

Autos & Mobility Industry Briefing -- 10th June to 16th June 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)

- Said that competition was a more powerful motivator than money in persuading drivers of plug in hybrid vehicles to use electric only mode in city centres. (<u>Automotive News</u>)
- Ansys and BMW are developing software that will assess the capabilities of self-driving systems and allow various sensors to be compared against one another using example real world data collected by BMW. Ansys will then offer the system to third parties, where they have "exclusive rights" -- presumably BMW will still bank some form of royalty fees. (Ansys)

FCA (history)

• Signed a deal with charging networks Enel and Engie to provide coverage for FCA customers with electric vehicles in Europe. (FCA)

Ford (history)

- Opening a new research centre in Tel Aviv, Israel, mainly to house existing subsidiary SAIPS. (Ford)
- Lyft rebranded the Ford GoBike scheme in San Francisco as Bay Wheels. (Lyft)
- Issued a series of recalls, including 1.2 million Explorer SUVs (and a smaller number of other vehicles) to correct suspension fatigue; plus 123,000 pick-up trucks to correct an earlier recall for powertrain calibration. (Ford)
- VW's CEO reportedly told managers an autonomous vehicle partnership with Ford was almost complete. (Reuters)
- Workers at the Bridgend engine plant voted in favour of being prepared to strike but didn't pull the trigger. (BBC)

Geely (includes Volvo) (history)

- Geely and LG Chem created a joint venture to produce batteries for electric vehicles. The initial investment is \$188 million, implying that either operations will start out small or more money will quickly be needed. (<u>Geely</u>)
- Volvo said it had developed a production vehicle "ready" for self-driving in collaboration with Uber. (Volvo)
- LEVC revealed the long-awaited van based on the London Taxi. The firm claims best in class ownership costs, implying a price point substantially below that of the taxi, given the size of the load bay. (LEVC)

General Motors (history)

- Investing \$150 million at the Flint, USA, plant to increase annual capacity for heavy duty pick-up trucks by 40,000 units. (GM)
- GM's VC unit invested in Spring Labs, who are developing a blockchain-based method for sharing and tracking financial transactions. (<u>Spring Labs</u>)

Hyundai / Kia (history)

- Deepened an existing partnership with Aurora to develop driverless cars by making an investment of an undisclosed amount (<u>rumoured to be sub-\$30 million</u>) in the firm. (<u>Kia</u>)
- As rumoured, Kia will stop producing cars at one of the three Chinese joint venture plants at the end of June, the factory will instead be used to make electric cars for a domestic brand (said to be Human Horizons). (<u>Yonhap</u>)
- Hyundai's chairman called on G20 energy ministers to support the creation of a hydrogen economy that could support zero emission vehicles. (<u>Hyundai</u>)
 - Significance: Japanese and Korean car makers seem particularly convinced of the potential for hydrogen powered vehicles but it seems as though they have not yet done enough to make others feel the same.

Nissan (includes Mitsubishi) (history)

- Appeared to back down from an earlier stance that Renault executives shouldn't be on the new oversight committees Nissan intends to establish. (Les Echos)
- Off-the-record sources said new Renault chairman Senard has decided that the CEOs of both Renault and Nissan are "irritants" impeding good relationships between the alliance partners. (<u>Reuters</u>)

PSA (includes Opel/Vauxhall) (history)

- Opel has supposedly been told by German regulators to recall Adam and Corsa models fitted with oxygen sensors that can give faulty readings under some conditions and lead to excessive emissions. (<u>Bloomberg</u>)
- PSA say that electric motors require only about 30% to 40% of the workforce that a comparable small internal combustion engine needs. (Les Echos)

Renault (history)

- Off-the-record sources said new Renault chairman Senard has decided that the CEOs of both Renault and Nissan are "irritants" impeding good relationships between the alliance partners. (<u>Reuters</u>)
- Renault Chairman Senard told shareholders that he was confused about the French government's attitude towards the proposed merger with FCA because it had been the finance minister's idea in the first place. (WSJ)
- Agreed terms of a wage deal with Renault-Samsung workers in South Korea. They will get a \$10,000 bonus but no pay rises. Union bosses wouldn't agree to Renault's request to stop striking until at least 2021. (Yonhap)

Tata (includes JLR) (history)

• Recalling I-Pace electric vehicles to fix problems with the regenerative braking. (Inside EVs)

Tesla (history)

- CEO Musk told shareholders that Tesla had a "decent short at a record quarter on every level" and stressed that there was absolutely no demand problem for the firm's cars. None whatsoever. The steep drop in Model S and X volumes is not relevant. (CNBC)
- In off the cuff remarks, CEO Musk suggested that at very high production levels it could make sense for Tesla to own mines and guarantee supplies of raw materials. (<u>TechCrunch</u>)
 - Significance: Whilst Musk's comments should be taken with a pinch of salt, they imply that somehow the supply chain logic of every other part of the vehicle is wrong and vertical integration is best -- why don't car companies own iron mines and steel companies?
- Will enter the insurance market soon, pending an unspecified acquisition that Tesla needs to make. (CNBC)

