

Legal aspects, public interest, and legitimate interest in processing personal data to operate autonomous buses in the regular transportation system

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Abstract

Autonomous or robot vehicles are manufactured with such advanced technologies that they are technically able to operate without human intervention. The number of sensors deployed in automated vehicles is increasing, which runs a high risk of the excessive collection and processing of personal data. Considering European Union and Finnish perspectives on robot buses as an instance of advancements of autonomous vehicles, this article briefly outlines the general legal issues related to developing robot buses, and focuses on public interest and legitimate interest as lawful bases for processing personal data in running such vehicles in the mass transportation system.

KEYWORDS

autonomous vehicle, GDPR, legitimate interest, personal data, public interest, robot bus

1 | INTRODUCTION

Autonomous self-driving vehicles represent the advanced version of mobile robots, for the first time with widespread, and high-visibility usage.¹ Autonomous vehicles and traffic systems need very fast mobile network connections, such as 5G, to function.² Many advanced technologies are used to develop and implement driverless robot buses. For example, cameras are required inside the buses, in bus stations, and on street corners in order to ensure the safe motion and driving of the automated buses. Moreover, intelligent sensors are integrated within the overall infrastructure. During this process, the faces of individuals will likely be captured both inside and/or outside the buses, and other personal information may be collected and shared which will raise questions about the personal privacy of individuals and security of vehicles.³ However, the automated vehicles or buses are only supposed to keep a record of movements, while making personal information unidentifiable.⁴

Expert research throughout the world is encouraging and piloting automated driverless buses with the aim of including them in the regular public transport system in order to promote an environment-friendly smart system. It is expected that the use of automated vehicles (e.g., buses and cars) will reduce road accidents, and although some accidents have occurred in reality,⁵ research has shown that autonomous vehicles are generally capable of functioning safely on the roads. When autonomous buses operate officially, a “mixed traffic” environment will exist, where autonomous buses will operate alongside traditional buses, giving rise to some legal challenges. The latest developments of the robot buses are smart enough to operate without drivers, but some cases of collisions between autonomous and conventional vehicles

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have prompted the need to explore relevant legal challenges and possible solutions.⁶ Finland has been one of the pioneers worldwide when it comes to piloting human driverless robot buses on public roads.⁷

The US National Highway Traffic Safety Administration expressed to Google that if large numbers of self-driving and completely autonomous vehicles are deployed, then improved safety systems and new responsible authorities may be required.⁸

In addition to autonomous buses, there are many transportation companies that use surveillance technologies and other sensor systems as security measures on the underground (or metros) and on trains in the European Union (EU) and in other countries.⁹ Since the perspectives are sometimes different when dealing with the underground and trains when compared to buses, this article mainly considers robot bus contexts in order to provide a specific focus for the discussion.

There are still many unresolved legal issues with regard to operating robot buses in the regular transportation system, which need to be appropriately addressed. This article suggests guidelines on the legal challenges involved and how these could be addressed in light of the relevant EU laws. After pointing out general legal issues related to developing robot buses, this article focuses on particular thoughts involving personal data protection aspects in depth, and puts forward some firm proposals to this effect. It aims to analyze the possibility and applicability of two of the lawful grounds, namely public interest and legitimate interest in the light of the provisions under the General Data Protection Regulation (GDPR), in the context of the processing of personal data by data controllers in respect of the operation of autonomous or smart transport services. However, the discussion in Section 3 on the lawful bases for data processing should cover data processing operations relating to any autonomous public transport, including buses, trains, and the underground. For the convenience of discussion, the paper duly concludes by proposing public interest and legitimate interest as the most suitable legal bases for processing personal data in relation to autonomous robot buses.

