EUROPEAN
COMMISSION

Brussels, 12.9.2025
C(2025) 6119 final

COMMUNICATION FROM THE COMMISSION

Guidance on vehicle data, accompanying Regulation 2023/2854 (Data Act)

(Text with EEA relevance)

COMMUNICATION FROM THE COMMISSION

Guidance on vehicle data, accompanying Regulation 2023/2854 (Data Act)

(Text with EEA relevance)

1. INTRODUCTION

1. Regulation 2023/2854 of 13 December 2023 on harmonised rules on fair access to and use of data (the 'Data Act')[1] aims to ensure a fair allocation of data value and to boost data availability. This will create the conditions for a thriving data economy and enable the development of innovative products, services, and business models. The Data Act is a horizontal piece of legislation, applying across all areas and sectors of the economy.

2. This guidance on vehicle data provides tailored advice to automotive stakeholders on how to implement Chapter II of the Data Act. It aims to explain the key obligations of the Data Act as they relate to vehicle data as defined in paragraph 19 of this guidance, focusing on the data that fall within the scope of Chapter II of the Data Act and on the applicable access rules**.**

3. The Commission conducted a comprehensive consultation while compiling this guidance document. It consulted numerous stakeholders representing the entire automotive value chain, while ensuring geographical and sectorial balance. The consultation involved workshops, questionnaires and stakeholder meetings. The Commission duly analysed and considered the extensive input received, and drew on it in preparing the guidance.

4. This document is intended solely as a guidance. It does not extend or modify the rights or obligations established under the Data Act.

5. This guidance only relates to the Data Act. It should therefore not be seen as interpretation, nor does it affect the application of:

    - sector-specific legislation such as Regulation (EU) 2018/858 (the 'Type Approval Regulation')[2], or Commission Regulation (EU) No 461/2010[3] and the

[1] [1] Regulation (EU) 2023/2854 of the European Parliament and of the Council of 13 December 2023 on harmonised rules on fair access to and use of data and amending Regulation (EU) 2017/2394 and Directive (EU) 2020/1828 (Data Act), OJ L, 2023/2854, 22.12.2023.

[2] Regulation (EU) 2018/858 of the European Parliament and of the Council of 30 May 2018 on the approval and market surveillance of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles, amending Regulations (EC) No 715/2007 and (EC) No 595/2009 and repealing Directive 2007/46/EC, OJ L 151, 14.6.2018, p. 1–218.

[3] Commission Regulation (EU) No 461/2010 of 27 May 2010 on the application of Article 101(3) of the Treaty on the Functioning of the European Union to categories of vertical agreements and concerted practices in the motor vehicle sector, OJ L 129, 28.5.2010, p. 52–57, as amended by Commission Regulation (EU) 2023/822 of 17 April 2023 on amending Regulation (EU) No 461/2010 as regards its period of application, OJ L 102I, 17.4.2023, p. 1–2.

accompanying guidelines[4], particularly where such legislation applies to access to vehicle data (e.g. on-board diagnostics (OBD) information or vehicle emissions data);

- other relevant legislation, such as Regulation (EU) 2016/679 (the 'General Data Protection Regulation', cf. Recital 7 and Article 1(5) of the Data Act)[5], or Directive (EU) 2023/2413 (the 'Renewable Energy Directive')[6] and the accompanying Commission notice on battery-related data sharing[7].

6. This guidance only concerns the automotive sector. This includes original equipment manufacturers (OEMs), suppliers, aftermarket service providers and insurance providers. Its content cannot therefore be automatically extrapolated to other industries or to the public sector.

7. This guidance does not supersede or override other guidance documents on the Data Act published by the Commission. Rather, this guidance is complementary to those documents and should be read in conjunction with them.

8. The binding interpretation of EU legislation is the exclusive competence of the Court of Justice of the European Union. Therefore, the Commission's interpretation of the Data Act as regards its application to vehicle data does not have any bearing on the interpretation which may be given by the Court of Justice of the European Union.

9. The views expressed in this guidance do not have any bearing on the position that the Commission might take before the Court of Justice of the European Union.

