



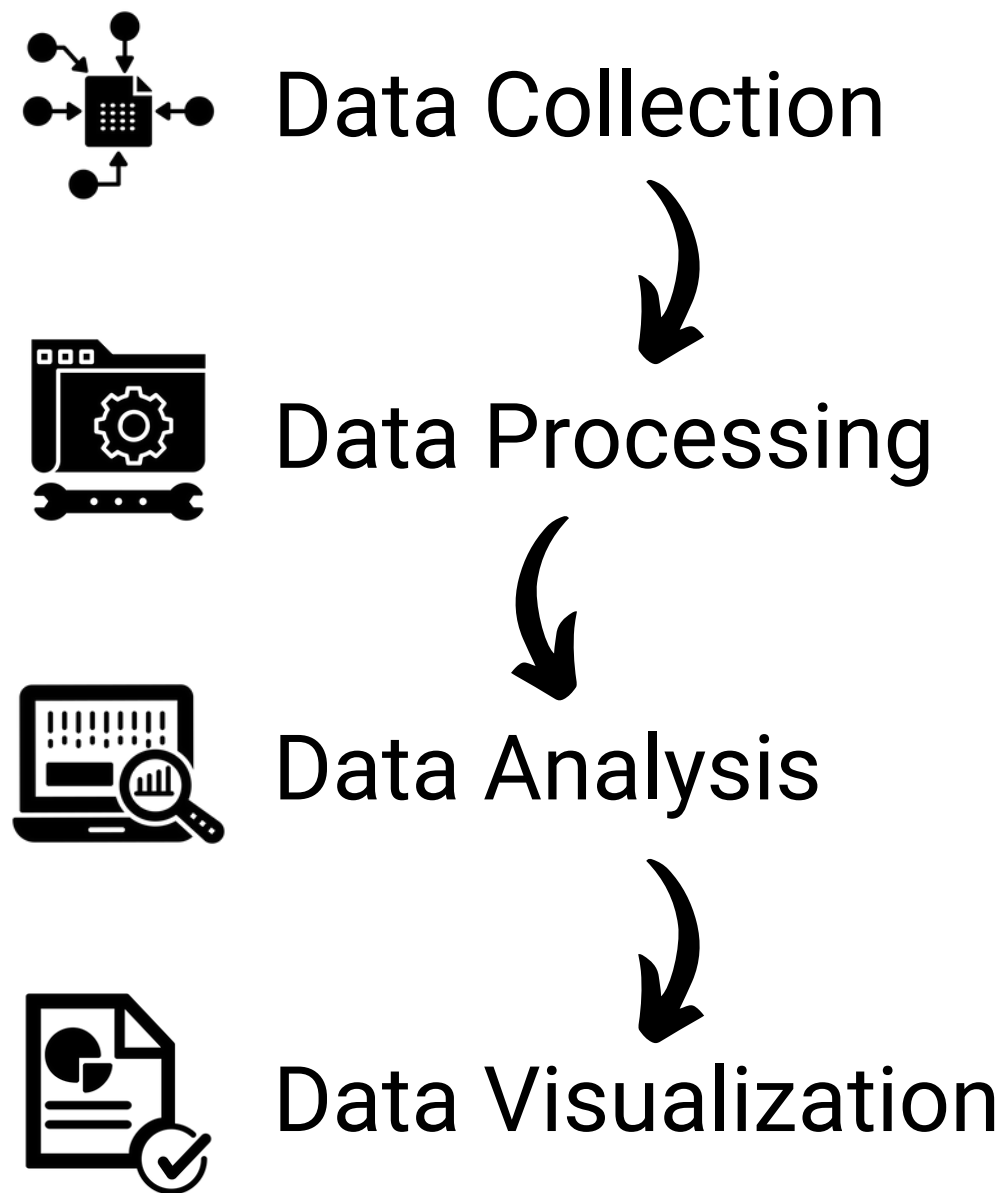
June 2022

China Automotive Report 2021

Financed by the Ministry of Economic Affairs, Labour and Tourism of the State of Baden-Württemberg



CIMK (China Investment Market Knowledge) will revolutionize China's market intelligence sector.



Overview of CIMK's customer groups.

Multinational Corporations



Projects

- Corporate Innovation
- 360° Industry Monitoring

VC / PE Investors



Projects

- Startups Identification
- China Due Diligence Service

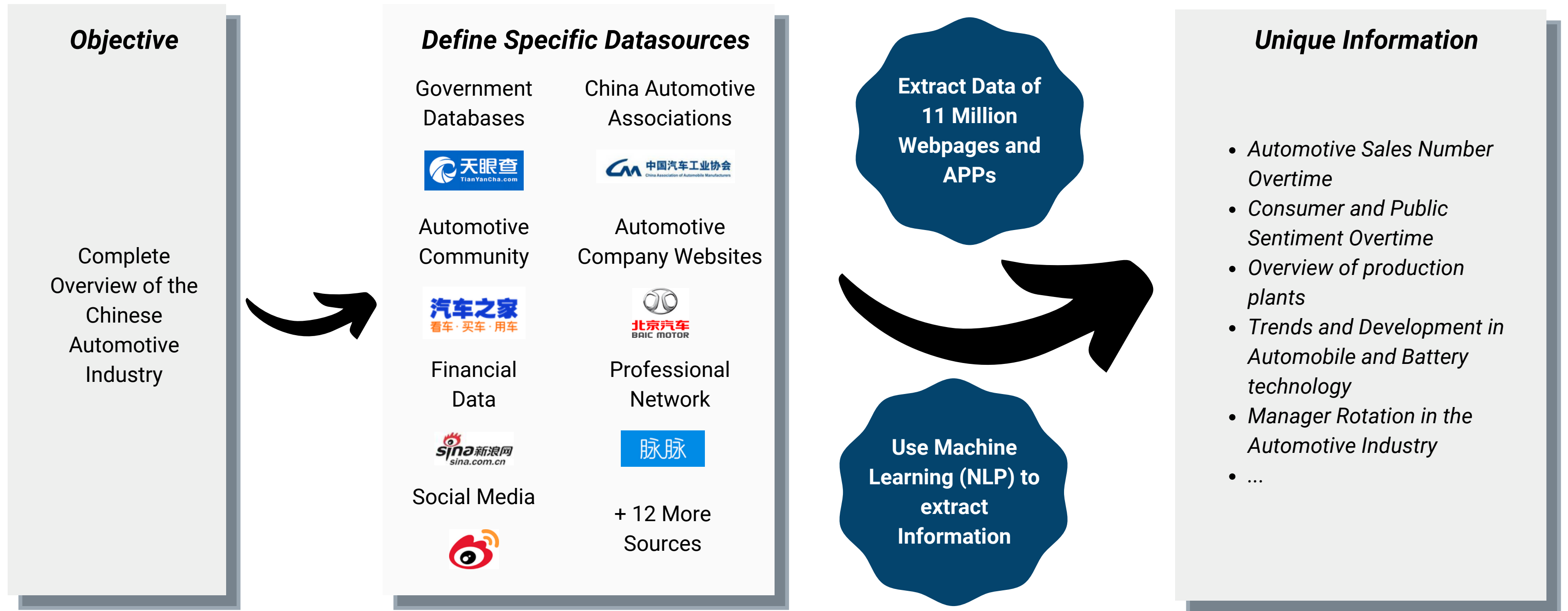
SMEs / Startups



Projects

- China Market Entry Strategy
- Competition and Customer Analysis

The CIMK methodology used in this report.

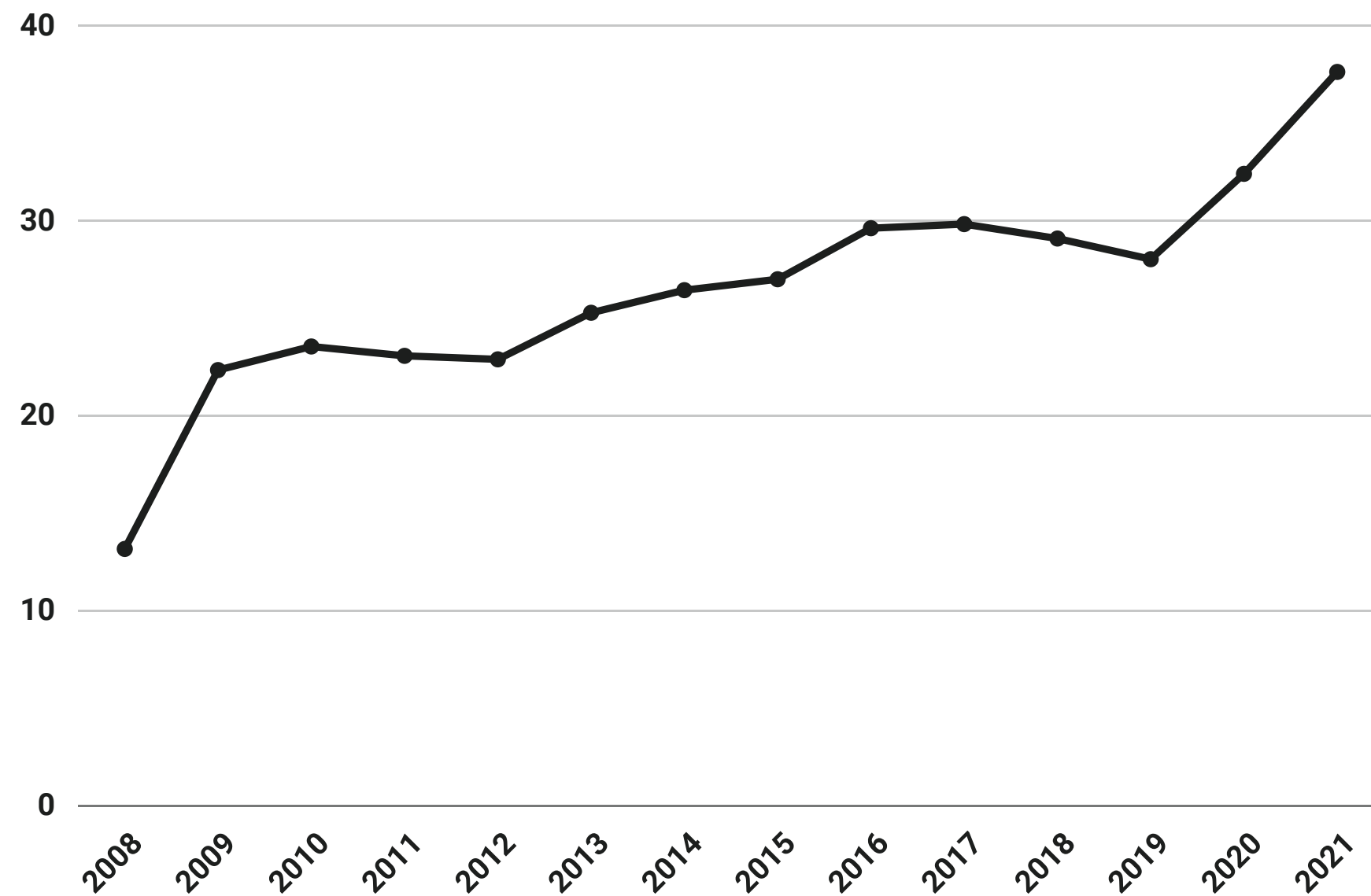


Presentation Content.

- 1 Development of the Chinese Automotive Market in 2021
- 2 Examination of the Development of German Automotive Companies
- 3 Development of the Chinese Automotive Market in 2022
- 4 Challenges and Outlook for the year 2022

China's global influence in the automotive industry continues to grow.

China's Share in Global Vehicle Production: 2008-2021



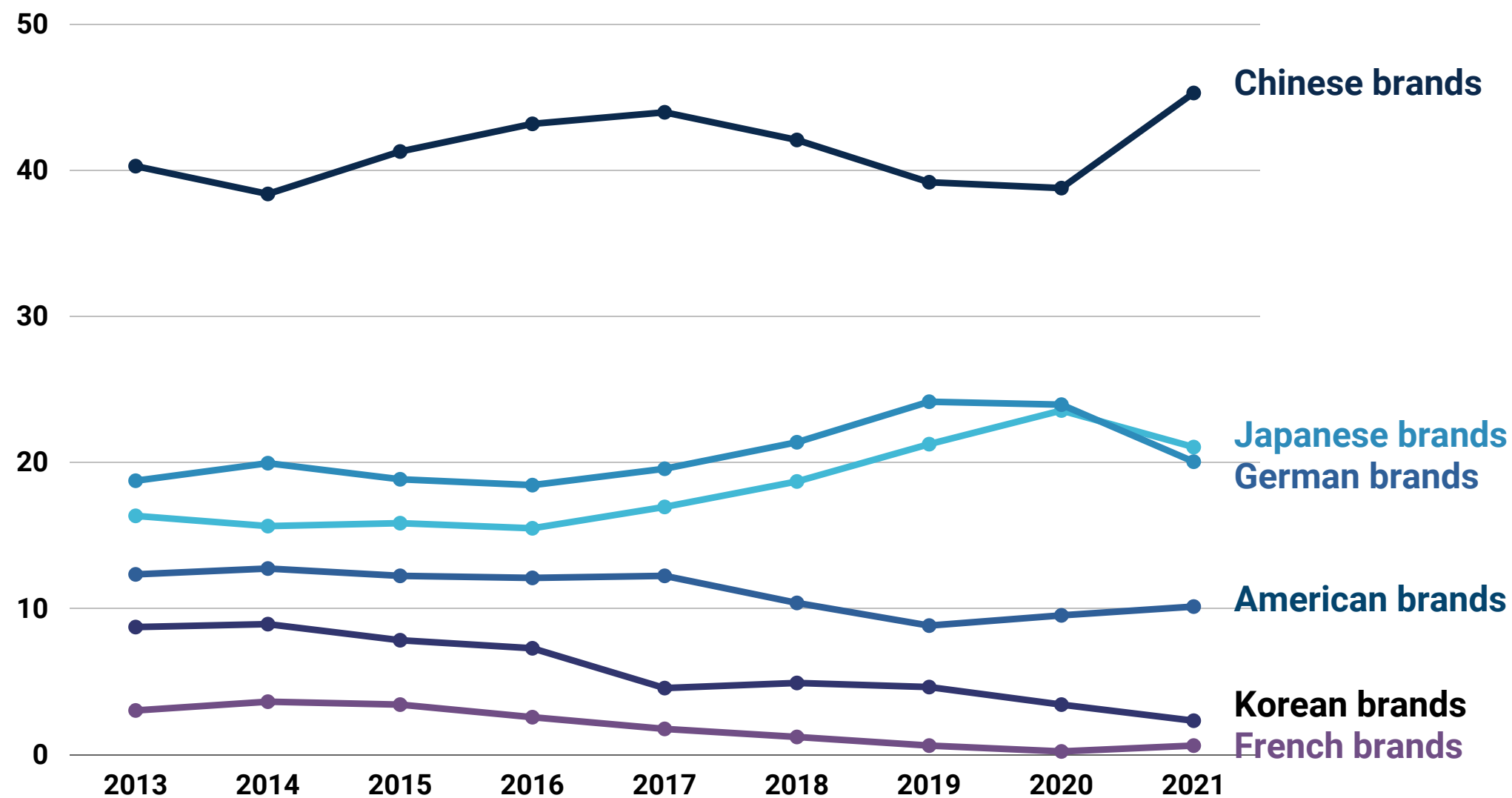
Source: China Association of Automobile Manufacturers (2022)

Key Take-Aways

- Since 2009 China has been the largest automotive market in the world
- In 2021 around 36% of all globally sold vehicles were sold in China
- According to the China Association of Automobile Manufacturers (CAAM), more than 26.08 million automotive vehicles were produced in China in 2021
- In 2021 more than 2 million Chinese automobiles were exported

Chinese brands are winning higher market shares.

