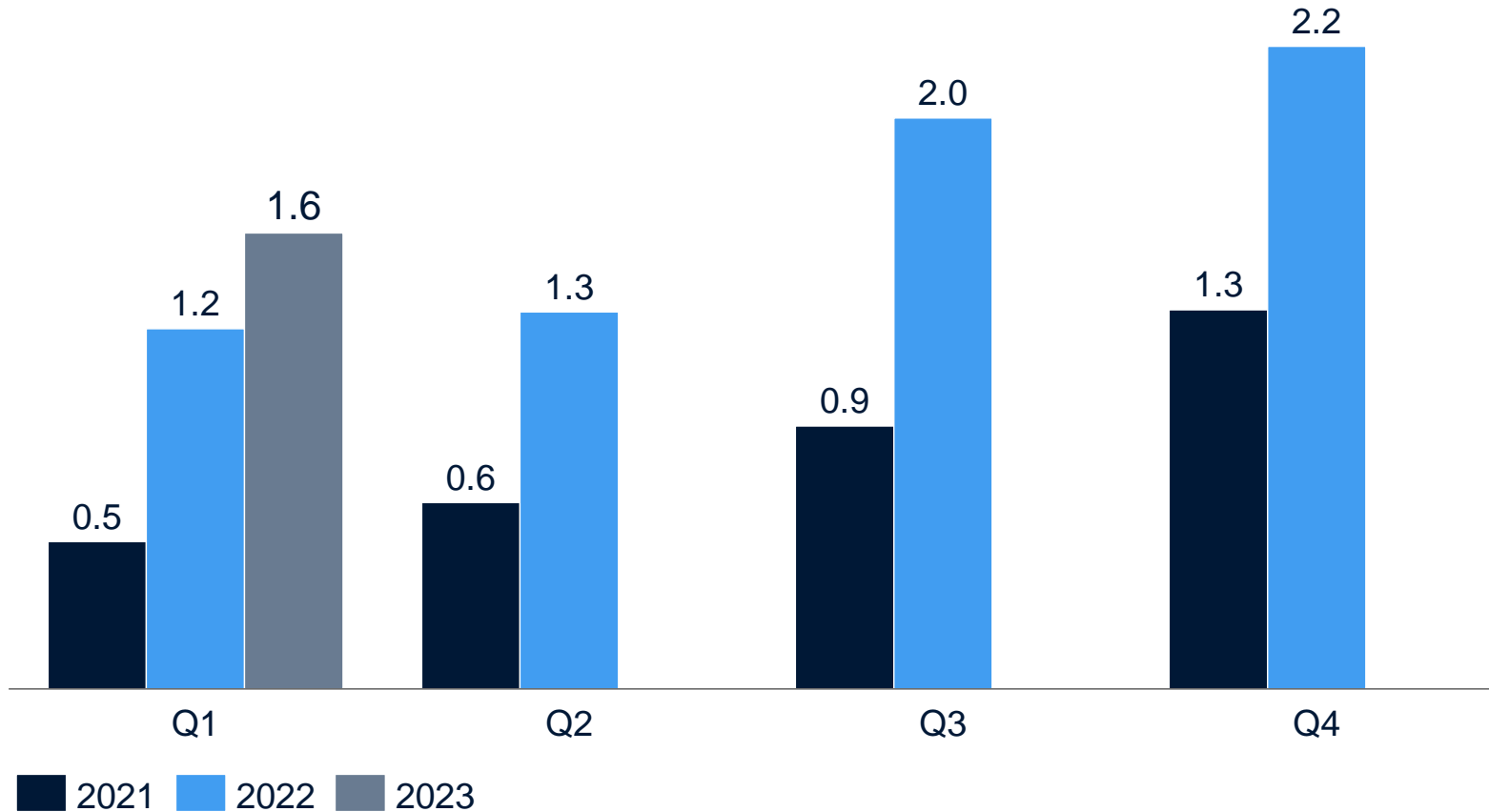
Vehicle production volumes Europe and China [in Mio. units]



Electric mobility is the growth engine for the China automotive industry



Quarterly sales of NEVs in China in the passenger car segment [in Mio. units]



