Information for study participants

1   Goals of the study

The goal of the study is to gain new insight into how best to improve transport systems in urban agglomerations in Switzerland. How can mobility become more efficient? What do people expect from transport systems? How does the ongoing digitalization of various aspects of life influence the requirements put toward our transport systems?

2   The study

The study consists of an online survey regarding your basic socio-demographic data as well as mobility- and consumption patterns. It further includes an extensive smartphone-based study, where your mobility behavior is measured. Participation in the smartphone study is by way of a mobile app, which must be installed and activated on your smartphone. The app continuously tracks your geo-position and derives routes and places you have travelled through-out a given day. Apart from the automatically detect position data, we ask you to provide additional information like expenses, social members and activities conducted while traveling and staying at detected places. The TimeUse+ consortium (hereafter "we") will regularly inform you about your collected transport route data and, where necessary, provide further information on the course of the study. You will complete an online survey at the start and end of the smartphone study. Your data, along with more than 1,000 other study participants, will aid us in understanding current mobility behavior and allow us to contribute to improving the transport system in Switzerland.

3   Timetable of the study

The letter you received by mail includes a link to our initial survey and a personal code that you may use to log in. Your address was provided to us by the Federal Statistical Office of Switzerland (BFS), who periodically provides research institutions with addresses for a representative sample of the Swiss population for research projects that they find to be of national interest. After completing the online survey, you will be invited to join the smartphone study, provided that you fulfil the eligibility criteria (see below). The website contains information on how to install and activate the app. We will track your mobility over the course of one month (30 days) via the app. Tracking takes place in the background, but you have the possibility to validate the tracked information interacting with the app. You are required to validate the tracking data in order to successfully complete your study participation and to be eligible for the 50 CHF thank you (see section 7 below). During the tracking phase we will send you regular (most likely on a weekly basis) summaries of your mobility behavior and ask you to check these for accuracy. We kindly ask you to download and activate the app directly after completing the online survey, and at most up to one week later.

4   Requirements for participation

To participate in the smartphone study, you need to fulfil the following requirements:
- Receipt of the written invitation (including the participant identification number)
- 18+ years old (by June 2022)
- Live in an urban agglomeration in the German- or French-speaking part of Switzerland
- Use of a smartphone that can install the tracking app
- Be able to walk 200m without pain or any other discomfort
- You must not work as a professional driver
- Agree to the terms described in the consent form

5 Risks

There are no risks involved in participating in the smartphone study.

6 Financing

The study is financed through research grants from state agencies, namely the Swiss National Science Foundation.

7 Financial compensation

You will receive a financial compensation for participating in the entire smartphone study. The financial compensation for completion of the study is 50 CHF. This includes completing a first online survey and registration, installing and activating the app, reading the emails, and completing an additional online survey. The payment is conditional on successful tracking and validation in Switzerland on at least 30 days of the study period. Providing additional information like e.g. about performed activities, expenses and co-travelers are not a condition for receiving the compensation. You have a period of 60 days to provide the 30 required days of tracking. This gives you flexibility in case you are traveling abroad, the tracking occasionally doesn't work, or you just don't want to provide information for certain days. The first online survey and registration take about 10, respectively, and the time involved in reading the emails will be around 5 minutes per week. The last survey will take around 30 minutes at the end of the study period. Daily recorded tracks have to be validated, which takes a maximum time of 5 minutes per day. We will check the veracity of app data which were validated by study participants. If you introduce false data, we reserve the right to partially or totally withhold the financial compensation of the smartphone study.

8 Right to withdraw

You may withdraw from the smartphone study at any time and without stating any reason.

9 Data protection

The tracking aims to collect 30 days of validated GPS data. You have a period of 60 days after activating the app to provide those 30 days. The tracking and collection of your data automatically stops after you validated the 30th day, or when reaching the limit of 60 days. After the tracking is stopped, it cannot be activated again.

You have several possibilities to delete the data recorded by the app. On the one hand, you can delete every recorded trip using a delete button provided in the app interface. The process is described in the FAQ section and in instruction videos on our website. On the other hand, you can request to have all your recorded data deleted without stating any reason by contacting us by email or phone. Once your data is deleted, it cannot be restored.

Your personal data will be handled in a strictly confidential manner and only used for this smartphone study. The recorded GPS data is processed by our partner company MotionTag GmbH. Their analysis software transforms the raw GPS data into trips which you then can see within the app. The company MotionTag GmbH only has access to pseudonymize raw data, which does not include any contact data like names and addresses. The company is further legally committed to confidentiality under the EU-DSGVO act, which ensures that your data is not used for anything else than our project. MotionTag GmbH processes your raw data on their own servers, which are ISO27001 certified. The data transmission from the app to the MotionTag servers is encrypted. On the ETH side, only the researchers who are directly involved with the project will have access to any personal data, the actual processing, however, is done only after the data was pseudonymized. All personal data will be deleted after the project is completed.

The published results of the project will not allow to identify individuals. The researchers in this study and/or the responsible members of the ethics commission may access the original data for

control purposes under strict confidentiality requirements. After the completion of TimeUse+, the pseudonymized data will be stored for future research projects in the ETH Zurich data archive, so that new methods and research questions may be analyzed.

10 Insurance

Any health costs incurred in direct relation to the smartphone study where fault can be directly attributed to the ETH Zurich are covered by the business liability insurance of the ETH Zurich (Policy Nr. 30/4.078.362, Basler Versicherungen AG). Participants are responsible for accident and health insurance.

11 Contact

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