

# Data privacy statement

## 1 Enforcement of and compliance with this data privacy statement

We, the Chair of Public Economics at the University of Basel in cooperation with the Institute for Transport Planning and Systems at ETH Zurich (hereinafter "**we**"), provide you with a smartphone application (hereinafter "**app**") as part of the study "E-Biking in Switzerland (EBIS)", through which we can track and record your (hereinafter also "**user**") movements and mobility behaviour in everyday life within the framework of the GTC; We also collect data from you by means of online surveys (hereinafter collectively referred to as the "**survey**"). Since the protection of your personal data is important to us - especially with regard to the protection of personal rights in the collection, processing and use of data - we inform you about data protection-relevant aspects of your participation in the study.

**Before agreeing to participate in the study, please read carefully our information on data protection.** We undertake to comply with the points mentioned below with regard to data protection as described. **By participating in the study, you agree to this data collection and processing.**

## 2 Description of the study

The aim of the study is to gain fundamental insights into the riding behavior and needs of different cyclists and to estimate the potential for CO<sub>2</sub> reductions through e-biking in Switzerland. In the medium to long term, the results of the study will also be used for the further development and improvement of the cycling infrastructure in Switzerland.

To this end, we collect travel data of about 3'000 people in Switzerland using a smartphone app. This app records your current location and is a more precise and convenient alternative to traditional route diaries collected by phone interview.

## 3 Collection methods

### 3.1 Survey data

Survey data is collected with the help of the Qualtrics survey platform by means of questionnaires.

### 3.2 Movement data

With the help of the app, we collect your movement data (hereinafter "**movement data**"). We carry out traffic analyses based on this movement data. This serves to derive mobility-related indicators (e.g. choice of means of transport). In addition, trip purposes are determined on the basis of the daily patterns of stay and spatial analyses are carried out.

The app records the mobility behavior pseudonymously, which means that the names of the people are replaced with a code that does not allow third parties to draw any conclusions about the people.

As soon as you start the recording in the app, data points are collected that contain spatial coordinates, time points and movement states. We have developed algorithms that interpret these data points in terms of stages with different modes of transport and associated attributes such as duration and length. If you record over several days, multi-day movement profiles are mapped.

Even if the movement profiles are collected pseudonymously, conclusions can be drawn about the place of residence and work and thus about individual persons through recurring locations. Even if the

participants are not identified, the movement profiles collected are personal data. Accordingly, they are treated just as sensitively as your personal registration data (user name, e-mail address).

Both the app for the iOS and Android operating systems transmit:

- the smartphone model,
- the version of the respective operating system,
- the version of the app,
- Location data, and
- the movement activity pre-assessed by the mobile phone (e.g. "motorised" or "on foot"), as well as the data listed under 4.

All other attributes such as the means of transport used and the purpose of the journey are calculated using algorithms based on this input data and by comparing it with geodata. The geodata includes data from the OpenStreetMap project (e.g. public transport lines).

## **4 Type of data collected**

The following is a summary of the data collected:

- Primary identification data
  - Identification number and e-mail address
- Survey data
  - Questions about (bicycle) mobility
  - Socio-economic data
- Smartphone application
  - Time of localisation
  - Geo-coordinates and accuracy (determined by the GPS chip)
  - Acceleration values (determined via smartphone sensors)
  - Gyro sensor/gyroscope values (determined via smartphone sensors)
  - Barometer/air pressure data (determined via smartphone sensors)
  - Magnetometer (determined via smartphone sensors)
  - Movement activity from operating system
  - Recognition reliability (confidence) of the movement activity
  - User agent (device type, operating system version, app version)

## **5 Data processing and storage**

### **5.1 Processing the transaction data**

Your personal data will be processed by MotionTag GmbH, Rudolf-Breitscheid-Str. 162, 14482 Potsdam. External service providers who process data on our behalf are contractually bound to strict data protection requirements in accordance with the EU Data Protection Regulation (EU-DSGVO).