2. DATA FALLING WITHIN THE SCOPE OF CHAPTER II OF THE DATA ACT

10. Chapter II of the Data Act sets out the data access and use rights of users of connected products and related services.

2.1. Connected product

11. A 'connected product' is 'an item that obtains, generates or collects data concerning its use or environment and that is able to communicate product data via an electronic communications service, physical connection or on-device access, and whose primary function is not the storing, processing or transmission of data on behalf of any party other than the user' (Article 2(5)).

[4] Commission notice – Supplementary guidelines on vertical restraints in agreements for the sale and repair of motor vehicles and for the distribution of spare parts for motor vehicles, OJ C 138, 28.5.2010, p. 16–27, as amended by Amendments to the Commission Notice – Supplementary guidelines on vertical restraints in agreements for the sale and repair of motor vehicles and for the distribution of spare parts for motor vehicles, 2023/C 133 I/01, OJ C 133I, 17.4.2023, p. 1–6.

[5] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), OJ L 119, 4.5.2016, p. 1–88.

[6] Directive (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023 amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652, OJ L, 2023/2413, 31.10.2023.

[7] Commission notice on the application of requirements for battery-related data sharing under the revised Renewable Energy Directive, C/2025/4104, OJ C, C/2025/4104, 25.7.2025.

12. This guidance relates solely to vehicles that constitute 'connected products' within the meaning of Article 2(5). It is for the OEM or data holder, as the case may be, to assess whether a vehicle qualifies as a 'connected product'.

2.2. Related service

13. A 'related service' is 'a digital service, other than an electronic communications service, including software, which is connected with the product at the time of the purchase, rent or lease in such a way that its absence would prevent the connected product from performing one or more of its functions, or which is subsequently connected to the product by the manufacturer or a third party to add to, update or adapt the functions of the connected product' (Article 2(6)).

14. This guidance relates solely to related services within the meaning of Article 2(6) that are connected with a vehicle as defined in paragraph 12 of this guidance (for the purposes of this guidance, this can be referred to as a 'vehicle-related service').

15. A vehicle-related service presupposes a bi-directional data exchange between the vehicle and the service provider, whether it be the OEM or a third party, that affects the vehicle's operation or behaviour (cf. Recital 17). Services that do not affect the functioning of the vehicle cannot be considered related services. Examples of such services include a smartphone application that analyses and displays an electric vehicle's charging history without transmitting commands to the vehicle, or pay-how-you-drive insurance services, which analyse vehicle data to create a driver behaviour profile.

16. Traditional aftermarket services such as auxiliary consulting, analytics and financial services, and regular repair and maintenance are generally not counted as a vehicle-related service, as they 'do not have an impact on the operation of the connected product' or 'do not involve the transmitting of data or commands to the connected product by the service provider' (cf. Recital 17). These services are not 'explicitly linked to the operation of the connected product's functions'. For example, 'regular' repair and maintenance, such as brake replacements or oil changes, are not considered related services if carried out manually and offline (i.e. they are not digital services). Moreover, these services do not necessarily 'add to or adapt the functionality' of the vehicle, nor involve the transmission of data or commands to the vehicle.

17. Vehicle-related services in the automotive sector may include:

    - remote vehicle control services that activate or perform vehicle functions (e.g. remote door locking/unlocking, starting/stopping the engine, pre-conditioning cockpit temperatures, managing electric vehicle charging);
    - 'non-regular' repair and maintenance that involve a bi-directional data exchange between the vehicle and the service provider, and that add to or adapt the vehicle's functionality. An example of such service includes a service predicting maintenance needs based on individual driver behaviour data, which displays maintenance alerts and suggestions on the vehicle dashboard;

- cloud-based services that store driver preferences related to seat and mirror position, infotainment, driving mode, temperature etc., and automatically apply them to the vehicle;
- dynamic route optimization services that use vehicle data (e.g. battery or fuel level; tire pressure) to suggest routes, charging stations or gas stations via the vehicle dashboard.

2.3. Definition of data in scope of Chapter II of the Data Act

18. The data in scope of Chapter II of the Data Act comprise product data (Article 2(15)) and related service data (Article 2(16)), including the relevant metadata necessary to interpret and use those data (cf. Articles 2(17), 3(1), 4(1) and 5(1)).

