strategy\&

## E-Mobility Sales Review Q3 2020

Foresight to drive the industry

## EV market provides islands of stability

As the COVID-19 crisis created havoc in automobile sales throughout the world, the electric vehicle segments held up comparatively well in the second quarter of 2020. It now appears that e-mobility will be one of the few winners to emerge from this crisis.

This is particularly true of Europe, where EV sales remained virtually unchanged from the equivalent quarter of last year. As a result, the fleets of European car manufacturers look increasingly well placed to comply with the average $\mathrm{CO}_{2}$ fleet emission target of $95 \mathrm{~g} / \mathrm{km} .{ }^{1}$

With factories having been shut for an extensive period due to lockdown measures, there will be some delay before European production can satisfy the existing order backlog - while waiting for new demand. At that point, probably later in 2020, EV sales in Europe are likely to reach their tipping point, accelerating more rapidly due to increasing product availability and the beneficial impact of recently implemented government incentives. Regional differences in EV market performance are becoming ever more salient. Regulation, mobility habits, and product offerings are following entirely different paths in each region.

## PHEV sales grow rapidly in Q2



In the second quarter of 2020, sales of fully electric and electrified vehicles (xEVs) - mild, full and plug-in hybrid as well as battery electric vehicles - registered a decline of $16 \%$ in key markets compared to the equivalent quarter of 2019.

However, there was significant variation in the results for the various technologies. Whereas sales of battery electric vehicles (BEVs) and hybrids declined by $22 \%$ and $19 \%$ respectively (to 318,000 and 300,000 units sold), registrations of plug-in hybrids (PHEV) increased by $15 \%$ (to 143,000 units).

The rise in global PHEV sales was mostly due to Europe. In the top five markets of France, Germany, Italy, Spain and the United Kingdom, PHEV registrations increased by $121 \%$ in relation to the second quarter of 2019, despite the crisis.

Although China recovered somewhat from the first quarter of 2020 after coming out of lockdown, Europe continues to display the highest market share for electric vehicles by a significant margin. When we include the five leading EV markets of Austria, Netherlands, Norway, Switzerland and Sweden, the relevant market share for Europe stands at $19 \%$, in comparison to less than $5 \%$ in both China and the United States.

## $121 \%$

Increase in PHEV sales in EU top 5 markets: Q2 2020 vs. Q2 2019


## Unlimited charging

Million-mile battery
Chinese battery manufacturer CATL introduced a power pack to the market that lasts for more than a million miles, while Tesla also announced a long-life battery.
Theoretically, batteries with such a long lifespan have the potential to be reused in a second vehicle, thus lowering costs and making electric cars more attractive to customers. As batteries will in practice seldom
be used for driving a million miles, the additional charging cycles could be repurposed for grid storage or backup power systems.

## Swappable batteries in China

Among many support programs for electric vehicles, the Chinese government has offered incentives to promote swappable battery systems. New energy vehicles priced over 300,000 yuan are not eligible for
incentives in the latest subsidy plan which have taken effect on July 23, but cars with exchangeable batteries are exempt from this limitation.

Swapping batteries is seen as quick and convenient, enabling car owners to benefit continually from upgrades in battery technology. The government is also pushing for industry-wide standardization to allow for true Battery-as-a-Service.

## Lithium exploitation in Germany



It has been reported that lithium, an essential component of batteries, will soon be processed by several companies in Germany, dramatically reducing the need for imports of the material. Scientists at Karlsruhe Institute of Technology have unveiled a plan to extract lithium using a minimally invasive process from the geothermal waters in the Upper Rhine Valley.


## Incentives vs. limited production

## Europe at the forefront of incentive strategy

Governments in Europe continue to compete with each other in offering generous incentives to stimulate demand for electric vehicles. In France, for example, buyers of BEVs could now receive up to $€ 12,000$, lowering the cost of purchase by up to $40 \%$ in some cases. Meanwhile, consumers in the Netherlands will be entitled to a subsidy of $€ 4,000$ for BEVs. Germany introduced a raft of measures to stimulate the market, including increased subsidies for BEVs and PHEVs and reduced company car tax for electric vehicles. Given limited production capacity for existing EVs, measurable market effects are likely to be small, despite the fact that consumer interest in online configuration portals has increased threefold. At the same time, $€ 2.5$ billion has been allotted to research and production of EV batteries and to a long-term plan to extend the charging infrastructure to one million charging points by 2030.