Various Brands' Sales in China from 2013 - 2021 per (in Percent)



Source: China Association of Automobile Manufacturers (2022)

Key Take-Aways

- Chinese brands had increased their total market share to more than 47% at the end of 2021
- In 2020, Chinese brands only had a market share of 43.9%
- The German market share of German brands was reduced the most with -11.4% in comparison to 2020
- This is the second year in a row for the German brands, with a year-on-year decline of more than 10%

Production and sales figures for most German brands are declining in China.

Most sold Automotive Brands in 2021 (Excluding Imports)

Rank	Brand	2021	Change
1	Volkswagen	2,164,946	-10.28%
2	Toyota	1,656,053	7.7%
3	Honda	1,531,486	-6.5%
4	Geely	1,072,405	-5.5%
5	Changan	1,000,799	15.7%
6	Nissan	1,000,292	-10.8%
7	Buick	828,636	-10.5%
8	Wuling	818,041	101.1%
9	Haval	770,008	2.6%
10	BYD	730,093	77.5%
11	Chery	708,728	11.3%
12	BMW	652,000	6.5%
13	Audi	643,500	-1.9%
14	Mercedes-Benz	598,204	-6.6%
15	Tesla	473,103	249.3%

Source: CPCA (2021)

Key Take-Aways

- Most international automotive brands are struggling with declining sales in 2021
- Volkswagen has the most significant absolute and relative sales decline of the major brands
- Out of all the major German automotive brands, only BMW managed to increase its sales in 2021

German premium brands are still leading, but other brands are growing faster.

Most sold Premium Automotive Brands in 2021 (Including Imports)

Rank	Brand	2021	Change
1	BMW	815,691	4,9%
2	Mercedes-Benz	758,863	-2.0%
3	Audi	701,289	-3.44%
4	Tesla	320,743	116.72%
5	Hongqi	300,600	43.69%
6	Lexus	277,000	23.85%
7	Cadillac	233,117	1.35%
8	Volvo	171,400	3.06%
9	Jaguar Land Rover	103,888	-6.58%
10	Xpeng Motor	98,155	262.98%
11	Porsche	95,671	7.53%
12	NIO	91,429	109.08%
13	Li Auto	90,491	177.37%

Source: CPCA (2022)

Key Take-Aways

- The German premium brands are currently stagnating and are declining, except for BMW
- Tesla could be the largest premium brand in China in one to two years
- Starting at rank ten, many new Chinese NEV companies can be identified, which are also growing by more than 100%

Chinese brands dominate the NEV market.

Top 10 NEV Producers in 2021

Ranking	Company Name	Sales Numbers 2021
1	BYD	593,745
2	Wuling	395,451
3	Tesla	320,743
4	ORA	135,028
5	JAC	134,100
6	GAC AION	123,660
7	VW	119,000
8	Chery	109,028
9	Geely	100,126
10	Roewe	100,000
11	XPeng Motor	98,155
12	NIO	91,429
13	Li Auto	90,491
14	Chang'an	70,000
15	NETA	69,674

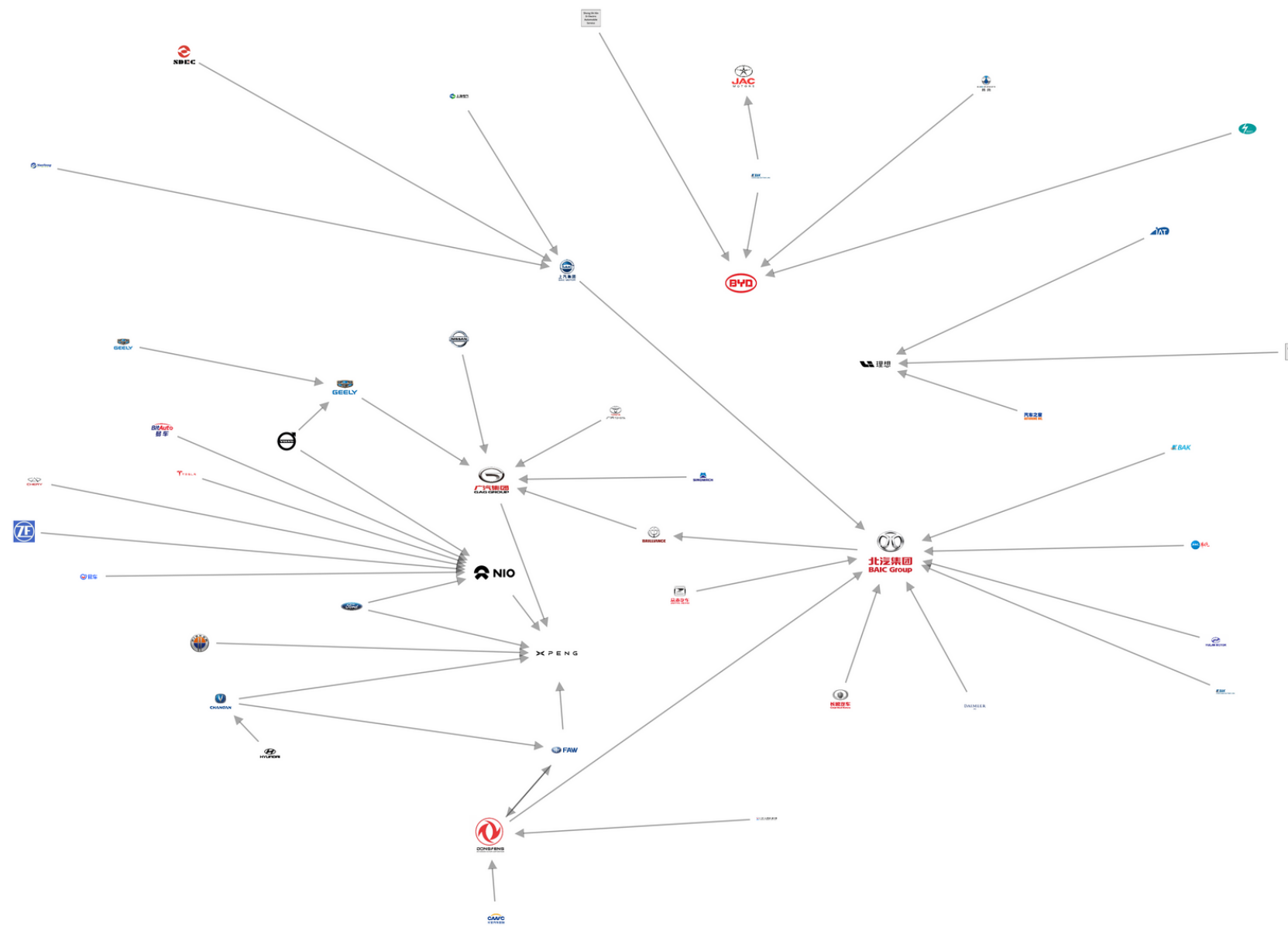
Source: CPCA (2022)

Key Take-Aways

- 3.52 million NEV vehicles were sold in the Chinese market in 2021, representing 11% of the total car market in China
- Tesla and Volkswagen are the only international companies in China's top 15 NEV manufacturers
- Many newly established NEV companies such as Xpeng Motors, NIO, Li Auto sell almost as many NEVs as Volkswagen

Analysis of the executive rotation in the Chinese automotive industry.

Automotive Executive Network Rotation



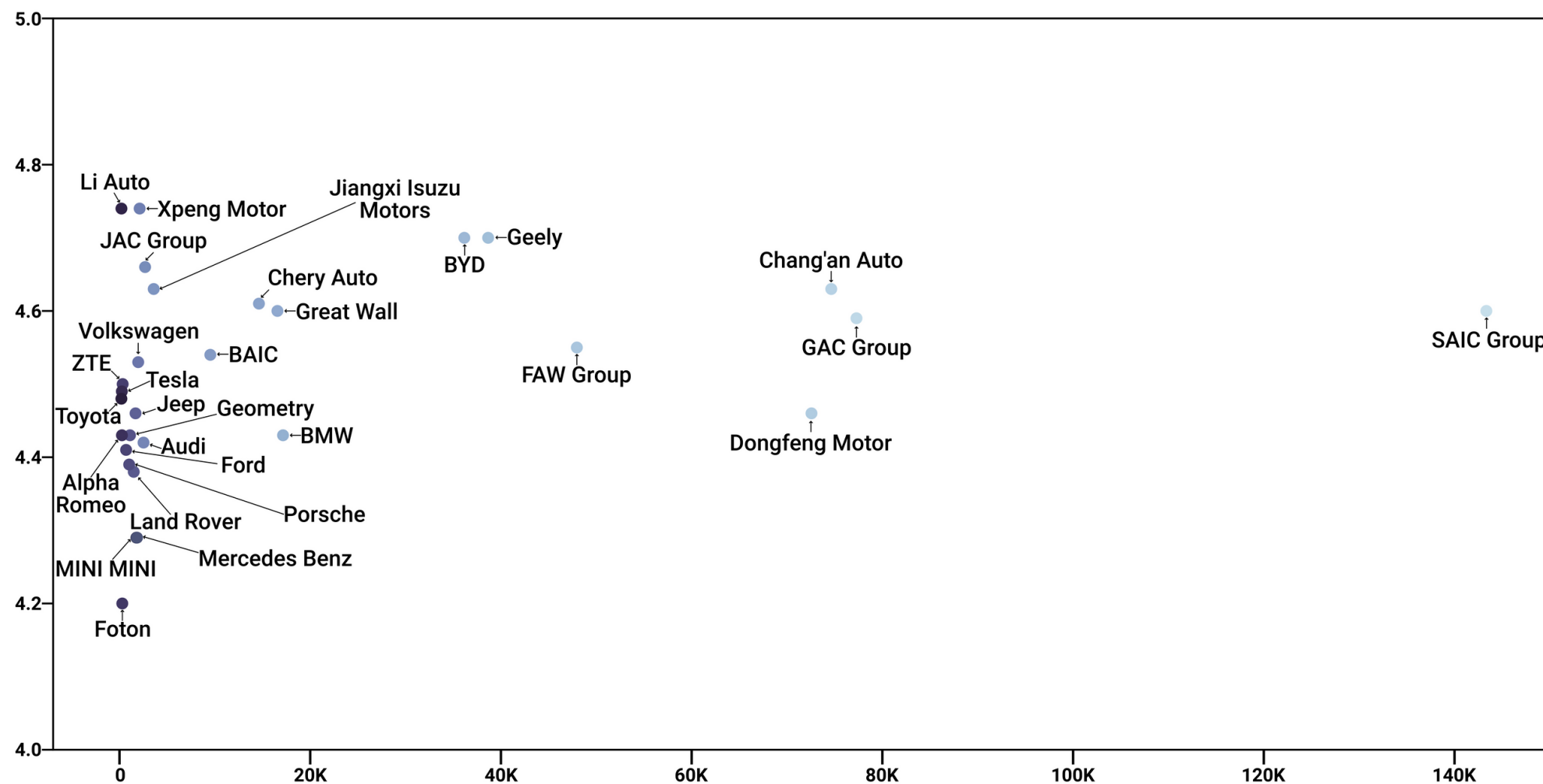
Source: CIMK Research, Company Websites

Key Take-Aways

- BAIC Motor, Dongfeng Motors, and GAC Group have employed several executives who have work experience at other automotive manufacturers
- NIO and XPeng Motors hired external automotive executives with much experience from other state-owned automotive companies because technology entrepreneurs founded these companies
- Various automotive companies, such as BAIC Motors or JAC Motors, have recruited executives from battery companies to develop their NEV projects

Chinese automotive community analysis.

Autohome: Number of Evaluations vs. Average Evaluation



Source: Autohome, Date of data collection: 2022-01-06

Key Take-Aways

- Based on the 355 most discussed car models (500,000 user reviews), the vehicles from SAIC Group are the most discussed, with a total of 143,339 reviews
- NEV vehicle manufacturers Li Auto, Xpeng Motors, and BYD are rated highest by the automotive community despite fewer ratings
- Volkswagen is the highest-rated brand of all international companies. A large proportion of the other multinational brands tend to be in the bottom three of customer ratings

Consumer perception: Chinese NEV vs. foreign-owned NEV: Example based on the automotive platform Autohome

Volkswagen ID.4



Source: <https://www.vw.com/en/models/id-4.html>

Average Ranking

★ 4.33

Positive Keywords

- Sufficient power
- Good cost performance
- Satisfactory comfort

Negative Keywords

- Uncomfortable suspension damping
- Poor software systems
- Interior odor
- Poor interior material
- Unreasonable weight of brake pedal

Source: Autohome, Date of data collection: 2022-01-07

XPeng Motors G3



Source: <https://en.xiaopeng.com/g3.html>

Average Ranking

★ 4.76

Positive Keywords

- Enough Space
- Long Range
- Good comfort
- Good handling
- Great Entertainment System