19. This guidance relates to vehicle data, which solely for the purposes of the guidance should be understood as product data generated by the use of a vehicle (cf. paragraph 12 of this guidance), and vehicle-related service data (cf. paragraph 14 of this guidance).

20. The Data Act grants users and third parties chosen by the user the right to access and use vehicle data. It does not contain rules regarding access rights to vehicle functions or resources[8]. Hence, rules regarding access rights to vehicle functions or resources are not part of this guidance.

21. In line with the explanations provided in Recital 15, data holders should grant access only to 'raw' and 'pre-processed' data, including the accompanying metadata necessary to interpret and use the data. By contrast, 'information inferred or derived from such data' should be considered out of scope of the Data Act.

22. The purpose of the Data Act is to make data accessible to users and third parties. Therefore, all data generated by the use a vehicle or during the provision of a vehicle-related service should be in principle considered in scope of the Data Act, unless they are 'information inferred or derived' from raw and pre-processed vehicle data within the meaning of the Data Act.

23. Due to the variety of possible technical implementations and the potential for future developments, the following sections and examples are intended to be illustrative and non-exhaustive.

2.3.1. Raw data

24. Raw data are data which are not substantially modified. They are also known as source or primary data. They refer to data points that are automatically generated without any further form of data processing (Recital 15). This includes data resulting directly from user action (controls, screens, buttons etc.) or data automatically generated by, for instance, vehicle sensors.

2.3.2. Pre-processed data

[8] Vehicle resources should be understood as the technical infrastructure of the vehicle (both hardware and software), used to process data (computing resources, such as electronic control units and actuators/sensors), to access data, to communicate data off-board or to interact with the driver (communication resources such as the dashboard or the human-machine interface).

25. Pre-processed data are data points that have undergone processing 'for the purpose of making them understandable and useable prior to subsequent processing and analysis' (Recital 15). They include 'data collected from a single sensor or a connected group of sensors for the purpose of making the collected data comprehensible for wider use-cases by determining a physical quantity or quality or the change in a physical quantity, such as temperature, pressure, flow rate, audio, pH value, liquid level, position, acceleration or speed'. The Data Act thus applies a *functional* understanding of data processing (the *function* being to make the data understandable and usable). Factors such as the complexity of processing or the need to protect investments into such processing do not play a role in the definition of pre-processed data.

26. A common feature of pre-processed data is that they describe and characterize the vehicle operation or status. Pre-processed data are not 'new' information; the nature of the underlying data remains unchanged. In other words, the data, even if normalised, reformatted, filtered, calibrated, converted, aggregated, resampled, corrected, or otherwise measured, calculated or processed, still reflect real-world events or conditions as captured by vehicle sensors or systems (e.g. temperature, speed, acceleration, position). The content or meaning of the source data is unchanged and has merely been prepared or refined for future use.

2.3.3. Inferred or derived data

27. 'Information inferred or derived' from raw and pre-processed data, on the other hand, is excluded from the scope of the Data Act. Inferred or derived data are 'the outcome of additional investments into assigning values or insights from the data, in particular by means of proprietary, complex algorithms, including those that are a part of proprietary software' (Recital 15).

28. The notion of 'inferred or derived data' goes well beyond a merely technical consideration. As shown in Recital 15 ('information inferred or derived' from raw or pre-processed data) and already explained above (in paragraph 26 of this guidance), the *nature of information* represented in a data point is the decisive distinguishing feature. Data 'determining a physical quantity or quality or the change in a physical quantity' of the connected product should be considered within the scope of the Data Act. By contrast, data representing entirely 'new' information, created by the data holder making additional investments to assign value or insights to existing raw and pre-processed data, are not in scope.

29. As shown in Recital 15 ('in particular by means of proprietary, complex algorithms') and in accordance with the objective of the Data Act to protect data innovations by data holders, 'inferred or derived data' must be the outcome of a processing involving a certain complexity or ingenuity. Therefore, performing basic mathematical operations such as addition, subtraction, multiplication, division or calculating an average does not cause a data point to be out of scope, even if the processing leads to additional insights going beyond the source data's meaning or content (e.g. using the pre-processed data points 'fuel flow rate in litres/hour' and 'vehicle speed in km/h' to calculate the current or average fuel consumption).