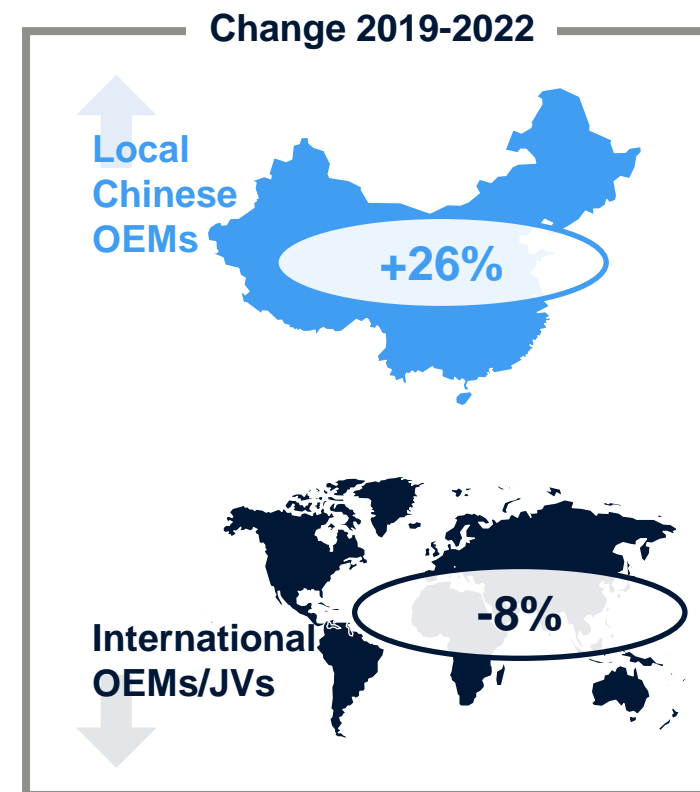
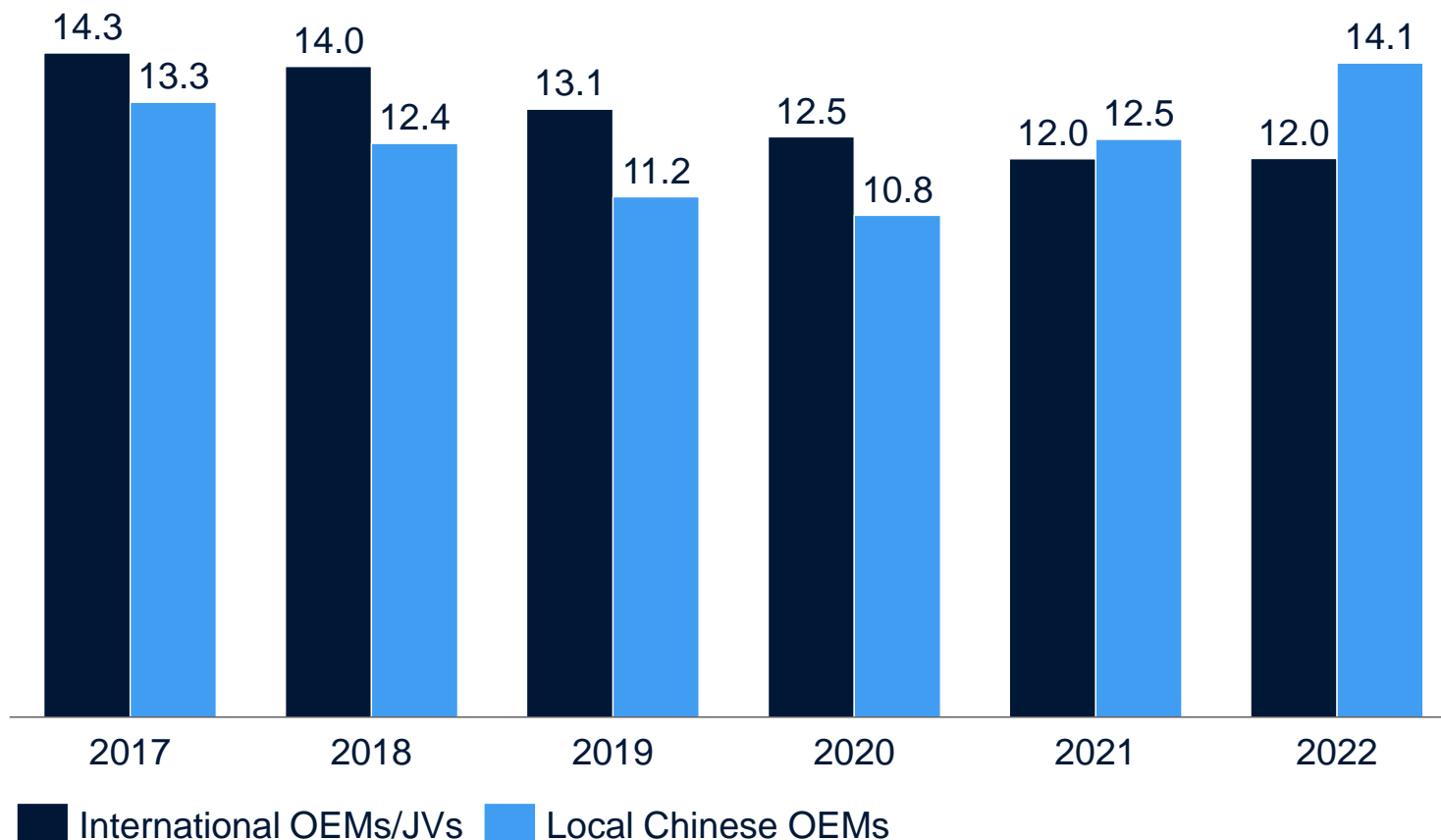
26%
NEV share of total vehicle production in China 2022 – compared to 13% in 2021