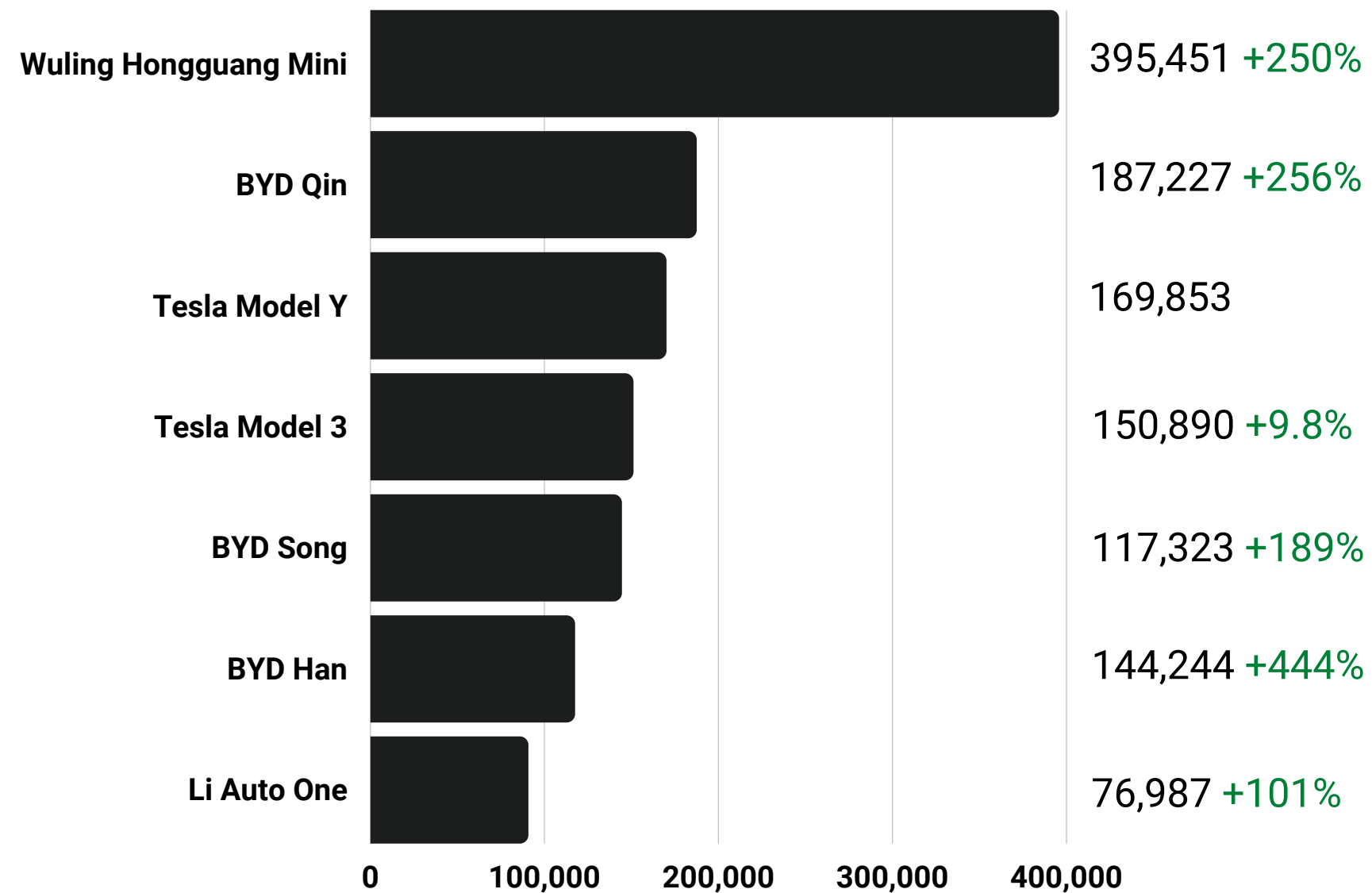
Negative Keywords

- Foul odor in the interior
- Noisy tires
- High power consumption in winter

Source: Autohome, Date of data collection: 2022-01-07

GM's joint venture with Wuling has the best-selling NEV in China.

Top Selling NEV Models in China in 2021



Source: CPCA (2022)

Wuling Hong Guang MINI EV



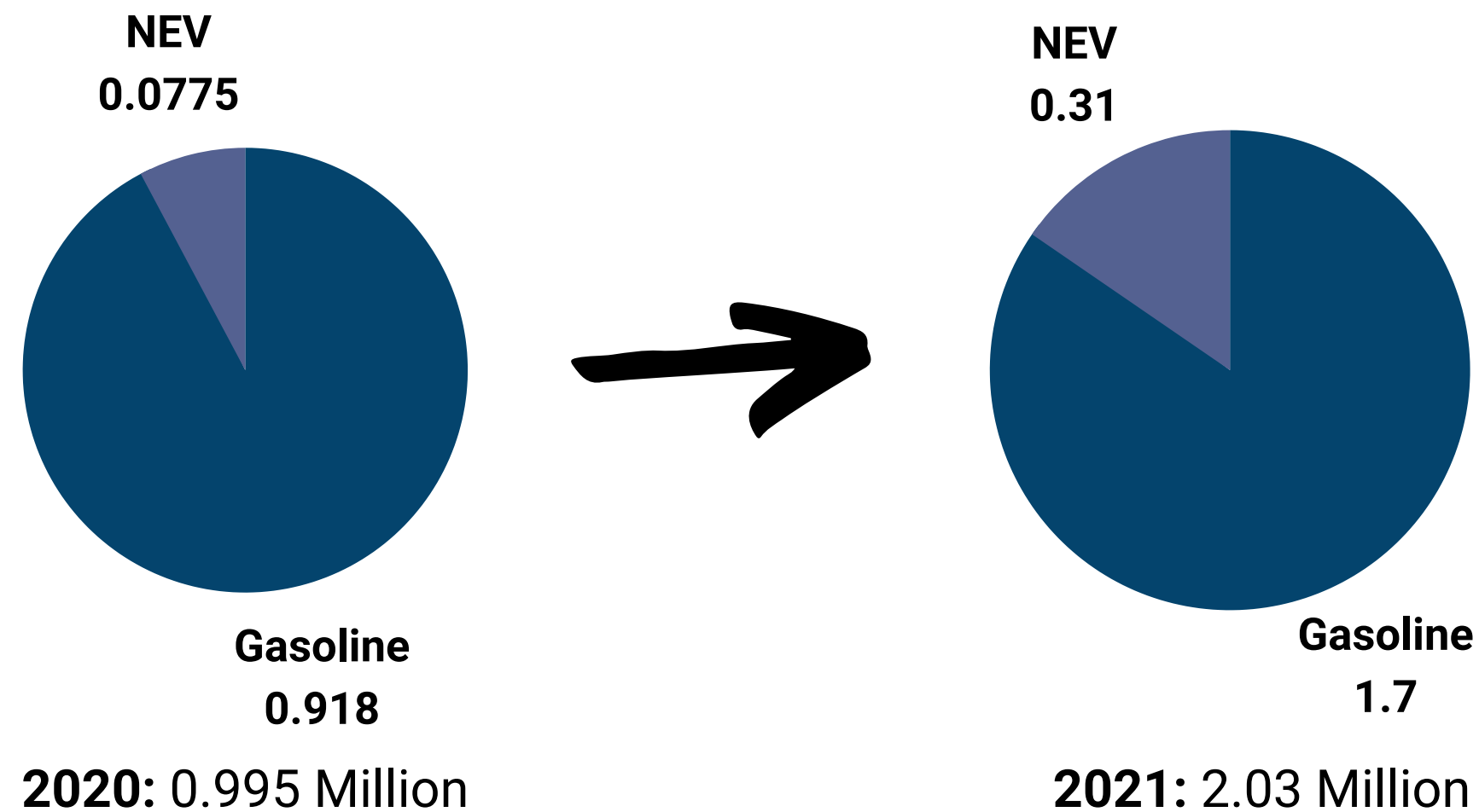
Source: <https://www.wuling.com.cn/>

- ➔ Price: USD 4,546 (CNY 28,800)
- ➔ Range: 120 km
- ➔ Sales Started: July 2020

Chinese automotive companies doubled their exports in 2021.

Exports of Chinese Vehicles (In Million)

Key Take-Aways



Source: China Association of Automobile Manufacturers (2022)

- The Chinese automotive vehicle exports reached a new record with 2.01 million units in 2021. This is more than double the previous year
- The CAAM announced that a total of 310,000 NEVs were exported in 2021, a threefold increase from the previous year
- Tesla is responsible for the majority of the NEV exports, but other OMEs like BYD (563) and SAIC (5,716) are growing as well
- The CAAM forecasts that Chinese automotive exports will grow by 20% in 2022

China's leading role in battery production.

Top 10 Largest Battery Producers Worldwide

Ranking	Company Name	Market Share	Location
1	CATL	32.5%	China
2	LG Energy Solution	21.5%	South Korea
3	Panasonic	14.7%	Japan
4	BYD	6.9%	China
5	Samsung SDI	5.4%	South Korea
6	SK Innovation	5.1%	South Korea
7	CALB	2.7%	China
8	AESC	2.0%	Japan
9	Guoxuan	2.0%	China
10	PEVE	1.3%	Japan

Source: <http://www.sneresearch.com> (2022)

Key Take-Aways

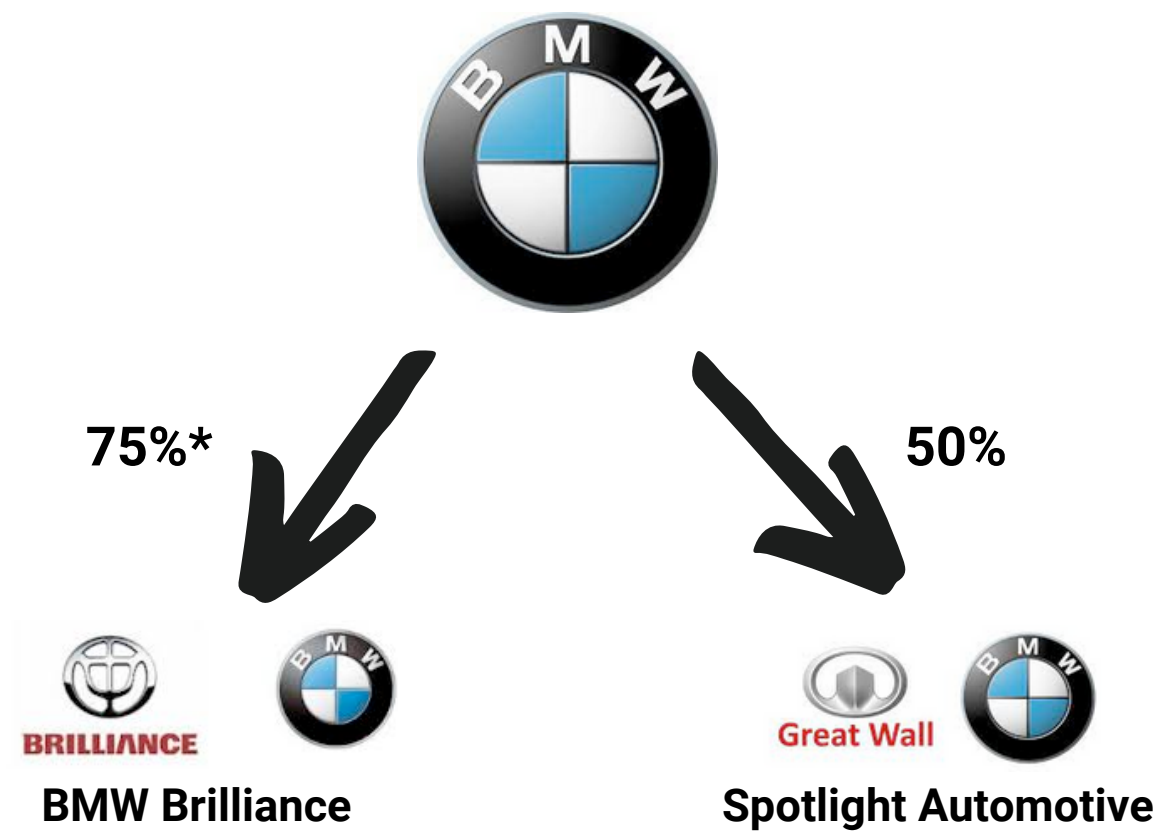
- All large NEV battery producers are located in Asia
- The clear market leader in battery production is now CATL which nearly produces 1/3rd of all automotive batteries
- China plays a crucial role in the production of batteries for the NEVs. The battery manufacturing industry has a market size of about USD 203 billion USD in 2021



Development of German Automotive Companies in the Chinese Market

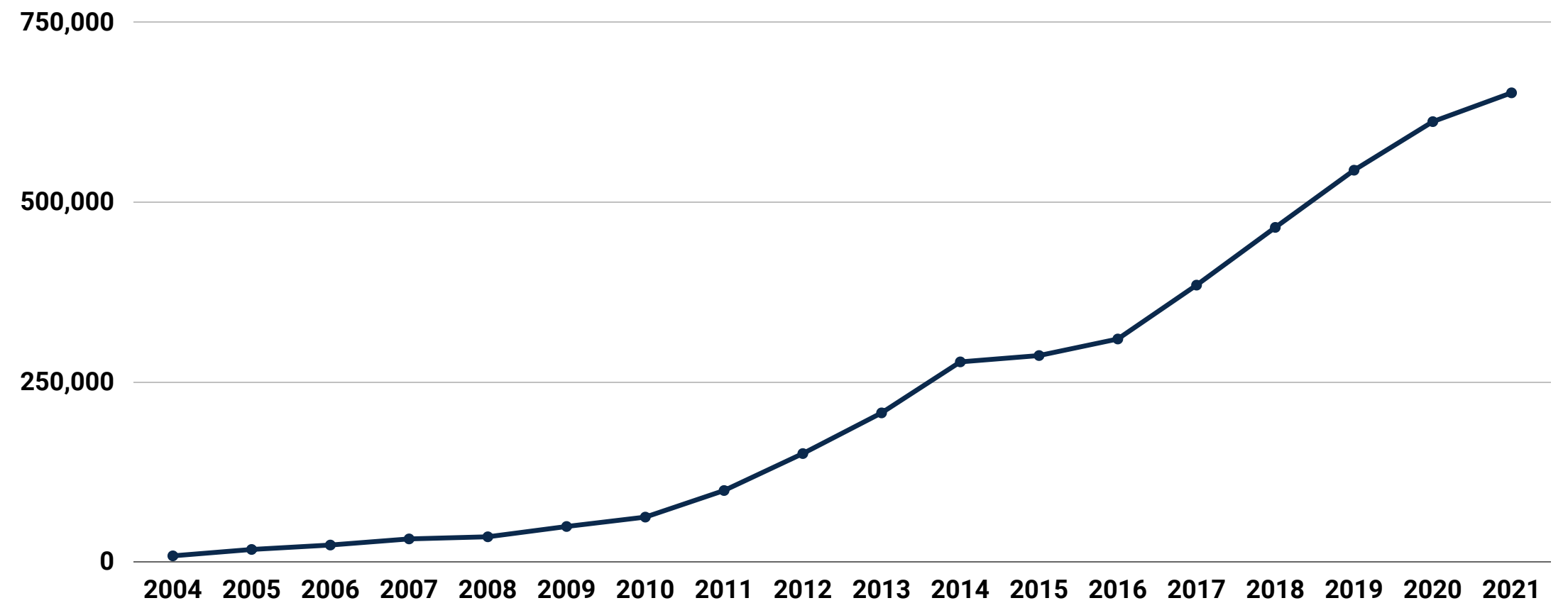
BMW developed positively in 2021 and bought joint venture shares.