Toyota (history)

- Announced a reorganisation, mainly affecting the engineering team structure. (<u>Toyota</u>)
- Planning to announce more partners for the Monet self-driving vehicle venture this month (currently Toyota, SoftBank, Honda and Hino Motors have stakes). (<u>Reuters</u>)
- Reportedly intends to reduce the bonuses of top managers by around 5% because of rising spending. (Japan Times)

VW Group (history)

- Ended the self-driving vehicle development partnership with Aurora. (FI)
 - Significance: Since FCA's deal with Aurora (alongside BMW and Waymo) implies non-exclusivity, it is odd to see VW abandon the relationship -- even with Ford waiting in the wings -- unless it believed that Aurora's technology was greatly inferior.
- CEO Diess reportedly told managers an autonomous vehicle partnership with Ford was almost complete. (<u>Reuters</u>) He also said that an alliance with Ford was a wise move because the company was becoming too China-oriented in its thinking and a US perspective was a useful counterbalance. (<u>Manager Magazin</u>)
- Audi recalled about 540 e-tron all-electric SUVs in the USA saying it needed to repair seals that could allow water into the battery compartment. (Inside EVs)
- VW's partner in Algeria is reportedly under investigation for corruption. (Economic Times of India)
- Hopes that an IPO of truck unit Traton will raise about €1.9 billion. (<u>VW</u>)
- VW's plant in Tennessee, USA, voted against unionisation, but given the closeness of the vote (712 to 626), it seemed likely that this won't be the last try. (<u>Reuters</u>)
- Invested €900 million in battery producer Northvolt for about 20% of the firm and confirmed plans to create a joint venture that will have a 16 GWh factory. (<u>VW</u>)

Other

- **Xpeng's** CEO said the poor share price performance of publicly traded electric car companies (i.e. **Tesla** and **NIO**) was making it more difficult for him to raise money, and even harder for anyone not planning to launch a product in the next few months. (<u>CNBC</u>)
- Ultima says its new RS model can go faster than 250mph. If you want one, there is a two year waiting list, unless you are prepared to build it yourself in which case that can be cut to a mere six months. (Ultima)
- Evergrande is reportedly finding it difficult to bring electric cars into production. (<u>Caixin</u>) but apparently intends to spend \$23 billion building three factories that collectively can build vehicle components, 500 GWh of batteries and 1 million cars annually. (<u>Global Times</u>)
 - Significance: Unless I've got my maths wrong, the 500 GWh of battery capacity number either doesn't make sense or implies that 80% 90% of the capacity would be for third parties.
- Electric vehicle start-up **Aiways** invested \$253 million in a **Changan** subsidiary, reportedly in order to get production permits for its new range of cars. (<u>China Daily</u>)
- Ares Design showed the production version of the Panther ProgettoUno with 650hp on tap and a €615,000 price tag. The car's <u>technical specifications</u> are very similar to the <u>Lamborghini Huracán</u>. (<u>Ares Design</u>)
- Workhorse raised \$25 million, saying it has enough to bring the N-Gen truck to production. (Workhorse)

News about other companies and trends ...

Economic / Political News

- Outgoing **UK** prime minister Theresa May said the UK would commit to a plant that would see almost nil greenhouse gas emissions by 2050. (<u>BBC</u>)
- French ministers said the government would go ahead with plans to end sales of (purely) gasoline and diesel powered vehicles by 2040 via a new mobility law. (Reuters)
- The penny is starting to drop in **Germany** that more expensive emissions legislation and (non-mandatory) safety tests are forcing manufacturers out of smaller, cheaper, car segments. (FAZ)

Suppliers

- The head of the **Spanish** dealer association says a drop in sales of 100,000 units annually equates to around 3,000 staff losing their jobs. (<u>Coche Global</u>)
- **Continental** showed a prototype dashboard that uses clever displays to create a 3D image that doesn't require special glasses. The new technology will be in production from 2022. (<u>Autocar</u>)

- Toyoda Gosei invested \$1 million in QBIT Robotics, gaining a 7.6% stake. (Toyoda Gosei)
- **Yanfeng** might soon start making interiors that use materials produced as a by-product from paper making instead of oil-based plastics. (<u>Yanfeng</u>)
- Veoneer will buy Nissin Kogyo out of their US joint venture and the two agreed a clearer formula for funding the remaining non-US plants. (Veoneer)
- Denso and Honeywell agreed to collaborate on engines for electric air taxis. (Honeywell)

Ride-Hailing, Car Sharing & Rental (history)

