

'Free Flow of Data' and the Connected Car

The role of the European legislator in the legal and factual protection of innovations and competitiveness by the example of the motor vehicle parts, service and repair industry

1 The motor vehicle replacement parts, service and repair market in the digital age: "AutoCare Industry goes digital"

The concept of the connected car is associated in the public debate primarily with new telematics applications such as the intelligent control of traffic flows or new communications and entertainment functions. This blocks the view on to the serious economic impact of the "Connected Car" on the market for motor vehicle parts and services and on adjacent markets such as the leasing business, fleet management, insurance or new mobility services.

"Data as the oil of the 21st century" make countless innovations possible. Particularly in the automotive sector, there are extensive data streams due to complex sensor technology coupled with good telecommunication connections, more so through telematics technology now being pushed forward by eCall. Especially timely data or data in real time around the clock have brought about a vast variety of new products and services relating to the operation of vehicles. For example, the market could be complemented by innovative services in the following areas:

- Proactive monitoring of safety-critical vehicle systems
- Targeted and thus especially efficient maintenance in the workshop
- Remote monitoring of operations to avoid defects
- Remote maintenance through software updates or reconfiguration
- Automated services in case of a breakdown
- Geo location of repair centres relative to specialist repair (e.g. types)increases repair efficiencies

Based on *technical vehicle data*, countless further applications should additionally be conceivable which will arise only with future innovations on the basis of the data from the vehicles.

2 Vehicles as measuring devices: No participation in innovation and competition without access to data

2.1 Today's analog situation

Modern vehicles are already "computers on wheels". No workshop can localise defects or maintain and repair a vehicle without communicating with the control units of the vehicle. This communication has so far

IBAN: BE37310149413028 BIC: BBRUBEBB V.A.T.: BE-0472205007 EC Transparency Register ID: 69678928900-56 been wired, taking place through defined interfaces (OBD physical connector) or through local WiFi. In this way, with the help of diagnostic devices provided especially by tool suppliers of the independent aftermarket such as Bosch, Actia, Hella-Guthmann, Snap-On or Autocom, measured values are read and interpreted. This possibility of communicating as required with the control units and sensors of the vehicles is the issue here. This communication is possible only through existing physical and standardised interfaces and the knowledge of the significance of the values thus recorded. The innovative capability and competitiveness of the entire value-added chain of the independent automotive aftermarket (i.e. of market players such as the (spare) parts manufacturers, the spare parts distributors, producers of diagnostic and workshop equipment, independent data providers, periodic testing stations etc.) are based on the possibility of direct communication with the vehicle and the current ,analog' access to the **vehicle-generated measurement data**. On this basis, it is possible for example to apply different diagnostic methods and to offer alternative repair methods (e.g. the repair of a single part instead of the more expensive replacement of the entire system). This is the basis for the independent entrepreneurship of more than 500,000 SMEs in the ,multi-brand' aftermarket.

2.2 Digitalisation: Exclusion of independent service providers from access to data through closed telematics systems

The digitalisation of repair services for motor vehicles and the increasing introduction of closed telematics systems raise the threat that market operators of the independent aftermarket will lose their factual access to the measurement data. The car manufacturers are increasingly replacing the physical interface with their vehicles (on-board diagnosis (OBD)physical connector) by a telematics interface by means of mobile data transmission. Where any physical connector exists anymore, the measurement data (based on cross-referenced UN-ECE Reg 83) readable through it are often reduced to emission-relevant values only. But these account for only 10% of the available measurement data of necessary for maintenance and repairs. In other words: The independent motor vehicle aftermarket faces the threat of being excluded from the opportunities arising from the increasing digitalisation of connected cars, as it is factually cut off entirely or partly from the possibility to communicate with the vehicle. This also goes for many other service sectors who are based on in-vehicle-related data. Vehicle manufacturers are creating technically closed ,proprietary telematics systems which can communicate exclusively with the manufacturer of the vehicle concerned. This also leaves the field for future innovation, including the relevant data needed for the development of public digital infrastructure, to the vehicle manufacturer alone.

2.3 Regulatory gap regarding data about the condition of the vehicle

With the provisions dealing with technical *repair information* in the motor vehicle regulation (Regulation (EU) No. 461/2010 of the Commission of 27 May 2010) and in the EURO 5/6 Regulation (Regulation (EC) No. 715/2007 of the European Parliament and the Council of 20 June 2007), the European legislator pursued the intention of ensuring competition on the aftermarket, which is a separate market also under antitrust law. But this does not concern ,data', but *repair instructions and information on the interpretation of measurement data* (i.e. "how something is repaired", "when are measurement data good or bad").