China maintains its commitment

China's State Grid Corporation, a state-owned utility, announced that it would invest 2.7 billion yuan to establish 78,000 charging posts in 24 regions and municipalities. Moreover, the Chinese government has extended its stimulus package for NEVs until the end of 2022. They will continue to be exempt from the $10 \%$ vehicle purchase tax and remain eligible for various purchase subsidies.

PR Congo accounts for at least 60\% of worldwide cobalt production, a key ingredient for EV batteries. ${ }^{3}$

## 3. E-mobility sales data

## EV sales recover in June <br> Key Markets <br>  <br> Electric Vehicles (EVs*)

Jun 19 vs. Jun 20 (in ‘000 units)


YTD Jun 19 vs. YTD Jun 20 (in ‘000 units)


## BEV sales take a break

## Key Markets

Jun 19 vs. Jun 20 (in ‘000 units)



## Battery Electric Vehicles

YTD Jun 19 vs. YTD Jun 20 (in '000 units)


## PHEV sales kick in

## Key Markets

Jun 19 vs. Jun 20 (in ‘000 units)



## Plug-in Hybrids

YTD Jun 19 vs. YTD Jun 20 (in '000 units)


## EU Top 5+5

Although registrations of electric vehicles were hit hard by the effects of COVID-19 in April, and to a lesser extent in May, they rebounded in June. Sales declined by only 1\% compared to the equivalent quarter in 2019 , with 211,000 new electrified vehicles being registered in the top 5 markets. Such relative stability and the growth in market share of electric vehicles can be attributed to increasing customer interest, and a general improvement in the quality and availability of the vehicles themselves.
Whereas sales of hybrid vehicles fell by $29 \%$ in comparison to the same quarter last year, registrations of PHEVs soared. This was particularly noticeable in Germany ( $+257 \%$ ). The UK showed a significant increase in BEV registrations (+113\%).

## Further European markets (+5)

Looking at five smaller European EV markets (Austria, Netherlands, Norway, Switzerland and Sweden), the overall percentage decrease in the ten European markets from the same quarter last year is similarly negligible (1\%). Norway's overall market share for electrified vehicles continues to outstrip the rest of the region, at $79 \%$.


2020 Q2*
Comparison to 2019 Q2*


| BEV | 52,000 | $+35 \%$ |
| :--- | :---: | :---: |
| PHEV | 50,000 | $+121 \%$ |
| Hybrid | 109,000 | $-29 \%$ |
| Total | $\mathbf{2 1 1 , 0 0 0}$ | $\mathbf{- 1 \%}$ |

## United States

As a result of the COVID-19 crisis, registrations of electric vehicles declined by a third ( $-33 \%$ ) in comparison to the equivalent quarter in 2019. Significant falls in sales were evident for BEVs, PHEVs and hybrids. The only bright spot was a 6\% increase in hybrid registrations in June 2020 in comparison with the same month last year, up to 42,000 units.

The scale of the overall decrease is largely due to crisisrelated delays in the launch or delivery of much anticipated new models, including Ford's Mustang Mach-E and Tesla's Model Y. However, long-term structural issues continue to have an effect. Government incentives and regulations vary markedly across different states, and do not demonstrate the same strategic resolve to boost the EV market that is evident in other global regions.

## China and Rest of Asia

## China

Although the Chinese EV market fell by $22 \%$ in Q2 in comparison to the equivalent period last year, registrations were more than twice as high as in the first quarter of this year. The relative recovery is partly due to the reopening after the economic lockdown which occurred earlier than in other regions.

