



AD PUNCTUM

Autos & Mobility Industry Briefing -- 22nd April to 28th April 2019

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 purchase cobalt for electric vehicle batteries direct from mines because of concerns that unscrupulous middlemen might be selling material mined with child labour. ([Reuters](#))

Daimler (history)

- Released financial results for Q1 2019. Revenue of €39.7 billion was very slightly lower than prior year but profit of €2.8 billion was (15)% worse. There was a cashflow hit of €(2) billion relating to problems with the GLE, Nissan built vehicles and commercial vehicles -- Daimler says these will unwind over an extended period. The firm still hopes to hit full year financial targets. ([Daimler](#))
- Pulling the Smart brand from North America at the end of 2019 because it doesn't see much demand for very small cars in the market, especially not expensive all-electric ones. ([CNBC](#))

Ford (history)

- Reported Q1 2019 financial results. Automotive revenues of \$32.7 billion dropped (4.8)% from prior year yet EBIT of \$2 billion was 14% better. Ford's mobility division lost close to \$(300) million in the quarter. ([Ford](#))
- On the earnings call, Ford executives said that they expect a further \$3 billion of special items charges in the remainder of the year related to restructuring actions that haven't yet been made public, some of which could relate to South America where CEO Hackett said further action was planned. When asked about long term profit targets for the region he declined to answer. ([Ford](#))
- Invested \$500 million in Rivian and announced that a new all-electric vehicle will be developed using Rivian's all-electric rolling chassis / skateboard (but it won't be the all-electric version of the F-150 pick-up). Ford's de facto COO will join Rivian's board. ([Ford](#))
 - Significance: Questions abound as to what this means for Ford's electric vehicle strategy. Paying \$500 million to access Rivian's technology (plus presumably downstream licencing fees) is about the same as the development cost for a new platform, which is what Ford is effectively buying -- albeit with reduced time to market. Why has Ford taken this direction when it has the fabled Team Edison? Ford's announcements imply an all-electric SUV positioned between the Mach 1 and the F-150 in size -- is this the most cost-effective way of making that vehicle?
- Ford's deal to invest in Rivian reportedly came together in only eight weeks, seemingly after talks between the start-up and GM had fallen through. If true, that is a very short space of time for a deal of this type and size. ([CNBC](#))
- Announced that US authorities have launched a criminal investigation into Ford's emissions certification, following on from the company's admission earlier this year that some irregularities had been identified. ([Reuters](#))
- Plans for 40% of Kuga registrations in Europe to be electrified, but won't be drawn on a split between 48V and PHEV sales. ([Automotive News](#))

Geely (includes Volvo) (history)

- Volvo reported Q1 2019 revenue of 62.9 billion SEK (about \$6.6 billion), up 10.7% on prior year and adjusted EBIT of 2.9 billion SEK (about \$305 million), down (19.3)%. Cash spending on research and development jumped by 45%, about a quarter of which related to work for Polestar. ([Volvo](#))
- Proton's CEO says over 85% of the brand's dealers are profitable, thanks to the recent Geely-sponsored product offensive. The firm also announced \$455 million in funding from China Construction Bank. ([China Daily](#))

General Motors (history)

- Adding a second shift at the Bowling Green, USA, plant to produce the next generation Corvette. ([GM](#))
- Cadillac plans to offer additional features for the Super Cruise driver assistance system via over the air updates, starting in 2020. ([The Verge](#))

Honda (history)

- Produced 5,337,621 vehicles in the fiscal year to March 2019, up 1% versus 2017/18. ([Honda](#))

Hyundai / Kia (history)

