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Electric Vehicle Sales Review Q2 2022

Foresight to drive the industry
August 2022

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BEV sales buck overall market trend

BEV sales have stood out as a shining beacon in a rather depressed car market this year. Global BEV sales in the first half of 2022 rose by 81% compared to the equivalent period last year. This is impressive in its own right, but even more so when one considers that overall global sales of all powertrains actually fell by 12% in the same period.

Much of the increase can be attributed to China, where BEV sales more than doubled in H1 2022 relative to H1 2021 to more than two million. PHEV sales growth was even more rapid in China, up by 170% in H1 2022 vs. H1 2021, although the absolute number of PHEV sales were significantly lower than for BEVs. The particularly high PHEV growth rate can be partially explained by the continuing high cost of the larger BEV batteries and product availability.

The PHEV market in Europe has been heading in the opposite direction, as OEMs prioritize BEV sales in order to meet emissions targets and burgeoning customer demand. In the first half of 2022, overall PHEV sales decreased by 14% in the ten European markets analyzed relative to the same period last year. Given the EU's recent commitment to measure PHEV CO_2 emissions based on what the vehicles actually emit, potentially replacing previous figures often accused of being unrealistically low, the priorities of European OEMs are only likely to be reinforced.

Changes in market share over the last couple of years reveal the sustained rise of BEVs. Comparing the year 2020 with H1 2022, BEV market share in China has increased from 4% to 17%, and in the ten analyzed European markets from 7% to 13%.

As EV start-ups are now finding it increasingly challenging to raise the market funding they need to continue and expand their operations, established OEMs are in an ideal position to benefit from this market growth.

Sales of battery electric vehicles in China more than doubled in the first half of 2022 in comparison with the same period in 2021

107%

Increase in BEVs purchased in China in H1 2022 vs. H1 2021

BEV entry into mainstream confirmed by recent developments

OEMs launch long-range sedans

Auto manufacturers continue to launch new and diverse BEV products as they view an increasingly electrified future within a highly competitive environment.

While SUVs have been the recent focus of this product offensive, three recently revealed, high-profile concepts suggest that sedans will continue to play an important role. This segment also has a more important role in Asia and North America.

VW recently debuted the ID.Aero, which it plans to put into production in mid-2023. The ID.Aero's aerodynamic shape, five-meter length and a range in excess of 600 kilometers are designed to appeal to the growing premium BEV market in China, where it will go on sale first before becoming available in Europe and North America.[1]

The Hyundai Ioniq 6, due in showrooms in 2023, is another aerodynamic BEV with a potential range of more than 600 kilometers. Its sleek design gives it a drag coefficient, the measure of how well a car cuts through the air, of just 0.21, which will place it among the most aerodynamically-efficient vehicles on the market.[2]

Also on the horizon, this time in 2025, is the Mercedes Vision AMG. The first preview of the car revealed a sleek, aerodynamic, sporty shape, but with four doors, set to compete against the Porsche Taycan.[3]

More fleets go electric

Various companies and organizations have announced major deals for significant expansion of their BEV fleets. BEVs are becoming more attractive due to the favorable TCO, total cost of ownership, and greater product availability.

Hertz has declared plans to purchase up to 65,000 BEVs over the next five years, through a partnership with Polestar, following on from its commitment to order 100,000 Teslas by the end of 2022.[4]

The ride-hailing company Cabify is to receive a €40 million loan from the European Investment Bank to help purchase 1,400 electric vehicles in its home market of Spain and develop the required infrastructure. The company aims to have a zero-emission fleet by 2025 in Spain and then worldwide by 2030.[5]

Vemo, a Mexican BEV taxi operator, has placed an order for 1,000 EVs from BYD, a Chinese manufacturer.[6] Meanwhile, FedEx has received its first 150 electric delivery trucks from BrightDrop, a GM subsidiary, as it moves towards purchasing only electric pickup and delivery fleet vehicles by 2030.[7]

Further signs that BEVs are going mainstream include a bill passed by the Connecticut legislature requiring 100% of the state's fleet to be electric by 2030,[8] and Real Madrid's announcement that all members of its soccer and basketball teams will be given fully electric BMW vehicles.[9]

Sources

[1] The Verge, 27 June 2022
[2] Thisismoney, 29 June 2022
[3] Insideevs, 10 May 2022
[4] News-press, 4 April 2022
[5] Tech.eu, 11 May 2022
[6] Carscoops, 29 April 2022
[7] Reuters, 21 June 2022
[8] S&P Global, 11 May 2022
[9] Sportspromedia, 14 July 2022

Innovation continues as competitors look to steal a march

Charging is combined with customer experience

In the long-term, a comprehensive charging infrastructure will need to cater for vehicles that are predominantly, if not exclusively, electric. However, intriguing innovations are emerging that aim to satisfy charging demand in the nearer term, while strengthening the company brand.

Following the success of its pilot project in Nuremberg, Audi has announced that it will expand its fast-charging hub concept to 13 more sites across Europe over the next three years. The Nuremberg site does not only host six rapid charge points, but also a 200m^2 lounge with a meeting room and terrace. Since the site opened in December 2021, more than 3,600 charges have been made. The site is open to all BEVs, although Audi drivers have accounted for around half the visits.[1]

Meanwhile, plans have been submitted in Los Angeles by Tesla to build a diner and drive-in movie theater in combination with a BEV charging station. The proposed 24-hour site will incorporate 34 charging stations, with two screens and indoor and outdoor seating allowing customers to relax while their vehicles are being recharged.[2]

OEMs plough investment into tech

Auto manufacturers continue their hunt for the technical know-how that can give them an edge over competitors.

Mercedes intends to use a high-efficiency battery in its G-class SUVs which are due by 2025. The battery will be supplied by Sila, a battery materials company in which Mercedes invested in 2019. The new silicon-based anode offers up to a 40% improvement in energy density and improves driving range per charge.[3]

Nissan is one of several companies developing SSB, solid-state batteries, which promise faster charging times and greater range. Producing them on a mass scale has to date proved challenging, but Nissan says it will start selling a BEV with an SSB by 2028.[4]

On a similar note, Solid Power, a developer of solid-state batteries for BEVs, aims to begin sending pre-production battery cells by the end of 2022 for validation testing by partners BMW and Ford.[5]

Porsche has acquired a $100 million stake in US-based battery start-up Group14 Technologies as part of its plans to develop high-performance battery cells. Group14 produces advanced silicon-carbon technology for lithium-ion batteries.[6]

Circular solutions sought

Companies are responding to growing regulatory demand for battery recycling. BMW will work jointly with Huayou Recycling to recycle its used electric vehicle batteries and return the raw materials for reuse to build new cells.[7] VW and several partners have launched a project named HVBatCycle, which will seek to develop technology to keep cathode metals, electrolyte and graphite in a permanently closed loop.[8] And Toyota has followed Ford, Volvo and Tesla in striking a deal with Redwood Materials, which aims to break down end-of-life batteries and use their materials in new ones.[9]

Authorities confirm ambitious targets

The EU's 27 member states approved the end of the sale of combustion engine vehicles by 2035 in Europe. An intermediate objective of a 55% reduction in CO_2 emissions for cars, and 50% for vans, was agreed for 2030.[10]

Regulators in California have proposed that 35% of cars sold in 2026 must be zero emission. This percentage would increase yearly until all vehicles will need to be zero emission by 2035.[11]

Sources
[1] Autocar, 7 June 2022
[2] Fox Business, 3 June 2022
[3] Forbes, 17 May 2022
[4] Newsweek, 14 April 2022
[5] Reuters, 6 June 2022
[6] Autovista24, 10 May 2022
[7] Autonews, 25 May 2022
[8] Autoweek, 14 June 2022
[9] Automotive News, 27 June 2022
[10] Euractiv, 29 June 2022
[11] CalMatters, 13 April 2022