Overview of Chinese Joint Venture: BMW



*25% transaction not finished yet

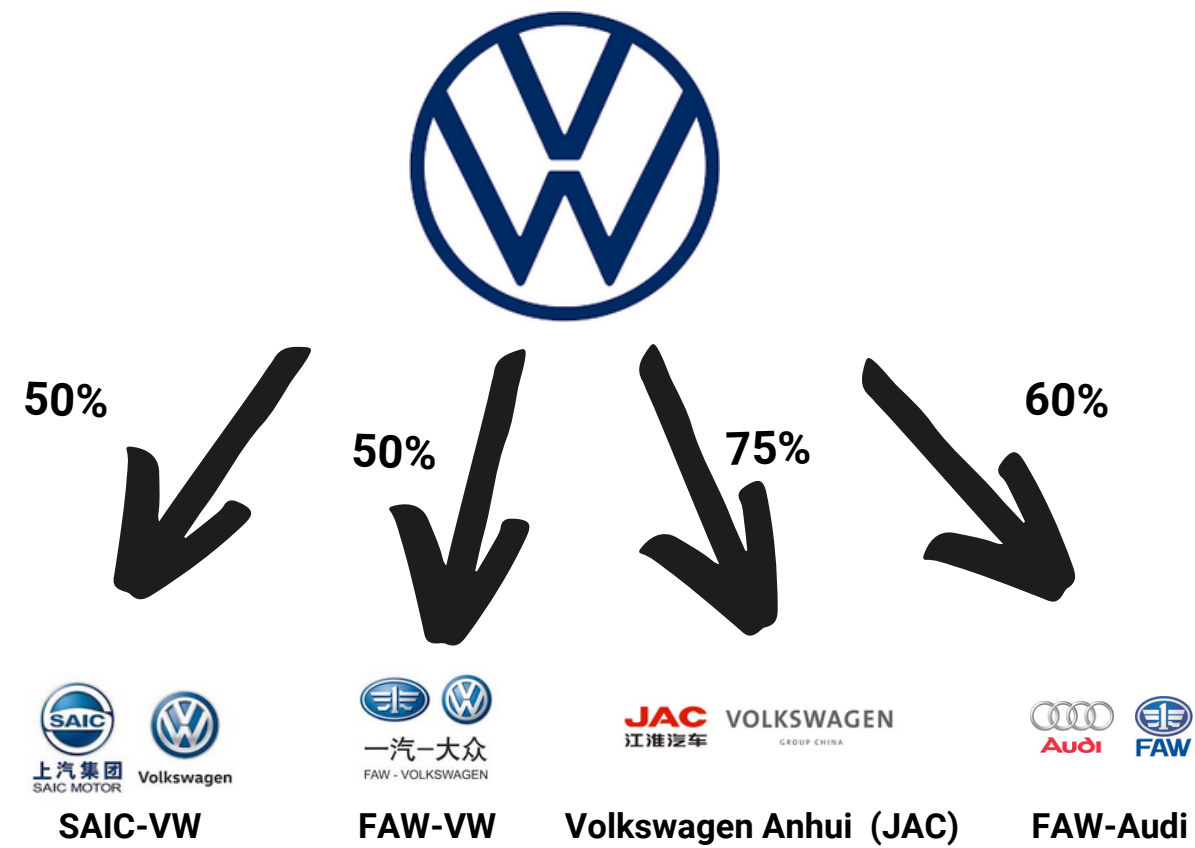
Sales Figure of BMW's Brand (Excluding Imports)



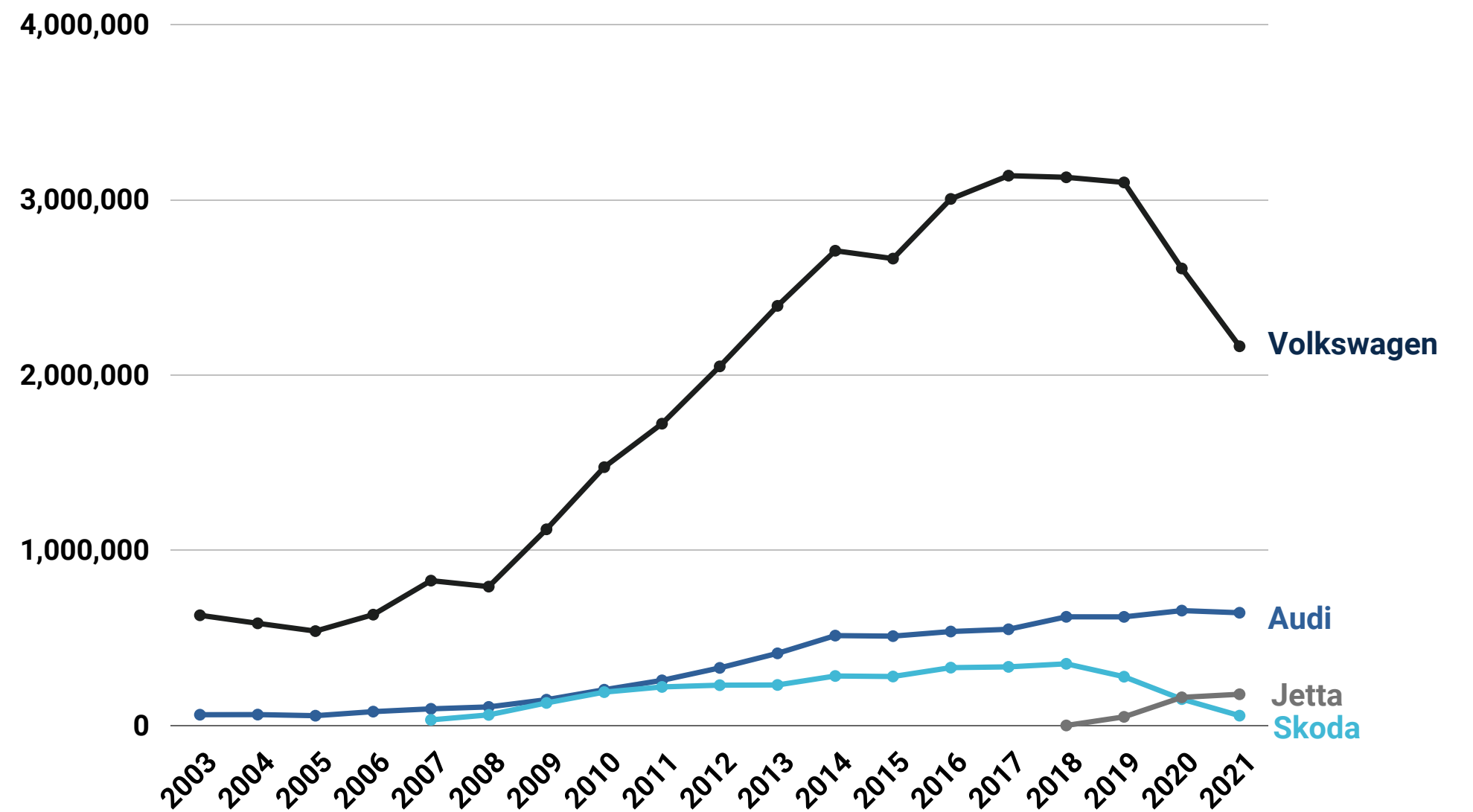
Source: Carsalesbase (2022)

Volkswagen's performance over the last two years is very worrying.

Overview of Chinese Joint Venture: Volkswagen



Sales Figure of Volkswagen's Brand (Excluding Imports)

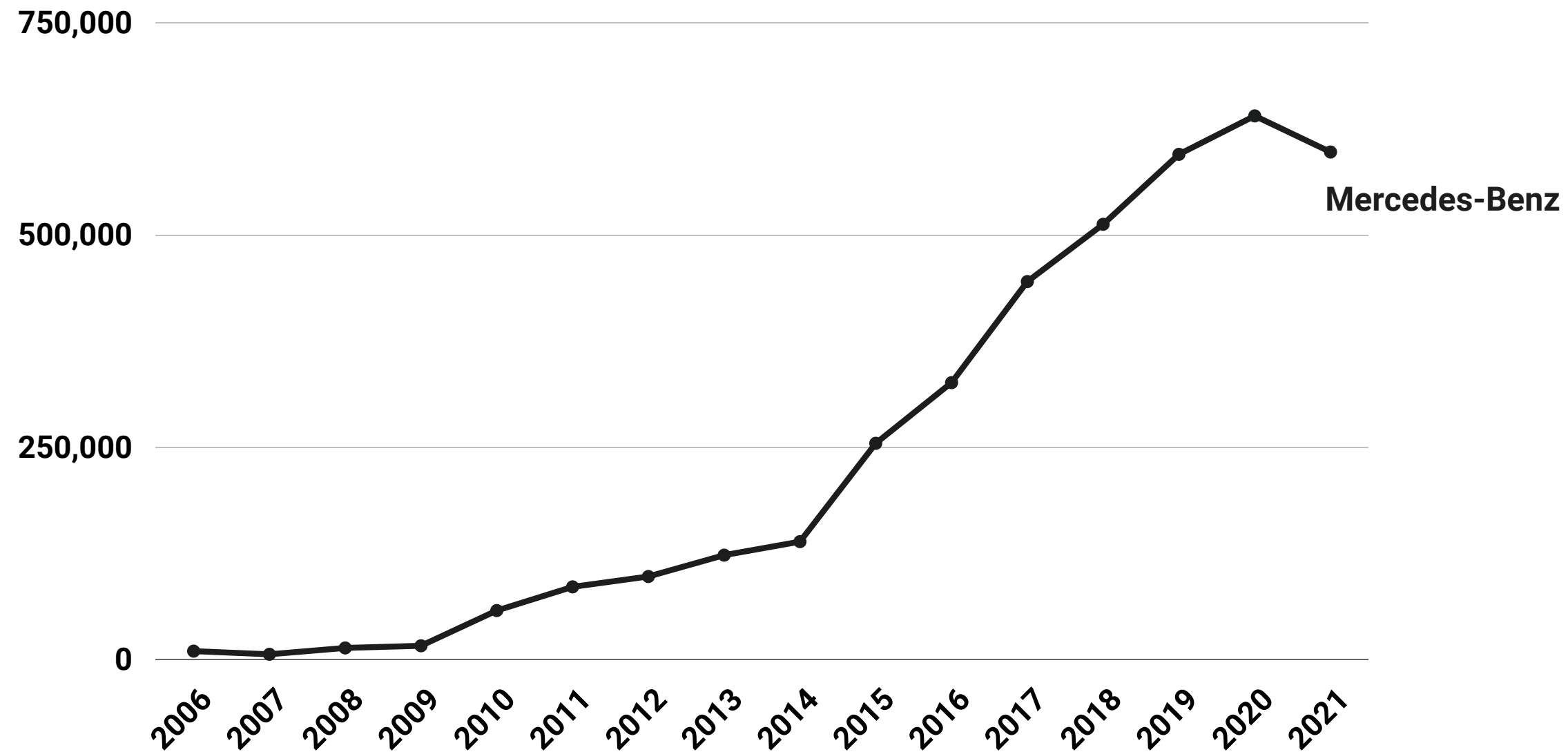
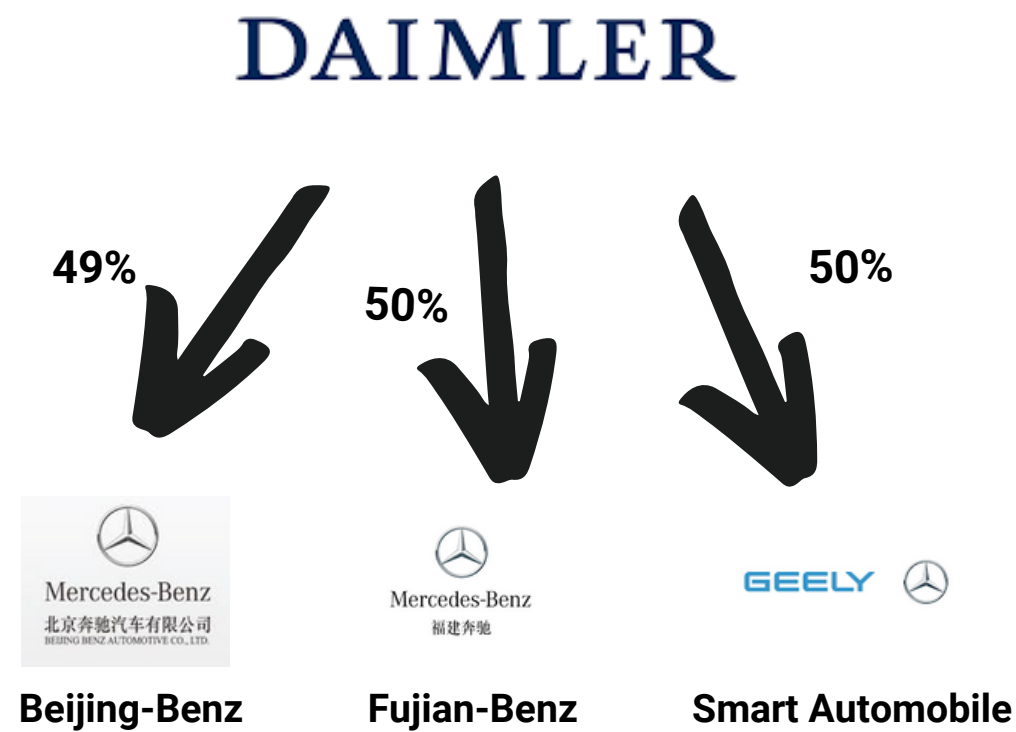


Source: Carsalesbase (2022)

Daimler has received the first setback in terms of sales figures in 2021.