96%
Year-over-year increase in NEV sales from 2021 to 2022

Local Chinese players outperform international players in China



Production volumes in China by sales group [in Mio. units]

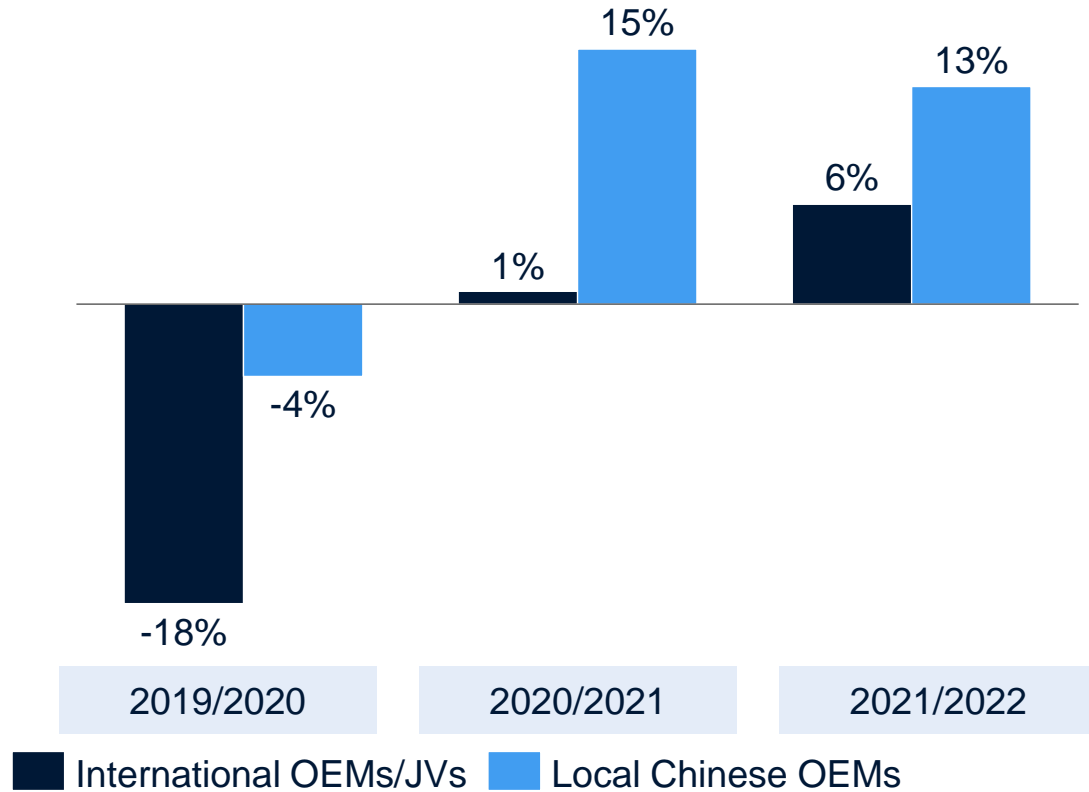


Local Chinese OEMs outperform the global market as well



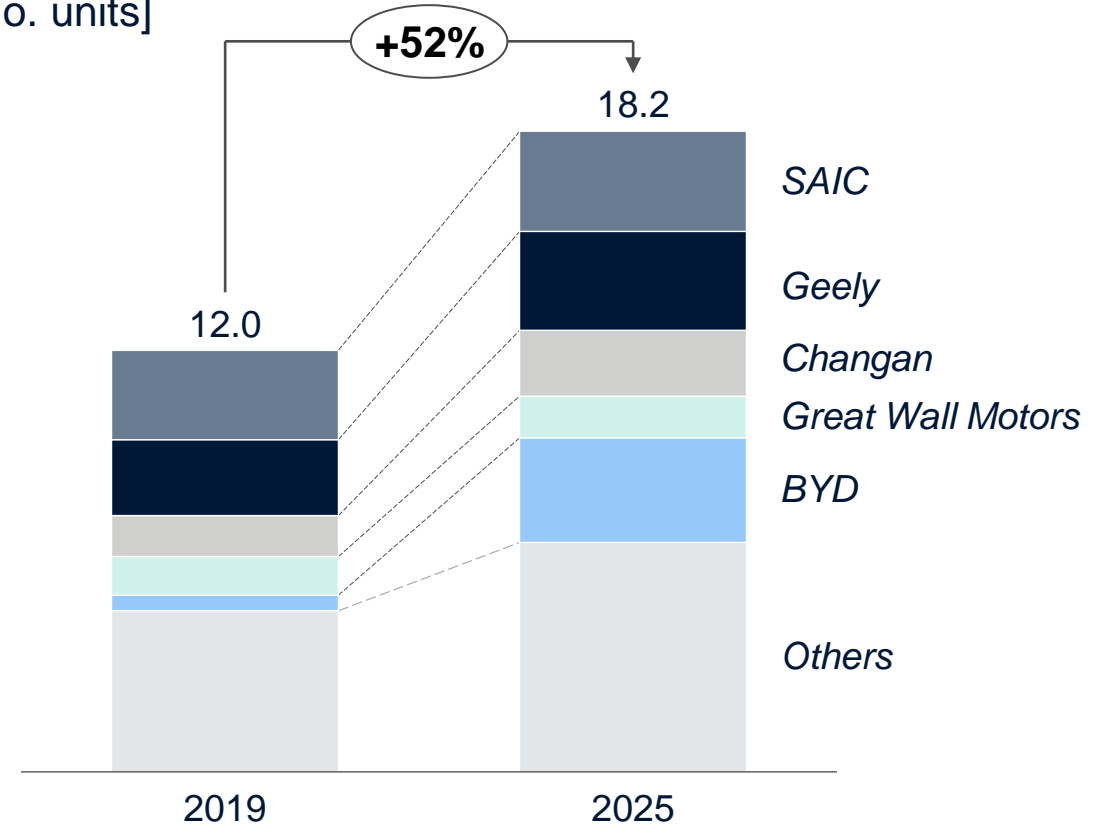
Annual change of global production volume by sales group

[in %]



Production volume 2019/2025 Chinese OEMs by sales group

[in Mio. units]