Emerging BEV Start-ups face liquidity pressure

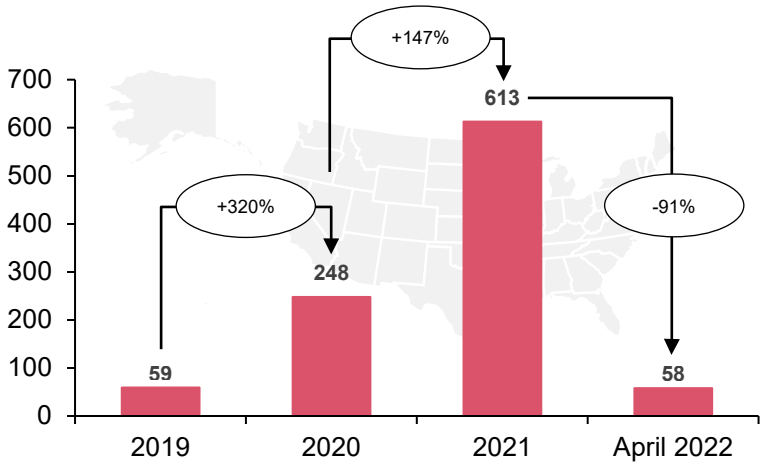
In the last couple of years, a number of BEV start-ups have entered the market through the mechanism of a SPAC, special purpose acquisition company, a publicly traded shell company set up specifically to merge with a private company and take it public. However, this highly productive avenue for start-ups is now facing major hurdles, blunting the insurgent threat to incumbent OEMs.

The SPAC route was attractive to BEV start-ups because it offered an efficient short-cut to an IPO, initial public offering. Most deals were warmly welcomed by markets, and share prices soared. Recently, greater regulatory scrutiny, underperformance, and a challenging market environment in general have led to a shift in investor sentiment.

Regulatory checks have been more rigorous for traditional IPOs than for a SPAC merger, which was characterized by a comparative lack of underwriting and financial due diligence. Fearing that the system was overly lax, the SEC in the US has launched a crackdown, proposing an expansion of underwriter liability and greater disclosure of information. It has also opened investigations into some BEV companies.

Nervous markets have responded accordingly, with major and abrupt share price reductions for prominent BEV start-ups. The July 2022 stock price for Lucid, Faraday Future and Fisker have fallen by 60% from their highest levels, and for Arrival and Nikola by more than 90%. The number of SPAC IPOs across all industries in the US has tumbled from 613 in 2021 to just 58 up to April 2022.

Number of SPAC IPOs in the US from 2019 to 2022

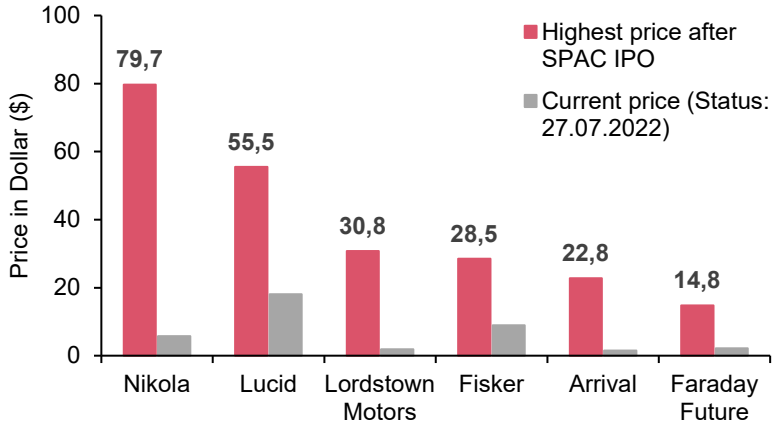


With rising inflation and recession fears, current and future start-ups seeking to continue and expand their operations will find it more difficult to raise necessary funding, potentially leading to serious liquidity challenges. In combination with high burn rates, it is crucial for BEV start-ups to raise funds to survive in a highly competitive market environment.

Underwriters will inevitably treat SPAC applications with more caution. As a result, fewer BEV start-ups will be able to go public through a SPAC merger, forcing them to undertake the more traditional yet cumbersome IPO route in order to raise finance.

With such major obstacles confronting disruptive challengers to their hegemony, large incumbent OEMs will have freer rein to capitalize on the massive global expansion of the BEV market.

Highest stock price after SPAC IPO vs. current price



Source: Autofacts Analysis, SEC, Statista, Nasdaq

BEV sales to grow with new product introductions

Top BEV models so far in 2022

European Top 4

	Model	Sales Jan-Jun ’22
	Fiat 500 electric	24,649
	Tesla Model 3	21,023
	Renault ZOE	15,580
4	Dacia Spring	15,126
5	Peugeot 208 EV	14,851
6	Tesla Model Y	13,664
7	Renault Twingo EV	13,560
8	Hyundai Kona Electric	11,752
9	Volkswagen ID.4, ID.5	8,989
10	Opel Corsa-e	8,667

USA*

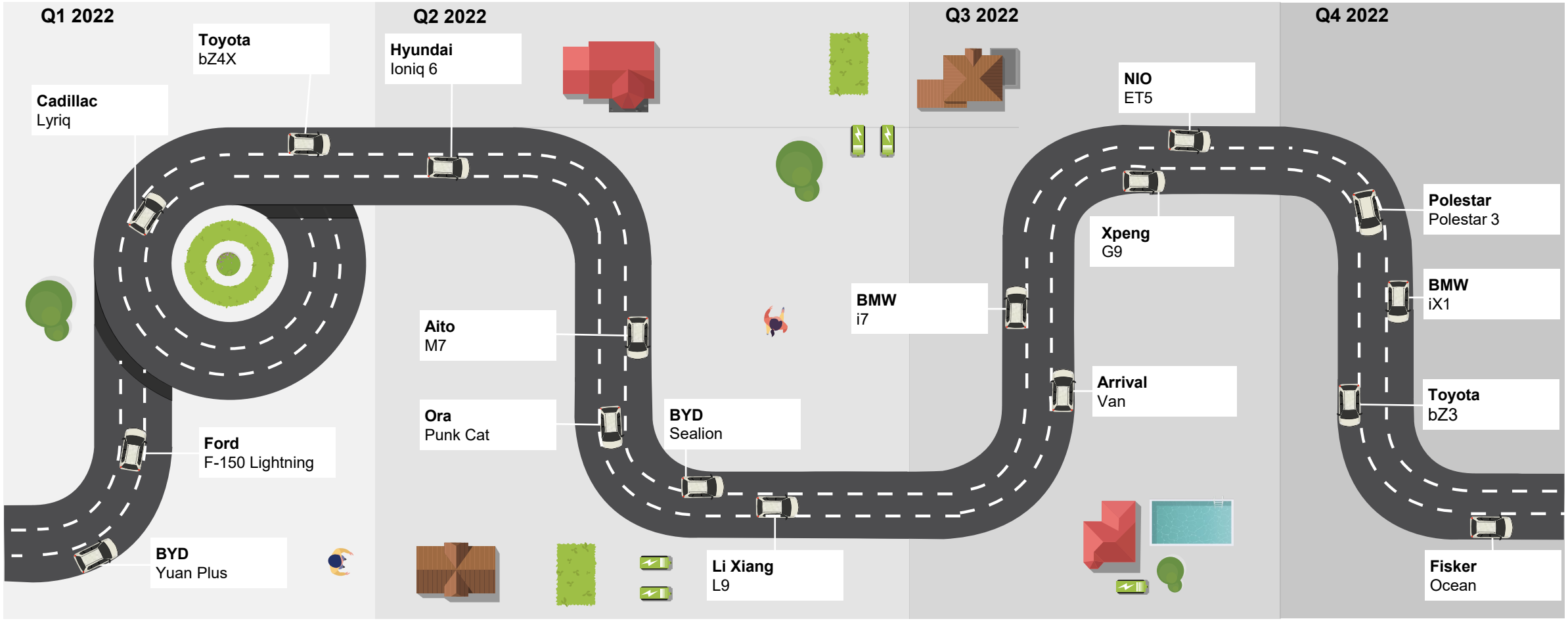
Model	Sales Jan-May ’22
Tesla Model Y	82,880
Tesla Model 3	74,092
Ford Mustang Mach-E	15,491
Tesla Model S	13,008
Hyundai Ioniq 5	10,776
Tesla Model X	9,594
Kia EV6	9,508
Nissan LEAF	7,178
Kia Niro EV	6,074
Polestar 2	4,118