It was the intention of the EU legislator that the vehicle manufacturer should not be able to gain excessive advantages from the fact that it first assembled the vehicle. Once a vehicle is sold, it enters the after-sales market, and in this market independent product and service providers should have a 'level playing field' with the vehicle manufacturers. The information about how to repair a vehicle and the interpretation of measured values must therefore be disclosed by the vehicle manufacturer, at least against reasonable

remuneration. The inclusion of repair information in the Motor Vehicle Type Approval law technically specified and underpinned the anti-trust law (which was too general). Here, the inclusion of programming standards first put into effect the principle of "reparability by design" (analogously to "safety/data privacy by design") in order to keep vehicles from being factually closed and thus "unreparable" for independent market operators. The relatively small technical provision made it possible that vehicles of all brands can be diagnosed and programmed in all workshops throughout Europe, and the motorist can be put quickly back onto the road!

However, these indirect bases for the legal rights of independent operators under anti-trust law (Motor Vehicle Regulation) and Motor Vehicle Type Approval law (EURO 5/6 and EURO VI, both are currently being incorporated into the Framework Regulation COM 2016-31) date back to a time when it was not yet really foreseeable that, in the course of technical progress, access to the measurement data of the vehicle would become continuously less wire-bound and local and would cover an increasing number of components. As a matter of fact, access increasingly takes place through wireless networks with the car manufacturer as the only recipient, in particular where permanent long-distance monitoring is concerned. Measured by the European legislator's intention to ensure competition and innovation on this aftermarket, there is therefore a need for legislative action. The information about how to maintain or repair a vehicle and how to interpret measurement data becomes worthless if access to these measurement data is impossible or greatly restricted because the telematics unit is technically and thus factually closed. The technological development of connected cars must not lead to a situation where the aftermarket for services and parts, which is as important to the European economy as the market for new vehicles as well as for 284 million motorist consumers and businesses, becomes imbalanced and 'captive'.

2.4 Economic attribution of data

The dilemma described above correlates with the fact that no legal provisions of any kind exist in view of measurement data, i.e. these data and information do not fall into any legal category. For this reason it is also not possible to assert any protective rights against the car manufacturers, instead it is *the power of the facts that rules*. If the vehicle manufacturer alone has factual access to the measurement values for the vehicles produced by it, existing laws can no longer help (apart from the blunt sword of anti-trust law). But the call for a *Free Flow of Data* must not stop at the gates to such an important market.

2.4.1 General data ownership

Neither national law nor European law provides for general ownership of data. If anything, the law grants selective protection to specific creative results of human work, structured databases or computer software. Essentially, the law thus exceptionally protects data which fulfil enumerative and narrowly restricted qualitative criteria. But modern approaches to data processing, often referred to in terms of "Big Data", are not oriented by quality but by quantity. The storage, transmission and processing capabilities of information technology today allow the generous and disorderly handling of data. The economic value arises here from the easily processed great mass of data, not from the quality of any individual data. The reality of life today when dealing with data is thus diametrically opposed to the understanding of the legal system as to what should be worthy of protection by way of the attribution of a kind of ownership. The typical measurement and condition data which are essential to all innovation are therefore not owned by anyone.

2.4.2 Data protection (data privacy)

Data protection law also does not grant any kind of ownership rights. Although legal questions regarding all aspects of the reach and extent of data protection law are currently being discussed intensively, the European data protection law is intended to provide protection <u>against</u> data, but not any protection <u>of</u> data. Data protection law is understood to be a protective law restricting the use of personal data, as data are regarded in the eyes of data protection law as a threat to privacy. However, as vehicle-related data practically always relate also to persons, in the concurrent view of data protection authorities, the handling of such data in principle requires a reliable and justifying data protection structure as well as the information for the individuals concerned.

But the data protection law relating to individuals must be distinguished from the right to data. An appreciation of commercial values is foreign to data protection law. More specifically, the *Right to Data Portability* also does not constitute a solution, even though the term is used by the legislator and could thus insinuate at first glance a solution to our need for access to data. The reason is that there are many exemptions built into the European data protection law (e.g. reference to data 'provided by the data subject', right of third parties as showstopper etc.). Moreover, a legal claim of the users relates only to personal data and thus in particular only to existing data). This is why it is not possible to point the way for future data streams (such as technical vehicle measurement data) towards other market participants on the basis of 'data portability' under European data protection law.

2.5 Anti-trust law also provides no sustainable solution

The independent market participants, who especially include the parts supply industry with reputed players such as Bosch, Continental, Valeo and Magna, cannot reasonably be expected to tediously fight for many years against every individual vehicle manufacturer and in view of every single product and every single service to safeguard their continued future participation in competition through individual actions and complaints under anti-trust law, based on the accusation of an abuse of a market-dominating position. Especially small and medium-sized undertakings will in any case be unable to do so for organisational and cost reasons. In addition, there is the fact that experience shows that even the bigger undertakings will hesitate to take legal action under anti-trust law against their main customers, the vehicle manufacturers. Also, an action or complaint under anti-trust law can always concern only a certain product group or a certain service without providing any legal certainty with regard to future technical developments. The risk of "Litigation to Death" is evident, many independent market participants could not financially survive such a scenario.

