

IVEX Data Privacy Notice

Version 1.0

Date: 30/05/2023

IVEX NV

KAPELDREEF 60
3001 EVERLEE
BELGIUM

Contact

Mario H.C. Torres
mario@ivex.ai

IVEX NV, Kapeldreef 60, 3001, Heverlee, Belgium ("IVEX") respects your privacy in handling personal data relating to Autonomous Vehicle recordings (image data) in the public domain. This Privacy Notice covers how IVEX collects, processes, discloses and transfers your personal data and describes your related rights.

Categories of personal data processed, purpose of the processing and legal basis

IVEX may process the following categories of personal data about you:

Raw **sensor** data (camera, radar and/or LiDAR images) is recorded inside the vehicle using a data **recorder** and stored on local storage media (i.e., storage cartridges).

From the point of view of the data subjects, the camera, radar or lidar images contain limited personal data, if any, and are primarily processed for their intended purpose. The data is not analyzed or filtered for specific personal information, such as the profiling of individual pedestrians or license plates. The cameras, lidar and radar sensors capture a fixed, limited area of the environment in front of and around the research vehicle but cannot be swiveled or remotely controlled. Radar and lidar are not affected by GDPR, as their data are naturally anonymous. This enables the evaluation of automated driving algorithms without the intrusion of personal data rights of other road users. On the other hand, technical and organizational solutions are put in place to deal with the data generated by our camera systems. Acoustic recordings around the car are not made. The recordings are thus limited in scope and function to what is necessary.

In all cases, the data IVEX captures during our test drives will never be correlated with other data that would allow us to identify road occupants, nor used to make any decisions about the data subject. IVEX is not interested in identifying road occupants, nor does it allow anyone else to identify them with our data.

IVEX may process your personal data for the following purposes:

The collected data will only be used to develop and enhance products and for scientific research aimed at improving automated driving and all related technologies.

One step in the overall processing can be the "labelling" or "annotation" of data, in which a human adds labels for certain objects to the recorded data. Based on that, the algorithms will know whether an object is a 'vehicle', a 'bus', a 'traffic sign', 'lane lines', etc. Based on such labelled data, the algorithm learns to identify such static and dynamic objects by itself. The purpose of that is to identify objects relevant for the development of algorithms for autonomous systems. Another step is the "object detection and tracking", which logically follows the "labelling". This process enables us to identify and track a given anonymized target object in each consecutive data frame. Resulting output is fundamental in the development, deployment, and improvement of the algorithms for autonomous systems (for example obstacle avoidance).

A further step is the "3D mapping", with the purpose to collect and process a data set used to compute machine-readable 3D maps of the environment for improving autonomous path planning and control systems, including for vehicles, transportation systems, and robotics.

The data will also be used to develop new path planning and control algorithms. These algorithms take as input the anonymized environment data (e.g., locations of obstacles), plan a safe path for

the vehicle and compute the required vehicle inputs (e.g., throttle and steering) to follow this plan.

The verification and validation of the previously mentioned algorithms is a critical step in safe and reliable automated driving. Therefore, some projects might require the statistical analysis of traffic data collected in several locations and conditions. This enables us to extract the behavior of typical road actors to generate relevant testing scenarios for the verification and validation of automated systems. Conversely, outliers can also be assessed as they might represent edge cases for our autonomous systems. The resulting anonymized scenarios can be replayed in virtual testing environments.

Next to virtual assessments, real-world data can also be used to verify and validate our newly developed algorithms. Algorithms, such as object detection, can operate inside our test vehicles to validate their operational behavior. Pre-recorded real-world data can also be fed to these algorithms in a data replay setup. Results of such tests might be reviewed by authorized engineers to assess the performance of our newly developed algorithms.

The legal basis for the collection and processing of these video recordings of the surroundings of the test vehicles (including the recording of personal data such as video recordings of pedestrians, drivers) by us is the legitimate interest of IVEX according to Art. 6 (f) General Data Protection Regulation).