- Kia announced Q1 2019 revenue of 12.4 trillion KRW (about \$10.7 billion), (1)% worse than prior year. Operating profit of 594.1 billion KRW (about \$510 million) was almost double Q1 2018. ([KIA](#))
- Hyundai's sales in Q1 2019 were 24.0 trillion KRW (about \$20.7 billion), up 7% on a year-over-year basis, with Hyundai assigning almost all the improvement to better mix. Operating income of 825 billion KRW (about \$710 million) rose 21% YoY. ([Hyundai](#))
- Hyundai invested \$5 million in audio personalisation firm Audioburst. ([Audioburst](#))
- Kia executives said that whilst the option of a light pick-up truck based on the forthcoming Hyundai Santa Cruz remains, the brand is not actively pursuing it, seemingly wanting to see how Hyundai's version fares in the market first. ([The Drive](#))

Mazda

- Sold 391,012 vehicles in Q1 2019, a (12)% fall versus prior year. ([Mazda](#))

Nissan (includes Mitsubishi) (history)

- After denying newspaper reports of an output cut for the remainder of 2019, Nissan released a profit warning for the fiscal year ended March 2019. Although this was mainly blamed on increased operating expenses, the statement alluded to sales headwinds resulting from the Ghosn scandal. ([Nissan](#))
- Announced a series of senior executive changes. ([Nissan](#))
- Reportedly continuing to rebuff Renault's attempts to engineer a full merger, or something that looks very similar to it, on the grounds that Renault would have the upper hand. ([Reuters](#))
- Mitsubishi produced 1,441,227 vehicles in the fiscal year ended March 2019, 13% up on prior year. ([Mitsubishi](#))

PSA (includes Opel/Vauxhall) (history)

- Reported Q1 2019 automotive revenue of €14.2 billion, down (1.8)% on prior year (PSA only reports profits every six months). Improvements in product mix and pricing, were more than offset by reductions in sales and negative exchange -- despite PSA increasing dealer inventory. ([PSA](#))
- Announced a new engineering leadership team. ([PSA](#))
- The unanticipated success in signing up German engineers for early retirement is reportedly calling into question the entire premise of the Segula engineering centre transfer. Potentially the French outsourcing firm will achieve only one quarter of the headcount target. ([Handelsblatt](#))

Renault (history)

- Reported Q1 2019 automotive revenue of €12.5 billion, down (4.8)% on prior year (Renault only reports profits every six months). Renault blamed falling sales and exchange rates. ([Renault](#))

- Says that electric vehicle sales are “already quite profitable”, depending on the country and vehicle. Executives believe that if the Renault group can capture around 29% market share in Russia (as planned), then the market will be “very profitable”. Renault has also been reducing inventory levels at European dealers. ([Seeking Alpha](#))
- There is “no question” that Renault will meet European fleet CO2 targets and avoid paying fines. ([Seeking Alpha](#))
- Unveiled a set of minor updates to the commercial vehicle line-up, mainly powertrain changes. Renault also previewed the next generation Kangoo small van. ([Renault](#))
- Continues to explore ways to strengthen ties with Nissan, with the latest idea reportedly being a joint holding company. Unfortunately, it seems that Nissan aren’t much interested. ([Reuters](#))

Suzuki

- Following Suzuki’s commitment to end diesel production, Maruti Suzuki said the fuel type will no longer be offered in India after April 2020. ([Times of India](#))
- Produced 855,380 units in Q1 2019, a drop of (4.7)% from prior year. In the fiscal year to March 2019, Suzuki sold 3,327,174 vehicles, up 3.2%. ([Suzuki](#))

Tata (includes JLR) (history)

- JLR is reportedly interested in private car hire firm Addison Lee (along with other, un-named carmakers). The likely price tag is in the £300 million-range. ([Sunday Telegraph](#))
- Exploring ways to pay drivers with vouchers redeemable for coffee and parking if they agree to share data about driving habits and road conditions. The vouchers would be stored as a cryptocurrency. ([JLR](#))
- Tata says it is no longer cost effective to develop diesel engines for small vehicles in India because the technology to comply with new emissions rules will make the vehicle too expensive for consumers. ([The Economic Times](#))

Tesla (history)