02

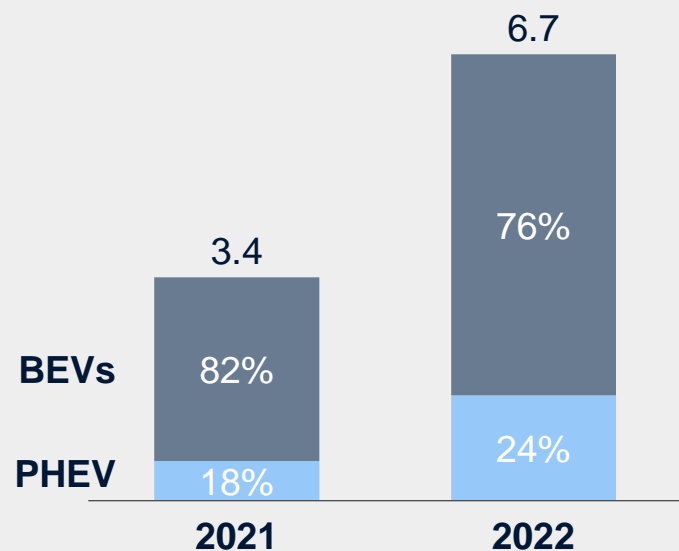
China's dominant role in
electric mobility



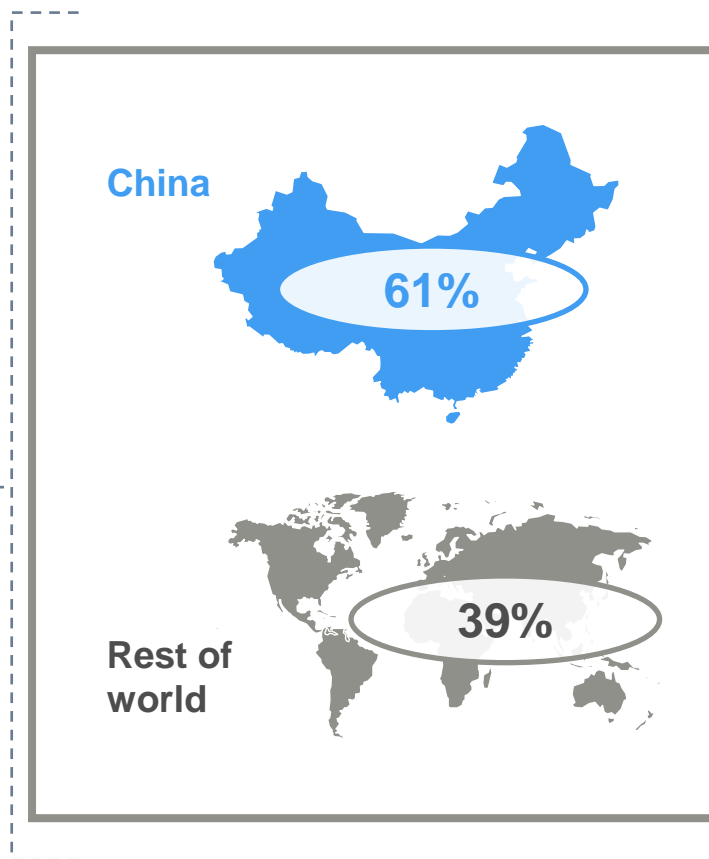
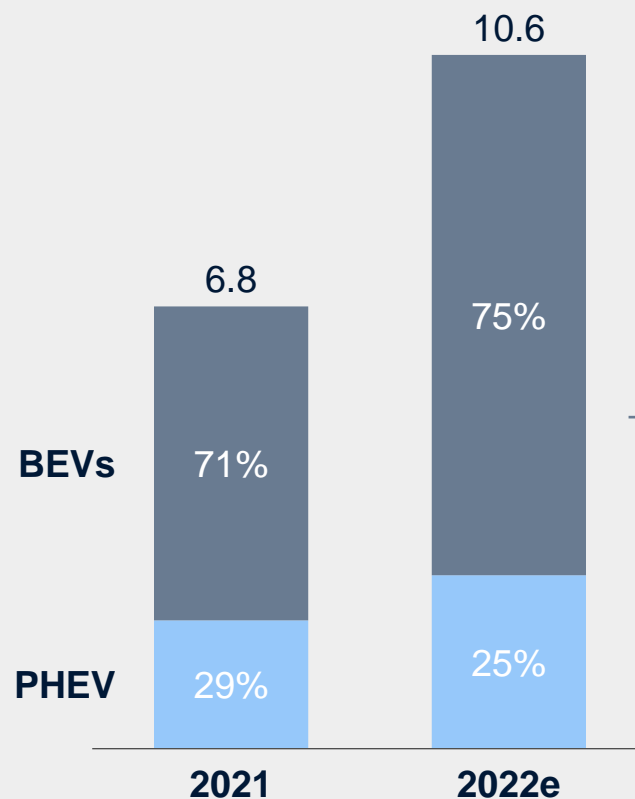
China has already a very strong role in electric mobility