Transfer and disclosure of personal data

For the purposes mentioned above, IVEX may transfer or disclose personal image data to the following recipients:

- The data will be handled both at IVEX NV and at contractual partners. Contractual partners can be suppliers, (research) partners, contractors, or customers.
The involvement of the contractual partners is secured by contractual regulations, including agreements on commissioned processing. Contractual partners have been carefully selected by IVEX NV and are bound by its instructions. The processing processes they carry out are clearly limited and defined in terms of subject matter and time and are subject to review by IVEX NV.
- If legally permitted to do so, IVEX may transfer personal data to courts, law enforcement authorities, regulators or attorneys if necessary to comply with the law or for the establishment, exercise or defense of legal claims.
- IVEX commissions service providers (so-called data processors), such as hosting or IT maintenance service providers, which only act upon instructions of IVEX and are contractually bound to act in compliance with applicable data protection law.

Retention & Deletion

The data collected while using the test vehicle is kept as long as it is needed for testing and trial purposes. Once these objectives have been achieved, the data is erased. In some cases, it is necessary to keep the data for longer periods for quality assurance purposes, such as long-term monitoring and development (product documentation and evidence preservation). Additionally, the data is stored if IVEX is legally obligated to do so, if further processing is necessary to assert, exercise or defend legal claims, or if it is necessary for scientific research purposes.

Right of access to and rectification or erasure of personal data, restriction of processing, right to object to processing and right to data portability

Under applicable data protection law you may – provided that the relevant legal requirements are met – have the right to:

- Obtain from IVEX confirmation as to whether or not personal data concerning you are being processed, and where that is the case, access to the personal data;
- Obtain from IVEX the rectification of inaccurate personal data concerning you;
- Obtain from IVEX the erasure of your personal data;

You have the right to request IVEX to immediately erase any personal data stored about you if the legal requirements are met. This includes if: your personal data is no longer necessary for the purpose it was collected for; the legal basis for processing was solely your consent and you have revoked it; you have objected to processing based on the legal basis of weighing interests on personal grounds and we cannot demonstrate that there are overriding legitimate grounds for processing; your personal data has been processed unlawfully; or your personal data must be deleted to comply with legal requirements. If we have shared your data with third parties, we will inform them of the deletion where required by law. However, your right to erasure is subject to certain restrictions. For example, we may not or are not allowed to delete data that we must keep due to legal retention periods (such as tax or commercial law). Data that we need to assert, exercise or defend legal claims are also excluded from your right of deletion.

- Obtain from IVEX restriction of processing regarding your personal data;
- Data portability concerning personal data, which you actively provided; and
- Object, on grounds relating to your particular situation, to processing of personal data concerning you.

Please note for the execution of your right to object:

You can object to the processing of your data by IVEX informally, and if possible, to the contact information listed in the Privacy Notice. IVEX only uses images of public road traffic captured by the cameras of the test vehicles to detect obstacles and other road users and to effectively avoid accidents, which is necessary for the development of the vehicle systems. Identification of the filmed persons and vehicles is not possible or intended. If identification is not possible, IVEX will explain this to you and you can provide additional information that can help with identification (e.g. details of your appearance and clothing, place, time and date of contact with the test vehicle, license plate number or type and color of the test vehicle). If IVEX can identify you with this information, they will comply with your rights under the GDPR.

Data Privacy Contact

The IVEX Data Privacy Officer and his team (the “**IVEX Data Protection Organization**”) provide support with any data privacy related questions, comments, concerns or complaints or in case you wish to exercise any of your data privacy related rights. The IVEX Data Privacy Organization may be contacted at: dataprotection@IVEX.ai.

The IVEX Data Privacy Organization will always use best efforts to address and settle any requests or complaints you bring to its attention. Besides contacting the IVEX Data Privacy Organization, you always have the right to approach the competent data protection authority with your request or complaint.

Further information concerning the processing of my personal data can be found in the [data privacy policy](#) of IVEX.