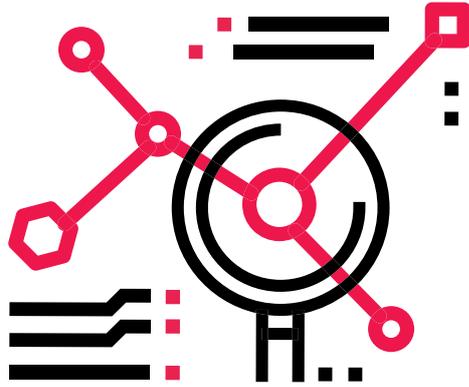


Commentary



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**Rethinking
Auto Mobility -
a random selection
of the future trends
presented at
IAA 2017**



Towards Change.

The Frankfurt Motor Show (IAA), once again, took place just ahead of Germany's general election. Angel Merkel, who is all but guaranteed of serving another term as Chancellor, has made her views on the German automotive industry very clear: while it might be that Germany is an automotive powerhouse - there is no doubt that it is time to make the industry cleaner and more dependent on electric power while also making it easier for consumers to switch. The pressure from government authorities in this regard is, however, being presented in a positive light - as an effort to ensure that Germany maintains its position as a leader in the automotive world. This year's theme - 'Future now' - was focused on the transformation of the automotive industry. And this 'wind of change' is precisely what you felt wandering from one hall to another.

Electrification - IAA's *Primus inter pares*.

Electric cars were not, as was the case at last year's Geneva or Paris shows, the flagship items on display - but they could be seen pretty much everywhere. It was the concept cars that were, of course, the most eye-catching: Audi's mammoth Aicon presented a 'no pedals, no steering wheel' driverless future and offered a 500-mile electric range, while the extremely feminine Electric MINI Concept served as a preview of a production vehicle that will be unveiled in 2019. A year ago, Mercedes-Benz presented the EQ model - here we had a chance to see the first evolution of that model in the EQA. Also, certainly worth a mention is the refreshed BMW i3S. If, on the other hand, you are looking for something a little more nostalgic, you may want to check out Volkswagen's new ID Buzz concept - a re-imagined version of the world's best-loved hippiemobile that is, of course, electric.

The most commonly made promise was, however, that everyone would have at least one electrified version of every model in their range by the mid-2020s. In this regard, the 'global intention' of Daimler boss Dieter Zetsche for between 15% and 25% of the company's model range to be fully electric by that time, was one of the eye-catchers.

Oh, hi there, hydrogen.

The hydrogen-powered Toyota Mirai is already well known but similar technology can also now be found in the Mercedes-Benz GLC F-Cell car. The Mercedes-Benz family of automobiles is being electrified in two different ways - in what is a world first the manufacturer is set to combine innovative fuel-cell and battery technology to create a plug-in hybrid: a version of a popular SUV that, in addition to hydrogen will also run on electricity. Intelligent interaction between battery and fuel cell along with short refuelling times will, in the future, make the GLC F-CELL a highly practical everyday car that is also suitable for long-distance driving. Fuel-cell technology is a firm element of Daimler's powertrain strategy. The company is integrating know-how related to intelligent electric mobility under its EQ brand offering a comprehensive e-mobility ecosystem of products, services, technologies and innovations. EQ is therefore a key part of the company's strategy regarding the future of mobility which, at Daimler, is known as 'CASE'. The four letters in that acronym stand for 4 strategic pillars related to networking (Connected), autonomous driving (Autonomous), flexible use (Shared & Services) and electric drive systems (Electric) - all of which are being gradually developed and intelligently integrated within the company. Between now and the year 2022, Daimler intends to introduce ten battery-electric vehicles - with the GLC F-CELL being an important piece of that puzzle.

Boschisation at its best.

The major automotive manufacturers are already facing competition from their own suppliers. Bosch has developed the so-called eAxle, an electric axle-drive system which, when suitably adjusted, can be fitted into small cars, SUVs, and even light commercial vehicles. This would save car manufacturers from having to develop their own solution in this regard - and generate sales worth billions for Bosch. Mass production is planned for 2019.

Bosch has also joined forces with Daimler to make automated valet parking a reality. Using a smartphone function, drivers can now automatically park their cars in their assigned spots without having to keep an eye on the manoeuvre. This driverless parking is made possible through interaction between in-vehicle technology and intelligent parking-garage infrastructure supplied by Bosch. This cooperation and automated valet parking technology, which is an important milestone on the road to autonomous driving, was unfairly neglected by many visitors.

Infrastructure.

Under a banner that read: 'Shaping future mobility systems - from understanding to optimizing' Siemens presented an impressive array of current applications and solutions related to the topics of charging technologies in electric vehicles, intelligent communication systems which connect vehicles and infrastructure as well as radar technology for intelligent roads, smart parking and networking on freeways.