2 | RELATED COMMON LEGAL CHALLENGES

The conventional concept of automatic vehicles is different from the current developments of autonomous and self-driving robot vehicles or buses. The EU still does not have explicit regulations dealing with the approval of autonomous buses, and registration and services for operating them in the regular transportation system. Manufacturers of different vehicles in the EU follow Directive 2007/46/EC or the Framework Directive¹⁰ of 2007 in applicable circumstances, such as for the approval of vehicles, components, technical elements, systems, and so forth.¹¹

Taking Finland's perspective as an example, this section highlights some general legal challenges related to operating robot buses and suggests legal solutions under the relevant Finnish laws.

2.1 | Registration of the vehicle

Like a manual vehicle, an automated bus needs to be registered before operating on public routes. According to Section 8 of the Vehicles Act of Finland, power-driven vehicles must be registered and inspected appropriately.¹² By fulfilling prerequisites like paying vehicle tax, confirming ownership of the vehicle by a natural person or other responsible person, taking out compulsory traffic insurance and so forth, a vehicle can obtain registration (Sec. 66).¹³

2.2 | Driver requirements

It is required under international, European, as well as Finnish national law to have a driver in every vehicle. In this sense, the concept of driverless automated buses will not fulfill the legal condition. However, in the case of testing automated buses in Finland, a vehicle operator or safety driver can be placed either inside or outside the buses and thus legal complications can be avoided. Hence, "testing" without a driver inside may be a temporary situation, and in the long run, a vehicle must have a responsible driver in Finland.¹⁴

Companies and organizations that take the initiative to operate an automated bus, whether for research and/or development purposes, need to apply for a test plate certificate from the Finnish transport safety agency. With such a certificate, only specific test vehicles are permitted to operate for a limited period of time. It is an exception to the general rule that will be granted after the companies adopt the necessary compensatory and safety measures. The applicant company or organization is obliged to submit a trial plan including general, technical, economic, safety and other relevant information. In addition, they should describe how they arranged training for safety operators.¹⁵

2.3 | Passenger transportation permission

The responsible authority needs permission to transport passengers commercially as a passenger transportation permit is different from a taxi permit in Finland. A natural or legal person can obtain such permission by being of legal age, and by having the required competency and a decent reputation. Having a record of bankruptcy, tax-related or other financial misconduct and untrustworthiness will be regarded as incompetency. Although the Finnish law does not define the term “driver,” the driver, bus operator, or “road user”—whichever term is used—needs to have a driving license for operating an automated bus. She or he must also follow the common due diligence rules.¹⁶

3 | PERSONAL DATA PROTECTION ASPECT

In addition to the aforementioned legal issues, personal data protection aspects are noteworthy in launching automated or autonomous vehicles. A huge amount of data may be required for a long time period during the development of new software and functionalities, specifically using machine learning algorithms.¹⁷ Such vehicles may also need data concerning other vehicles, often comprising personal data because the drivers and license plates are shown. Since the GDPR is an EU-based regulation, its provisions are legally enforceable for all EU Member States, and are directly relevant for this topic.

In this respect, it is important to indicate who the controllers are in automated vehicle or bus implementing projects. According to Article 4(7) of the GDPR, “controller” means the natural or legal person, public authority, agency or other body which, alone or jointly with others, determines the purposes and means of the processing of personal data.”

Implementing robot buses requires business models where several bodies or organizations may act as controllers; for example, the traffic organizer should be the city corporation authority, while a technology company may organize a ride for its workers and so on. For that reason, the idea of joint controllers becomes relevant. Article 26(1) of the GDPR states, “Where two or more controllers jointly determine the purposes and means of processing, they shall be joint controllers. They shall in a transparent manner determine their respective responsibilities for compliance with the obligations under this Regulation.”

Companies and organizations can process personal data in developing and operating robot buses on a smart city platform by following particular lawful procedures. Article 6 of the GDPR provides six legal bases according to which an entity can process personal data.

The most well-known legal basis for processing personal data is consent given by the data subject for the processing of her/his personal data. The freely given consent by passengers may need to be requested for the processing of personal data in the event of using software applications in the ticket booking system. As dimensions of the notion of “consent” have already been analyzed in different studies, and since this article is not about consent, the present study will attempt instead to identify the connection of public interest and legitimate interest in the relevant circumstances.