Registrations of BEVs declined most sharply, down 29\% to 182,000 units, while sales of hybrids increased $9 \%$. It is hoped that the extension of sales subsidies and tax breaks for NEVs (BEVs and PHEVs) for two years* will revive the electric car market and further extend its global market share. The Chinese government has also introduced comprehensive safety regulations for electric cars in order to provide additional reassurance for consumers.

## Rest of Asia

Having also emerged from lockdown earlier than many regions, South Korea recorded an increase in electric car registrations from the same quarter last year, up by $21 \%$ to 51,000 units. However, this increase builds on a much lower base, with South Korea still held back by poor supply and low-level state subsidies.


2020 Q2
Comparison to 2019 Q2

| BEV | 182,000 | $-29 \%$ |
| :--- | :--- | :--- | :--- |
| PHEV | 57,000 | $-17 \%$ |
| Hybrid | 45,000 | $+9 \%$ |
|  | $\mathbf{2 8 3}, 000$ | $\mathbf{- 2 2 \%}$ |

## Rankings for EV registrations

| EV registrations YTD Jun 2020 |  |  |  |
| :---: | :---: | :---: | :---: |
| EU-5 <br> of which BEV <br> of which PHEV <br> of which Hybrid | $\begin{gathered} 529,414^{*} \\ 131,408^{*} \\ 106,583^{*} \\ 291,423^{*} \end{gathered}$ |  | of 3,503,705 registrations |
| USA <br> of which BEV <br> of which PHEV <br> of which Hybrid | $\begin{array}{r} 267,162^{*} \\ 94,205^{*} \\ 30,979^{*} \\ 141,978^{*} \end{array}$ |  | of 5,972,186 registrations |
| China <br> of which BEV <br> of which PHEV <br> of which Hybrid | $\begin{array}{r} 418,370^{*} \\ 259,256^{*} \\ 83,597^{*} \\ 75,518^{*} \end{array}$ |  | of $8,557,276$ registrations |
| PwC Autofacts ${ }^{\text {® }}$ \| Strategy\& |  | $\square$ ICE $\square$ beV $\square$ PHEV $\square$ Hybrid | 12 |

## Electrified vehicle assembly forecast by region

```
1 EV Assembly by Region
2020F vs. 2027F (in million units)
```



3 BEV Vehicle Assembly
2020 vs. 2027F (in million units)


2
Plug-in Hybrid Vehicle Assembly 2020F vs. 2027F (in million units)


4 Full and Mild Hybrid Vehicle Assembly 2020F vs. 2027F (in million units)


## Electrified vehicle assembly forecast

5
EV assembly by powertrain type
2020F vs. 2027F (in million units, percent)


## Authors



Felix Kuhnert
Partner, Global Automotive
Leader, PwC Germany
Phone: +49 711 25034-3309
felix.kuhnert@pwc.com


Annabelle Kliesing
Senior PR Lead,
Strategy\& Germany
Phone: +49 89 54525-613
annabelle.kliesing
@strategyand.de.pwc.com

[^0]
## strategy\&

Part of the PwC network

## Thank you

## strategyand.pwc.com

© 2020 PwC. All rights reserved.
PwC refers to the PwC network and/or one or more of its member firms, each of which is a separate legal entity. Please see pwc.com/structure for further details. Disclaimer: This content is general information purposes only, and should not be used as a substitute for consultation with professional advisors.


## France, Germany, Italy, Spain, UK

## Legend

MOY = Month-on-Year
QOY = Quarter-on-Year
YOY = Year-on-Year
YTD = Year-to-Date

Source: Autofacts Analysis, Autoactu, ANFAC, ANFIA, BOVAG, Fourin, KBA, SMMT, Marklines

