Executive summary

Access to in-vehicle data

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The VDA

Over 600 companies are members of the German Association of the Automotive Industry (VDA). In Germany they manufacture motor vehicles, engines, bodies and containers, as well as parts and accessories.
1. Innovations using data – the data value chain: from data generation to services for customers

The VDA’s member companies already make data available extensively for customer-oriented use cases and offer a wide range of technical access options. This proactive offering is continually being expanded. The automotive industry’s commitment to fostering innovation and data-driven business models is reflected in the billions of euros invested in forward-looking operating systems, electrics/electronics architectures and connectivity. These investments form the foundation for all business models based on vehicle data.

2. A common market for data – to benefit our customers, mobility and the environment

The companies cooperating under the VDA umbrella believe in the added value that can be created by using and sharing data. We enhance this added value by working proactively together to expand the data offering and secure technical access in order to offer our customers added value through relevant data-based services and to make our customers and society more mobile – in a way that does not impact negatively on the environment or the climate while remaining secure. Customers have sovereignty over their data, subject to the legislation in force. The is based on a stable and reliable regulatory framework that gives all those involved a level playing field and the space to develop the emerging data market. Our commitment enables innovative business models for all stakeholders. All the companies in the VDA share a common understanding that any regulation of the data market will include rules of fair play applicable to all parties involved. Data availability and data access will not relate solely to vehicles, but also to vehicle-based data held by service providers, insurance companies, financiers and other downstream sectors in the vehicle industry. This is the only way to develop new services in the interests of the customers.
3. An increasing data offering –
   driving data-based business models

If service providers are to roll out new business models successfully, a huge amount of data will be needed, supported by all vehicle manufacturers across all models. The companies in the VDA accordingly support the elaboration of a basic data set to be made available for all vehicles in compliance with the legal requirements. This will require the corresponding technical capacities to be in place.

The data set should be regarded as a common starting point. It will be continually expanded based on customer-oriented use cases. This expansion will be driven forward by those use cases demonstrating the greatest customer benefit and thus the highest demand, and for which data can be supplied both rapidly and on a broad scale. Decisions on expansion of the use cases will be taken through the associations in dialog between partners.

The companies involved agree to create transparency concerning their entire online data offering available via Extended Vehicle (ExVe)\(^1\) web services. Suitable semantic markups are added to the data to guarantee interoperability.

4. ADAXO – Automotive Data Access –
   Extended & Open: confidentiality brings success

The VDA represents companies whose success is based on innovations and which accordingly support the protection of intellectual property and innovations. The confidentiality necessary for data-based business models is ensured by the ADAXO concept – that embodies the ongoing development of the VDA’s existing system. The ADAXO concept also provides the option of not disclosing to primary data collectors either the accessing companies’ identities or their business models. The ADAXO neutrality concept can also be implemented in data spaces, and for us it represents the logical next step in neutral data provision. Ultimately full sovereignty over the data remains with the vehicle customer.

The ADAXO data offering includes the above-mentioned initial data set that is prepared in the use case approach described and which will be continually expanded.

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\(^1\) Extended Vehicle concept: Manufacturers route the data via an OEM backend
5. FRAND – rules for cooperation between partners to benefit our customers

Fair, Reasonable and Non-Discriminatory (FRAND) conditions apply to all stakeholders in the data market. The VDA’s member companies offer access to data and functions on FRAND terms to companies that likewise undertake to abide by the FRAND principle. The OEMs offer all the data and functions that they use for supplying their own services. Data can be accessed in a non-discriminatory manner either by means of masking (e.g. via a neutral server) or directly from the vehicle manufacturer, but always on the basis of B2C and B2B contracts. These contracts are drawn up individually for each company. From the viewpoint of the VDA’s members, standardized contract components may by desirable as far as this is permissible under antitrust law. Fair data sharing is also based on a transparent pricing policy that is not prohibitive.

6. Authorization management – creating added value in the interests of our customers

In an accordance with the legislation in force, data are transferred only for a particular purpose, i.e. for the specific use case.

- From the customer’s perspective and from that of data protection law, authorization management should be central, consistent and simple to use, and as such should rest with the manufacturer (OEM) as the central contact for data collection.

- The customers have sovereignty over the data. They decide, in accordance with the applicable law, which data are transmitted to which recipients. The manufacturers should follow the customers’ wishes.

- The commercial data flow is not monitored by the OEMs, unless this is required for legal, contractual or security reasons.

- Confidentiality clauses will ensure that customer data are not analyzed, and thus prevent reverse engineering. Authorizations for third-party services can be encrypted so that the business models of third parties do not become known to OEMs.

The manufacturers may make data accessible to OEM-operated and non-OEM-operated data market places that satisfy the relevant conditions. The primary data collector will ensure compliance with the legal requirements using an end-to-end authorization management system.
7. Technical access –
customer-focused and efficient data provision

The VDA’s member companies already offer various technical access methods so that vehicle data are available in a customer-oriented manner while keeping within the legal requirements. All the companies support the ADAXO concept that enables data – such as the common basic data set – to be obtained under FRAND conditions. In addition, the OEMs operate their own online portals through which companies can acquire date directly, based on B2B and B2C contracts. The Mobility Data Space (formerly the DRM “Datenraum Mobilität”) will add another marketplace that offers in particular the possibility of obtaining data from many different sources swiftly and efficiently and with high transparency, using standardized data connectors. A large number of VDA members already support this approach and are promoting its further expansion.

8. Access to data by third parties –
safety has priority

Today third parties can already be granted direct access to vehicle data and functions if they satisfy the technical and legal requirements. As development progresses, various vehicle manufacturers will offer the option of installing software from third-party providers in vehicles, subject to the regulations (e.g. UNECE R155 on cyber security) certification issues and the requirements for software update management systems (UNECE R156). To this end, guidelines should be prepared in cooperation with the associations, to provide a secure basis for the installation of third-party software in vehicles. However, it remains fundamental that the approval of software and the management of vehicle resources (e.g. bandwidths for data transmission in the vehicle) can only be performed by the company responsible for certifying the vehicle. Whenever possible options or developments are considered, all the companies always give top priority to the safety of all road users.

This executive summary will be supplemented by an in-depth technical document soon.