



# **Study on the provision of information to consumers about the processing of vehicle- generated data**

Executive Summary

## **Internal identification**

Project number: 2022.3356

### **DISCLAIMER**

By the European Commission, Directorate-General of Communications Networks, Content & Technology.

The information and views set out in this publication are those of the author(s) and do not necessarily reflect the official opinion of the Commission. The Commission does not guarantee the accuracy of the data included in this study. Neither the Commission nor any person acting on the Commission's behalf may be held responsible for the use which may be made of the information contained therein.

ISBN 978-92-76-60471-6  
doi:10.2838/550306

Luxembourg: Publications Office of the European Union, 2023

© European Union, 2023. All rights reserved. Certain parts are licensed under conditions to the EU.

Reproduction is authorised provided the source is acknowledged. The reuse policy of European Commission documents is regulated by Decision 2011/833/EU (OJ L 330, 14.12.2011, p. 39).

For any use or reproduction of photos or other material that is not under the EU copyright, permission must be sought directly from the copyright holders.

## Abstract

This report presents the findings of the Study on the provision of information to consumers about the processing of vehicle-generated data. The central goal of this study was to gain insight in the legal requirements from an EU consumer law perspective as well as consumer expectations when it comes to the provision of information about data processing that occurs in the internet-connected services of 'connected' cars, and to compare these requirements and preferences against actual practices existing among seven car manufacturers in a selection of EU Member States. This comparison was used to identify best practices and areas of improvement, which in turn was the foundation for the formulation of concrete recommendations for actions that manufacturers could take in this regard. The study consisted of a legal mapping to delimit the relevant regulatory framework, a survey among consumers to assess consumer expectations, as well as physical and online mystery shopping visits to dealers and manufacturer websites to identify their practices.

## Executive Summary

### 1.1 Study background and objectives

Connected cars process data on the surrounding area, the car and the driver. These data are not only stored in the car but can also be shared with manufacturers and other service providers, other cars, devices and the road infrastructure, enabling the car to digitally connect and interact with its surrounding. With the connected car market growing<sup>1</sup>, there is also a steady increase in the processing of consumers' personal data generated by these cars. As a consequence, connected cars turn into massive (personal) data hubs, which increasingly raises concerns for consumers. Until now, regulatory guidelines and recommendations focussed on the proper treatment of personal data from a data protection point of view. At the same time however, there is also a strong consumer protection and consumer rights angle to this, which has received less attention. Indeed, consumers are known to share concerns about the use and sharing of their personal data. Recent research has also clearly shown that consumers expect to be in full control of any collected data related to the vehicle they own or drive, and of the transmission/sharing of these data.<sup>2</sup>

With the above context in mind, the goal of this study was to assess how car manufacturers and car dealers comply with their obligations under the relevant EU consumer laws with regards to the provision of clear and transparent information on the processing of vehicle-generated data that consumers need in order to make a fully informed purchasing decision. In addition, based on the study results, recommendations are proposed towards car manufacturers and dealers on how to improve compliance with regulatory requirements when it comes to information provision and other consumer rights.

To fulfil this, the following research tasks were conducted:

- **A mapping of the relevant EU consumer law provisions** that apply during the marketing and pre-contractual phase regarding consumer information on the processing of vehicle-generated data, and, where relevant, their interface with relevant provisions from other areas of EU law. The study did not focus on the specific obligations of data controllers or data processors under EU data protection law, and it did not perform compliance tests under EU data protection law.
- **A consumer survey** to assess what consumers' expectations are when it comes to receiving information about the processing of vehicle-generated data in connected cars.
- **A mystery shopping exercise**, in which it was investigated whether and how car dealers and manufacturers provide information on the processing of vehicle-generated

---

<sup>1</sup> Globally, while in 2020 about 48% of newly sold cars had built-in connectivity services, this is forecasted to cover almost the full market of new cars (96%) by 2030. <https://www.statista.com/statistics/1276018/share-of-connected-cars-in-total-new-car-sales-worldwide/>

<sup>2</sup> Federation Internationale de l'automobile FIA Region I, 2016. *What Europeans think about Connected Cars*; Deloitte, 2017. *Automotive Data Treasure – Vehicle Digitalisation and the Question of Data Treasures*.

data. This task consisted of physical dealership visits as well as the analysis of printed and online documents.

- **An analysis** of the results of the mystery shopping exercise, comparing the results with the regulatory requirements as well as consumer expectations, in order to examine manufacturers' practices and to build, based on the results, actionable **recommendations** for the industry.