| Germany |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BEV | 43.232 | $3,6 \%$ | 30.018 | $44,0 \%$ | 17.878 | $22,8 \%$ | 8.119 | $46,7 \%$ | 5.367 | $20,6 \%$ | 4.392 | $-4,0 \%$ |
| PHEV | 58.453 | $4,8 \%$ | 16.179 | $261,3 \%$ | 32.046 | $256,9 \%$ | 19.775 | $605,0 \%$ | 6.692 | $108,7 \%$ | 5.579 | $88,0 \%$ |
| Hybrid | 100.259 | $8,3 \%$ | 86.191 | $16,3 \%$ | 37.396 | $-18,0 \%$ | 10.479 | $-33,8 \%$ | 16.016 | $0,0 \%$ | 10.901 | $-20,9 \%$ |
| Total | 201.944 | $16,7 \%$ | 132.388 | $52,5 \%$ | 87.320 | $26,3 \%$ | 38.373 | $58,8 \%$ | 28.075 | $18,6 \%$ | 20.872 | $-2,1 \%$ |
| Italy |  |  |  |  |  |  |  |  |  |  |  |  |
| BEV | 9.938 | $1,7 \%$ | 5.037 | $97,3 \%$ | 4.539 | $17,8 \%$ | 2.224 | $52,7 \%$ | 1.814 | $51,8 \%$ | 501 | $-58,3 \%$ |
| PHEV | 5.801 | $1,0 \%$ | 2.497 | $132,3 \%$ | 2.850 | $101,6 \%$ | 1.644 | $316,2 \%$ | 1.180 | $145,3 \%$ | 26 | $-95,2 \%$ |
| Hybrid | 62.279 | $10,7 \%$ | 55.444 | $12,3 \%$ | 27.562 | $-2,1 \%$ | 16.004 | $76,8 \%$ | 11.312 | $11,5 \%$ | 246 | $-97,3 \%$ |
| Total | 78.018 | $13,4 \%$ | 62.978 | $23,9 \%$ | 34.951 | $4,6 \%$ | 19.872 | $82,2 \%$ | 14.306 | $21,1 \%$ | 773 | $-92,8 \%$ |
| Spain |  |  |  |  |  |  |  |  |  |  |  |  |
| BEV | 5.851 | $1,7 \%$ | 6.698 | $-12,6 \%$ | 1.445 | $-62,3 \%$ | 908 | $-22,7 \%$ | 438 | $-62,7 \%$ | 99 | $-93,3 \%$ |
| PHEV | 5.761 | $1,7 \%$ | 3.633 | $58,6 \%$ | 2.272 | $19,2 \%$ | 1.462 | $232,3 \%$ | 749 | $12,0 \%$ | 61 | $-92,3 \%$ |
| Hybrid | 52.528 | $15,5 \%$ | 50.713 | $3,6 \%$ | 17.050 | $-39,3 \%$ | 11.967 | $25,1 \%$ | 4.744 | $-55,2 \%$ | 339 | $-95,7 \%$ |
| Total | 64.140 | $18,9 \%$ | 61.044 | $5,1 \%$ | 20.767 | $-38,6 \%$ | 14.337 | $28,3 \%$ | 5.931 | $-52,3 \%$ | 499 | $-95,1 \%$ |
| UK |  |  |  |  |  |  |  |  |  |  |  |  |
| BEV | 30.957 | $4,7 \%$ | 11.950 | $159,1 \%$ | 12.701 | $112,8 \%$ | 8.903 | $261,8 \%$ | 2.424 | $21,8 \%$ | 1.374 | $-9,4 \%$ |
| PHEV | 19.510 | $3,0 \%$ | 15.134 | $28,9 \%$ | 5.846 | $-10,8 \%$ | 4.926 | $117,2 \%$ | 825 | $-65,1 \%$ | 95 | $-95,1 \%$ |
| Hybrid | 39.298 | $6,0 \%$ | 49.438 | $-20,5 \%$ | 10.938 | $-52,8 \%$ | 10.239 | $19,3 \%$ | 651 | $-91,6 \%$ | 48 | $-99,3 \%$ |
| Total | 89.765 | $13,7 \%$ | 76.522 | $17,3 \%$ | 29.485 | $-17,4 \%$ | 24.068 | $80,8 \%$ | 3.900 | $-67,9 \%$ | 1.517 | $-85,2 \%$ |



