



# AD PUNCTUM

## Autos & Mobility Industry Briefing -- 21<sup>st</sup> September to 27<sup>th</sup> September 2020

News is arranged by company and topic. Stories that apply to more than one company or topic are duplicated.

### News about the major automakers

#### **BMW** (history)

- Will begin producing battery packs at the Leipzig, Germany, plant. ([BMW](#))
- Opened a new R&D centre in Munich. Home to 4,800 engineers, it cost a cool €1 billion to build. ([BMW](#))
- Settled a case over incorrect reporting of US retail sales by paying an \$18 million fine. ([Reuters](#))
- Invested in energy saving motor manufacturer Turntide Technologies. ([FINSMES](#))

#### **Daimler** (history)

- Reportedly set to eliminate 4,000 jobs at the main plant in Stuttgart, Germany, and another 1,200 at an engine factory in Berlin, Germany. As part of plans to meet larger headline targets. ([Handelsblatt](#))
- Former CEO Zetsche said he was turning down the job of supervisory board chairman that he was due to inherit in 2021 because some investors had expressed a lack of confidence in him and he didn't want to take on the role with anything less than full support. It is unclear who will take on the mantle instead. ([Handelsblatt](#))
- CEO Källenius says demand has stabilised, but China is looking healthier than North America and Europe. ([Economic Times of India](#))

#### **Ferrari**

- Unveiled the latest one-off car created for a fabulously wealthy client: the Omologata. ([Ferrari](#))

#### **Ford** (history)

- Reached a deal with Canadian unions for a new labour contract, helped by promises from the Canadian government to provide dollops of cash. ([Detroit Free Press](#))
- Incoming CEO Farley says China is the most advanced market for digital consumer experience. ([China Daily](#))
- Reportedly applied for €500 million in German government loan guarantees aimed at helping companies affected by coronavirus. ([Reuters](#))
- The Bridgend engine plant closed, for good. ([BBC](#))

#### **Geely (includes Volvo)** (history)

- Volvo published the framework it intends to use to raise green bonds. ([Volvo](#))
- Volvo's CEO reckons that despite a rise in coronavirus cases across Europe, a recovery in the car market is well underway, with volumes similar to 2019 levels in the most recent months. ([Reuters](#))
- Polestar is aiming for annual sales of over 50,000 units in the next two to three years. ([Reuters](#))
- Lynk&Co unveiled the Zero Concept, previewing the brand's first all-electric entry in 2021. ([Geely](#))

- Geely revealed details of the SEA architecture that its brands will use for all-electric vehicles. The company says that cars from A to E segment, plus light commercial vehicles, can be accommodated by a scalable common component set. It can also be used for range extenders and the company is open to selling the design to rivals. ([Geely](#))
- Will use MobilEye chips in driver assistance features offered across several Geely-owned brands. ([Intel](#))

### General Motors (history)

- GM's deal with Nikola to build the Badger all-electric pickup truck lets GM use 80% of the zero emission credits generated by sales of the truck in the USA. ([Detroit Free Press](#))

### Honda (history)

- Revealed a battery electric SUV called the SUV e:concept, which the company says previews the design direction for China and may be the same car the firm intends to launch in Europe in around 2022. ([Honda](#))

### Hyundai / Kia (history)

- Designed a rear seat-centric concept for an interior with help from LG. The vehicle features a massive curved screen in place of a sunroof and a floor cleaning robot. ([Hyundai](#))
- Hyundai's South Korean unions agreed to a wage freeze. They normally strike for higher pay. ([Reuters](#))

### Nissan and Mitsubishi (history)

- Mitsubishi is rumoured to be planning a cull of 500 – 600 managerial jobs in Japan. ([Reuters](#))

### PSA (history)

- Acquired, and retired, 1.1% of PSA's shares owned by Dongfeng, in accordance with a share purchase agreement that is part of the merger terms with FCA. PSA and Dongfeng also changed the terms of the agreement for the remaining shares to be bought (about twice the amount in this transaction) saying that if they aren't sold to PSA by the end of 2020, they will definitely go to a third party by the end of 2022. ([PSA](#))
- Reportedly offered to make vans for Toyota more cheaply, and increase the number it will build for the Japanese company, as a way to assuage European antitrust concerns about the impact a merger with FCA will have on the commercial vehicle market. ([Reuters](#))