China

Model	Sales Jan-Jun ’22
Wuling Hongguang Mini	188,653
Tesla Model Y	133,666
BYD Han EV	65,024
Tesla Model 3	63,909
Li Xiang One	60,403
BYD Dolphin	58,263
BYD Yuan Plus	54,664
Chery QQ Ice Cream	54,097
Changan Benben EV	51,328
BYD Qin Plus EV	49,976

Source: Autofacts Analysis, KBA, AAA Data, DGT, UNRAE, CPCA, BYD, InsideEVs
*Registration data used as a proxy of sales, non-exhaustive list based on available information

Upcoming BEVs will drive market growth

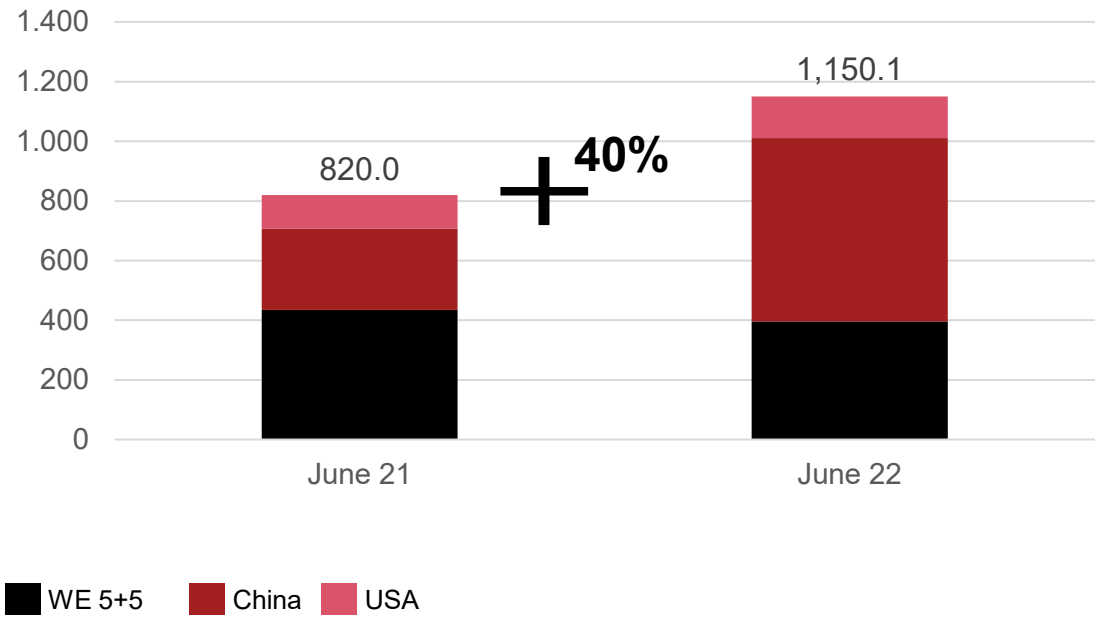


Source: S&P Global Start of Production Forecast (June 2022)

EV sales continue to rise

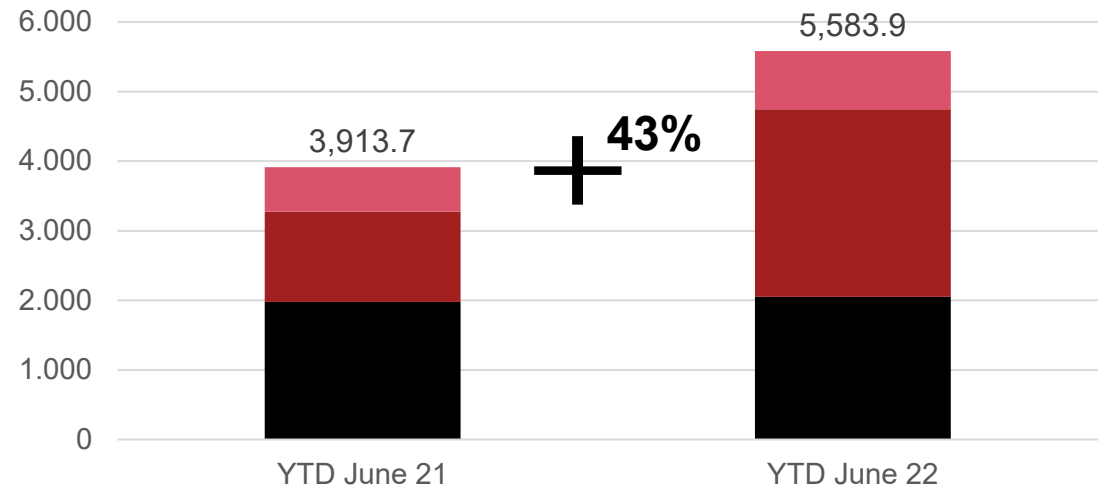
Key Markets

June 21 vs. June 22 (in ’000 units)



Electric Vehicles (EVs*)

YTD June 21 vs. YTD June 22 (in ’000 units)



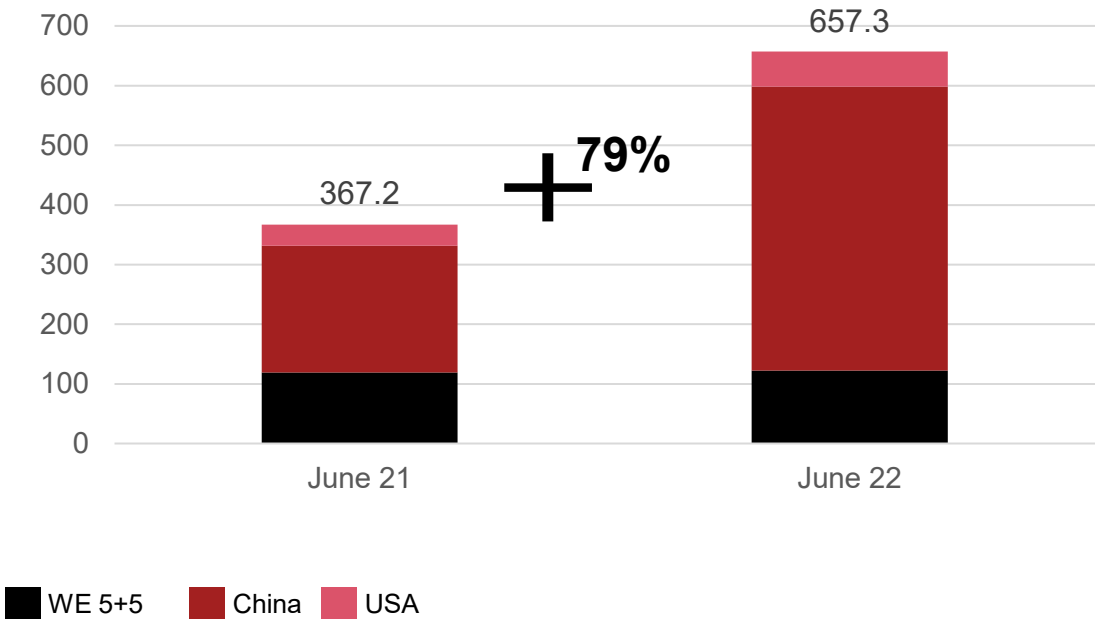
*EV= Battery Electric + Plug-in Hybrids + Full Hybrids