The consumer survey and mystery shopping data collection took place in seven European Member States (France, Germany, Ireland, Italy, Poland, Spain and Sweden), and the analysis covered seven large car manufacturers active in these Member States (BMW, Hyundai, Peugeot, Renault, Tesla, Toyota and Volkswagen). While the broad coverage of the study in terms of geography as well as the car manufacturer market ensures some validity of the results for the wider EU area, it should be noted that the study findings pertain only to the above Member States and car manufacturers, and we draw no conclusions about the situation in other Member States, or practices from other manufacturers.

The study was focused on consumer law and not on the legal domain of personal data protection. Therefore, the study did not assess consumer's concerns through the application of data protection laws, nor through any test based on these laws.

## 1.2 Study results

### 1.2.1 Legal mapping

A mapping was conducted of the relevant legal provisions at the EU level that apply during the marketing and pre-contractual phase and would need to be taken into account when it comes to the provision of information about data processing in connected cars. The mapping focussed primarily on EU consumer law, and in particular on the Unfair Commercial Practices Directive (UCPD), the Unfair Contract Terms Directive (UCTD) and the Consumer Rights Directive (CRD), rather than on data protection laws (e.g., the General Data Protection Regulation (GDPR) or the ePrivacy Directive).<sup>3</sup>

The mapping identified four relevant regulatory areas, listed below. In each area, it should always be kept in mind that while the framework of EU consumer law and the framework of EU data protection law cover similar trader practices and requirements, they are separate legal frameworks that can both be applied separately, and that they are not regarded as exclusive but as complementary legal instruments.

- **Provision of information** on the main characteristics of a product/service. For connected cars, this concerns in particular information on the **risks and security of data processing**, the **purposes** of data processing and related **commercial intent** (especially in the case of data sharing for commercial purposes, tracking, or personalisation of services, advertising, prices etc.), the categories of data that are processed, **data sharing practices** with certain recipients (including what data are shared and with whom, and for what purposes), the **identity of the trader** and any

---

<sup>3</sup> It should be noted that EU Directives need to be transposed into the national legal order of the Member States. In order to facilitate this exercise, the study focused only on the text of the Directives as far as EU Directives are concerned.

other data controller, **consumer's legal and contractual rights** (e.g., withdrawing from a contract), rights to object to data processing and withdraw consent (i.e., **control** over these practices), **transferability** and portability of data

- **Professional diligence requirements**, in particular concerning the requirement that no excessive (unnecessary) data must be stored or processed (and the related practices to acquire consent from consumers to gather these data), and the use of (and reference to) codes of conduct
- Relevant **blacklisted** practices as listed by Annex 1 of the UCPD, for example, the hiding of the commercial intent of the trader
- The requirement to provide **fair and transparent contract terms**, in particular the prohibition of any terms that would cause a significant imbalance in the parties' rights and obligations under the contract, to the detriment of the consumer. This could specifically include the **requirement to provide easy access, in the consumer's language, to transparent information on all aspects of data processing before the purchase, in clear and unambiguous language**. Potential violations could for instance be vagueness in the indication of certain recipients with whom data may be shared; vagueness about the exact data processing purposes (e.g., "several purposes"); automated consent to more data processing than is strictly needed; a lack of indications about how long data will be retained; insufficient information about the consumer's right to withdraw consent or have data deleted; insufficient information about data security; insufficient information about data portability. Additional relevant unfair terms that could be of concern are the practice of traders to **unilaterally change the contract terms** (which could include changing data processing terms) and a failure to communicate these changes or allow enough time to the consumer to consider them; the overly use of legal or technical terms, and any indication of **limitation of liability** regarding damages caused by a trader's violation of the GDPR.

### 1.2.2 Consumer expectations

The main objective of the consumer survey was to identify what information about the collection and processing of vehicle-generated data consumers consider most important when purchasing a connected car, to allow them to make an informed purchase decision. In addition, the survey measured respondents' awareness of and knowledge about connected cars, their (known) ownership of a connected car, and the importance of connected services compared to other aspects of the car.

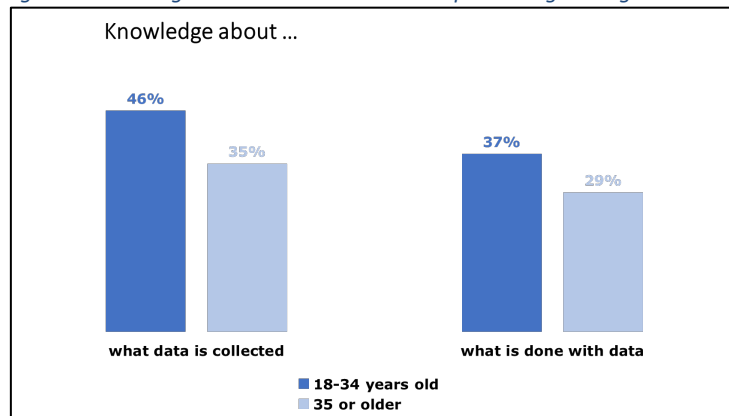
#### **Familiarity and importance**

Just over half of respondents (57%) were familiar with the term 'connected cars' in the sense that they had at least heard about the term, but only 24% report that they knew what the term meant. This likely reflects the fact that connected cars are not yet commonly on people's radar. Most respondents (79%) claimed to never have driven a connected car in the past three years, and only a small proportion (18%) said it was very important or essential that their next car will have internet-connected services. At the same time, only a small minority (10%) said they would not want to buy a connected car. This indicates that while only a small group of respondents was decisively against buying a connected car, the rest of the sample was split on whether they find connected services important or not.