- Short term rental firms Zoomcar and Drivezy are said to be in merger talks. (Deal Street Asia)
- The CEO of **Bolt** (formerly Taxify) said the ride hailing service had demonstrated "a few profitable quarters", but didn't explain how he was measuring it. (<u>Business Insider</u>)
- **Citymapper** is shutting down its bus routes in London, blaming regulation and the poor economics of offering ridesharing with only a few vehicles. (<u>Citymapper</u>)
- French firm Ucar is offering users cars for €105 per month if they agree to rent them out (with some leg work involved for the owner to ferry the car around) and says that if they maximise the service, the net monthly rental could fall to €49. (Ucar)
- Go-Jek acquired recruitment start-up AirCTO to help it bring in new staff faster. (Deal Street Asia)

Driverless / Autonomy (history)

- **Uber** says that self-driving cars will probably still have accidents but that they will never have another crash like the other than killed a pedestrian last year and let journalists tour its test site. (<u>CBS</u>)
- Innoviz said it raised \$170 million in its latest round (\$132 of it was already announced). (Innoviz)
- Other road users "bully" autonomous cars, according to **Uber** which has recorded numerous incidents of drivers cutting across and abusing right of way. Given that these are situations regular drivers are likely to frequently encounter, Uber didn't offer any statistics about how much worse it is for a driverless vehicle. (<u>V3</u>)
- Sense Photonics raised \$26 million to develop lidar sensors. (Sense Photonics)
- Uber (Volvo XC90) and Argo AI (Ford Fusion / Mondeo) unveiled updated versions of their self-driving cars, claiming to be one step closer to production. Uber drew attention to the integration of Volvo's underlying safety features so that the car comes to a safe stop if the software (or human driver) disengages. (Uber) / (Argo AI)
 - Significance: This idea of a third generation car seems to have been popularised by GM's Cruise division but notion of cleanly packaging all the sensors to make something look production ready seems slightly odd when set against the absence of a self-driving AI that works. Companies are in effect implying that they have perfected the sensor suite without knowing if it is actually true.
- Yandex outlined the differences local weather and traffic signs made to training a self-driving car. (Yandex)
- Luminar plans to sell a lidar sensor that enables driver assistance functions such as emergency braking and steering for \$500, less clear is whether manufacturers will plump for it over camera based systems. (<u>Reuters</u>)
- Ansys and BMW are developing software that will assess the capabilities of self-driving systems and allow various sensors to be compared against one another using example real world data collected by BMW. Ansys will then offer the system to third parties, where they have "exclusive rights" -- presumably BMW will still bank some form of royalty fees. (Ansys)
- **Hyundai** and **Kia** deepened an existing partnership with **Aurora** to develop driverless cars by making an investment of an undisclosed amount in the firm. Aurora said it raised \$600 million in total Series B funding. (<u>Aurora</u>) and made no mention of losing **VW** as a partner. (<u>F1</u>)
 - Significance: Since it was earlier rumoured that Aurora had rebuffed VW's offers of investment, this seems like a change in strategy.

Electrification (history)

- Ford's ex-CEO Mark Fields said electric vehicle demand would only grow slowly and lots of carmakers were going to look silly in the next 2 3 years for making investments in cars no one wants. (Automotive News)
- Charging network **Fastned** filed for an IPO hoping to raise €27 million. (<u>Fastned</u>)

• VW invested €900 million in battery producer Northvolt for about 20% of the firm and confirmed plans to create a joint venture that will have a 16 GWh factory. (<u>VW</u>)

Other

- Air taxi start-up **Lilium** says a flight from Manhattan to JFK airport (about 20 miles) will take six minutes and cost about \$70. Commercial flights are slated for 2025. That works out at about 8 times faster than a taxi for around 1.5 times the price. (<u>CNBC</u>)
- Scooter rental firm **Bird** confirmed that it acquired smaller rival **Scoot**. The Scoot brand will remain (presumably to prevent regulators re-appraising Scoot's operating permits in San Francisco). (<u>Bird</u>)
- **Uber** displayed a mock-up of the interior for its forthcoming air taxi. (<u>Futurism</u>) and says that although at launch per mile costs will be above \$5 they will fall to around \$2 in the "near term" and match car ownership (e.g. sub \$1 per mile) in the "long term". (<u>TechCrunch</u>)
- **Uber** and **AT&T** are experimenting with the use of 5G networks for air taxis and drones -- in particular they are studying at what altitude the signal becomes unreliable. (ZDNet)
- **CATL, Hellobike** and **Alibaba's Ant Financial** are creating a joint venture to build batteries for electric bikes and operate a network of battery swapping stations. (<u>Reuters</u>)
- **Boeing** is buying aerospace interiors company **EnCore**. (Reuters)
 - Significance: The supply chain of aerospace, where companies buy an empty tube (save for some wiring) and use third parties to fit it out to fulfil brand-specific needs likely has some parallels for a world of ubiquitous ondemand transport. This move by Boeing to integrate aircraft supply and fitting could be a hedge against recession (fewer new planes, more refits) or be based on a belief that a firm with combined expertise can offer more; or both.