## EU Top 5, Netherlands, Norway, Sweden, Switzerland

## Legend

MOY = Month-on-Year
QOY = Quarter-on-Year
YOY = Year-on-Year
YTD = Year-to-Date

| Netherlands |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BEV | 14.479 | $9,1 \%$ | 17.251 | $-16,1 \%$ | 5.803 | $-32,7 \%$ | 2.837 | $-31,0 \%$ | 1.404 | $-40,2 \%$ | 1.562 | $-28,0 \%$ |
| PHEV | 5.605 | $3,5 \%$ | 2.843 | $97,2 \%$ | 2.334 | $107,5 \%$ | 1.118 | $161,8 \%$ | 640 | $74,9 \%$ | 576 | $73,5 \%$ |
| Hybrid | 18.415 | $11,6 \%$ | 14.309 | $28,7 \%$ | 6.855 | $-13,8 \%$ | 2.732 | $-4,3 \%$ | 2.073 | $-27,1 \%$ | 2.050 | $-8,8 \%$ |
| Total | 38.499 | $24,2 \%$ | 34.403 | $11,9 \%$ | 14.992 | $-15,3 \%$ | 6.687 | $-9,5 \%$ | 4.117 | $-25,9 \%$ | 4.188 | $-11,8 \%$ |
| Norway |  |  |  |  |  |  |  |  |  |  |  |  |
| BEV | 28.503 | $48,1 \%$ | 35.182 | $-19,0 \%$ | 12.156 | $-26,5 \%$ | 5.041 | $-32,1 \%$ | 3.444 | $-26,0 \%$ | 3.671 | $-17,7 \%$ |
| PHEV | 12.069 | $20,4 \%$ | 8.776 | $37,5 \%$ | 5.848 | $45,3 \%$ | 2.546 | $76,8 \%$ | 1.805 | $24,9 \%$ | 1.497 | $31,2 \%$ |
| Hybrid | 5.940 | $10,0 \%$ | 9.258 | $-35,8 \%$ | 2.568 | $-54,1 \%$ | 1.065 | $-45,7 \%$ | 916 | $-61,0 \%$ | 587 | $-54,4 \%$ |
| Total | 46.512 | $78,5 \%$ | 53.216 | $-12,6 \%$ | 20.572 | $-21,4 \%$ | 8.652 | $-20,1 \%$ | 6.165 | $-27,0 \%$ | 5.755 | $-16,5 \%$ |
| Sweden |  |  |  |  |  |  |  |  |  |  |  |  |
| BEV | 9.310 | $7,1 \%$ | 8.436 | $10,4 \%$ | 3.596 | $-16,8 \%$ | 1.706 | $0,8 \%$ | 841 | $-33,0 \%$ | 1.049 | $-23,8 \%$ |
| PHEV | 23.413 | $17,8 \%$ | 10.883 | $115,1 \%$ | 10.520 | $105,7 \%$ | 4.696 | $168,6 \%$ | 2.591 | $56,6 \%$ | 3.233 | $89,0 \%$ |
| Hybrid | 15.677 | $11,9 \%$ | 11.963 | $31,0 \%$ | 7.801 | $4,1 \%$ | 2.767 | $5,0 \%$ | 2.305 | $-13,4 \%$ | 2.729 | $24,3 \%$ |
| Total | 48.400 | $36,8 \%$ | 31.282 | $54,7 \%$ | 21.917 | $29,5 \%$ | 9.169 | $51,0 \%$ | 5.737 | $3,0 \%$ | 7.011 | $32,7 \%$ |
| Switzerland |  |  |  |  |  |  |  |  |  |  |  |  |
| BEV | 5.688 | $5,5 \%$ | 5.943 | $-4,3 \%$ | 2.567 | $-12,1 \%$ | 1.347 | $20,2 \%$ | 688 | $1,6 \%$ | 532 | $-52,6 \%$ |
| PHEV | 4.410 | $4,3 \%$ | 1.523 | $189,6 \%$ | 2.127 | $185,9 \%$ | 1.074 | $434,3 \%$ | 629 | $149,6 \%$ | 424 | $45,7 \%$ |
| Hybrid | 11.803 | $11,4 \%$ | 8.714 | $35,4 \%$ | 5.751 | $9,4 \%$ | 2.962 | $61,7 \%$ | 1.751 | $-6,2 \%$ | 1.038 | $-33,4 \%$ |
| Total | 21.901 | $21,2 \%$ | 16.180 | $35,4 \%$ | 10.445 | $17,1 \%$ | 5.383 | $70,7 \%$ | 3.068 | $9,8 \%$ | 1.994 | $-32,9 \%$ |