China EV sales [in Mio. units]



Global EV sales [in Mio. units]



China's dominant role in electric mobility expected to further increase



Strong support by the Chinese government

- Electric mobility considered “strategic”
- Government investments and subsidies
- Legislation to foster electric mobility

Cost and supply chain advantages

- Labor cost
- Economies of scale
- Short supply chain (raw materials, suppliers)



OEMs and suppliers with full focus on electric mobility

- OEMs with strong focus on EV
- Strong suppliers – esp. for batteries
- Raw materials and refining suppliers

Big home market with open-minded customers

- By far biggest car market in the world
- Quick accumulation of experience
- Customer openness to new ideas

Continued strong support by the Chinese government



40%

State target on BEV share of new vehicle registrations until 2030

13 years

of government subsidies for BEVs ended in Dec 2022 – purchase tax exemption still remains until end of 2023

31%

NEV growth in 2023 year-on-year estimated by the China Passenger Car Association (CPCA)

31%

of global installed battery capacity expected to be owned by China until 2030

20%

goal of BEV deployment by 2025 in Beijing

-5%

tax reduction on ICE vehicles in the second half of 2022 to strengthen the Chinese economy

Dual Credit Policy

requires OEMs to manufacture fuel-efficient vehicles, and to meet sales targets of NEVs