In addition, adhering to the requirements of consent for every passenger or passer-by, or executing a contract with them, may sometimes prove inappropriate, or in many cases even impossible in the context of robot buses. It has already been argued that, in practice, implementing unambiguous and effective consent in inappropriate situations may be challenging for controllers, resulting in an incorrect method of requesting consent. Thus, while data subjects can enjoy control over their personal data in cases of the proper execution of consent, the inappropriate use of consent can deprive them of their rights.¹⁸

The following sections in this article attempt to analyze the suitability of two lawful grounds: public interest and legitimate interest, in the same context.

3.1 | Public interest

“Public interest” can provide valid reasons whereby an authority can process personal data in applicable circumstances. Article 6(1)(e) of the GDPR states that if certain processing “is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller”, then conducting such processing will be lawful. What this means is that in applying the legal basis of public interest for personal data processing, it is important to confirm that it is necessary for performing a task or exercising official authority.

Public interest can be a suitable ground for public authorities to process personal data in certain circumstances. Since the government authorities and other authorized bodies should have direct participation in data processing operations, especially in operating robot buses as a form of public transport, public interest can create a valid legal basis for processing personal data. Although public interest is mainly appropriate for public authorities, private entities can also apply this ground in suitable situations, for example to exercise official authority or perform a particular task in the public interest.¹⁹ On some occasions, public and private entities working as joint controllers can implement services and process personal data for public interest. Data collection and processing for developing robot buses and handling a relevant application can require such joint efforts. However, in the robot bus context under a smart city ecosystem, public interest would be better suited to personal data being processed by the city operators or public authority than by private entities. Therefore, demonstrating the involvement of the city authority in the data processing operations would be effective in applying this ground.²⁰

The GDPR has not included any definition of “public interest.” EU Member States are at liberty to define this concept considering the case-to-case realities, and Member State laws can permit controllers to exercise exemptions from certain legal obligations when applying this ground. Along with Article 6(3), Recital 45 GDPR states that Union or Member State law should provide a legal basis for applying public interest or exercising official authority. That law should have a public interest objective that pursues a proportionate and legitimate aim. It would not necessarily be a specific law targeting each individual processing operation, but rather the legal basis can include and create a legal obligation for several processing operations.²¹ At the same time, that law can determine the scope and participating authorities (public and/or private) for applying this ground.

When the collected data involves sensitive information regarding the data subject, processing might be lawful if it is necessary for substantial public interest, proportionate to the pursuing aim, by ensuring proper respect for and safeguarding of the fundamental rights and interests of the data subject (Art. 9[2][g]).

Individuals’ location and mobility data may need to be processed in implementing robot buses. In addition to GDPR provisions, some provisions of the e-Privacy Directive are relevant in respect of processing location data via electronic communications services. Article 15(1) of this Directive provides some grounds, including public security, for the retention and processing of location data based on which the Member States can introduce legislative measures that are “necessary, appropriate, and proportionate.” However, the e-Privacy Directive affirms to comply with the Charter of Fundamental Rights of the European Union (the Charter).

In this connection, it is relevant to briefly discuss the “necessity test” which is also related to legitimate interest, as discussed in the next section. This test should be assessed based on the particular facts in question. The necessity requirement applies where the processing of personal data is conducted under relevant law.²² While Article 8(2) of the Charter states that personal data can be processed on a “legitimate basis laid down by law”, Article 52(1) further clarifies that any limitation on the rights and freedoms under the Charter needs to be provided for by law and with due respect to those rights and freedoms. That limitation must follow the principles of proportionality and necessity, which should genuinely meet the objectives of general interest, for example to protect the rights and freedoms of others.²³ Moreover, according to the Court of Justice of the EU (CJEU), the rights protected under data protection law might be derogated and limited only in strictly necessary circumstances.²⁴