It was, however, the US tech giant Qualcomm that wooed Frankfurt Motor Show attendees with an impressive presentation on dynamic electric vehicle charging (DEVIC). The aforementioned, is basically a dynamic version of the existing Wireless Electric Vehicle Charging (WEVC) system which uses pads to wirelessly charge electric cars. With DEVIC, the pads are embedded beneath road surfaces and charged by roadside power plants. That makes it possible to charge an electric car while driving along the road - without ever having to plug in it in. It is, for now, just a concept - but Qualcomm representatives assured us that we could see this kind of technology introduced in as little 10 to 15 years. And that would sure be a blessing for taxi and bus stops worldwide.

Empowering movement.

TomTom (TOM2), the navigation technology company, officially launched and presented its real-time EV charging service which is designed to help deal with 'range anxiety'. The innovative new service has been developed to help EV drivers make informed decisions about when and where to charge their vehicles and so 'reduce range anxiety'. Yet more proof of the progressing servisation of mobility.

New Mobility World.

This official IAA event, which got off to a brilliant start in 2015, is supposed to truly shape the future of mobility. NMW is intended to address all of the diverse issues related to the future mobility and explore the novelties on its horizon, including real-time mapping, augmented reality and advanced materials. This time the organisers did their best to provide a neutral platform intended to build bridges between global companies, established manufacturers and suppliers, startups, policy makers, IT and technology businesses, as well as the media and the general public.

On an area occupying 30,000 square meters, more than 180 exhibitors presented worldfirst innovations while discussing trends and future issues at over 200 events and mini-conferences. Among the participants were automotive CEOs and board members as well as the G7 transport ministers and founders of successful new mobility startups. What is so peculiar about throwing a party at someone else's celebration? Well, for starters, the fact that plenty of people came just for the NMW speeches. Who knows if, in a couple of years, people will not come to Frankfurt specially for NMW, not IAA - to get some relevant insights just from this one powerful, game changing conference?

Air Taxis, Flying Cars & Manned Drones.

Whether you like it or not, the world is not just about ground vehicles anymore. The global market for commercial drones is growing rapidly with more and more corporations and start-ups competing for urban airspace for manned drones and flying cars. In regard to this issue, among some other competitors, AeroMobil, the leading flying car designer, exhibited the latest AeroMobil flying car which, on purpose, is a breath-taking, high-tech luxury vehicle. The model brings together the best of automotive and aerospace innovation and utilizes automotive safety standards and lighter weight aerodynamics from aviation to give owners true freedom of movement in the air and on the road while remaining efficient. It is also important to note that the company's sales team officially started taking pre-orders at the show. The vehicle is expected to go into full production within the coming year and the first deliveries are expected to be made to customers by 2020. Once it goes into commercial production, this vehicle will completely alter the concept of MaaS.

Facebook's offensive.

Facebook's COO Sheryl Sandberg went on a charm offensive in Germany telling the country's powerful automakers that the world's biggest social network does not want to compete with them. 'I come with very good news. We are the only company in Silicon Valley that's not building a car', Sandberg said to laughter and applause at the opening ceremony of the Frankfurt motor show, where she met German Chancellor Angela Merkel. 'We take our responsibility to the people who use our products, to the countries in which we work like Germany, to society at large, very seriously', she added. Sandberg also announced that Facebook will join an urban mobility test project in Munich with carmakers and start-ups and said it will also sponsor a new university in Berlin focused on digital product development.

What is more, Facebook has a significant position on the automotive marketing sector. Potential car buyers spend anywhere between 30 to 50 minutes every day on Facebook which has helped the social networking business make significant progress in digital prospecting and omni-channel commerce. Facebook is, nevertheless, no longer just a digital prospecting platform; it is a giant, thirteen-year-old corporation with over 2 billion customers which is beginning to move far beyond the world of social media. With solutions ranging from mobile messaging products to virtual reality and solar-powered drones - Facebook is bringing forth revolutionary technologies and a vision to digitally transform all businesses - including automotive.

The end of Motor Shows and the birth of Auto Tech Shows.

Motor shows, globally, seem to be losing a lot of traction with manufacturers. Germans dominated their home show which was largely a result of the fact that many import brands decided to stay away rather than take them on. The fact that Tesla, Volvo and Aston Martin were no-shows was nothing new - but the fact that Nissan, Peugeot, DS, Fiat, Jeep, Alfa Romeo, Mitsubishi and Infiniti were not there? That must have shocked the organizers. Ford was the only American manufacturer present in Frankfurt. Welcome to the new normal - in which car makers spend their marketing bucks elsewhere while tech & IT giants try to shine in their booths.

As Facebook's Sheryl Sandberg rightly pointed out, in the new digital economy, no company on its own has the capability to tackle all challenges and take advantage of all opportunities that come with digitalization. Thus, success does not come about by going solo, but rather by partnering, cooperating, and co-innovating on a global scale. The joint EY-HARMAN-SAP booth provided a unique demonstration of new ways of collaboration between different companies that drive innovations related to future mobility solutions and require out of the box thinking. The new normal will focus heavily on connectivity, user interfaces, and end-to-end computing platforms that enable autonomous driving - making it safe, enjoyable, and productive. Automakers will, indeed, need visionary partners to make these concepts a reality. Keep in mind that today's Auto Tech world is only beginning to present its possibilities.