Overview of Chinese Joint Venture: Daimler

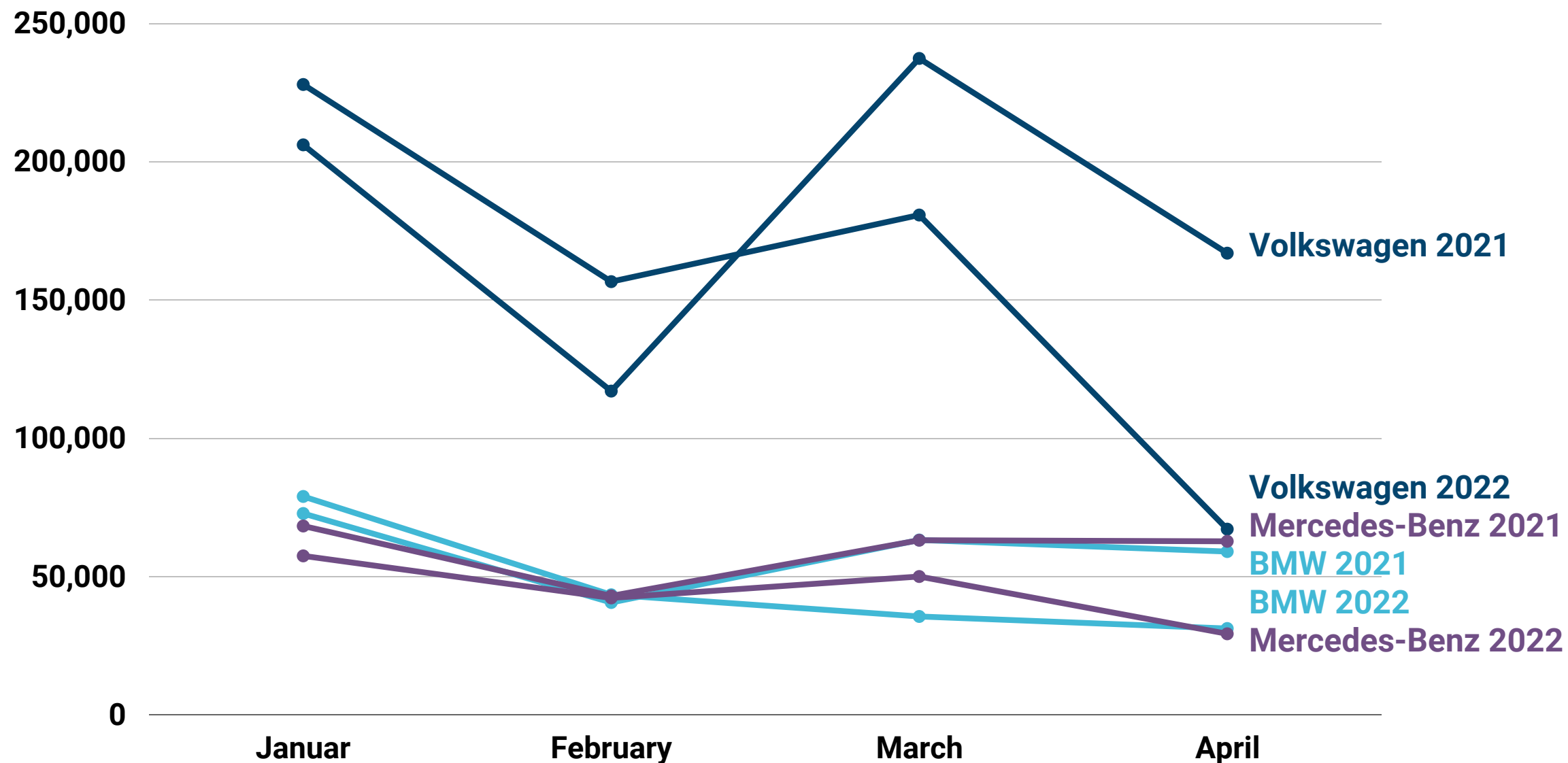
Sales Figure of Daimler's Brand (Excluding Imports)



Source: Carsalesbase (2022)

In 2022, sales of German OEMs are significantly lower than last year.

Sales Numbers German Automotive Companies in China (Jan - April)



Source: Carsalesbase (2022)

Key Take-Aways

- Some of the companies had a positive start in 2022. For example, Volkswagen was able to increase its sales in January and February year on year
- Due to the lockdown and the general economic downturn, however, the situation has taken a sharp turn for the worse
- Problems exist in terms of production and sales



Development of the Chinese Automotive Market in 2022

In 2022, German automakers are continuing to be among the poor performers.

Most Sold Automotive Brands at the Start of 2022 (Excluding Imports)

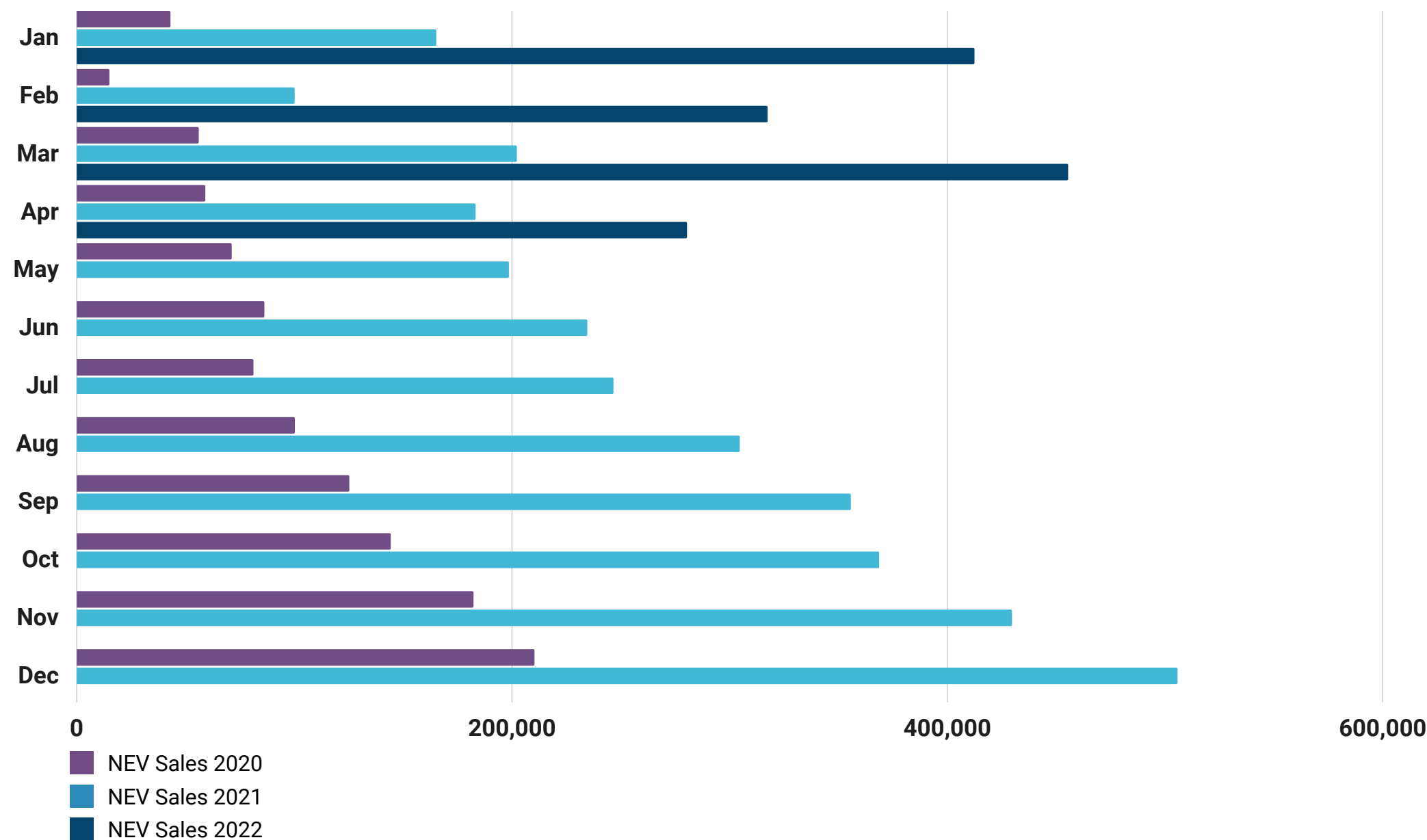
Name	January	February	March	April	Sales Jan - Apr	Change YoY (Jan - Apr)
Volkswagen	227,953	156,714	180,786	67,278	632,731	-13.05%
Toyota	151,159	125,628	166,941	98,969	542,697	-0.97%
Honda	154,762	116,113	148,022	40,398	459,295	-13.84%
BYD	95,180	90,268	104,338	102,247	392,033	166.00%
Changan	130,609	55,030	112,408	49,183	347,230	-12.32%
Geely	115,270	58,209	78,444	42,253	294,176	14.20%
Nissan	112,068	75,390	57,010	38,037	282,505	-15.66%
Chery	71,108	47,592	63,652	36,943	219,295	7.58%
Haval	70,228	41,994	54,534	29,125	195,881	-29.47%
BMW	79,087	43,558	35,723	31,372	189,740	-19.68%
Tesla	59,845	56,515	65,814	1,512	183,686	115.72%
Mercedes-Benz	57,615	42,421	50,160	29,460	179,656	-24.43%
Buick	61,967	42,048	57,117	16,008	177,140	-34.80%
Dongfeng	56,066	35,727	48,123	27,392	167,308	55.21%
Audi	63,054	43,319	31,706	14,129	152,208	-41.19%

Key Take-Aways

- Total vehicle sales in China in the first four months of the 2022 year fell 12% to 7,691,000 units, from 8,748,000 a year earlier
- Four German automotive brands continue to be among the 15 best-selling brands in China. However, sales of all brands are declining sharply. Still, Volkswagen continues to be the best-selling automotive brand
- The current profiteers are clearly BYD, Tesla, and Dongfeng, which can gain high market shares through their NEV automobiles

The triumph of NEV Automotive continues in 2022.

Monthly Sales of NEVs in 2020-2022



Key Take-Aways

- Despite the economic downturn, it can be seen that sales of NEVs each month in 2022 are significantly higher than in recent years
- One reason is that production capacity is still a bottleneck, and increased production capacities result in higher sales.
- The demand also remains very high.
- It can be seen that the lockdown in Shanghai also had a negative impact on NEV production and sales volumes in April, as they declined month on month by 38.5%

BYD is the clear market leader in the NEV segment.

Top 10 NEV Sellers Januar to April 2022

Brand	January	February	March	April	Jan - Apr
BYD	76,719	87,473	104,878	105,475	374.545
SAIC	72,236	45,267	74,509	37,800	229.812
Tesla	19,609	23,200	65,814	1,512	110.135
Geely	17,928	14,501	15,557	15,636	63.622
GAC Aion	16,031	8,526	20,317	13,141	58.015
Xpeng	13,025	6,225	15,414	9,002	43.666
Li Auto	12,268	8,414	11,034	4,167	35.883
Neta Automobile	9,726	7,117	12,026	8,813	37.682
NIO	10,166	6,131	9,985	5,074	31.356
Leap Motor	7,440	3,435	10,059	9,087	30.021
WM Motor	2,701	2,701	5,516	3,314	14.232
Geely Zeekr	3,309	2,916	1,795	2,137	10.157

Source: Automakers, CPCA (2022)

Key Take-Aways

- In 2022, the clear market leaders will continue to be BYD, SAIC (Wuling), and Tesla
- German automakers are not represented among the best-selling NEV automotive manufacturers. For example, Volkswagen's ID.3 sold only 255 units in April
- Most of these Chinese brands are still growing by more than 100% year on year

The current difficult economic situation has an overall very negative impact on the premium auto industry.

Premium Automotive Sales in China in 2022

Brand	January	February	March	April	Jan - Apr	Change YoY (Jan - Apr)
BMW	108,294	39,022	49,997	44,507	241,820	2.36%
Mercedes-Benz	93,967	39,609	60,180	37,348	231,104	-2.78%
Audi	72,517	39,497	48,095	26,706	186,815	-27.81%
Tesla	19,346	28,184	65,074	1,733	114,337	20.17%
Hongqi	42,000	14,304	16,031	11,475	83,810	-8.87%
Lexus	17,815	11,606	16,911	10,209	56,541	-35.25%
Cadillac	21,032	9,587	12,206	8,021	50,846	-32.83%
Volvo	15,335	7,873	12,882	7,823	43,913	-15.85%
Jaguar Land Rover	8,844	5,041	14,245	5,406	33,536	-16.10%
Porsche	8,000	2,928	7,169	5,752	23,849	-13.99%
Lincoln	8,821	4,221	6,341	4,919	24,302	2.45%
NIO	9,652	5,672	9,810	5,074	30,208	11.21%
Li Auto	12,268	8,340	11,067	4,213	35,888	98.08%

Source: CAAM (2022)

Key Take-Aways

- Looking at the premium segment, it can be seen that the gainers are clearly NEV-only brands (Tesla, NIO, and Xpeng Motor)
- Compared to other Chinese and global premium manufacturers, the almost constant sales of BMW and Mercedes-Benz are not bad. In contrast, Audi sales are down by more than 20%
- However, it must also be mentioned here that some Chinese premium manufacturers are also facing problems with the transition to NEV vehicles



Challenges and Outlook of the year 2022

Challenges in the Chinese Automotive Industry.

- The economic downturn has a direct influence on customer demand for automobiles
- Regional lockdowns due to virus outbreaks by the Chinese government are a risk that can significantly affect production without warning
- Even in 2022, chip supply is still limited, and a battery shortage is also possible
- The transformation to NEVs enables new automotive companies to enter the market and increase the existing competitive situation
- Chinese OEMs are trying to localize their supply chain to reduce supply chain-related risks

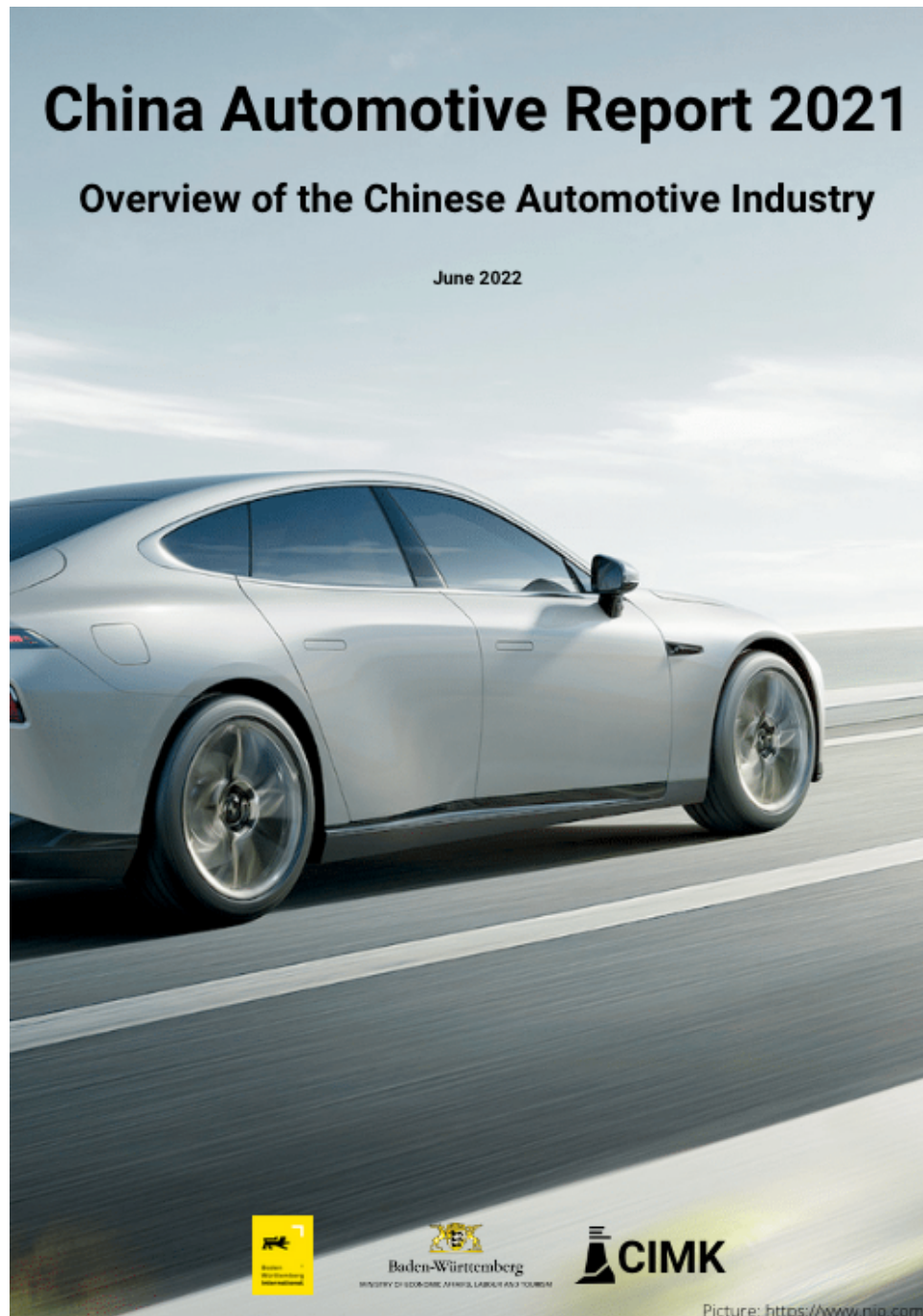


Outlook and Conclusion.