30. The Data Act seeks to enable users and third parties to access and use (co-)generated data to develop innovative products and services on an equal footing with the data holder. Therefore, while innovative processing by data holders to gain additional values or insights from raw or pre-processed data is protected from disclosure, the underlying data serving as an input for such processing generally remain in scope, unless such data are in themselves inferred or derived data in the sense of the Data Act.

31. The combination of data from multiple sources such as sensors can better illustrate this reasoning. According to Recital 15, 'information derived by means of sensor fusion, which infers or derives data from multiple sensors' should be considered out of scope of the Data Act. This does not, however, mean that any combination of different data points would as such be sufficient to make the resulting data out of scope. That is confirmed by Recital 15, according to which under certain circumstances, data that are 'combined with other data' are considered in scope. Instead, in order to be excluded from the scope, the processing of data from multiple sources must lead to *entirely new insights* going beyond basic mathematical operations in relation to the source data (e.g. object detection systems that process data from multiple sources to analyse the vehicle's surrounding). By contrast, data which are the outcome of a combination of data *without gaining any new meaningful insights going beyond the nature of information represented in the source data* should be considered in scope. Examples of such data include adding global navigation satellite system (GNSS)-based location data as a tag to other vehicle data to produce location-referenced data, timestamping a data point, or map matching GNSS-based sensor data to produce a more accurate geo-location.

32. Predictions of future events, values or conditions are usually considered out of scope as they typically provide 'new' information that goes beyond the description and characterisation of the current vehicle operation or status (cf. paragraph 26 of this guidance). A 'prediction' implies a certain degree of uncertainty (e.g. vehicle trajectory predictions). This is in contrast to events, values or conditions which, despite being in the future, are certain or do not require any complex interpretation going beyond basic mathematical operations. Examples of these include the pre-fixed date/period of next service, and current parameters or values extrapolated into the future using basic mathematical operations like linear equations. Where the predicted event, value or condition relates to data that would be considered inside the scope of the Data Act without this predictive element, data holders need to make accessible an alternative, albeit less accurate, data point if such data point is pre-processed data within the meaning of the Data Act and if it is readily available to them. For instance, a virtual fuel level sensor might use a complex machine learning model to predict a future fuel level based on driving style, trip history, and other factors. However, if alternative data about the fuel level without a predictive element are readily available to the data holder, e.g. via a less accurate physical fuel level sensor signal, these data need to be made accessible.

2.3.4. Examples of data in and out of scope

33. Against this background, examples of raw data within the meaning of the Data Act may include:

a. sensor signals (e.g. wheel speed; tyre pressure from tyre pressure monitoring system valve; brake pressure; yaw rate; position signals of windows, throttle or other vehicle components; oxygen sensor readings; mass airflow; steering wheel angle; engine revolutions per minute);
b. raw image or point cloud data directly from cameras and LiDAR sensors;
c. sound waves captured by microphones;
d. radar signal data before application of object detection or tracking algorithms;
e. raw controller area network (CAN) bus messages;
f. data directly resulting from manual commands (e.g. wiper: on/off; air conditioning usage) or from simple triggering (e.g. key: on/off; handbrake: on/off);
g. vehicle component status (e.g. vehicle, door, window, hood: locked/unlocked) etc.

34. Examples of pre-processed data[9] within the meaning of the Data Act may include:

a. temperatures measured or calculated within or outside the vehicle (in °C[10], e.g. oil, coolant, engine, battery cells, catalyst, outside air etc.);
b. vehicle speed (in km/h or mph);
c. vehicle acceleration;
d. liquid levels (in litres and as a percentage, e.g. fuel, oil, diesel exhaust fluid, brake fluid, windshield wiper fluid);
e. flow rates (e.g. fuel);
f. GNSS-based data such as (corrected) location;
g. odometer value;
h. fuel/energy consumption (in litres/100km or miles/gallon or kWh/100km), unless predicted within the meaning of paragraph 32 of this guidance;
i. trip summaries (e.g. time of day when vehicle is driven; average distance travelled);
j. battery level (in volt and as a percentage);
k. normalised tyre pressure at reference temperature (in psi, bar or kPa);
l. brake-pad wear (as a percentage), unless predicted within the meaning of paragraph 32 of this guidance;
m. time of or distance to next service, unless predicted within the meaning of paragraph 32 of this guidance;
n. state or condition of a vehicle system or component obtained from the processing of raw data (e.g. engine status, i.e. engine running: on/off; stop/start system status: active/inactive; battery charging status: in progress/finished/in failure mode and as a percentage, regardless of whether the vehicle is plugged in; activation status of