BEVs continue their growth path in China

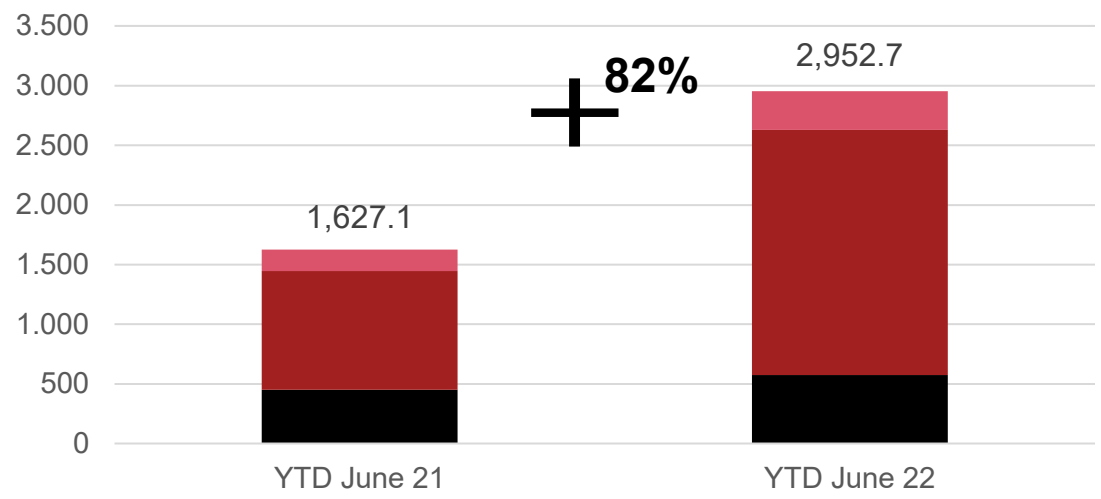
Key Markets

Battery Electric Vehicles

June 21 vs. June 22 (in ’000 units)



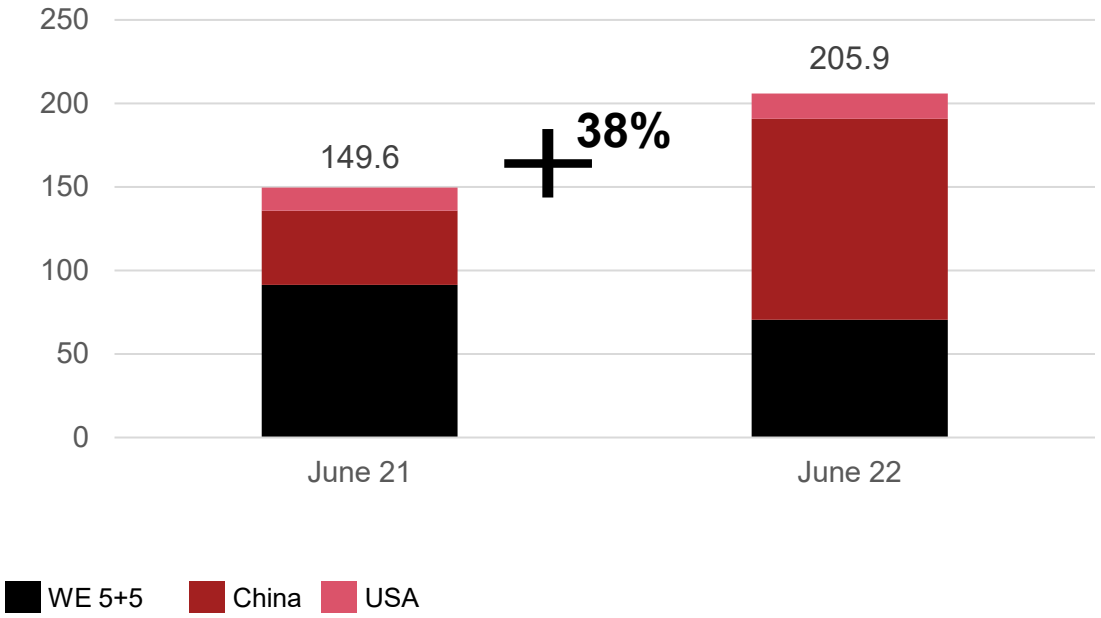
YTD June 21 vs. YTD June 22 (in ’000 units)



Plug-in sales decreased in WE 5+5

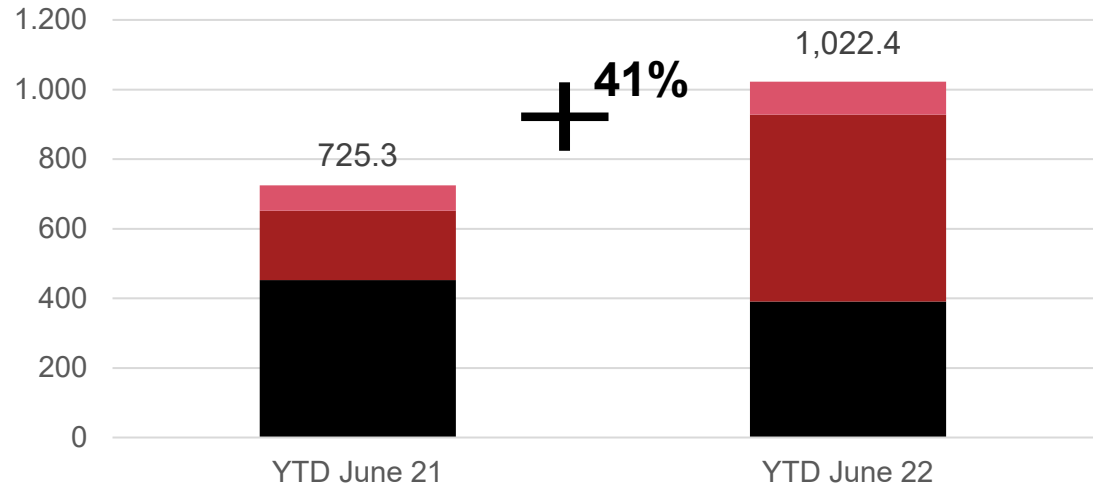
Key Markets

June 21 vs. June 22 (in ’000 units)

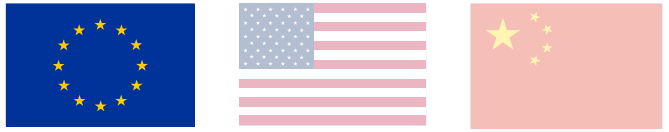


Plug-in Hybrid

YTD June 21 vs. YTD June 22 (in ’000 units)



Western Europe 5+5



European Top 5: France, Germany, Italy, Spain, and UK

Despite a comparative slowdown in growth during the first half of the year due to continuing problems with the supply of parts, BEV sales in the top 5 European markets still grew by 24% from the corresponding period in 2021.

The highest growth in this period was registered by the UK, up by 56% in H1 2022 vs. H1 2021. The BEV market share in the UK now stands at 14%. In a move indicating how mainstream BEVs have now become, the UK government has even removed the £1,500 grant for EV purchases. Germany also seeks to reduce BEV incentives significantly starting in 2023, while PHEV incentives are to expire by the end of this year.

France's BEV sales performance in the first half of the year was also strong, up 29% from H1 2021. Germany's growth slowed to 13%, possibly hampered by problems with parts supplies. However, Germany still boasts the highest absolute number of BEV sales in the European top 5 by a comfortable margin.

Other European markets: (+5)

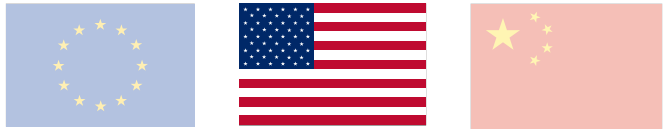
In the other European markets, the Netherlands and Sweden recorded the largest increases in BEV sales, up by 82% and 77% respectively in H1 2022 vs. H1 2021. Sweden's BEV market share has enjoyed a significant increase in the recent period, trebling from 9% in the year 2020 to 27% in H1 2022. The Netherlands BEV market benefits from a well-developed charging infrastructure.