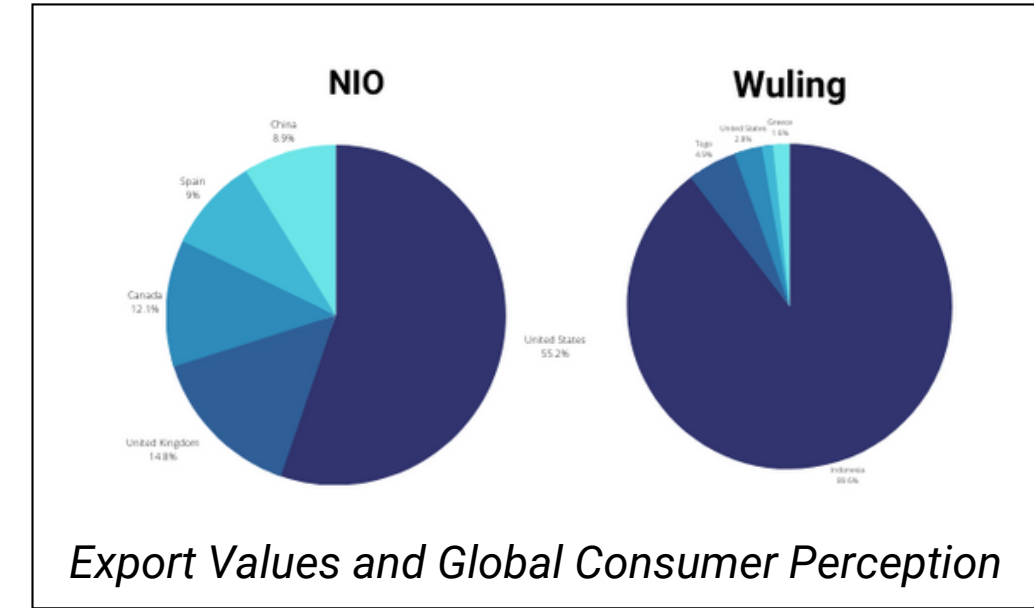
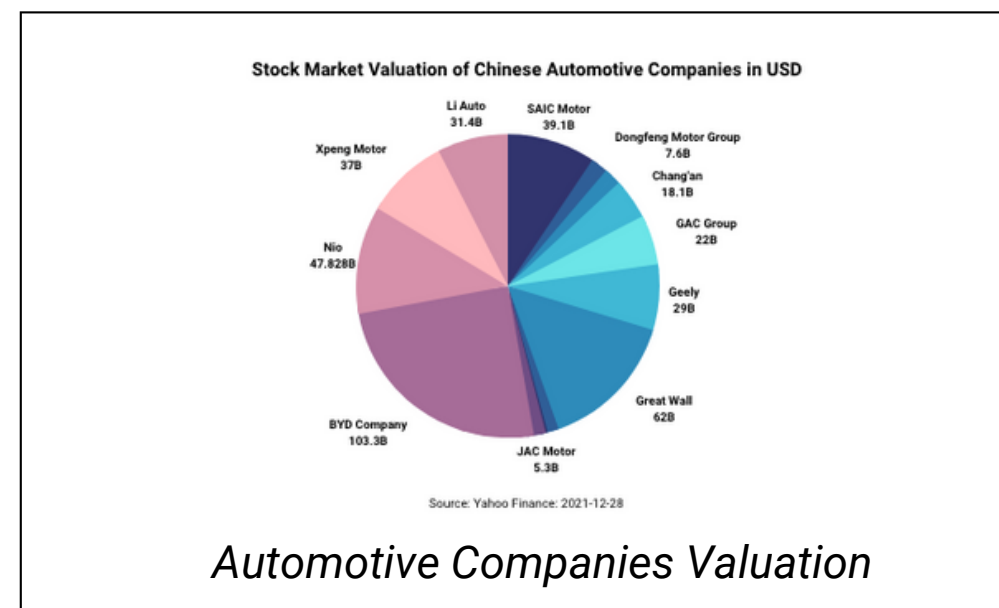
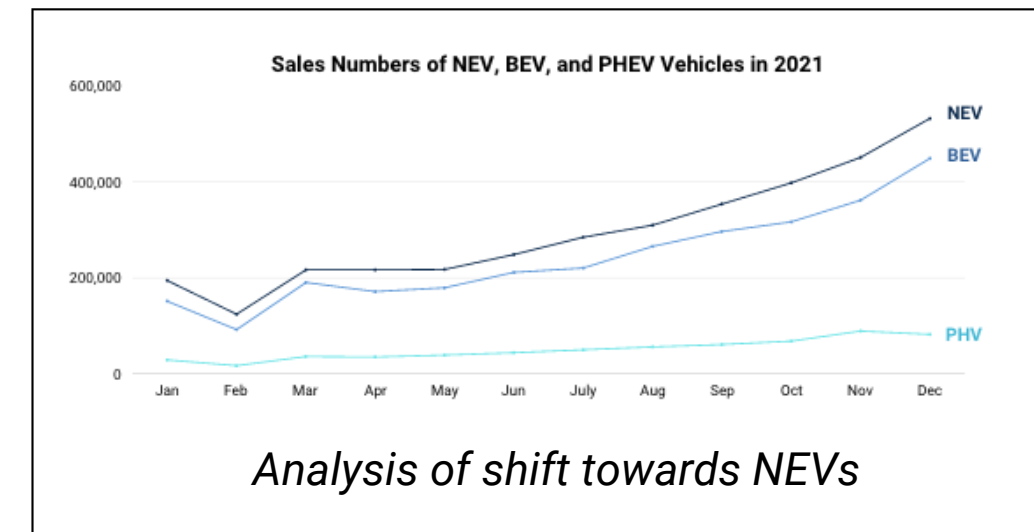
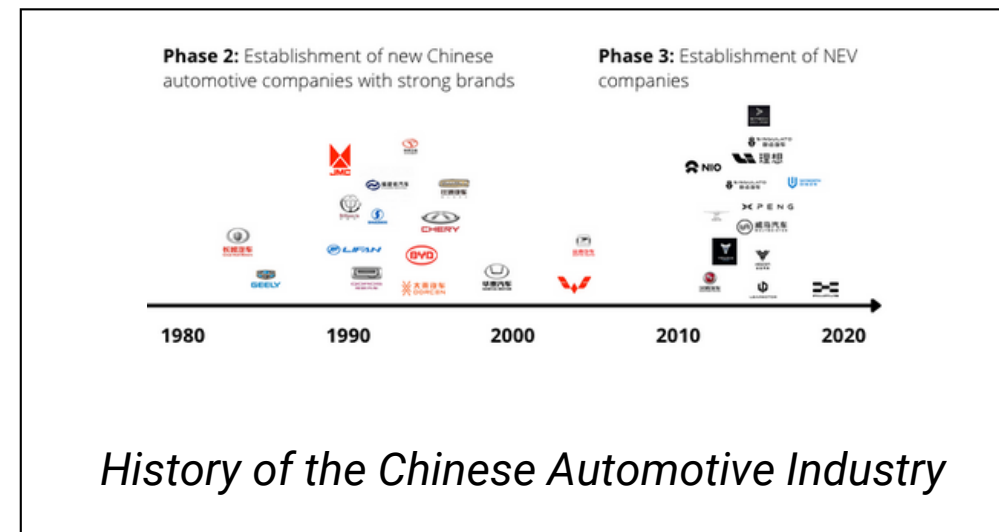
- 2021 was the mass market breakthrough of NEVs, which already had a 20% market share in December
- Conservative estimations suggest that a total of more than 5 million NEV vehicles will be sold in China in 2022
- Many international brands still have a good reputation in China, but many new Chinese automotive brands in the premium segment have rapidly increased their overall market share
- Every international automotive manufacturer has to transform itself into a NEV company and must work hard to ensure that its brand continues to be received as high-quality, up-to-date, and digital



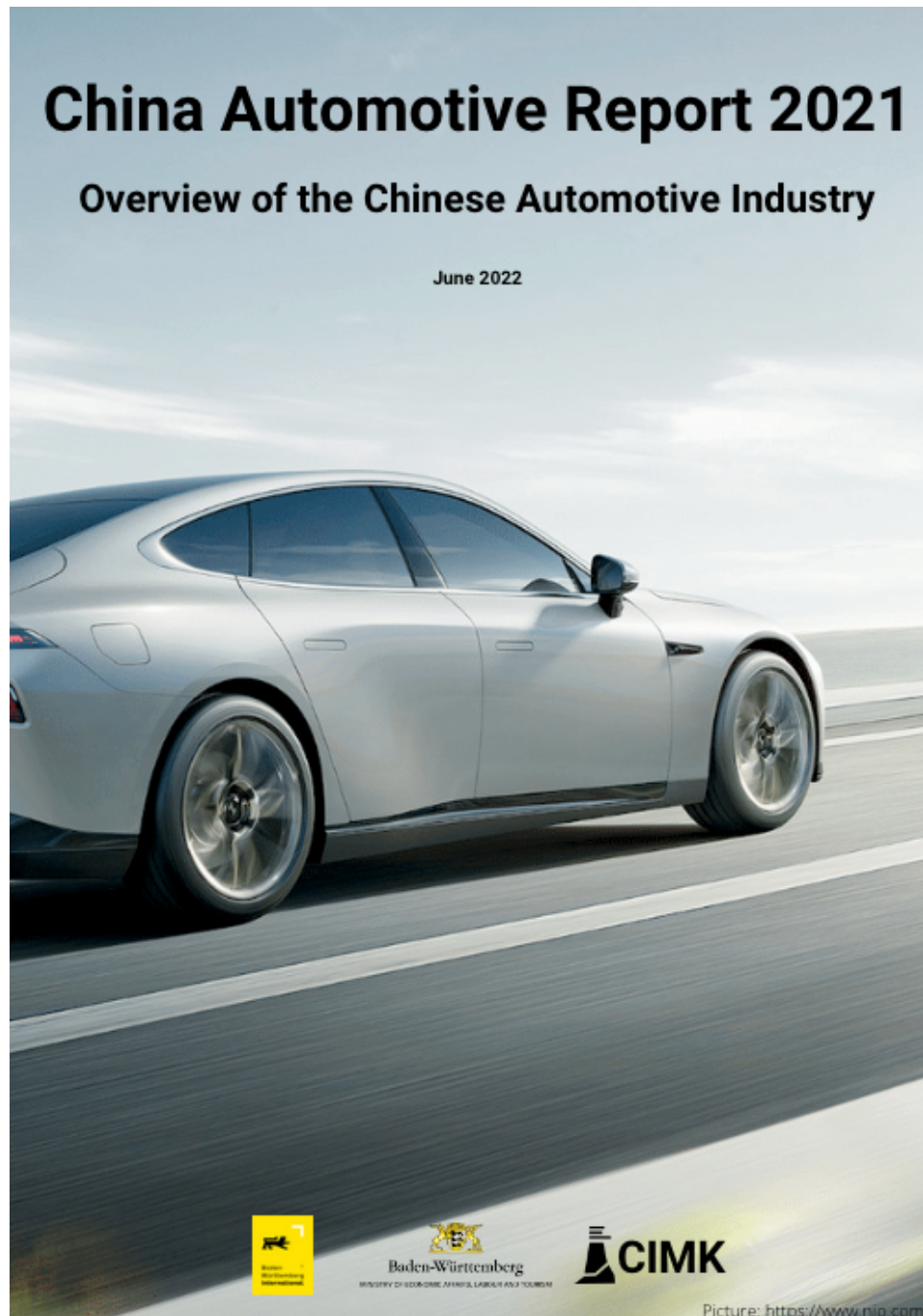
Read the complete report to get a complete overview of the market and trends.



1 Overview of the Chinese automotive industry in 2021



Read the complete report to get a complete overview of the market and trends.