While public interest may include a variety of factors such as national security, crime prevention, public health, and so on, it should relate to social welfare or care, quality and safety of services, security, and so forth in respect of robot bus services on a smart city platform.²⁵

As permitted by the GDPR, there are variations in defining public interest in the national data protection acts of the EU Member States. The Finnish Data Protection Act (1050/2018) states that it specifies and supplements the GDPR. Section 4 of the Act describes the situations in which the use of public interest as a legal ground is acceptable. Section 4(1) also clarifies that private entities can also apply public interest as a legal basis for processing. Article 6(1)(e) of the GDPR formulates this aspect less clearly, which is sometimes interpreted as allowing the use of public interest as a legal basis only for public authorities.

3.2 | Legitimate interest

In order to operate robot buses, if the situation appears to be such that other grounds for data processing are not practical, the controllers can adopt the legitimate interest ground to justify data processing.²⁶

3.2.1 | Under EU data protection law

The Article 29 Data Protection Working Party (A29 WP) issued a comprehensive opinion on a controller's legitimate interests, and although it was based on relevant provisions under the Data Protection Directive (DPD) 1995, much of the discussion is still relevant and useful with regard to legitimate interest within the meaning under the GDPR.²⁷ A29 WP's opinions are always regarded as important guidelines in implementing and interpreting data protection laws in the EU. Therefore, in addition to covering related legal clauses, this section takes that opinion into account in the following discussion.

Article 6(1)(f) of the GDPR permits the processing of personal data if the "processing is necessary for the purposes of the legitimate interests pursued by the controller or by a third party, except where such interests are overridden by the interests or fundamental rights and freedoms of the data subject which require protection of personal data, in particular where the data subject is a child."

The provision relating to legitimate interest is largely the same as it was in the previous data protection law, the DPD, before the GDPR came into force. However, some new conditions have been added. For example, public authorities are no longer able to rely on this ground unless they have legitimate reasons for doing so. Article 6(1)(f) affirms that while performing their tasks, public authorities cannot apply legitimate interest as justification for processing personal data. Furthermore, controllers need to carefully consider and maintain documentation in order to process children's data.²⁸ In applying the ground of legitimate interest, it is important to document how the interests of the controller or related third party and the rights and freedoms of the data subjects are balanced, especially where children's data are concerned. At the same time, the controller has to provide all relevant and necessary information to the data subjects under Articles 13(1)(d) and 14(2)(b) relating to the processing of their personal data.²⁹ Thus, the notion of legitimate interest ensures the principle of transparency.

The circumstances should be such that the data subjects are presumed to reasonably expect that their data would be processed.³⁰ According to Recital 47, data subjects have reasonable expectation that their relationship with the data controllers can constitute a legal basis for processing; a client or customer of the controller or data subjects providing services for the controller can be examples of such a relationship. In this case, the reasonable expectations of the data subjects should be carefully assessed, which will also help in avoiding misuse of this ground. The fundamental rights and interests of the data subjects could override the interests of the data controller if personal data continues to be processed beyond the data subjects' reasonable expectations. Furthermore, according to Recital 47, personal data processing for direct marketing purposes may constitute a legitimate interest for the controller.³¹

According to Recital 48, when a group of undertakings transmit personal data among themselves for internal administrative purposes associated with a central or principal body, they may do so by adopting the ground of legitimate interest. Such transmission would include the processing of personal data of clients or employees.³²

In the context of robot bus services on a smart city platform, the service providers may explore the possibility of processing the personal data of their "clients" within the meaning of the two recitals above, if the passengers in a robot bus are regarded as clients or customers of the service providers. In this case, passengers or users of such a service should have reasonable expectations about the processing of their personal data, thus creating a compelling justification for data processing.

As per Recital 49, legitimate interest will involve processing personal data which is necessary and proportionate for ensuring network and information security that includes "preventing unauthorized access to electronic communications networks and malicious code distribution and stopping 'denial of service' attacks and damage to computer and electronic communication systems."