- Held an investor day focused on the self-driving hardware and software Tesla has been developing. Tesla has developed new hardware with impressive power consumption and cost performance BUT... the hardware is dedicated to a (neural net based) self-driving software architecture that hasn’t yet proved itself. CEO Musk tried to bat away concerns over missing lidar sensors (which the chipset CANNOT accommodate) calling the technology “a fool’s errand”. Tesla explained the way in which training data harvested from the fleet is used to build understanding of safe driving techniques and then said it would all be used to build a robotaxi business. ([Tesla](#))
 - Significance: Such was the scope of material covered, that the session deserves a dedicated de-brief. In short, by presenting to financial analysts, Tesla escaped the scrutiny of peer review and was able to portray several well-established academic concepts as near proprietary innovations. Whilst the hardware performance and cost appears impressive, it is a one-way bet on a software solution that has not yet proved itself. For all Tesla’s talk of the strength in fleet learning, charts of geographical mileage show it is painfully concentrated in only a few locations, diminishing the ability to learn everywhere and observe all the corner cases Tesla base their fleet learning argument upon. The research behind the ride hailing business were painfully weak with Musk explaining them with comments such as “we just randomly said, okay maybe a dollar” and liability for accidents would “probably” lie with Tesla. Musk’s timeline of regulatory approval during 2020 appears optimistic given that the team openly admitted numerous problems had yet to be solved, for instance that they “haven’t gone after snow yet”. On top of this, Tesla’s understanding of safety critical redundancy does not match Ad Punctum’s. Tesla appear to have provided duplication to protect for random component failure, but the system looks vulnerable to systemic problems that affect multiple sensors or processing hardware in the same way, at the same time.
- At the investor day, Musk said that a next generation chipset for self-driving was already halfway developed and mentioned a mysterious supercomputer called Dojo several times, on each occasion implying it was a slip of the tongue and he had already said too much. ([Tesla](#))
- Released financial results for Q1 2019. Automotive revenue of \$3.7 billion was up 36% on a year-over-year basis but down (41)% versus prior quarter. Tesla recorded a \$(645) million loss before tax and used up over \$(1.5) billion of cash, but said the rest of 2019 should be better. ([Tesla](#))
- On the earnings call, CEO Musk said there was “merit” in raising capital. He revealed that Tesla intends to create an insurance product that will launch soon. He also believes that the low deliveries for Models S and X in Q1 were a blip

and demand will return to around 100,000 units per year. Musk admitted that the approach in Q1 of batch building cars by region was “insane”, but didn’t explain why the company had decided to do it that way. ([Seeking Alpha](#))

- Musk reached agreement with the SEC over the type of comments he needs to have vetted before publishing, but a judge’s approval is needed before it comes into force. ([NYT](#))
- Continued to tinker with the Model S and Model X line-up, offering an increase to the maximum battery range and restoring entry-level products that had only recently been cut. ([Tesla](#))
 - Significance: The product announcements appear designed to shore up demand for Tesla’s ageing large cars by improving the competitive positioning and lowering prices. However, Tesla’s rate of change is seemingly at odds with established wisdom about the time customers take to arrive at final purchase decisions -- how are they supposed to know what to buy when Tesla seemingly changes line-up on a monthly basis?

Toyota (history)

- Sold 10,602,559 vehicles in the fiscal year to March 2019, down (1.5)% on prior year. ([Toyota](#))
- Abandoned a plan to install vehicle-to-everything communication capability on cars sold in the USA from 2021 onwards, blaming lack of commitment from other carmakers and unclear government rules. ([Reuters](#))
- Working with Maxar and NTT to develop high definition maps from satellite imagery. ([Toyota](#))

VW Group (history)