2.6 Task for the European legislator

To ensure that the provisions that already exist today and concern access to maintenance and repair information and the related intentions of the European legislator will not become ineffective, it is therefore necessary to find a legislative solution which will enable also the independent market participants to directly and permanently communicate with the vehicle data (real-time data) and at the same time provide protection against any interference by the vehicle manufacturer with the customer relationship and the business model in each case. The issue is the possibility for independent market participants to permanently communicate wirelessly with the vehicles, parallel to the vehicle manufacturer and separately from the manufacturer, in order to be able on that basis to develop their own innovative business models and to compete with the vehicle manufacturers. In particular, this presupposes the obligation of

manufacturers to create data interfaces in the vehicle ("intelligence in the vehicle") as well as the standardisation (or at least as a first step) access to the necessary communications and data parameters. This must of course be accompanied by respective rules and security requirements.

Without legislative action, the vehicle manufacturers' communications "sovereignty" over connected cars will cause the market for the maintenance and repair of motor vehicles in Europe with an annual volume of EUR 200 billion (services and parts) to become imbalanced. Other providers/producers will be excluded from the development of innovative products and services. The connected car is a textbook example that shows that developments regarding the 'Internet of Things' make steering legislative action on the aftermarkets necessary in order to make competition through innovation possible.

Here, a future extension of the already existing technical legislation in the automotive sector would be a suitable means to anchor technical specifications for telecommunicative data access and data interoperability in the Motor Vehicle Type Approval law (EURO 5/6 and EURO VI). It is currently under revision (cf. COM 2016-31) and should be designed in a way as to be updated to technical developments (for example through an empowerment to the Commission to adapt the legislation to future technical progress in the field of digital data exchange using global wireless wide area networks).

3 ,Free Flow of Data' and the connected car

The deficits described above in the free access to 'data' (more precisely: vehicle-generated measurement data) lead to an innovation inhibiting monopolisation of the data in the hands of the vehicle manufacturers. It is true that there is no legal protection of the data for the vehicle manufacturers. But there is also no right to data for the other market participants. For this reason, in the absence of any legal provisions, only the factual access to data is decisive. Naturally the manufacturers occupy a key position here, as they alone control the telematics system by means of design, isolation and secrecy of interfaces and data, and as they technically close it for other market participants.

The monopolisation of data which thus factually exists at this time inhibits innovation, as a major part of the market is cut off from access to the data and can therefore not develop any innovative products and services on the basis of the data. The vehicle manufacturers themselves then also lack any motivation to innovate in the absence of competition. The factual monopolisation is also unfair without regard to its innovation inhibiting effect, as the vehicle manufacturers are not the originators of the data – and, as explained, they have not made any other contribution to the generation of the data which would be appreciated by the legal system.

There is thus an urgent need for legislative action to ensure a *Free Flow of Data* in the rapidly progressing digitalisation of the automotive industry. Data from connected cars must be freely available in the interest of innovation in the aftermarket – and other vehicle-related sectors. Factual monopolies must end, and certainly no legal monopolies may be created.

What is therefore necessary is free access to data for all market participants as a precondition for innovative capability in the automotive aftermarket and other adjacent markets. Only the customer / user concerned in each case should decide who is to be allowed to access data from the vehicle. Therefore, concretely, interoperable and documented interfaces and standardised formats are necessary for a truly *Free Flow of Data*.

What is not a solution, in contrast, is the concept of the so-called "Extended Vehicles" that is currently being pursued by the vehicle manufacturers. This concept describes an interface controlled by the vehicle manufacturer alone and a data transmission to and from the vehicle to a server controlled only by the vehicle manufacturer. Only through this proprietary server would the vehicle manufacturers then be prepared to grant other market participants controlled access to the data. But this would be anything but a Free Flow of Data, it would instead be a flow of data under the factual and legally unregulated control of the vehicle manufacturers as a bottleneck. Moreover, the system establishes permanent monitoring of the data and business transactions (including all customer relationships!) of independent market operators who, after all, are in competition with the vehicle manufacturers (formulated in a slightly trenchant way, "Extended Vehicle" is a kind of "Industrial espionage by technical design"). This is totally unacceptable. Consumer protection organisations and aftermarket associations have conceived a number of other technical solutions in order to make possible the competition-neutral access to the vehicle and its data.

A robust *Free Flow of Data* in the automotive sector is necessary in order to ensure the innovative capability and future viability of this, and many other, industry in the inevitable march into digitalisation.

This applies also to the automotive sector, to "the vehicle as the Internet of Things on wheels", but also to other industrial goods where service and repairs are provided and carried out increasingly through a direct telecommunications link with the server of the producer so that independent repair service providers find it difficult to place a competitive offer (e.g. 3-D printers, lifts, industrial PCs, refrigerators).

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