## Knowledge about data processing

Knowledge about what data processing happens in connected cars is generally low.

Figure 1 Knowledge about data collection and processing among consumers.

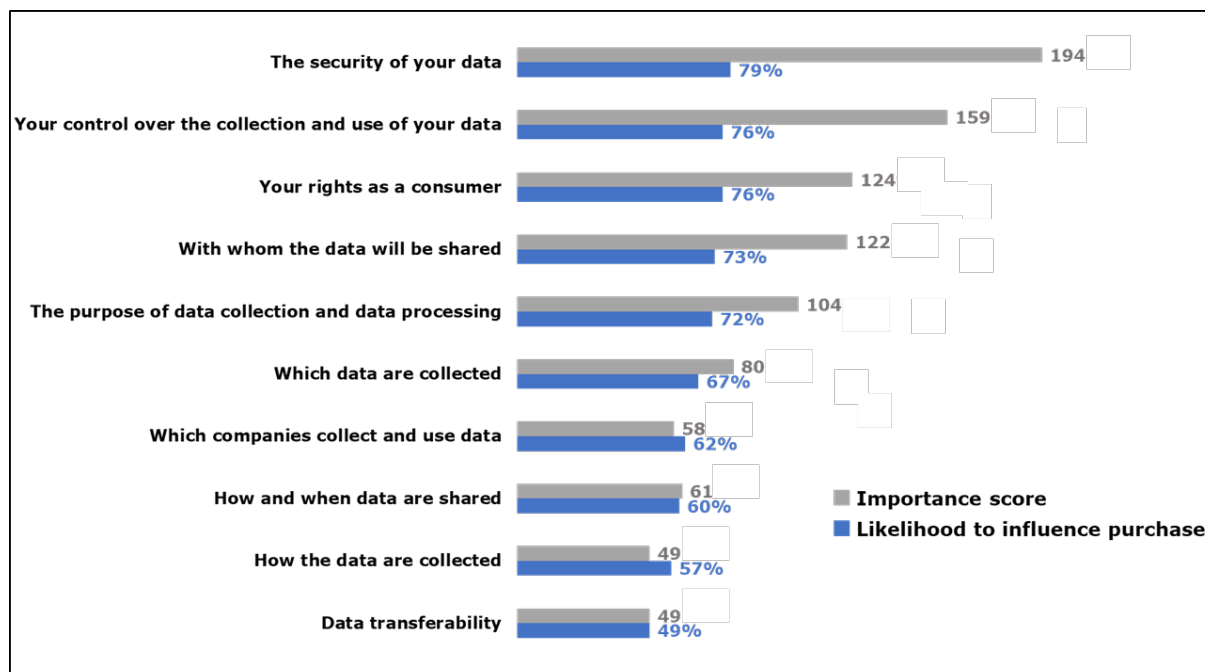


Less than half of respondents reported that they knew at least some things about what data is collected in a connected car (38%) and what is done with that data (31%), although among younger respondents (aged between 18 and 34 years) this knowledge was on average higher than among older consumers (35 years old or older) (cf. figure 1).

## Important information to receive

Respondents were presented with a list of information topics about data processing in connected cars and were asked each time to indicate what topic they found most important and which one they found least important to know about. Based on all responses, an 'importance score' could be calculated, showing what topics consumers find more important to know about compared to other topics. In addition, the survey also measured the likelihood that the information a consumer receives about these topics would influence their purchase decision.

Figure 2 Relative importance of information topics and likelihood to impact purchase<sup>4</sup>



With the minor exception of data transferability, for each of these topics, at least half of the respondents thought that their purchase decision is likely to be impacted by what information they receive about this topic (cf. figure 2). This holds across different profiles and applies to respondents with less interest in and knowledge about connected cars and connected services. This suggests that, also from the perspective of the average consumer, **consumers should always have access to information about the ten topics that have been tested in the survey.**

That is not to say that all of these topics are *equally* important for consumers. When comparing topics against each other (i.e., their 'importance score'), it shows that with some margin, respondents found it most important, relative to other topics, to receive information about **the security aspects of data collection and processing in connected cars**, and about **the control they have over this collection and processing**. While it would thus be essential to provide information to consumers about any of the investigated topics, the survey results suggest that it is preferable that these two topics in particular would receive prominence in the communication from dealers and manufacturers, so that consumers have easy access to it.