Furthermore, according to Recital 50, controllers can adopt the legitimate interest ground in order to indicate "possible criminal acts or threats to public security" and transmit personal data to a competent authority, provided that such transmission is compatible with a legal, professional, or other binding obligation of secrecy.

Robot bus services may require the transfer of collected data. Article 49(1) indicates that in such circumstances where other legal options for transferring personal data are not feasible, namely where the controllers cannot transfer personal data by relying on other provisions (Article 45 or 46) and derogations provided in Article 49(1)(a)-(f), they can do so by relying on "compelling legitimate interests," provided that the transfers are not repetitive and concern only a limited number of data subjects, and as long as the controller has assessed adequacy and provided suitable safeguards for the protection of personal data. However, in practice, this provision seems impractical for any organization, including robot bus implementing authorities, because it is still unlikely that they would be unable to rely on other grounds for transferring personal data.³³

3.2.2 | Dimensions of legitimate interest and its implementation in relation to relevant case studies

A29 WP has emphasized the correct interpretation and implementation of legitimate interest. The language of Article 6(1)(f) is open-ended, which means a variety of situations can rely on this ground by fulfilling the conditions. The analysis will vary from case to case. However, in pursuing legitimate interest, the controller must take account of current perspectives and take advantage of and facilitate recent developments that may emerge in the near future. That means that the interest must be real.³⁴ In this sense, current developments relating to robot buses in smart city structures can also fulfill a requirement for constituting legitimate interest.

Controllers can have some flexibility in applying legitimate interest compared to other lawful grounds for processing personal data. But this is not to say that it can easily be applied even in an inappropriate situation. This ground is flexible for controllers providing that they ensure certain legal safeguards. Unlike other lawful and predetermined grounds for processing data, legitimate interest requires appropriate assessment, and measures.³⁵

In order to comply with the requirements of Article 6(1)(f), it would be useful for authorities developing robot buses to test the following three elements when adopting the legitimate interest ground:

- a **Identifying the legitimate interest:** To begin with, the controller needs to identify the purpose of the processing, and that purpose should be legitimate. Some examples of such legitimate purposes are highlighted in the previous section, such as processing clients' data, or for direct marketing purposes.
- b **Finding that processing is unavoidable:** Processing data must be necessary, adopting a targeted and proportionate way of doing so. The situation should be such that other lawful grounds are less reasonable, and following legitimate interest is unavoidable. and,
- c **Balancing the legitimate interest with data subjects' rights, freedoms, and interests:** The GDPR emphasized the need to balance interests. The main focus of the legitimate interest ground revolves around the balancing test. Controllers must balance their (or in related circumstances those of third parties) interests against the fundamental rights and interests of the data subjects, or users of the services. The absence of users' reasonable expectations, or the possibility of interfering with their rights through such processing, would override the controllers' legitimate interests. On the other hand, more justified and compelling legitimate interests would increase the possibilities for controllers to balance these with the rights and interests of the data subjects.³⁶ According to this test, controllers cannot process personal data if data subjects' rights and interests prevail against the controller's interest. Based on the result of the balancing test, legitimate interest can only be used when other available grounds are not suitable to apply.³⁷

These three elements were further interpreted and emphasized in the prominent *Rīgas Satiksme* case³⁸ regarding the scope and application of legitimate interest for personal data processing.³⁹ The case was between the Latvian police and Rīgas Satiksme—a public transportation company in Riga, and involved a taxi passenger who accidentally damaged a passing Rīgas Satiksme tram when suddenly opening the taxi door. In pursuing a civil proceeding to obtain compensation, the company requested the Latvian police to provide identifying information regarding the data subject, who was a minor at the time of the incident. The police refused to provide identification other than the person's name, which was insufficient to identify the passenger or the data subject.⁴⁰ When the tram company challenged the refusal, the competent Administrative Court of Latvia ordered the police to provide the required information. The police appealed, and the case was referred to the CJEU. The CJEU considered whether “processing is necessary for the purposes of the legitimate interests” and the conditions of the balancing test under Article 7(f) of the DPD. Specifically, The CJEU decided that the provision on legitimate interest neither compels nor precludes disclosure of personal data in such a situation.⁴¹