65%

of public EV charging stations worldwide are located in China

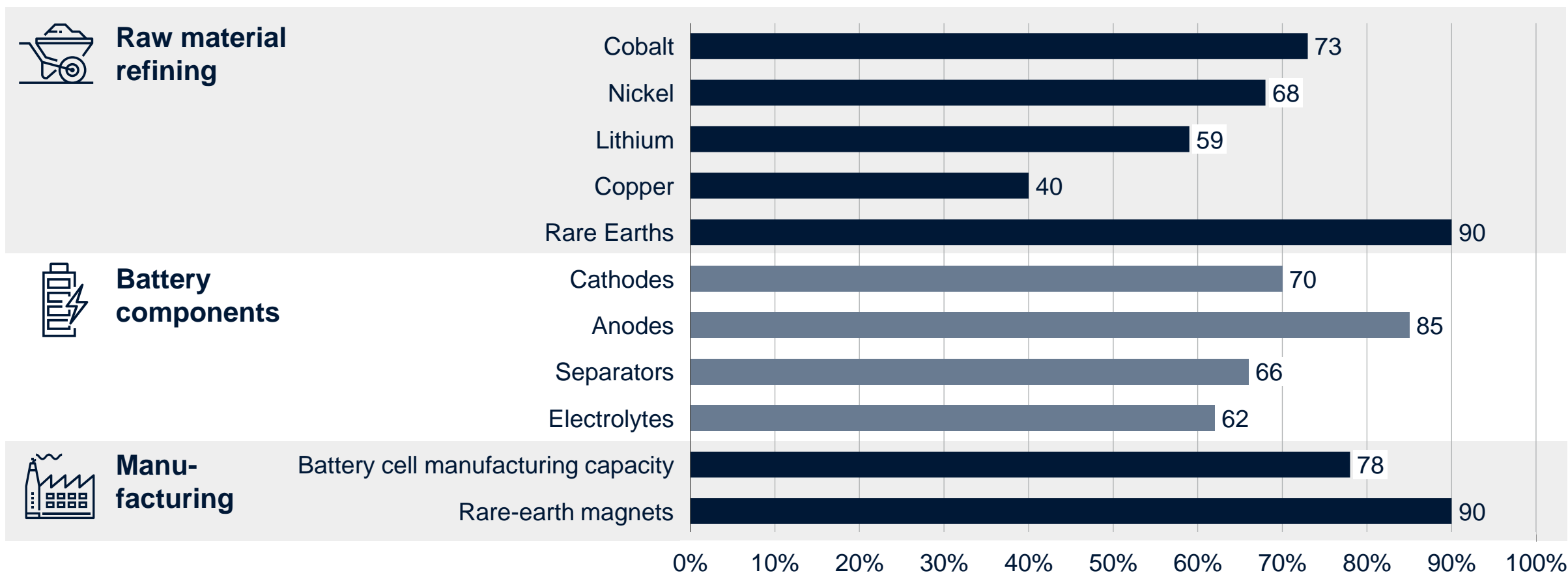
14 million

estimated number of EV charging stations in China until 2030; thereof a majority consisting of public fast charging stations

China controls key elements of the EV value chain



Chinese share on global refining, production of raw materials and EV supply chain components

