

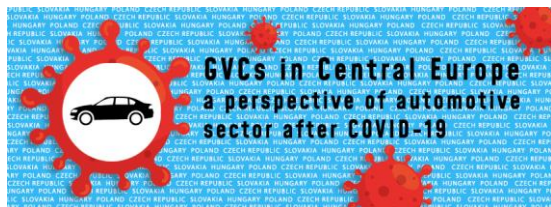


EFFECTS OF COVID-19 AND SUPPLY CHAIN DISRUPTIONS – EXPERIENCES OF HUNGARIAN AUTOMOTIVE SUPPLIERS

A case study by Andrea Éltető

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The pandemic has strongly affected automotive supply chains. Even before, suppliers had to meet high quality and delivery requirements. Because of the Covid pandemic, however, planning has become insecure and orderings erratic. Demand showed a very high volatility during 2020-2021 and demand patterns seem to change on the long run too.

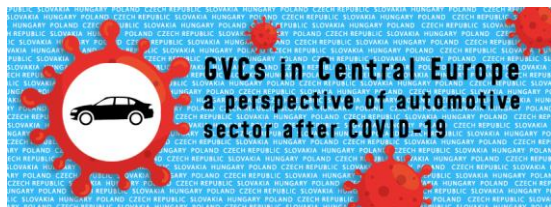
Three Hungarian automotive suppliers shared their experiences of crisis management¹.

1. *Harman Becker Ltd* was the 12. largest company in Hungary in 2020 based on its revenues. It employs 3500 workers in three plants and is present in Hungary since 1995. The firm produces electroacoustic components, navigation and infotainment systems, in 95% to export, supplying large OEMs. In 2010 and in 2013 the company received state and EU-support for investments. The American owner sold the Harman group to Samsung in 2017².

Harman has a long-term strategy that helped to overcome the 2008 financial crisis and the Covid crisis. During the pandemic "safety first" was the main principle with prompt preventive measures, PCR tests, contact research, etc. In spring 2020 customer demand crashed. The company widened flexible working time, creating a pool of free time that workers would have to compensate with work later. 400 employees went into part-time, home office possibilities were used, government programs too. Harman could manage functioning at a 30% level in the worst weeks. After that, around September 2020 there was a strong rebound in orders and Harman had to hire workers. In November, a Japanese semiconductor factory burned down and this caused a supply problem. Creative thinking together with customers was necessary. Consumer electronics are big competitors now for the automotive industries regarding semiconductors, electronic chips. There are ten big semiconductor factories in the world, Samsung among them, but not even a Samsung affiliate could solve the chip shortage. This situation will last. Bosch tries to produce chips in Germany but in Europe there is no significant capacity and production is expensive. Therefore Far-East will remain an important source of supply chains.

¹ Recited at the Portfolio-MAGE automotive conference, Budapest, 15 June, 2021.

² <https://g7.hu/vallalat/20200928/mar-a-12-legnagyobb-magyar-ceg-a-szinte-ismeretlen-luxusauto-beszallito/>



2. *Bálint Ltd* produces parts of motors, body work and brake systems. It was established in 1987, has around 70 employees in three plants. From 2020 March there was a 2-3 months-stop in the automotive industry and thus 35-40% of the company's turnover dropped out. The firm made investments to compensate this loss, and to keep jobs. They bought high-technology machines, built own solar energy plant. Half of the invested 1.6 mn euros was provided by the state in 2020³. Restart in 2020 brought problems because of the difficulties of the automotive industry. Orders are rhapsodic, sometimes 100-200%, sometimes almost zero and it is difficult to handle. Price increase in the steel industry is a serious problem, cannot be compensated in components' price. It requires serious reserves. There is a lack of base material, sometimes a price offer of some stock is valid only for an hour. Purchasing something from new production takes 6-7 months. Neither any alternative supplier can do better if there is no base material. Suppliers have delivery responsibility and receive punishment from OEMs.

3. *SMR Automotive Mirror Technology Hungary* produces 35 000 rear-view mirrors per day in four plants employing around 1800 workers. The company was founded in 1993 and is owned by the Indian SMR group. The mirrors have complex electronics, motor, cameras, etc, therefore the chip crisis has some impact here too. Capacities fell out in 2020 but were rebuilt. Logistical problems are difficult, there is a shortage of port capacities, containers. SMR had to be very creative and aggressive to find out alternative ways, using rail, or even air transport. The company had products in consignment warehouse for 2 weeks and this had to be raised to 4-5 weeks. SMR works with 8-10 suppliers already, somebody has always capacity. SMR books capacities for 10 weeks.

In 2021 the automotive industry probably keeps stagnating compared to 2019. Earlier traditional production patterns change because of electromobility and digitalisation. Softwares gain high importance in cars and suppliers must be prepared for this and also to possible relocations of plants within the GVCs. Costs of basic and electronic materials increase but from the OEM-side there is a downward price pressure. It is not easy for suppliers to handle this.

³ <https://www.sonline.hu/gazdasag/helyi-gazdasag/fejlesztessel-mennek-szembe-a-valsaggal-2791506/>