WE 5+5	2022 H1	Comparison to 2021 H1
BEV	576,000	+27%
PHEV	391,000	-14%
Hybrid	1,084,000	+1%
Total	**2,051,000**	**+4%**

Focus Market: Turkey

Turkey, as a potential future BEV producer, has voiced major ambitions to become a leading BEV market. BEV sales in Turkey during H1 2022 increased by 154% YoY to 2,263 units. PHEV sales, on the other hand, remained relatively flat (+0% YoY at 294 units). Overall, total EVs increased sales by 9% YoY during the first half of 2022, accounting for a market share of 8%.

United States



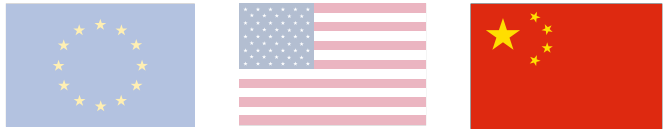
USA

After taking some time to gain momentum, the US BEV market has been continuing its recent rapid rise, up by 78% in H1 2022 in comparison with the same period in 2021. The BEV market share has tripled in the space of 18 months, up from 1.6% for the year 2020 to 4.8% in H1 2022.

This belated growth is set to continue apace. Although Tesla is the frontrunner in the BEV market by a very considerable margin, other top US OEMs, such as Ford and General Motors, are vying for the number two spot. They are investing heavily in new BEV plants and models in an attempt to satisfy mushrooming customer demand, meet tougher fuel economy targets, and show investors that they are making the necessary transition to an BEV-centered future. Even BEV start-ups such as Lucid and Rivian are starting to record a meaningful volume of sales.

USA	2022 H1	Comparison to 2021 H1
BEV	323,000	+78%
PHEV	95,000	+29%
Hybrid	419,000	+9%
Total	**837,000**	**+31%**

China and other countries in Asia



China

BEV sales in China hit the two million mark in the first half of 2022, more than doubling in comparison with the same period in 2021. OEMs' focus on BEVs ensured that this huge growth materialized in the face of further Covid outbreaks and restrictions, which disrupted supply chains and weakened demand. PHEV growth was even steeper in this period, rising by 170%, and is set to be further bolstered by the arrival this year of several new PHEV models.

Japan

Although the market share of Japan's EV market is now more than 50%, it relies almost exclusively on the sale of hybrids. BEV sales grew by 76% in H1 2022 vs. H1 2021, but from a relatively low base. The BEV market share is currently just 1%.

South Korea

BEV sales in South Korea increased by 68% in H1 2022 from the equivalent period in 2021, continuing its rapid recent growth. The BEV market share now stands at 10%, compared to just 2% in 2020.

China*	2022 H1	Comparison to 2021 H1
BEV	2,054,000	+107%
PHEV	537,000	+170%
Hybrid	105,000	+5%
Total	**2,696,000**	**+108%**

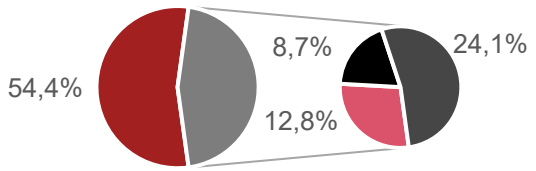
*Partially estimated

Shares of EV registrations

EV registrations YTD June 2022

WE 5+5

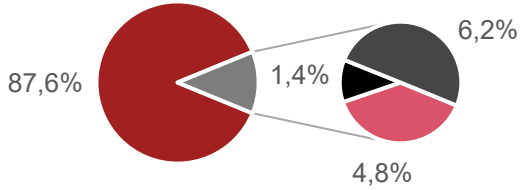
Total registrations	4,495,182
EV registrations	2,051,060



of which BEV	575,756
of which PHEV	390,834
of which Hybrid	1,084,470

USA

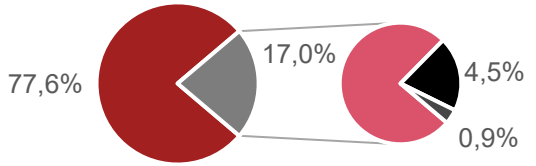
Total registrations	6,748,683
EV registrations	836,804



of which BEV	322,903
of which PHEV	94,590
of which Hybrid	419,312

China

Total registrations	12,047,000
EV registrations	2,696,059



of which BEV	2,054,000
of which PHEV	536,959
of which Hybrid	105,100

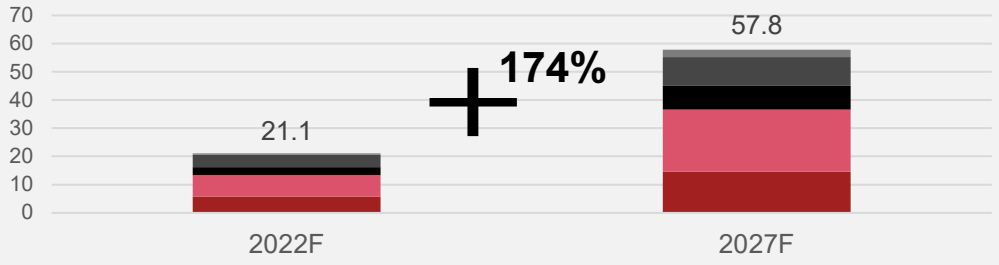
ICE BEV PHEV Hybrid

Electrified vehicle assembly forecast by region

1

EV Assembly by Region

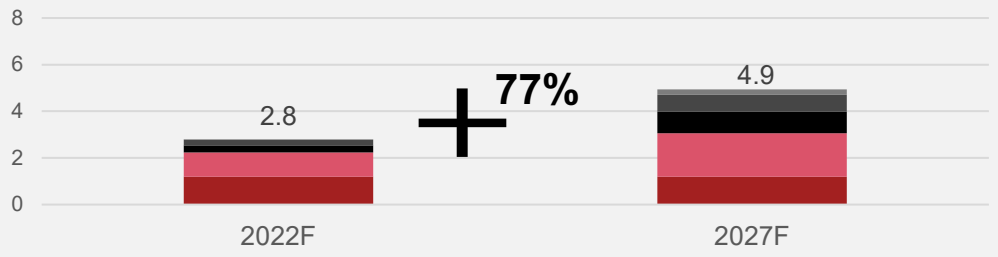
2022F vs. 2027F (in million units)



2

Plug-in Hybrid Vehicle Assembly

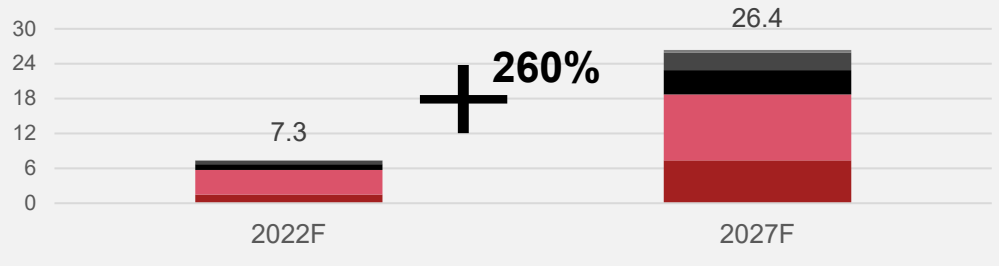
2022F vs. 2027F (in million units)