### 1.2.3 Manufacturer practices

The analysis of manufacturers' and their dealerships' practices as observed by mystery shoppers, in comparison with regulatory requirements and consumer expectations, showed a large variety in information provision practices between manufacturers, ranging from

<sup>4</sup>The importance score is centred around 100 as an index. This means that a topic with a score of 100 is exactly as likely to be found more important than other topics as it is to be found less important. A topic with a score of 200 is twice as likely to be found more important compared to the average, and likewise, a topic with a score of 50 is only half as likely to be found more important.



very good to deficient. But when it came to the basic provision of information to potential car buyers, two consistent trends could be observed across all manufacturers and dealerships included in the study:

- the verbal information provided by salespeople to mystery shoppers during dealer visits was usually not satisfactory, and
- printed documentation was only rarely provided (and if given typically did not contain information with respect to data processing).

The differences between the manufacturers appeared more outspoken when it came to more dedicated online sources about the connected services – i.e., websites about the connected services and the specific privacy policies and terms and conditions. However, on average across all manufacturers studied, mystery shoppers found it difficult to access all the relevant information and documents, even if it was available somewhere. Specific terms and conditions and specific privacy policies were often not found or difficult to identify on manufacturer websites, or only available after certain apps are downloaded from their platforms.

The table below summarises the main findings of the mystery shopping exercise and the subsequent analysis of the mystery shoppers’ observations, sorted per phase of the consumer purchase process – starting from receiving verbal information from dealers, over other (written) sources to the most detailed relevant documents (terms and conditions and privacy policies).

Phase/area	Main findings
<b>Verbal information</b>	<ul style="list-style-type: none"> <li>• Connected services were rarely mentioned spontaneously by salespeople during mystery shopping visits to dealerships</li> <li>• Mystery shoppers typically evaluated salespeople as not very knowledgeable about any of the key data processing topics</li> </ul>
<b>Other sources</b>	<ul style="list-style-type: none"> <li>• Printed documentation about connected services was only very rarely given (and often focussed on service characteristics and benefits for consumers rather than on data processing practices)</li> <li>• Mystery shoppers were not systematically referred to online information</li> </ul>
<b>General online information</b>	<ul style="list-style-type: none"> <li>• Most manufacturers have a dedicated website for their connected services, but the level of detail of the visited websites seemed to differ (also between country versions of the same manufacturer)</li> <li>• Websites rarely contained details on data processing (but if available the information was generally understandable)</li> <li>• A link to a dedicated privacy policy could not always be (easily) found by the mystery shoppers</li> </ul>

<b>Privacy policy</b>	<ul style="list-style-type: none"> <li>• Not all manufacturers offered a dedicated connected services privacy policy</li> <li>• The privacy policy, if available, was not always downloadable</li> <li>• Legal concepts such as 'legal ground' were not always clearly explained</li> <li>• between manufacturers there were considerable differences in the availability of key information. If information was available, this information was not always easily found or well understood by the mystery shoppers</li> </ul>
<b>Terms and conditions</b>	<ul style="list-style-type: none"> <li>• Terms and conditions were not always (easily) accessible by the mystery shoppers</li> <li>• Information on liability related to data protection breaches were rarely found</li> </ul>

#### 1.2.4 Recommendations

The table below summarises our recommendations, again ordered per 'area' of the consumer purchasing process.

<b>Phase/area</b>	<b>Recommendations</b>
<b>Verbal information</b>	<ul style="list-style-type: none"> <li>• Better training for salespeople on data processing in connected services + to mention key information spontaneously</li> </ul>
<b>Other sources</b>	<ul style="list-style-type: none"> <li>• Train salespeople to more systematically refer to online sources</li> <li>• Develop printed documentation about connected services data collection that contains key information and refers to dedicated online information for more details</li> </ul>
<b>General information online</b>	<ul style="list-style-type: none"> <li>• A dedicated connected services website should be easily accessible and contain basic information about key topics, with reference to privacy policy or terms and conditions for more details</li> <li>• Main risks should be immediately clear to consumers</li> <li>• Clear links to privacy policy and terms and conditions should be provided</li> </ul>
<b>Privacy policy and terms and conditions</b>	<ul style="list-style-type: none"> <li>• There should be a dedicated privacy policy specifically for connected services</li> <li>• Privacy policy should not be obscured by technical/legalistic terminology</li> <li>• terms and conditions should contain clear information on software updates timespan</li> </ul>



Publications Office  
of the European Union