[9] Depending on the individual vehicle architecture, some of these data points may rather be classified as raw than pre-processed data.
[10] The units mentioned in this section are meant to be indicative and not exhaustive. The obligation to make a data point available also applies if the data holder chooses to use another unit.

automatic light/wiper, anti-lock braking system, or air-bag; information indicating malfunctions of vehicle hardware, e.g. fault codes or malfunction indicator lamps);

o. data used as parameters in further processing or calculations, even if they originate from an action taken by the user (e.g. user-set target temperature used as parameter by climate control system to regulate heating/cooling; manually selected gear used by transmission control unit to manage engine torque; activation of sport mode, leading to the parameter 'sport mode active' being used in multiple control logics) etc.

35. Examples of inferred or derived data within the meaning of the Data Act may include[11]:

a. data generated by dynamic rerouting and optimal route planning algorithms;

b. advanced driver-assistance systems data other than (activation) status data (e.g. object detection and classification, trajectory predictions, risk assessment, emergency braking, driving assistance commands such as lane keeping assist, adaptive cruise control or excessive speeding alerts);

c. data resulting from engine control algorithms that optimize fuel efficiency, emissions, and performance;

d. driver analysis systems data such as driving or eco-scores;

e. analysis of crash severity etc.

3. ACCESS TO VEHICLE DATA (ARTICLES 3, 4 AND 5)

36. The right of users to access and use product and related services data, including for the purpose of sharing it with third parties of their choice, is the core feature of Chapter II of the Data Act. Data holders can grant user access to data either directly in accordance with Article 3(1) or indirectly in accordance with Article 4(1).

37. Article 3(1) does not create an obligation to grant the user direct access to product data (i.e. data designed to be retrievable) and related services data in all situations, but rather only 'where relevant and technically feasible'. This wording is meant to give the vehicle manufacturers discretion whether to design a connected product in a way that provides the user with 'uncontrolled' data access (i.e. without any intervention by any other party) or access with additional controls in accordance with Article 4(1).

38. Where users cannot access data from the vehicle directly in conformity with Article 3(1), data holders must grant indirect access to readily available data to the user in accordance with Article 4(1). Moreover, regardless of whether data access is granted to the user directly or indirectly, data holders must make accessible readily available data at the user's request to a third party in accordance with Article 5(1). 'Readily available data' means 'product data and related service data that a data holder lawfully obtains or can lawfully obtain from the connected product or related service, without disproportionate effort going beyond a simple operation' (Article 2(17)).

39. In the automotive context, an important example of readily available data includes data generated by a connected vehicle, which are sent to a backend server of the OEM,

[11] This list has no bearing on obligations to make available data according to sector-specific legislation, cf. paragraph 5.

notably under the ‘extended vehicle’ concept. Such data will be readily available to the OEM.

40. OEMs may, for various reasons, choose to not retrieve or store certain data points on the backend although the vehicle architecture would technically allow for their transmission. Such reasons include limited transmission bandwidth, processing power or other restrictions imposed by the vehicle architecture, cost of data transmission, perceived lack of business use-case, etc. Such data could nevertheless fall within the scope of the Data Act, given that the notion of ‘readily available data’ includes data that a data holder does not obtain but ‘can lawfully obtain’. When OEMs assess whether obtaining a certain data point is possible ‘without disproportionate effort going beyond a simple operation’, factors they might consider include the technical complexity and cost of obtaining the data point.