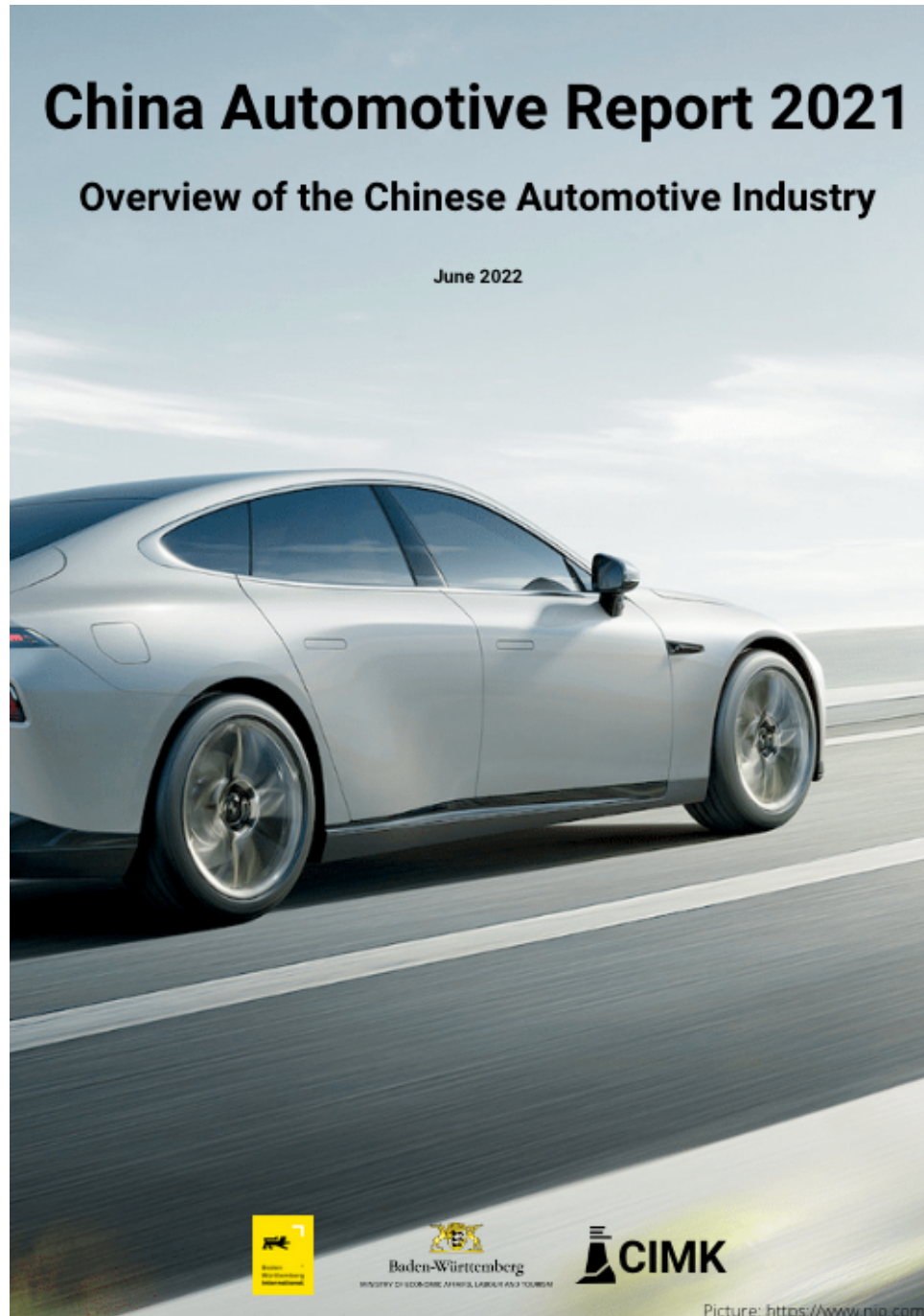


2 Detailed analysis of the following Chinese automotive companies

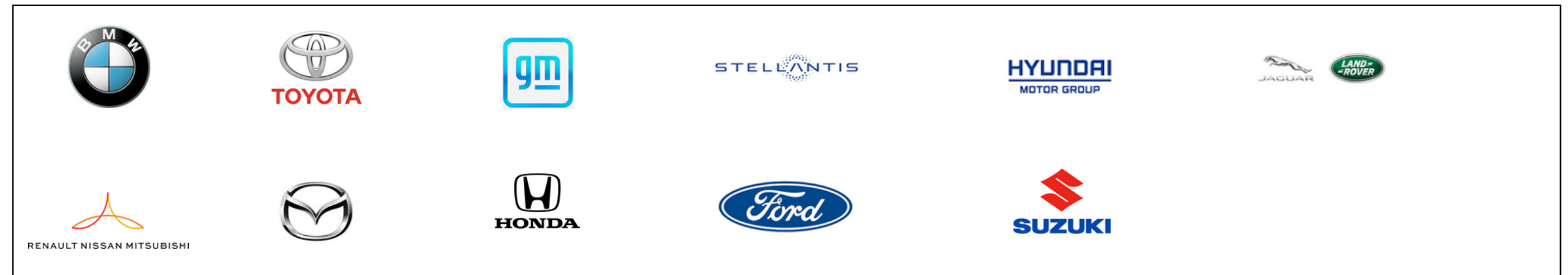


- Ownership Structure
- Subsidiaries and Brands
- Production Location
- Sales Developments
- Export Developments
- Management Rotation

Read the complete report to get a complete overview of the market and trends.

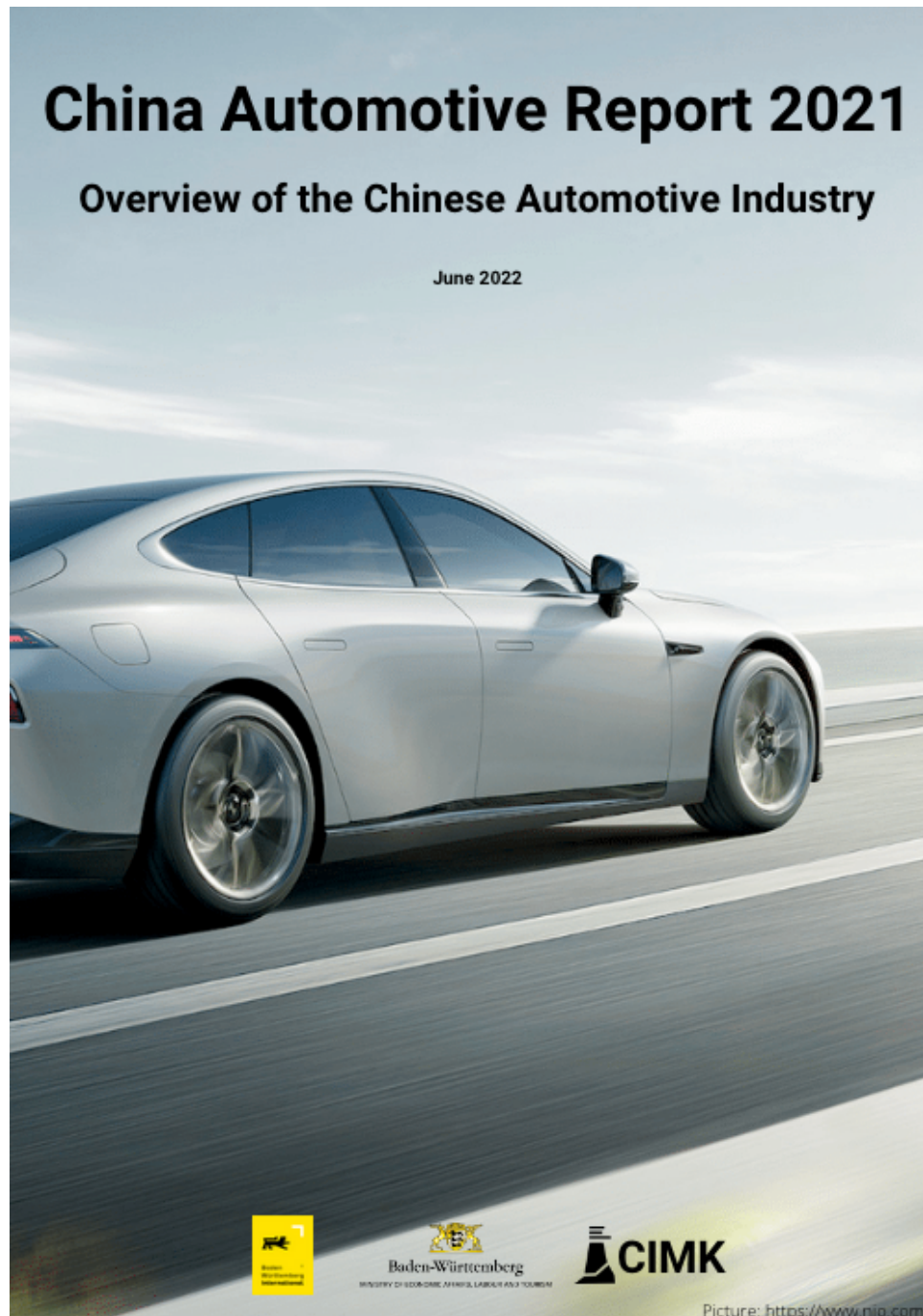


3 Detailed analysis of the joint ventures of the following international brands

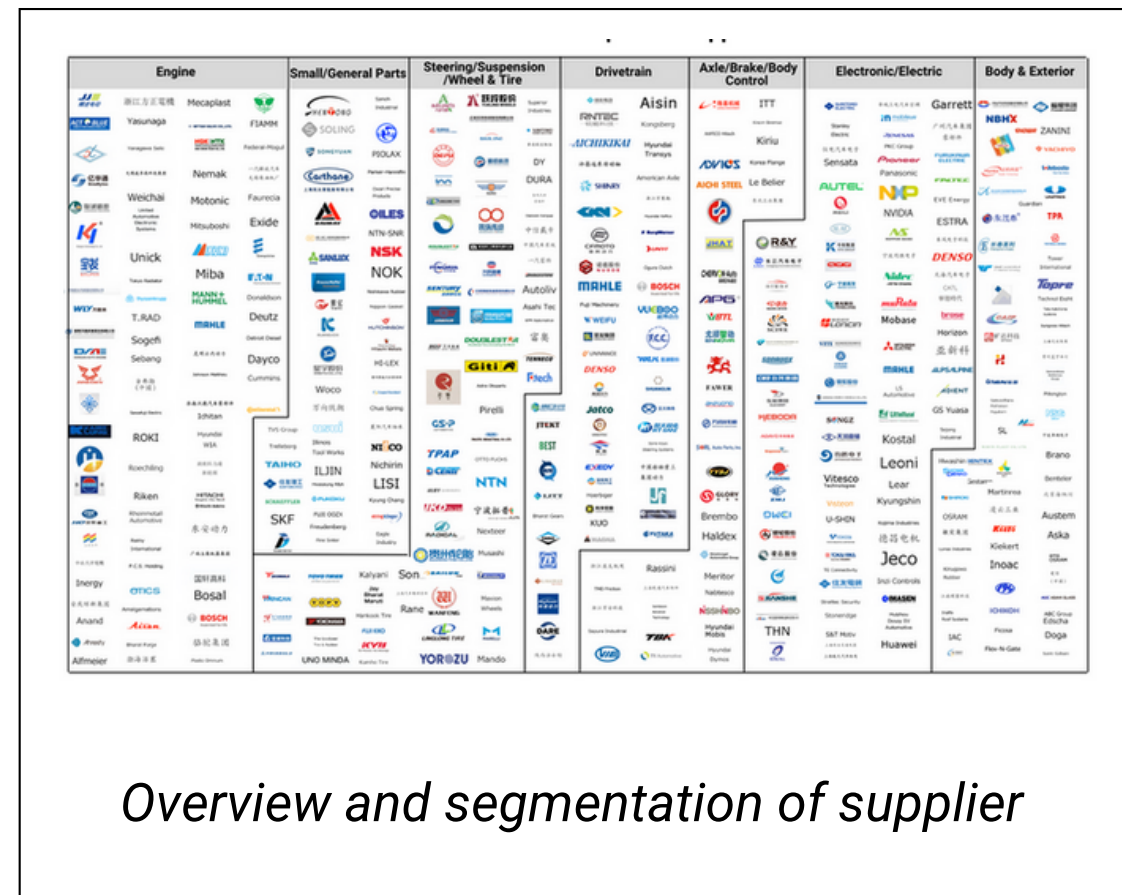


- Ownership Structure
- Subsidiaries and Brands
- Sales Developments
- Customer/ Public Sentiment on Social Media
- Automotive Communities

Read the complete report to get a complete overview of the market and trends.



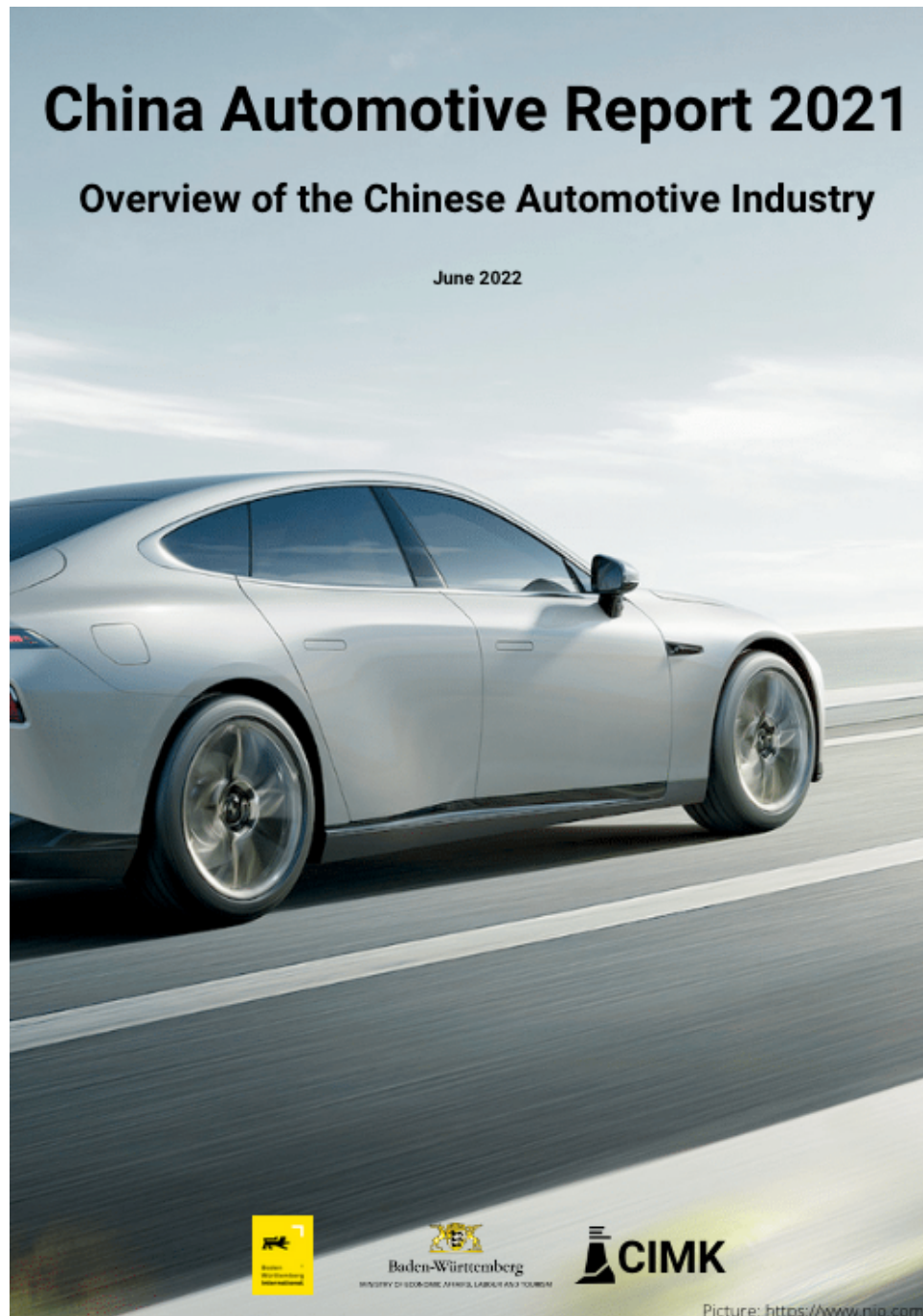
4 Overview of the International and Chinese Suppliers