3

BEV Vehicle Assembly

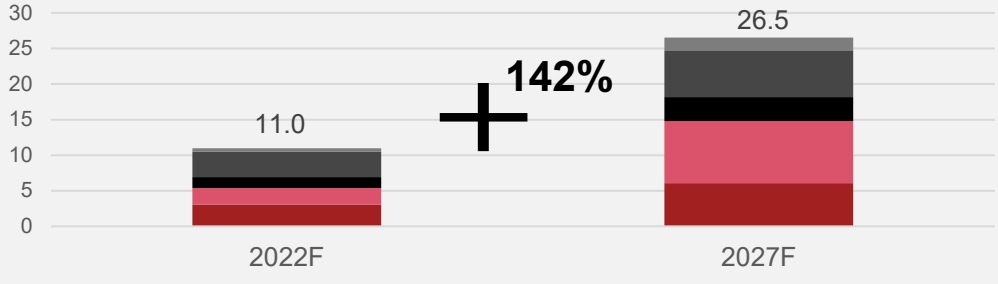
2022F vs. 2027F (in million units)



4

Full and Mild Hybrid Vehicle Assembly

2022F vs. 2027F (in million units)



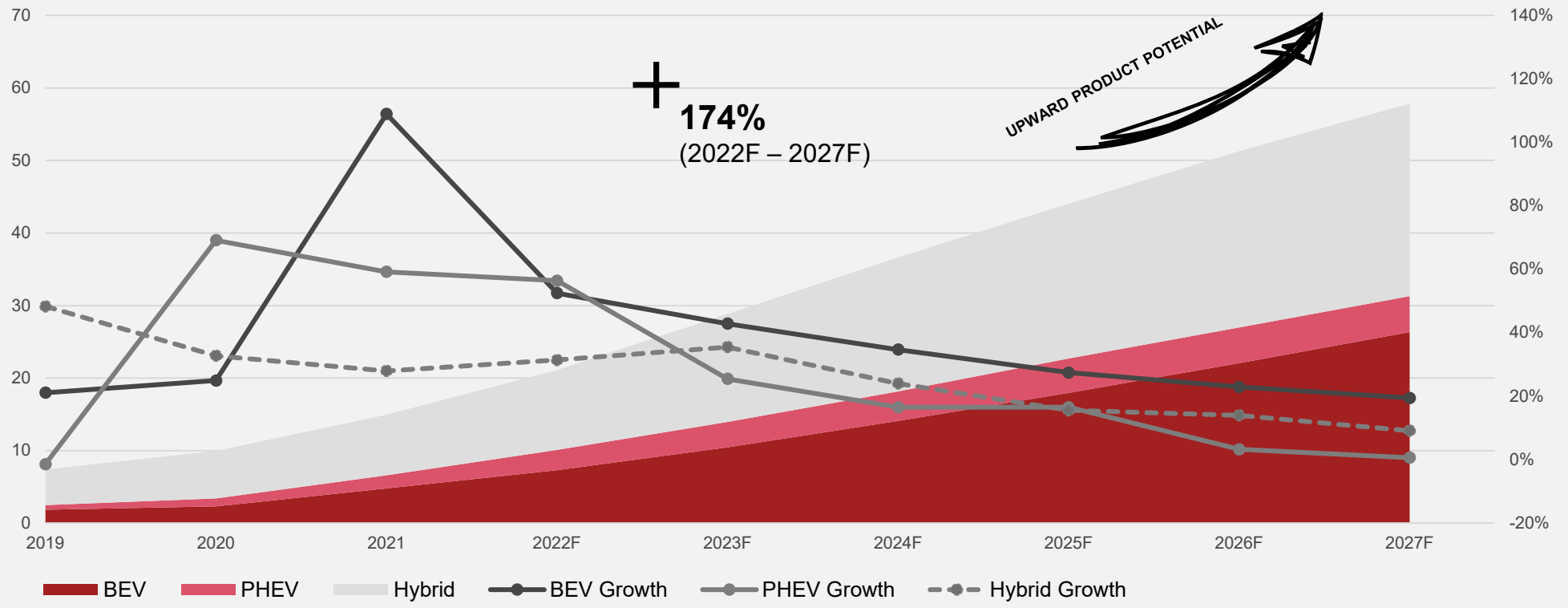
Western + Central Europe | China | NAFTA | Asia-Pacific (w/o China) | RoW

Source: Assembly Forecast by S&P Global, June 2022 Release

Electric vehicle assembly forecast

5

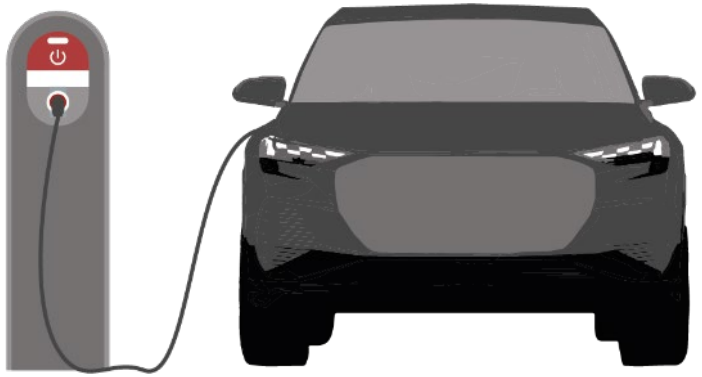
Global EV assembly by powertrain type
2019 – 2027F (in million units, percent)



Source: Assembly Forecast by S&P Global, June 2022 Release

Overview: BEV model launches

2022 not exhaustive

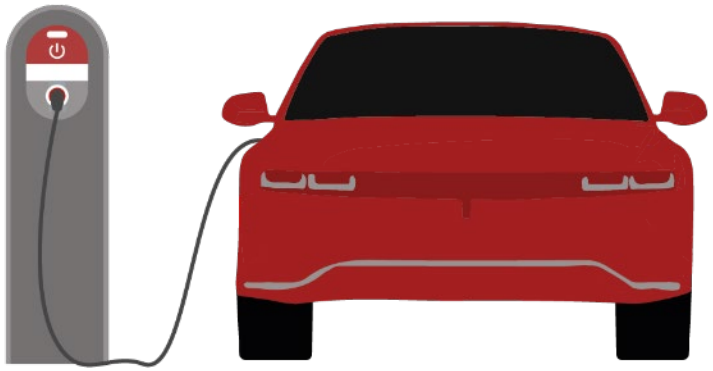


Brand	Model	Launch	Quarter
Aiways	U6	2022	Q4
Arrival	Van	2022	Q3
Avatr	E-SUV EV	2022	Q3
BMW	i7	2022	Q3
BMW	iX1	2022	Q4
Citroen	C4 X	2022	Q4
Cruise	Origin	2022	Q4
Denza	D9	2022	Q3
Dongfeng	D-Sedan EV	2022	Q4
Fisker	Ocean	2022	Q4
Geely	C+CUV EV	2022	Q3
Lexus	RZ	2022	Q4
Lotus	Eletre	2022	Q4
MG	CyberE	2022	Q4
Neta	S	2022	Q4

Source: S&P Global Start of Production Forecast (June 2022)

Overview: BEV model launches

2022 not exhaustive

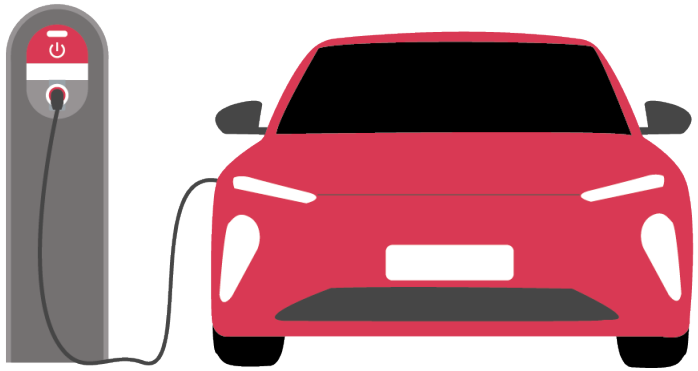


Brand	Model	Launch	Quarter
NIO	ET5	2022	Q3
Niutron	NV	2022	Q4
POER	Pao II	2022	Q4
Polestar	Polestar 3	2022	Q4
Togg	C-CUV EV	2022	Q4
Toyota	bZ3	2022	Q4
Volkswagen	ID.Buzz	2022	Q3
WM	M7	2022	Q3
Wuling	Jiachen	2022	Q3
Xpeng	G9	2022	Q3
Zeekr	002	2022	Q3