## E-mobility <br> Austria, EU 5+5, China, South Korea, USA

| Austria | YTD <br> 2020 | Market <br> Share | YTD <br> 2019 | YOY <br> YTD | 20 Q2 | QOY <br> 20 Q2 | Jun <br> 20 | MOY <br> Jun 20 | May <br> 20 | MOY <br> May 20 | Apr <br> 20 | MOY <br> Apr 20 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $20-19$ |  |  |  |  |  |  |  |  |
| BEV | 4,805 | $4.3 \%$ | 4,904 | $-2.0 \%$ | 2,377 | $0.6 \%$ | 1,085 | $15.5 \%$ | 735 | $5.2 \%$ | 557 | $-23.1 \%$ |
| PHEV | 2,575 | $2.3 \%$ | 898 | $186.7 \%$ | 1,386 | $234.0 \%$ | 674 | $580.8 \%$ | 498 | $255.7 \%$ | 214 | $21.6 \%$ |
| Hybrid | 9,524 | $8.4 \%$ | 5,996 | $58.8 \%$ | 5,112 | $36.9 \%$ | 2,340 | $90.2 \%$ | 1,861 | $53.8 \%$ | 911 | $-29.5 \%$ |
| Total | 16,904 | $15.0 \%$ | 11,798 | $43.3 \%$ | 8,875 | $36.3 \%$ | 4,099 | $80.7 \%$ | 3,094 | $51.0 \%$ | 1,682 | $-23.3 \%$ |

## Legend

MOY = Month-on-Year
QOY = Quarter-on-Year
YOY = Year-on-Year
YTD = Year-to-Date

Source: Autofacts Analysis, Autoactu, ANFAC, ANFIA, BOVAG, Fourin, KBA, SMMT, Marklines

| EU 5+5 |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| BEV | 194,193 | $5.2 \%$ | 146,426 | $32.6 \%$ | 78,607 | $7.0 \%$ | 40,599 | $33.5 \%$ | 20,437 | $-3.5 \%$ | 17,571 | $-19.6 \%$ |
| PHEV | 154,655 | $4.2 \%$ | 70,269 | $120.1 \%$ | 72,680 | $112.2 \%$ | 41,010 | $267.1 \%$ | 18,405 | $54.8 \%$ | 13,265 | $18.6 \%$ |
| Hybrid | 352,782 | $9.5 \%$ | 341,985 | $3.2 \%$ | 136,635 | $-24.9 \%$ | 69,706 | $9.7 \%$ | 47,684 | $-25.9 \%$ | 19,246 | $-64.5 \%$ |
| Total | 701,630 | $18.9 \%$ | 558,680 | $25.6 \%$ | 287,922 | $-0.6 \%$ | 151,315 | $44.0 \%$ | 86,525 | $-11.2 \%$ | 50,082 | $-42.6 \%$ |


| China |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BEV | 259,256 | $3.0 \%$ | 440,013 | $-41.1 \%$ | 182,000 | $-28.5 \%$ | 67,000 | $-41.9 \%$ | 64,000 | $-14.5 \%$ | 51,000 | $-20.5 \%$ |
| PHEV | 83,597 | $1.0 \%$ | 122,870 | $-32.0 \%$ | 56,600 | $-17.0 \%$ | 18,600 | $-15.0 \%$ | 18,000 | $-13.4 \%$ | 20,000 | $-21.6 \%$ |
| Hybrid | 75,518 | $0.9 \%$ | 89,637 | $-15.8 \%$ | 44,891 | $8.7 \%$ | 14,935 | $11.0 \%$ | 13,837 | $14.5 \%$ | 16,118 | $2.3 \%$ |
| Total | 418,370 | $4.9 \%$ | 652,520 | $-35.9 \%$ | 283,491 | $-22.1 \%$ | 100,535 | $-33.3 \%$ | 95,837 | $-11.0 \%$ | 87,118 | $-17.3 \%$ |