In the present project, ETH Zurich uses smartphone-based GPS tracking to collect mobility patterns. ETH Zurich uses the technology of the company MotionTag to record location-based data in a battery-saving way and to automatically recognise means of transport. To do this, the app communicates with

a MotionTag analysis server. The server meets high security requirements (ISO 27001, A+ rating on [ssllabs.com](https://www.ssllabs.com)) and communicates exclusively in encrypted form with the app. ETH Zurich has its own server area with exclusive access to the project's data.

Data transmission to MotionTag takes place via a cryptographically encrypted secure connection. MotionTag itself uses ISO 27001 certified servers of Amazon Web Services (AWS) Germany GmbH for the provision of your service. The collected data is stored and processed on these servers.

## **5.2 Data stored in the app**

In the app, apart from the collected data points themselves, only the email address for the login of the last use is stored. This makes it easier to log in again, as the email address does not have to be entered again. Passwords and other user-related data are not stored. After the data points have been transferred to the server, they are deleted from the app.

## **6 Use of the data**

All data collected during the study will be treated strictly confidentially and used exclusively for research purposes. The evaluation of the data is pseudonymised and the results are published in aggregated form, so that no conclusions can be drawn about individual persons from the publications. The recorded tracking data is only passed on for research purposes and for cantonal or national spatial development departments and for improved bicycle infrastructure (e.g. in traffic models). Whenever appropriate, the data is further anonymised beforehand by randomly shifting the start and end points.

The name and home address details collected in the first survey will only be used to transfer the participation reward and to identify people from the same household. You will not be contacted by us by letter and these details will not be passed on to third parties under any circumstances.

## **7 Contacting**

We will use your email address to send you relevant information during the study. In particular, we will regularly inform you about your mobility behavior, send you access data (i.e. links) to questionnaires and inform you about any changes to the privacy policy or the study protocol.

If you agree at the end of the study, we will send you information about the results of the study and may also contact you to participate in future projects.

## **8 Deletion of the data**

You have the option of having the data we have collected about you blocked or deleted at any time. To do this, simply send us an e-mail with the subject "Please delete data" to [ebis-wwz@unibas.ch](mailto:ebis-wwz@unibas.ch). Please use the e-mail address with which you registered with our service. Your data will then be removed from the live system and will not be included in any further evaluations. The data deletion is irrevocable and takes place on all data carriers including back-up storage. For technical reasons, however, the deletion on the back-up servers takes place with a time delay.

All data stored in the app is deleted when the app is uninstalled.

The data on name, home address and details for the payment of the study reward will be deleted by us at the latest after completion of the study. We reserve the right to store the e-mail addresses in encrypted form for possible contact.

## **9 Data subject rights**

### **9.1 Right to information**

Pursuant to Art. 8 of the Data Protection Act (DSG; SR 235.1), you may request information from ETH Zurich as to whether and what data ETH Zurich is processing about you within the scope of this project.

### **9.2 Rights of revocation and objection**

Irrespective of the above, you can object to the use of your data at any time and revoke any consent you may have given to the use of the data at any time. If you revoke your consent to data processing or object to the use of the data, this does not affect the lawfulness of the data processing until the time of revocation.

### **9.3 Right to rectification, deletion, blocking and restriction**

Furthermore, you can have the data we have collected and stored corrected, blocked or deleted at any time (Art. 25 Swiss Data Protection Act, DSG; SR 235.1). We expressly point out that there may be legal obligations to continue to store data. In this case, the data can only be blocked.

### **9.4 Contact person for exercising the data subject rights**

The data controller is the Institute of Transport Planning and Systems at ETH Zurich. To exercise the aforementioned rights, please send an e-mail to [ebis-wwz@unibas.ch](mailto:ebis-wwz@unibas.ch).

## **10 Contact**

E-mail: [ebis-wwz@unibas.ch](mailto:ebis-wwz@unibas.ch)