Source: S&P Global Start of Production Forecast (June 2022)

Overview: BEV model launches

2023–2026 not exhaustive

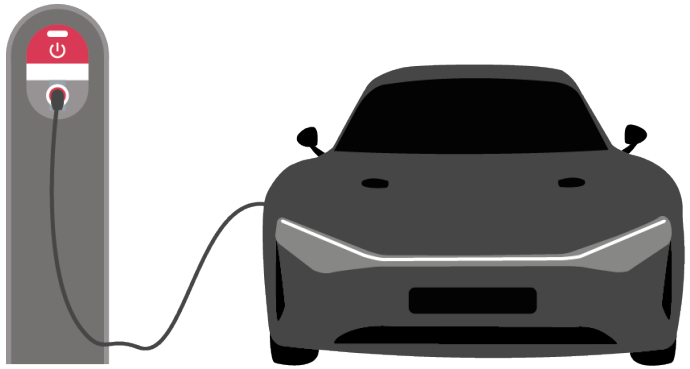


Brand	Model	Launch
Acura	ADX	2024
Alfa Romeo	Stelvio	2025
Arcfox	C-Sedan	2023
Arrival	Car	2023
Audi	A6 e-tron	2024
BMW	i5	2023
Canoo	Lifestyle Vehicle	2023
Chevrolet	Equinox EV	2023
Chevrolet	Silverado EV	2023
Citroen	C3 Aircross	2023
Fiat	Panda	2024
Fisker	PEAR	2024
Geely	C-Sedan EV	2024
Hyundai	Ioniq 7	2024
Jeep	Cherokee Sport EV	2024

Source: S&P Global Start of Production Forecast (June 2022)

Overview: BEV model launches

2023–2026 not exhaustive



Brand	Model	Launch
Kia	EV9	2023
Kia	EV7	2023
Kia	EV4	2024
Kia	EV5	2024
Lucid	Gravity	2024
NIO	ES5	2023
Nissan	Bluebird Sylphy	2025
Opel	Manta	2025
Polestar	Polestar 5	2024
Porsche	Macan	2023
Rivian	R1X	2023
Tesla	Cybertruck	2023
Tesla	Roadster	2023
Volkswagen	ID.7	2023
Volkswagen	Trinity	2026

Source: S&P Global Start of Production Forecast (June 2022)

Electric vehicle sales data

Germany, UK, France, Italy, Spain, WE-5

		YTD 2022	Market Share	YTD 2021	YoY YTD	22 Q2	QoY 22 Q2	Jun 22	MoY Jun 22	May 22	MoY May 22	Apr 22	MoY Apr 22
	BEV	167,263	13.5%	148,716	12.5%	83,591	-0.5%	32,234	-3.5%	29,182	8.9%	22,175	-6.9%
	PHEV	138,880	11.2%	163,571	-15.1%	71,109	-16.9%	26,203	-16.3%	23,209	-14.7%	21,697	-19.6%
	Hybrid	233,240	18.8%	220,827	5.6%	111,699	-6.5%	39,160	-13.5%	37,450	0.8%	35,089	-5.4%
Germany	Total EV	539,383	43.6%	533,114	1.2%	266,399	-7.8%	97,597	-11.3%	89,841	-1.4%	78,961	-10.2%
	BEV	115,249	14.4%	73,893	56.0%	51,084	21.3%	22,737	14.6%	15,448	17.7%	12,899	40.9%
	PHEV	51,263	6.4%	58,179	-11.9%	21,502	-31.9%	7,714	-36.5%	7,339	-25.5%	6,449	-32.8%
	Hybrid	238,365	29.7%	242,231	-1.6%	116,186	-12.5%	40,499	-23.2%	37,226	-12.4%	38,461	2.2%
UK	Total EV	404,877	50.5%	374,303	8.2%	188,772	-8.6%	70,950	-16.2%	60,013	-8.3%	57,809	2.5%
	BEV	93,344	12.1%	72,454	28.8%	49,838	18.6%	21,900	5.0%	15,246	31.9%	12,692	32.2%
	PHEV	62,810	8.1%	71,708	-12.4%	33,500	-17.4%	11,964	-27.4%	11,302	-12.1%	10,234	-8.8%
	Hybrid	164,069	21.3%	152,124	7.9%	90,989	11.5%	43,023	18.2%	26,006	11.4%	21,960	0.4%
France	Total EV	320,223	41.5%	296,286	8.1%	174,327	6.2%	76,887	4.3%	52,554	10.1%	44,886	5.2%
	BEV	24,942	3.6%	30,241	-17.5%	13,653	-19.6%	6,148	-12.3%	4,473	-12.7%	3,032	-37.4%
	PHEV	37,490	5.5%	37,750	-0.7%	20,163	-6.9%	7,051	-1.6%	7,486	-3.5%	5,626	-16.3%
	Hybrid	226,109	33.0%	243,081	-7.0%	111,193	-9.2%	36,834	-9.8%	40,520	1.3%	33,839	-18.8%
Italy	Total EV	288,541	42.2%	311,072	-7.2%	145,009	-10.0%	50,033	-9.1%	52,479	-0.8%	42,497	-20.2%
	BEV	16,242	4.0%	10,579	53.5%	7,934	19.4%	3,448	20.9%	2,341	14.9%	2,145	22.1%
	PHEV	24,086	5.9%	19,170	25.6%	13,518	12.5%	4,295	-3.9%	4,833	8.3%	4,390	42.6%
	Hybrid	117,606	28.8%	110,117	6.8%	70,041	3.1%	25,221	-5.2%	25,212	11.3%	19,608	4.9%
Spain	Total EV	157,934	38.7%	139,866	12.9%	91,493	5.7%	32,964	-2.8%	32,386	11.1%	26,143	11.2%
	BEV	417,040	10.7%	335,883	24.2%	206,100	7.5%	86,467	3.0%	66,690	13.8%	52,943	7.7%
	PHEV	314,529	8.1%	350,378	-10.2%	159,792	-16.5%	57,227	-20.0%	54,169	-12.8%	48,396	-16.0%
	Hybrid	979,389	25.1%	968,380	1.1%	500,108	-4.6%	184,737	-8.4%	166,414	0.5%	148,957	-5.1%
WE-5	Total EV	1,710,958	43.8%	1,654,641	3.4%	866,000	-4.6%	328,431	-8.1%	287,273	0.3%	250,296	-5.1%

Legend

MoY = Month-on-Year
QoY = Quarter-on-Year
YoY = Year-on-Year
YTD = Year-to-Date

Source: Autofacts Analysis, KBA, SMMT, PFA, ANFIA, ANFAC, SCB, OFV, RAI, auto-schweiz, Statistik Austria, CAAM, JADA