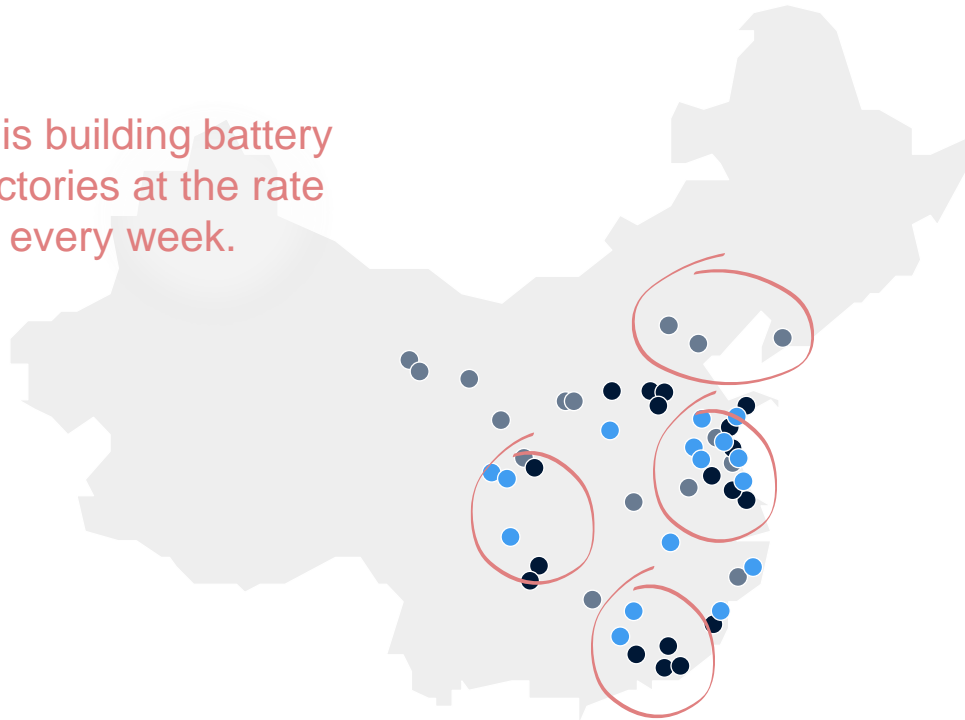


Massive capacity increase for battery production



Planned gigafactories for battery production in China until 2030

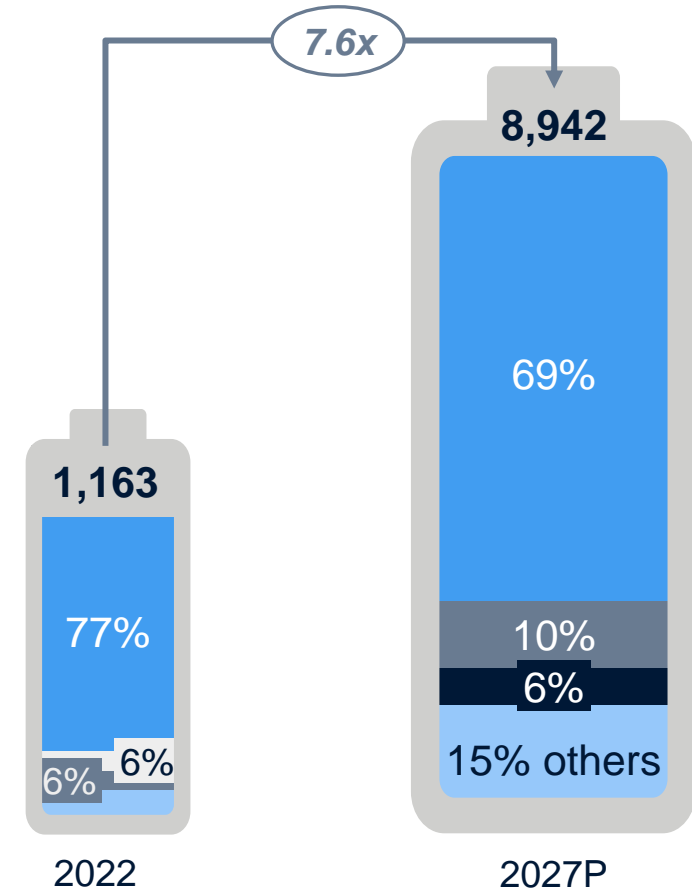
China is building battery gigafactories at the rate of one every week.



- < 10 GWh/ year
- 10 – 35 GWh/ year
- > 35 GWh/ year
- Areas with high installed capacity for automotive assembly

Global lithium-ion battery production capacity (GWh)

- China
- USA
- Poland
- Germany



03

Strategies of Chinese players for Europe



Chinese OEMs and suppliers enter Europe with full force (1/2)



Exemplary market entry strategies in Europe

OEMs						
Date of press release:	08 / 2022	08 / 2022	01 / 2023	01 / 2023	01 / 2023	03 / 2023
	<i>Great Wall Motors</i>	<i>Hongqi</i>	<i>Nio</i>	<i>Polestar</i>	<i>Geely</i>	<i>BYD</i>
Germany as first entry-market in Europe Distribution in Germany via Emil Frey Group	FAW group subsidiary Market entry in the Netherlands by cooperating with Stern Premium Car	Expand network of battery swap stations across Europe	Opening of second location in Finland in January 2023 Plan to start production of the Polestar 7 in Europe	Opening of a new Design Center in Milan, Italy	Presentation of plans to establish UK retail network	
50,000 required sales in Europe to build a local plant	1,000 sold vehicles in Norway in the first half of 2022	120 Power Swap Stations in Europe until 2023	80,000 Sales target p.a.	14,000 square meter size	100 planned dealerships by the end of 2025	