## South Korea

| BEV | 17,724 | $1.9 \%$ | 20,195 | $-12.2 \%$ | 9,940 | $-28.4 \%$ | 4,750 | $-5.5 \%$ | 2,572 | $-43.4 \%$ | 2,618 | $-39.2 \%$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PHEV | 2,962 | $0.3 \%$ | 1,464 | $102.3 \%$ | 1,908 | $47.9 \%$ | 814 | $53.9 \%$ | 509 | $-21.6 \%$ | 585 | $422.3 \%$ |
| Hybrid | 61,552 | $6.7 \%$ | 50,495 | $21.9 \%$ | 39,607 | $45.4 \%$ | 12,847 | $29.8 \%$ | 13,889 | $60.5 \%$ | 12,871 | $48.1 \%$ |
| Total | 82,238 | $8.9 \%$ | 72,154 | $14.0 \%$ | 51,455 | $21.3 \%$ | 18,411 | $19.1 \%$ | 16,970 | $22.6 \%$ | 16,074 | $22.6 \%$ |

USA

| BEV | 94,205 | $1.6 \%$ | 107,532 | $-12.4 \%$ | 47,861 | $-28.9 \%$ | 21,035 | $-31.5 \%$ | 14,285 | $-32.8 \%$ | 12,541 | $-18.2 \%$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PHEV | 30,979 | $0.5 \%$ | 41,172 | $-24.8 \%$ | 11,692 | $-42.0 \%$ | 4,668 | $-34.5 \%$ | 4,339 | $-39.0 \%$ | 2,685 | $-54.7 \%$ |
| Hybrid | 141,978 | $2.4 \%$ | 190,554 | $-25.5 \%$ | 78,655 | $-33.1 \%$ | 41,551 | $5.9 \%$ | 24,279 | $-46.2 \%$ | 12,825 | $-61.5 \%$ |
| Total | 267,162 | $4.5 \%$ | 339,258 | $-21.3 \%$ | 138,208 | $-32.6 \%$ | 67,254 | $-12.7 \%$ | 42,903 | $-41.6 \%$ | 28,051 | $-48.6 \%$ |

PwC Autofacts ${ }^{\circledR}$ | Strategy\&

| $A-\infty n \rightarrow+\pi$ | Analyzed Markets | $\begin{aligned} & \text { YTD } \\ & 2020 \end{aligned}$ | Market Share | $\begin{aligned} & \text { YTD } \\ & 2019 \end{aligned}$ | $\begin{gathered} \text { YOY } \\ \text { YTD } \\ 20-19 \end{gathered}$ | 20 Q2 | $\begin{gathered} \text { QOY } \\ 20 \text { Q2 } \end{gathered}$ | $\begin{aligned} & \text { Jun } \\ & 20 \end{aligned}$ | $\begin{aligned} & \text { MOY } \\ & \text { Jun } 20 \end{aligned}$ | $\begin{gathered} \text { May } \\ 20 \end{gathered}$ | MOY May 20 | $\begin{gathered} \text { Apr } \\ 20 \end{gathered}$ | MOY Apr 20 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | BEV | 565,379 | 2.9\% | 714,166 | -20.8\% | 318,408 | -22.1\% | 133,384 | -26.5\% | 101,294 | -16.9\% | 83,730 | -20.7\% |
|  | PHEV | 272,192 | 1.4\% | 235,775 | 15.4\% | 142,880 | 15.4\% | 65,092 | 59.9\% | 41,253 | 2.0\% | 36,535 | -14.5\% |
|  | Hybrid | 631,829 | 3.3\% | 672,671 | -6.1\% | 299,787 | -18.6\% | 139,039 | 10.2\% | 99,689 | -23.4\% | 61,060 | -45.4\% |
|  | Total | 1,469,400 | 7.7\% | 1,622,612 | -9.4\% | 761,076 | -15.5\% | 337,515 | -3.1\% | 242,236 | -17.2\% | 181,325 | -30.3\% |