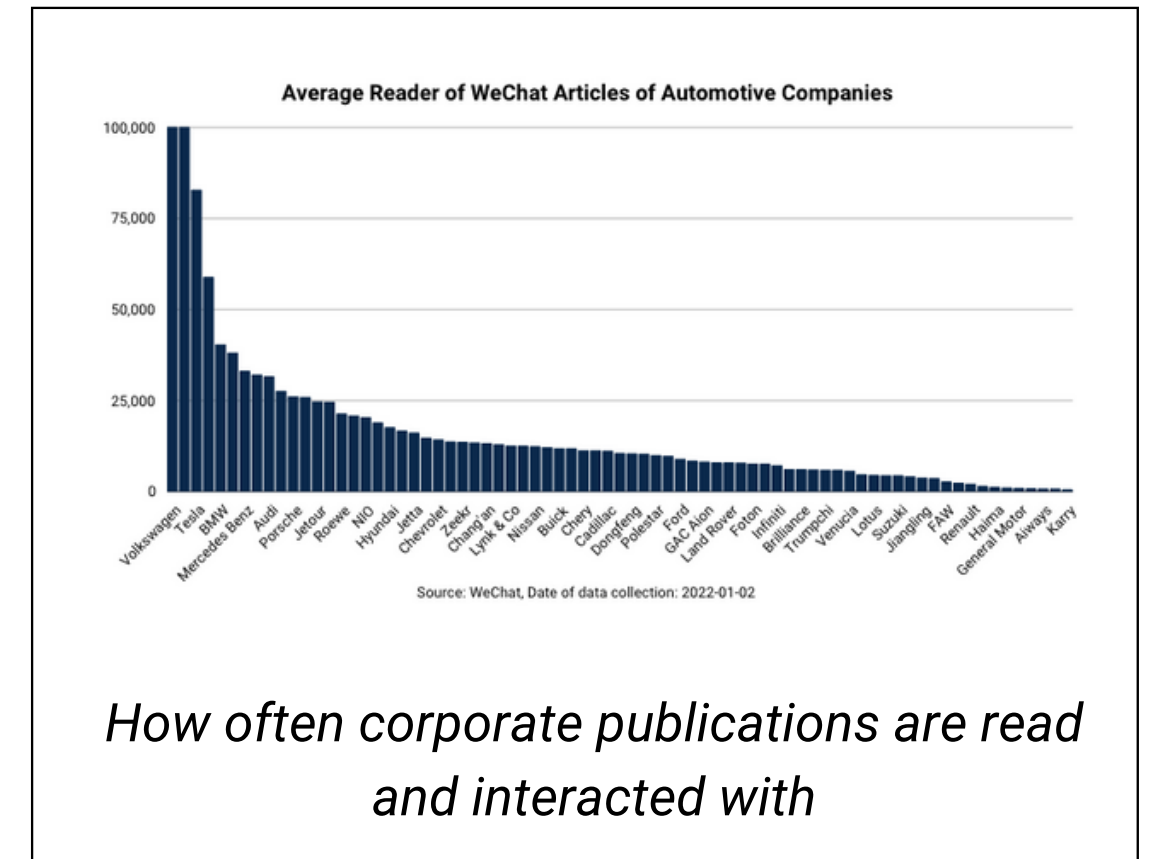
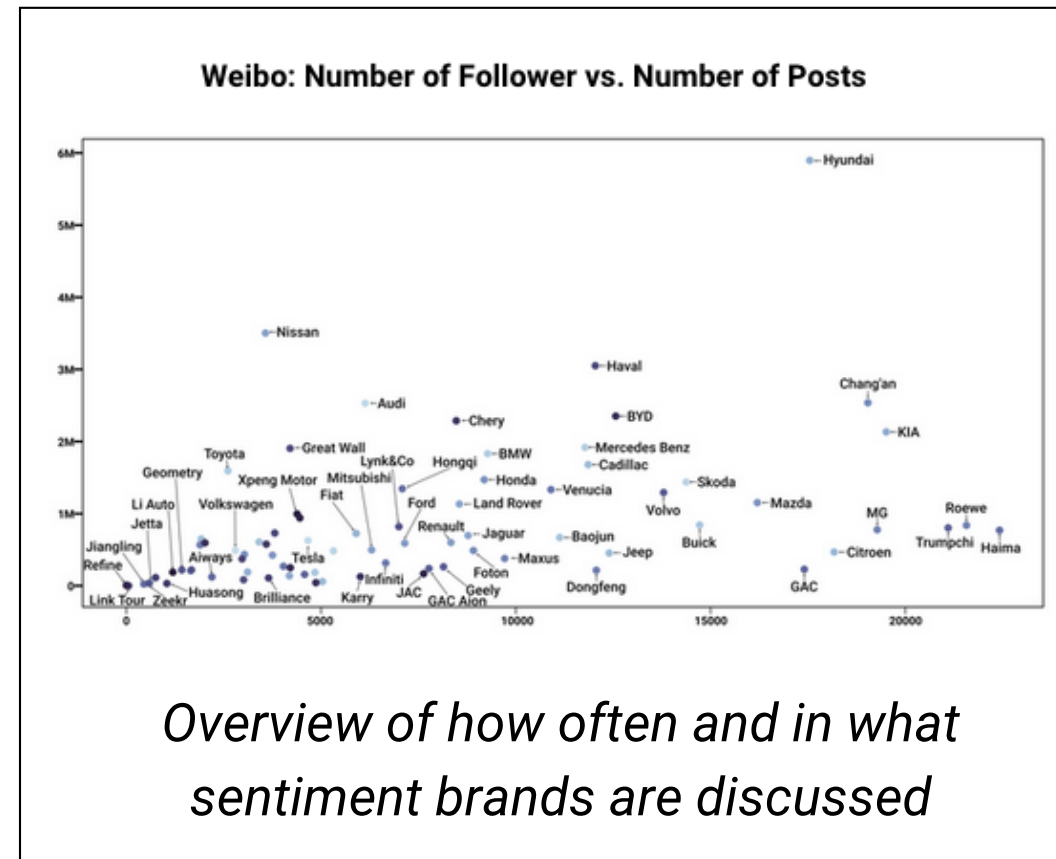
Rank	English Supplier Name	Country Headquarter	Chinese Supplier Name	Presents in the Chinese Market
1	Bosch	Germany	博世	High
2	Continental	Germany	大陆集团	Medium
3	Denso	Japan	电装	High
4	Magna	Canada	麦格纳	low
5	ZF Friedrichshafen	Germany	采埃孚	low
6	Aisin	Japan	爱信精机	low
7	Hyundai Mobis	South Korea	现代摩比斯	low
8	Bridgestone	Japan	普利司通轮胎	Medium
9	Michelin	France	米其林	Medium
10	Valeo	France	法雷奥	low
11	Faurecia	France	佛吉亚	low
12	Lear	USA	李尔	Medium
13	Cummins	USA	康明斯	High
14	Tenneco	USA	天纳克	low
15	Marelli	Italy	马瑞利	low
16	Adient	Ireland	阿迪恩特	low
17	Sumitomo Electric	Japan	住友电气工业株式会社	low
18	Yazaki	Japan	矢崎	low
19	Weichai Power	China	潍柴动力股份	low
20	Goodyear Tire and Rubber	USA	固特异轮胎	Medium
21	Aptiv	Great Britain	安波福	low
22	Panasonic	Japan	松下电器	Medium
23	Mahle	Germany	马勒	High
24	Toyota Boshoku	Japan	丰田纺织	low
25	Schaeffler	Germany	舍弗勒	low

Analysis of how active international suppliers in China are

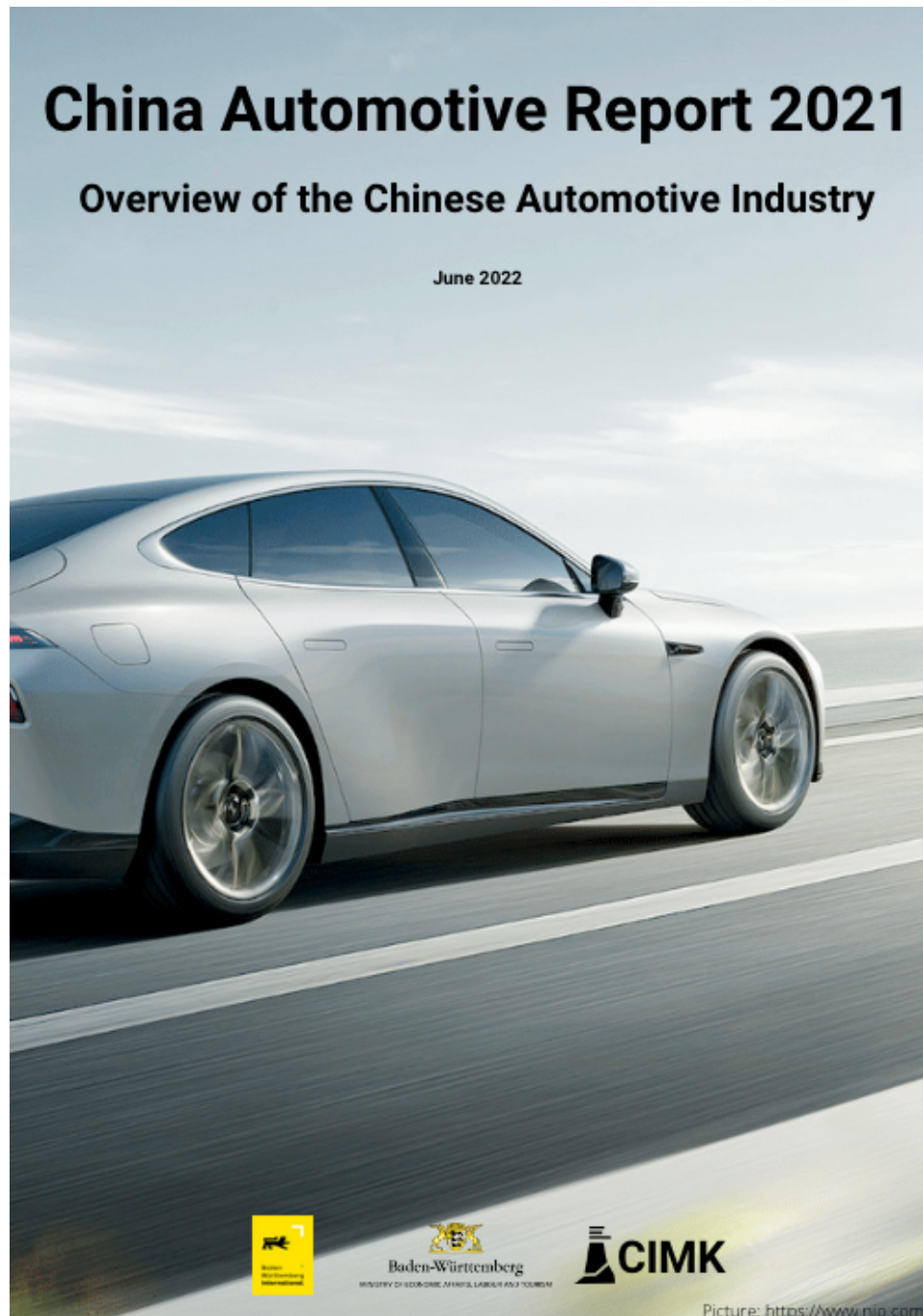
Read the complete report to get a complete overview of the market and trends.



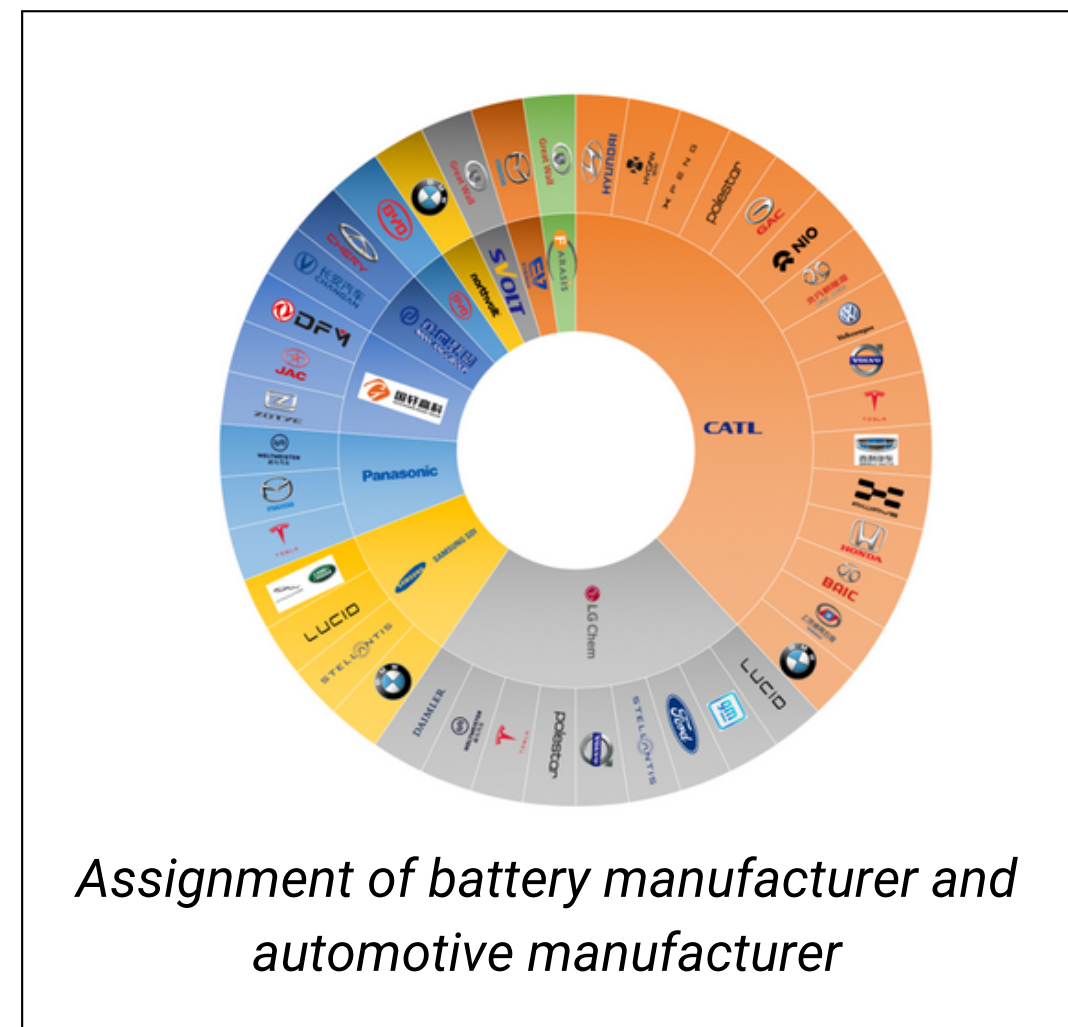
5 Detailed analysis of how different customer groups rate Chinese and international automotive brands



Read the complete report to get a complete overview of the market and trends.



6 Battery and NEV Charging Infrastructure Analysis



Top 10 Provinces by Cumulative Charging Station Units - 2021

Provinces	Number of Charging Station Units
Guangdong	11,633
Jiangsu	6,701
Zhejiang	6,001
Shanghai	5,870
Beijing	5,850
Shandong	4,999
Hebei	3,353
Sichuan	2,955
Tianjing	2,845
Hubei	2,379

Overview of location infrastructures per province and manufacturer



Thank You.

If you have any further questions, please
contact us



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