According to A29 WP, legitimate interest must be lawful, and sufficiently clear and specific to execute the balancing test, as well as genuine and current. In addition to having lawful interests, the outcome of the balancing test should be in favor of the controller's interests and the processing should be necessary to meet the purposes of those interests. It is the responsibility of the data controller to show that their interest prevails. Article 6(1)(f) reflects the accountability principle under Article 5(2) of the GDPR, since the controller is responsible for evaluating the grounds and necessity for legitimate interest.⁴² Legitimate interests pursued by the third party may include different scenarios. However, in the context of a smart city, such interests may include relevant stakeholders.

Each of the other points in Article 6(1) provides an individual and specific criterion for processing personal data, such as consent, contract, and so on, duly specifying particular legitimate interest in particular situations. Unlike the other points, Article 6(1)(f) permits different types of legitimate interest in general terms on the controller's side.⁴³ At the

same time, in relation to the notion of legitimate interest, when the data subject knows that their personal data are being processed, and reasonably expects that their data would be processed, this creates the impression of implied consent.

Sometimes the data subject needs to enter into a contract with the controller for the purposes of data processing, but that may not be “necessary for the performance” of the contract, nor done “at the request of the data subject prior to entering into a contract” within the meaning under Article 6(1)(b) of the GDPR. In relation to processing the personal data of clients or customers as mentioned earlier, legitimate interest under Article 6(1)(f) can be a reasonable ground for processing, either in terms of fulfilling a contract not falling under Article 6(1)(b), or for direct marketing purposes.⁴⁴

Controllers can explore the possibility of having a legitimate business interest in running robot buses for a smart city platform to ensure a smooth, safe and sound service, including preventing its misuse. A controller’s interest may correspond and interconnect with a general public interest in some instances. Hence, the interest may be the controller’s own, or exist in combination with the interests of society. If the controllers can prove that their interest is advantageous for society in general, then this will be more compelling in supporting both their interest and the grounds for processing personal data. Thus, in addition to pursuing a legitimate business and economic interest, it would be more effective for the controllers if their service is beneficial for the general public. Even if it is not provided for by law, when a cultural and societal expectation exists regarding the service and the processing of data, this can add value to the balancing test in favor of the controller.⁴⁵

In practice, a lack of harmonization in interpreting and applying legitimate interest is apparent in different Member States. Legitimate interest is sometimes misinterpreted by controllers as providing easy justification when other grounds require more effort. But this is an inappropriate approach, and serves to pose a threat to the position of data subjects and to legal certainty.⁴⁶ Such inconsistency has led to a number of cases over the years.

It was decided by the CJEU in the joined cases ASNEF and FECEMD⁴⁷ that Article 7(f) of the DPD, 1995, or the legitimate interest ground had been incorrectly interpreted in the transposition law of Spain. This law stipulated that personal data processing under legitimate interest could be limited to data that were available via public sources.⁴⁸ It was held that Member States cannot excessively extend or narrow the scope of legitimate interest or other lawful grounds for processing data, which is already defined by law. Article 7(f) of the DPD was “unconditional and sufficiently precise”, creating a direct effect whereby Member States cannot impose additional requirements or restrictions upon it.⁴⁹ Thus, even if the fundamental rights, freedoms, and interests of the data subjects are respected through processing, personal data can still not be made available in public sources under the legitimate interest ground in the absence of consent by the data subject.⁵⁰ Member States’ discretionary power in implementing legitimate interest has been limited through this judgment.⁵¹ Article 8(2) of the Charter also supports the same approach.