### Tesla (history)

- Held a combined annual meeting and battery day presentation, with a limited number of attendees who sat in Tesla cars in front of a main stage and beeped horns at every comment they approved of (nearly all of them). ([Tesla](#))
- In closing remarks for the annual meeting, CEO Musk said that the ultimate volume ambition for the Shanghai, China, plant is one million units per year (28:05) In a dig at upstart competitors, Musk said that Tesla's contribution to the automotive industry wasn't "making exciting prototypes" (28:50) Musk gave investors a lesson in basic economics, offering such insights as: cutting the time between order, build and delivery improves cash flow; and having factories in different regions means you can meet local demand more quickly ("build where you sell" in industry parlance) . (32:00) He believes that it is 10 or 100 times harder to design a car factory that create a prototype car. (42:00) A quick look at the relative headcount figures for manufacturing engineering and product development in established OEMs indicates that this is hyperbole. The "true measure" of Tesla's success will be the number of years that the firm accelerated the take up of sustainable energy by, so... impossible to measure then. (45:00) ([Tesla](#))
- CEO Musk said that progress on Autopilot had stalled over the last two or so years because of limitations in the way information was gathered and analysed. He says that the code was rewritten and the labelling approach was changed so that it is now "3D video", which means rather than labelling each frame from each camera, the combined camera outputs are labelled across a series of frames. Musk said that this dramatically improves performance and a private beta version (for a small subset of users to test) will be available in "a month or so". He says the new system is "amazing" and "clearly going to work". (39:00) ([Tesla](#))
- Wants to halve the cost of battery packs on a per KWh basis over the next three years through optimised product and manufacturing design and use of lower cost materials, each of which brings benefits in energy density, unit cost and capital spending. The numbers quoted: a roughly 55% improvement in both energy density and piece cost are about

in line with expectations based on industrywide trend improvements to date looking towards 2030. Tesla is claiming leadership through an explanation of the detail, and predicting it can achieve the improvements more quickly than most forecasts ([but not all](#)). The first method will be moving to larger cells by more than doubling the diameter from 21mm to 46mm, an approach that a few years ago Tesla was dismissive of. The new cell will be called 4680. The larger cell alone improves energy density by 16% (and reduces cost by 14%). The company now claims to have redesigned the cell in such a way that the primary drawback of slower charging for larger cells is almost entirely overcome. CEO Musk also says the batteries will be more efficient to produce. (1:08) The next stage is to reduce a step from the production process by making battery films via a process of drawing powder through a press, rather than today's technology which requires wet coating and drying. The new process is based on developments acquired when Tesla took over Maxwell. CEO Musk admitted that the company may fail to make this work at scale because current quality levels are low. Using its knowledge of battery charging and discharging, Tesla says it can reduce the time taken to quality test the cells at the end of the line by 75%. These steps, combined by designing its own bespoke manufacturing equipment will in future give Tesla the ability to reduce the investment in a new factory by 75%, and the footprint necessary. By 2030, Tesla hopes to be able to produce 3 TWh of batteries annually (and 200 GWh by 2022) -- it will continue to buy batteries from third parties. (1:28) By changing the battery materials, mainly moving to silicon rather than graphite and nickel rather than cobalt, Tesla says costs can drop whilst battery capacities increase. (1:33) Finally, by paying more attention to how the battery pack acts as a structural member (which some companies imply they are doing already), some parts of the pack and surrounding car body can be eliminated. ([Tesla](#))

- Confirming earlier rumours, CEO Musk said he wants to launch a car with a \$25,000 price point “about three years from now” (and it will be fully autonomous too). Given Tesla's prior realisation of pricing targets, this might not be widely available in the lowest cost trim. The car does not yet have a name but in line with the exist S3XY naming convention, Ad Punctum humbly suggests it will be either the “Model I” or “Model 2”. ([Tesla](#))
- Elon Musk doesn't think there will be an internal combustion engine industry long term (2:02), implying that either he believes the World's poorest countries will be able to afford high performing electric vehicle infrastructure (whether through micro grids or otherwise), or he has forgotten that poorer countries exist, or that long term could mean any point in the very distant future. ([Tesla](#))
- Tesla's long term goal, previewed by a question in the earnings call, was confirmed by CEO Musk as 20 million units per year. (1:55). This would put Tesla way above the current leading producers (Toyota and VW on about 10 million units each). ([Tesla](#))
  - Significance: With Tesla's volume per model failing to outstrip conventionally powered competitors, even in segments where it currently has the market to itself (e.g. Model S, Model 3), achieving this level of volume would require either for the brand to become far more popular than today, or for the release of a massive portfolio of vehicles.
- No sooner had the battery day presentations finished than people started to pour scorn on the claims made. Experts said that Tesla's plan to reduce material costs by sourcing its own lithium used techniques no one had ever heard of and the company would struggle to get environmental permissions. ([Reuters](#))

## Toyota (history)

- Toyota Tsusho invested in software developer Aurora Labs (a different company to the similarly-named entity that is trying to build self-driving cars). ([Toyota](#))

## VW Group (history)

- Truck division Traton is teaming up with TuSimple to develop self-driving heavy goods vehicles, with Traton taking a minority stake in TuSimple as part of the deal. Navistar, a takeover target for Traton, is a TuSimple investor. ([Traton](#))
- Audi might agree a joint venture for electric cars with existing partner FAW. ([Reuters](#))
- Unveiled the production version of the ID4 all-electric SUV that will be built in Germany and the USA. ([VW](#))
- **VW sales of the ID4 in the USA are taking the right to Tesla. New owners will get unlimited charging for three years, rather than a fixed credit as Tesla offers, and VW's Electrify America network offers faster chargers too (except the vehicle's design means it can't access the full power).** ([VW](#))
- Lamborghini need a new boss after their CEO was snapped up to head Formula 1. ([Formula 1](#))