- Shortages of batteries have reportedly forced Audi to cut full year production plans for the e-tron by about 20% -- to around 45,000 units. ([Brussels Times](#))
- Lost a court battle that will limit the rate at which the Moia ride hailing division can expand the fleet size. ([Golem](#))
- Has been running the numbers for cradle-to-grave CO2 emissions to compare fossil fuel powered vehicles with battery electric versions. The conclusion is that electric cars are already responsible for fewer emissions but have a far worse footprint in the production stage. VW says there are steps which will dramatically improve this. ([VW](#))
- Media reports suggested that VW initially expects to lose €3,000 on every ID all-electric car sold, with breakeven only coming in around 2025. ([Auto Motor Und Sport](#))

Other

- **Subaru** produced 226,906 vehicles globally during Q1 2019, a drop of (11.8)% on prior year. ([Subaru](#))
- **Lucid Motors** announced the current CTO as CEO after the incumbent decided to retire. ([Lucid](#))
- Chinese fuel cell vehicle start-up **Grove** will use **FEV** and **Hofer** to help develop its cars. ([Autocar](#))
- **Canoo** (formerly Evelozcity) is reportedly aiming to raise \$200 million. ([TechCrunch](#))
- Russian officials are planning to have a convertible derivative of the **Aurus** limousine on sale by 2021. ([TASS](#))
- **BYD** is building a new factory with capacity for 400,000 electric vehicles annually in Changzhou, China. ([Xinhua](#))
- **Sono Motors** has enlisted **NEVS** to contract manufacture the Sion solar power augmented car in Sweden. Sono is planning a 260,000 unit lifetime run with an annual capacity for 43,000 vehicles, which the firm says will retail for €25,500 (or €16,000 if you want to lease the battery). Almost 10,000 deposits of €500 have been taken. ([Sono Motors](#))

News about other companies and trends ...

Suppliers

- **Autoliv** reported Q1 2019 revenue of \$2.2 billion and operating income of \$173 million. ([Autoliv](#))
- **Continental** reported preliminary Q1 2019 revenue of €11 billion and adjusted EBIT of €884 million. The IPO of the powertrain division, which will be called Vitesco Technologies, will take place during or after 2020 (market conditions permitting). ([Continental](#))
- Panasonic battery plans in Japan
- **Nidec** reported results for the fiscal year to March 2019. Revenue was 1.5 trillion yen (about \$13.5 billion) and profit before tax was 139 billion yen (about \$1.2 billion). ([Nidec](#))
- **Umicore** said profit and revenue growth would be worse than previously hoped due to slow uptake of electric vehicles (for which Umicore supplies raw materials). ([Reuters](#))

- **Allison Transmission** reported Q1 2019 sales of \$675 million. ([Allison](#)) The firm announced deals to acquire **Vantage Power** and the electric vehicle systems division of **AxleTech**. ([Allison](#))
- **Lear** reported Q1 2019 revenue of \$5.2 billion and adjusted net income of \$253 million. ([Lear](#))
- **Goodyear** saw revenue of \$3.6 billion and a net loss of \$(61) million in the first quarter of 2019. ([Goodyear](#))
- **Michelin** announced Q1 2019 revenue of €5.8 billion. ([Michelin](#))
- **Grammer** appointed a new CEO. ([Grammer](#))

Ride-Hailing, Car Sharing & Rental (history)

- Ride hailing service **Ola** is reportedly planning to launch a luxury car sharing service. ([Autocar](#))
- **PayPal** invested \$500 million in **Uber** ahead of the ride hailing network's IPO. Uber also revealed a loss of somewhere in the region of \$(1) billion in the first quarter (Uber isn't sure yet). ([Uber](#))
- Car sharing provider **Getaround** acquired European rival **Drivy**. ([Getaround](#))
- Premium ride hailing firm **Wheely** raised \$15 million. ([FINSMES](#))

Driverless / Autonomy (history)