4 | CONCLUSION

Norway has set an example by introducing a separate specific Act and Regulation, applicable to all testing of self-driving vehicles operable on Norwegian roads.⁵² Other countries may also consider introducing a separate law taking into account the realities of robot buses. A separate law or separate and specific provisions in the same law for autonomous trains and underground trains can be introduced. In addition to travel safety, the security and privacy of the passengers as well as the reliability of the overall smart transportation infrastructure should be ensured in an effective legal framework.⁵³

Regarding the suitability of public interest and/or legitimate interest, there should be scope for interpreting these grounds flexibly depending on the kind of data being processed, the purpose of the processing, and the data subjects involved. Considering the particular context in question, the applicable grounds may vary when developing and operating robot buses. For example, when clients’ or employees’ data are processed, legitimate interest will duly provide suitable grounds. But when data are processed as a part of the regular transportation service with the involvement of public authorities (e.g., local government), then public interest will be appropriate.

Although public interest seems to provide the most suitable grounds for developing and implementing such a service, as the scope of this legal basis can vary from one country to another within the EU and the GDPR does not confine it within a precise framework, a Member State has to follow the corresponding law of the land before applying this justification.⁵⁴

On the other hand, regarding legitimate interest, the wording of Article 6(1)(f) is flexible and open-ended to some extent, reflecting both the data controller’s and the data subject’s perspectives. Such a feature could unfortunately be misused and create unpredictability if it is not applied in the right circumstances. Related contexts for applying this ground can be vigorous.⁵⁵ It is useful that some Recitals in the GDPR provide some examples of potential legitimate interests where this legal basis could be applied, such as the processing of clients’ or employees’ data, processing for direct

marketing purposes, the prevention of fraud, intra-group transmission of data, processing for ensuring IT security, as well as countering possible criminal, or security threats.⁵⁶ Apparently, it seems that legitimate interest can also be considered an appropriate legal basis when consortium members in a smart city project process personal data for technology development and testing purposes. For example, legitimate interest would provide suitable reasons if the controllers were only processing the personal data of ecosystem partners' employees collected from a restricted test area.

Private entities can adopt legitimate interest in appropriate situations as a reasonable ground for processing personal data. It is important to ensure that the processing operation has a minimal privacy impact on the data subjects.⁵⁷ The European Data Protection Board has stated that, instead of a contract, a controller may be able to rely on legitimate interest, for example when processing personal data for "service improvement" purposes.⁵⁸ Legitimate interest may also be relied on in the context of fraud prevention and the misuse of services or physical security as well as IT and network security, or when processing personal data for research purposes.⁵⁹ In relation to robot buses, legitimate interest ground might serve as a basis for product and service development purposes, for example, and to ensure physical security as well as IT and network security (provided that all other requirements for using legitimate interest as a ground for processing are fulfilled).

In spite of legitimate interest constituting the most flexible grounds for processing data, the controller is under an extra obligation to ensure the protection of data subjects' rights and interests. The mere adoption of a precaution such as pseudonymization will not guarantee protection of the rights and interests of the data subjects, and the legitimate interest will be in favor of the controller. A data protection impact assessment prepared under Article 35 might be an important source for assessing a controller's legitimate interest under Article 6(1)(f). The result of the assessment should be documented and data subjects should have access to such a document or information under the principle of transparency. Legitimate interest is neither suggested as the last option, nor as the easy one with less constraint compared to other grounds. It is important to ensure proper use of legitimate interest and to adopt adequate safeguards in order to prevent its misuse or excessive use.⁶⁰

Whether public interest or legitimate interest, in order to apply either as a legal basis, it is essential to consider the particular context and the principle of proportionality. The result of the necessity test will vary from context to context. Some protective safeguards need to be adopted, including anonymization, pseudonymization, providing data subjects with adequate information, the option to opt out of the processing, as well as using other appropriate technical and organizational measures to protect the interests of the data subjects.

By developing intelligent vehicles and robot buses, a public transport system can benefit considerably, for example by improving safety, reducing costs, and making transport services more convenient for both users and owners.⁶¹ By complying with the related legal requirements, it is expected that such vehicles will be able to run successfully on the roads.

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DATA AVAILABILITY STATEMENT

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