- Will pay around \$6.5 million to settle claims of improper conduct by the company during the Brazilian military dictatorship. ([VW](#))
- Porsche is experimenting with making parts of racing cars out of natural fibres. ([Porsche](#))

## Other

- Investors backed by the Chinese state are reportedly looking to take **Brilliance**, **BMW's** partner, private. ([Reuters](#))
- **Xpeng** unveiled a flying car that can carry two people at altitudes of around 25 metres. ([SCMP](#)) The company also said that with the help of local government aid it will build a 100,000 units per year factory in Guangzhou, China, that is scheduled to start up at the end of 2022. ([Reuters](#))
- **McLaren's** CEO says his company will likely have a fully electric vehicle between 2025 and 2030. ([CNBC](#))
- The **Fisker** Ocean has been delayed again, this time until the end of 2022. ([Fisker](#))
- **WM Motor** (formerly Weltmeister) says it has raised another \$1.5 billion. ([Reuters](#))
- **Karma** will name its forthcoming all-electric vehicle the GS Series, rather than sharing the Revero nameplate with the plug-in hybrid car it already makes. ([Karma](#))

## News about other companies and trends ...

### Economic / Political News

- The **UK** government is reportedly soon planning to announce that sales of internal combustion engine powered vehicles will be banned by 2030, despite [pleas from industry that even 2035 is too soon](#). ([The Guardian](#))
- **California's** governor wants to ban sales of internal combustion engine vehicles by 2035. ([The Guardian](#))

### Suppliers

- **Mahle** is closing two German factories making powertrain components and cutting jobs at others. ([Handelsblatt](#))
- **Toray** thinks that demand for carbon fibre parts, particularly hydrogen tanks for fuel cell vehicles, is going great guns and plans to increase capacity by 50%, mainly from switching facilities away from aviation grade materials. ([Nikkei](#))
- **Bosch** and **Schaeffler** are joining forces to produce rear wheel steering units. ([Schaeffler](#))
- **Osram** and **Continental** are dissolving their lighting systems joint venture. ([Continental](#))

### Ride-Hailing, Car Sharing & Rental (history)

- Vehicle rental start-up **Drivezy** is reportedly looking to raise \$35 million but will see its valuation drop by around one quarter. ([Deal Street Asia](#))

### Driverless / Autonomy (history)

- **Intel's MobilEye** division will collaborate with **Al Habtoor** to launch a fleet of self-driving vehicles in Dubai by the end of 2022. ([Al Habtoor](#))
- The investment firm led by **Nikola's** interim chairman, Steven Girsky, is rumoured to be planning an investment in **TuSimple**. ([TechCrunch](#))
- **Tesla** CEO Musk said that progress on Autopilot had stalled over the last two or so years because of limitations in the way information was gathered and analysed. He says that the code was rewritten and the labelling approach was changed so that it is now "3D video", which means rather than labelling each frame from each camera, the combined camera outputs are labelled across a series of frames. Musk said that this dramatically improves performance and a private beta version (for a small subset of users to test) will be available in "a month or so". He says the new system is "amazing" and "clearly going to work". (39:00) ([Tesla](#))
- **VW's** truck division Traton is teaming up with **TuSimple** to develop self-driving heavy goods vehicles. ([Traton](#))

### Electrification (history)

- Charging network **ChargePoint** is going public via a merger with a special purpose vehicle in a \$2.4 billion deal. ([Economic Times of India](#))

- Chinese charging services provider **Star Charge** raised \$125 million in a round co-led by charging equipment manufacturer **Schneider**. ([Deal Street Asia](#))
- Solar energy specialist **SPI Energy** said it would launch an electric vehicle company and its share price jumped 4,000%. ([Axios](#))
- **Tesla** wants to halve the cost of battery packs on a per KWh basis over the next three years through optimised product and manufacturing design and use of lower cost materials, each of which brings benefits in energy density, unit cost and capital spending. The numbers quoted: a roughly 55% improvement in both energy density and piece cost are about in line with forward looking expectations based on industrywide trend improvements to date. Tesla is claiming leadership through an explanation of the detail, and predicting it can achieve the improvements more quickly than most forecasts. ([Tesla](#))

## Connectivity

- **Otonomo** launched a connected car data platform that allows users to access anonymised data collected from cars all over the world. ([Otonomo](#))
- **Amazon** has started making car alarms, through its Ring brand. ([The Verge](#))
- Software developer **Aurora Labs** (a different company to the similarly-named entity that is trying to build self-driving cars) raised \$23 million from investors including **Porsche SE** (already announced) and **Toyota Tsusho**. ([FINSMES](#))

## Other

- Advertising-funded UK bicycle rental start-up **HumanForest** suspended operations after an accident uncovered problems with the design of bicycle used. ([TechCrunch](#))
- Indian on-demand refuelling service **FuelBuddy** raised \$2.3 million. ([Autocar](#))