- **Waymo** announced a site had been chosen for a facility to fit self-driving equipment to cars. The firm will rent space from **American Axle** in Detroit. ([Waymo](#))
- **Lyft** believes, that despite advances in autonomy, more drivers will be required in ten years than are currently using the network. ([Business Insider](#))
- Patents for a vehicle cooling system filed by **Apple** suggest that the company continues to work on vehicle technology beyond self-driving hardware. ([Autocar](#))
- **Nvidia** said that **Tesla's** new driver assistance hardware shouldn't be compared to Nvidia's Xavier processor, because the latter was for driver assistance only, and that the Pegasus hardware is a better comparator (with higher computing power than Tesla's offering). In a way this reinforces Tesla's claims of leadership on hardware performance in terms of cost and power consumption because Pegasus is a far more expensive and power-hungry system. ([Nvidia](#))
- Academic researchers found that, via a neural network, **camera** data could create 3D views of the surrounding areas in a way that mimics **lidar**. This supports, but does not confirm, **Tesla's** hypothesis that the lidar unit is not required. In addition to there being a healthy gap in accuracy between lidar and the best-trained camera-based system the researchers could concoct, the paper didn't explore accuracy over longer distances (50m+) or in difficult weather conditions. ([Cornell](#))
- **Nikon** will manufacture lidar units for **Velodyne**. ([Velodyne](#))
- **Tesla** CEO Elon Musk dismissed lidar as a "fool's errand" and high definition maps as "too brittle" during a presentation of self-driving technology to investors. His primary objection to lidar appears to be that it operates in the same part of the spectrum as cameras already do. ([Tesla](#))

Electrification (history)

- **Bosch** will make fuel cells using technology licensed from **Powercell Sweden**. ([Autocar](#))
- **Panasonic** says it wouldn't be a big deal to convert a Japanese factory from making 18650 format cells (as used in **Tesla** Model S and X) to producing 2170 cells instead (as used in Model 3). ([Reuters](#))
- **Ford** invested \$500 million in **Rivian** and announced that a new all-electric vehicle will be developed using Rivian's all-electric rolling chassis / skateboard (but it won't be the all-electric version of the F-150 pick-up). Ford's de facto COO will join Rivian's board. ([Ford](#))
- **VW** has been running the numbers for cradle-to-grave CO2 emissions to compare fossil fuel powered vehicles with battery electric versions. The conclusion is that electric cars are already responsible for fewer emissions but have a far worse footprint in the production stage. VW says there are steps which will dramatically improve this. ([VW](#))

Connectivity

- **AWS** will host connected vehicle services for **Ford**. ([Ford](#))
- A hacker said that lazy password setting by account holders using **iTrack** and **ProTrack** fleet management services allowed him access to functionality that would have turned off the engines of connected vehicles, if he had been so-minded. ([Motherboard](#))
 - Significance: Although automakers are working on their own cybersecurity protocols, this story flags two key issues: (1) Unless OEMs change their thinking considerably, it will still be possible to fit hardwired devices in the aftermarket that create new vulnerabilities; (2) the issue here was weak password setting by users, something that has occurred in numerous non-automotive settings and will prove somewhat difficult to overcome.
- **Toyota** is working with **Maxar** and **NTT** to develop high definition maps from satellite imagery. ([Toyota](#))

Other

- **Lime** was embarrassed by hackers re-programming scooters to issue rude greetings messages. ([Gizmodo](#))
- Electric motorcycle maker **Zero Motorcycles** raised \$25 million. ([Zero](#))
- Bike taxi service **Rapido** raised \$11 million. ([Deal Street Asia](#))
- Short term motorbike rental start-up **Bounce** raised \$3 million. ([LiveMint](#))
- Car and bike pooling startup **Quick Ride** raised \$14 million. ([Inc42](#))
- Fleet management software provider **KeepTruckin** raised \$149 million. ([TechCrunch](#))
- **London's** public transport operator recorded 14,862 incidents in 2018 where a bus or train has been left in an unhygienic condition by passengers and needs to be cleaned before it can return to service. ([BBC](#))
 - Significance: Companies planning self-driving services may wish to take note. If an efficient system for detecting unclear vehicles, and swiftly dealing with them, isn't in place, your business could go down the tubes. The vast number of occurrences on a public transport system indicates passengers have no shame.