Chinese OEMs and suppliers enter Europe with full force (2/2)



Exemplary market entry strategies in Europe

OEMs				Automotive suppliers	
Date of press release:					
11 / 2022	01 / 2023	01 / 2023	01 / 2023	08 / 2022	02 / 2023
<i>Aiways</i>	<i>MG</i>	<i>Dongfeng</i>	<i>Xpeng</i>	<i>CATL</i>	<i>Gotion</i>
Aiways expands Technical Center in Munich Considering car manufacturing in Europe	Most significantly in UK, but also relevant in Germany, France, Sweden, Norway, Denmark Successful German market entry with “MG4 Electric”	Delivery of first cars in Norway through new brand “Voyah” Further market entry in Sweden, Netherlands and Denmark are targeted	Opening of delivery and service centers in the first half of 2023 in Europe announced	Announced to build 100 GWh battery plant in Hungary Strategy to secure position as the world’s largest battery manufacturer	LoI signed with InoBat for co-development of a JV gigafactory with cell and pack production in Europe
14 number of European markets served	61% yoy-sales increase in Europe 2022/2021	500 Scope of the first batch in Norway of “Voyah Free”	4 Centers in Norway, the Netherlands, Sweden and Denmark	1,200 GWh battery capacity for Europe by 2031	40 GWh battery production capacity

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