Electric vehicle sales data

Sweden, Norway, Netherlands, Switzerland, Austria, WE 5+5

		YTD 2022	Market Share	YTD 2021	YoY YTD	22 Q2	QoY 22 Q2	Jun 22	MoY Jun 22	May 22	MoY May 22	Apr 22	MoY Apr 22
	BEV	40,360	26.8%	22,768	77.3%	20,394	16.1%	8,365	-3.9%	6,529	64.4%	5,500	12.5%
	PHEV	35,172	23.4%	46,741	-24.8%	17,459	-9.5%	6,159	-32.7%	6,146	10.6%	5,154	12.6%
	Hybrid	14,025	9.3%	13,897	0.9%	7,403	1.2%	2,067	-29.3%	2,600	8.2%	2,736	37.3%
Sweden	Total EV	89,557	59.5%	83,406	7.4%	45,256	2.5%	16,591	-20.1%	15,275	28.0%	13,390	16.9%
	BEV	54,177	79.1%	48,062	12.7%	27,374	-5.3%	11,722	-11.1%	8,445	-0.6%	7,207	-0.3%
	PHEV	6,364	9.3%	21,281	-70.1%	4,026	-62.3%	1,669	-59.7%	1,375	-57.3%	982	-70.4%
	Hybrid	3,248	4.7%	5,989	-45.8%	2,066	-39.5%	549	-60.8%	808	-26.4%	709	-22.8%
Norway	Total EV	63,789	93.1%	75,332	-15.3%	33,466	-22.2%	13,940	-25.5%	10,628	-17.1%	8,898	-22.4%
	BEV	31,694	20.6%	17,450	81.6%	18,280	47.9%	7,812	26.1%	5,348	47.3%	5,120	102.1%
	PHEV	18,806	12.2%	15,938	18.0%	8,759	6.5%	2,723	-5.4%	2,875	9.3%	3,161	16.6%
	Hybrid	39,649	25.8%	38,371	3.3%	18,106	-5.1%	6,798	-9.3%	5,561	-3.7%	5,747	-0.9%
Netherlands	Total EV	90,149	58.6%	71,759	25.6%	45,145	13.8%	17,333	4.6%	13,784	14.5%	14,028	27.0%
	BEV	17,992	16.4%	12,319	46.1%	9,172	21.0%	4,446	20.5%	2,638	37.5%	2,088	5.8%
	PHEV	9,421	8.6%	10,356	-9.0%	4,423	-26.8%	1,536	-32.8%	1,609	-12.4%	1,278	-33.4%
	Hybrid	27,505	25.1%	25,698	7.0%	14,146	0.5%	5,132	-3.0%	4,815	20.1%	4,199	-12.1%
Switzerland	Total EV	54,918	50.1%	48,373	13.5%	27,741	0.2%	11,114	-1.3%	9,062	16.7%	7,565	-12.7%
	BEV	14,493	13.3%	15,347	-5.6%	7,327	-16.0%	3,414	-5.5%	2,064	-23.8%	1,849	-23.1%
	PHEV	6,542	6.0%	7,940	-17.6%	3,336	-20.9%	1,192	-14.8%	1,053	-30.1%	1,091	-16.8%
	Hybrid	20,654	19.0%	22,574	-8.5%	10,952	-11.3%	3,971	-16.9%	3,575	-11.5%	3,406	-3.6%
Austria	Total EV	41,689	38.4%	45,861	-9.1%	21,615	-14.6%	8,577	-12.4%	6,692	-19.0%	6,346	-12.4%
	BEV	575,756	12.8%	451,829	27.4%	288,647	8.1%	122,226	2.4%	91,714	15.6%	74,707	9.6%
	PHEV	390,834	8.7%	452,634	-13.7%	197,795	-17.5%	70,506	-22.9%	67,227	-12.6%	60,062	-15.9%
	Hybrid	1,084,470	24.1%	1,074,909	0.9%	552,781	-4.8%	203,254	-9.1%	183,773	0.4%	165,754	-4.7%
WE 5+5	Total EV	2,051,060	45.6%	1,979,372	3.6%	1,039,223	-4.4%	395,986	-8.9%	342,714	1.0%	300,523	-4.2%

Legend

MoY = Month-on-Year
QoY = Quarter-on-Year
YoY = Year-on-Year
YTD = Year-to-Date

Source: Autofacts Analysis, KBA, SMMT, PFA, ANFIA, ANFAC, SCB, OFV, RAI, auto-schweiz, Statistik Austria, CAAM, JADA

Electric vehicle sales data

China, Japan, USA, South Korea, Analyzed Markets

		YTD 2022	Market Share	YTD 2021	YoY YTD	22 Q2	QoY 22 Q2	Jun 22	MoY Jun 22	May 22	MoY May 22	Apr 22	MoY Apr 22
	BEV	2,054,000	17.0%	994,000	106.6%	1,054,000	87.5%	476,000	124.5%	347,000	93.9%	231,000	35.1%
	PHEV	536,959	4.5%	199,240	169.5%	288,359	144.7%	120,300	170.9%	100,031	160.5%	68,028	94.1%
	Hybrid	105,100	0.9%	100,276	4.8%	53,071	-0.4%	18,060	8.1%	17,679	1.3%	17,332	-9.3%
China*	Total EV	2,696,059	22.4%	1,293,516	108.4%	1,395,430	90.3%	614,360	124.9%	464,710	97.9%	316,360	40.5%
	BEV	14,752	1.3%	8,407	75.5%	6,561	103.1%	3,379	158.5%	1,572	27.0%	1,610	134.7%
	PHEV	18,864	1.7%	11,472	64.4%	8,528	57.2%	3,306	42.7%	2,953	95.3%	2,269	42.0%
	Hybrid	522,948	47.1%	518,546	0.8%	214,443	-0.8%	78,472	-1.6%	65,190	-0.5%	70,781	-0.1%
Japan	Total EV	556,564	50.1%	538,425	3.4%	229,532	2.1%	85,157	2.1%	69,715	2.1%	74,660	2.1%
	BEV	322,903	4.8%	181,242	78.2%	172,343	62.7%	59,090	65.0%	57,804	52.2%	55,449	72.7%
	PHEV	94,590	1.4%	73,400	28.9%	46,972	10.2%	15,121	9.5%	15,804	-0.1%	16,047	23.5%
	Hybrid	419,312	6.2%	386,204	8.6%	214,066	1.5%	65,533	4.3%	73,624	-1.9%	74,909	2.5%
USA	Total EV	836,804	12.4%	640,846	30.6%	433,381	20.6%	139,744	24.3%	147,232	14.3%	146,405	23.8%
	BEV	64,559	9.7%	38,486	67.7%	39,033	44.3%	12,173	-9.9%	14,392	56.0%	12,468	189.0%
	PHEV	7,187	1.1%	11,302	-36.4%	3,046	-49.4%	970	-55.1%	891	-56.4%	1,185	-34.6%
	Hybrid	129,585	19.4%	95,285	36.0%	74,570	45.3%	25,443	37.8%	24,450	63.4%	24,677	38.0%
South Korea	Total EV	201,331	30.1%	145,073	38.8%	116,649	38.3%	38,586	13.0%	39,733	51.5%	38,330	59.7%
	BEV	3,031,970	12.1%	1,673,964	81.1%	1,560,584	61.7%	672,868	76.1%	512,482	67.1%	375,234	35.8%
	PHEV	1,048,434	4.2%	748,048	40.2%	544,700	32.3%	210,203	36.4%	186,906	38.8%	147,591	20.1%
	Hybrid	2,261,414	9.0%	2,175,220	4.0%	1,108,931	-0.3%	390,762	-2.7%	364,716	2.5%	353,453	-0.4%
Analyzed Markets	Total EV	6,341,818	25.3%	4,597,232	37.9%	3,214,215	29.1%	1,273,833	35.9%	1,064,104	33.4%	876,278	16.2%

Legend

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Source: Autofacts Analysis, KBA, SMMT, PFA, ANFIA, ANFAC, SCB, OFV, RAI, auto-schweiz, Statistik Austria, CAAM, JADA
*Partially estimated

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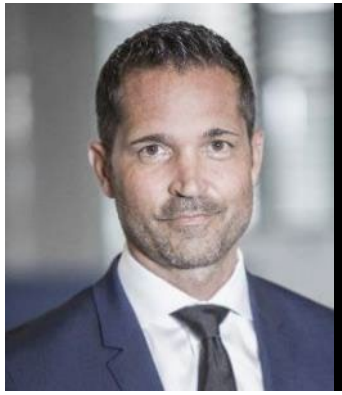

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