## Analyzed Markets

Legend<br>MOY = Month-on-Year<br>QOY = Quarter-on-Year<br>YOY = Year-on-Year<br>YTD $=$ Year-to-Date

Source: Autofacts Analysis, Autoactu, ANFAC, ANFIA,
BOVAG, Fourin, KBA, SMMT, Marklines

| Overview: | OEM | Model | Launch |
| :---: | :---: | :---: | :---: |
| Upcoming | Audi | e-tron Sportback | 2020 |
|  | Honda | Honda E | 2020 |
|  | Opel | Corsa-e | 2020 |
| $\bigcirc \sim$ | Peugeot | e-208 | 2020 |
|  | Renault | Twingo-E | 2020 |
|  | Renault | Zoe 2 | 2020 |
| (not exhaustive) | Toyota | Mirai 2 | 2020 |
|  | DS | DS 3 Crossback E-Tense | 2020 |
| Source: www.electrive.net/2020/01/02/unser-blick-voraus-diese-elektroautos-kommen-2020, Automobilwoche Datencenter (Modellvorschau), JPMorgan, IHS (information Quarter, when available) | Hyundai | Ioniq Electric | 2020 |
|  | Polestar | Polestar 2 | 2020 |
|  | BMW | Mini Cooper SE | 2020 |
|  | Citroen | ë-C4 | 2020 |
|  | Mazda | MX-30 | 2020 |
|  | Volkswagen | ID. 3 | 2020 |
|  | Audi | e-tron GT | 2020 |
|  | Ford | Mustang Mach-E | 2020 |


| Overview: | OEM | Model | Launch |
| :---: | :---: | :---: | :---: |
| Upcoming | Skoda | Enyaq | 2020 |
|  | Volkswagen | ID. 4 | 2020 |
|  | Fiat | Fiat 500e | 2020 |
|  | Peugeot | E-2008 | 2020 |
|  | Audi | C+CUV e-tron | 2021 |
| ) | Audi | Q4 e-tron | 2021 |
| (not exhaustive) | Audi | Q4 e-tron Sportback | 2021 |
|  | BMW | i4 | 2021 |
| Source: www.electrive.net/2020/01/02/unser-blick-voraus-diese-elektroautos-kommen-2020, Automobilwoche Datencenter (Modellvorschau), JPMorgan, IHS (information Quarter, when available) | BMW | iNext (i5) | 2021 |
|  | BMW | iX3 | 2021 |
|  | Mercedes | EQB | 2021 |
|  | Mercedes | EQS | 2021 |
|  | Nissan | Ariya | 2021 |
|  | Opel | Astra-e | 2021 |
|  | Opel | Mokka-e | 2021 |
|  | Opel | Zafira-e Life | 2021 |

[^1]|  | oem | Model | Launch |
| :---: | :---: | :---: | :---: |
|  | Peugeot | e-Parter | 2021 |
| On | Peugeot | E-Rifter | 2021 |
|  | Renaut | Kangoo-E | 2021 |
| H | Testa | Model Y | 2021 |
|  | Volkswagen | 1D.4x | 2021 |
| nodels | Volkswagen | 10.5 | 2021 |
|  | Volkswagen | 10.6 | 2021 |
| (not exhaustive) | Volvo | XC40 Recharge | 2021 |
|  | Audi | E6 e-tron | 2022 |
|  | Audi | Q6 e-tron | 2022 |
|  | вмw | 17 | 2022 |
|  | вмw | ix1 | 2022 |
|  | Honda | City-SUV (E-Auto) | 2022 |
|  | Peugeot | e-208 Performance | 2022 |




[^0]:    PwC Autofacts ${ }^{\text {® }}$ | Strategy\&

[^1]:    PwC Autofacts ${ }^{\text {® }}$ | Strategy\&