41. The Data Act is technology-neutral and does not create strict conditions regarding the format or quality of data or how data holders must grant access to readily available vehicle data. Data holders are, in principle, free to decide on the means through which access is granted. This may include, for example, remote backend solutions, onboard access, or even the use of a data intermediation service. Data holders must comply with the access and use conditions contained in Articles 3–5, including the requirement to make available data ‘of the same quality as is available to the data holder’ (Articles 4(1) and 5(1)). If a chosen access method results in data that is, for instance, less accurate, complete, reliable, relevant or up-to-date (c.f. Recital 30) than what is available to the data holder through other means, it does not meet the quality obligation. In such cases, the data holder must grant access through the means that enables the user or third party to receive data of equivalent quality, unless a different arrangement is justified under the Data Act, other Union law, or national legislation adopted in accordance with Union law.

42. The requirement to make available data ‘of the same quality as is available to the data holder’ also entails a rule not to discriminate against the user or third parties such as independent repair shops or other independent service providers. This implies that data holders must not make these data accessible at a level of quality lower than that at which the data are made available to themselves, subsidiaries or authorised partners, dealers and repairers.

43. Moreover, Articles 3(1), 4(1) and 5(1) of the Data Act require that data be made ‘easily’ available to the user and third parties. This means access must be provided in a facilitated manner and without undue barriers, costs, or procedural hurdles.

44. Where data holders choose to make available data to the user via the dedicated OBD-II port inside the vehicle, the user cannot be required to purchase a specialised access tool at their own expense or possess advanced technical skills to retrieve the data. Therefore, data holders may choose to either provide the user with a suitable access tool without additional costs together with the purchased, rented or leased vehicle, or to make the data available via other access means such as a remote backend server. This paragraph has no bearing on sector-specific legislation, particularly Articles 61–66 and Annex X of the Type Approval Regulation.

45. The Data Act only mandates making available data which are designed to be retrievable. This excludes, for example, data which are processed 'on the edge' (i.e. inside the vehicle) and cannot be accessed by any party, including OEMs, as they are immediately deleted after processing. Certain data points such as accelerometer data, vehicle speed, GNSS-based location or odometer value are essential for many aftermarket use-cases. Therefore, OEMs are encouraged to consider the importance of data points for independent aftermarket service providers when they decide whether to design such data points to be retrievable from the vehicle.

4. COST OF DATA ACCESS

46. Data holders who are obliged to make data available to a data recipient, particularly under Article 5, in business-to-business relations, are entitled to reasonable compensation in accordance with Article 9. This has no bearing on other Union law or national legislation adopted in accordance with Union law governing access to data in the automotive industry, including the technical information necessary for roadworthiness testing[12]. Detailed guidance on how to calculate such compensation will be available in the upcoming Commission guidelines on the calculation of reasonable compensation pursuant to Article 9(5).

5. MISCELLANEOUS

47. The Commission encourages the competent authorities enforcing the Data Act to actively engage with other relevant authorities in the automotive sector, especially national competent authorities under the Type Approval Regulation and the General Data Protection Regulation, in accordance with Article 37(5)(g) of the Data Act, to ensure proper enforcement and smooth interplay between the Data Act and other relevant legislation. The Commission will strive for constructive dialogue with the competent authorities enforcing the Data Act and the other relevant authorities in the automotive sector to support their activities. In this context, the European Data Innovation Board can serve as a forum to promote consistency and mutual learning across sectors and EU Member States.

48. The Commission encourages all affected industry stakeholders to engage in dialogue to achieve balanced implementation, taking account of the legitimate interests of all relevant parties. This dialogue can address not only Data Act implementation but also other issues of relevance for the automotive ecosystem. The Commission is committed to facilitating such mutually beneficial dialogue.

49. The Commission encourages and facilitates the development and adoption of standards for access to data in the automotive industry, working effectively with relevant standardisation and data governance bodies to ensure interoperability, security and fair competition.

[12] Directive 2014/45/EU of the European Parliament and of the Council of 3 April 2014 on periodic roadworthiness tests for motor vehicles and their trailers and repealing Directive 2009/40/EC, OJ L 127, 29.4.2014, p. 51–128.

50. Given the novelty of the Data Act and the continuous developments in relevant technologies, this guidance should be reviewed after an appropriate period to assess its effectiveness in the automotive sector and identify any outstanding issues.