General points:

Mandatory components

This study aims at studying the perception people have about privacy and information sharing in the context of mobile sensor data. Nowadays, smartphones are equipped with sensors that can collect real-time

information such as our GPS location, the acceleration of motion or even environmental information, for instance temperature and humidity. Smartphones run applications (apps) that are pieces of software with potential access to sensor data. This data can be shared with remote stakeholders such as companies, governments, educational institutions, and others.

The analysis of mobile sensor data by these stakeholders may put privacy at risk, especially when the sensor data is collected with a fine-grained frequency.

Therefore, the amount of mobile sensor data that a user chooses to share with a certain stakeholder for a



coming up to the entry phase with a fully charged

certain purpose (app context) indicates his/her preferred privacy settings. Participants can assume that any security requirement is met and privacy is entirely governed by their decisions.

Stakeholders can access the sensor data of participants via the web portal fair-data-share.inn.ac. Access to the data complies to the decisions that participants make during the experiment. Stakeholders agree to neither share the data that they can potentially access via the web portal nor infer any individual from the values of sensor data.

Mandatory components:	Annotation:
a) <u>Goals</u> of the study	Understand human perception on privacy of mobile sensor data and how this perception influences online decision-making about sharing sensor data. Moreover, this study aims at understanding how decision-making is influenced when incentives, e.g. monetary ones, are given to citizens in order to share a higher/lower amount of sensor data at a cost of lower/higher privacy-preservation respectively.
b) Research procedure (methods)	A social experiment requiring a 2-day participation at the ETH Decision Science Lab and 2-day usage of a mobile app.
c) <u>Schedule</u>	 The social experiment is outlined in 3 phases: Entry phase (45 mins work): Show up at the ETH Decision Science Lab, instructions, sign of information consent, app installation, entry app survey Core phase (45 mins work): A two-day app usage. Exit phase (30 mins work): Show up at the ETH Decision Science Lab, exit web survey, receipt of rewards.
d) Conditions to be met for participation in the study	Participation in this study requires the following: 1. having a general interest and concerns about privacy 2. having a smartphone running Android 3. having a mobile internet connection

phone