

Assignment student EnTranCe Energy Transition Community

BikeShare050 – Tipping Point Analysis



Suitable for students of: *Multiple choices are possible*

- MBO
- BuitenWerkPlaats Built Environment (2nd yr, 1 block, 2nd yr, 4 block)
- Vastgoedlab V&M (3rd yr)
- Bachelor graduation assignment (4th yr)
- Bachelor internship (limited possibility in daily guidance)
- Research assignment in curriculum year.....
- Honours research assignment
- Master thesis

Study Program: Social (applied) Psychology, Human Technology, Sociology, Logistics, Applied Mathematics, Econometrics.

Period: Februari – Juni 2018

Language: Dutch, English

Client: Change Agency Sustainable and Smart Mobility

Internal client: Steven de Boer

Background (facts, situation sketch and parent/organization goals)

What is this challenging assignment about:

In sociology, a **tipping point** is a point in time when a group—or a large number of group members—rapidly and dramatically changes its behaviour by widely adopting a previously rare practice (*Wikipedia*).

BikeShare050

Imagine, you are walking in the city of Groningen and you feel that a bike would be really useful. You take out your smartphone and open an easy to use 're-usable bike' app. Immediately on the

Google map you know your current position and conveniently, the location of a number of available bikes within walking distance. You will make an immediate reservation for the bike that matches your needs. As soon as you make the reservation you will start paying the bike rental fee. Briskly you walk to the bike following directions displayed on your smartphone. Arriving at the bike you unlock it with your smartphone. The bike is robust and fully functional and can be adjusted for your physical dimensions. Be sure that all is working before you hit the road and, 'hey that's a difference!'. When you arrive at your destination, perhaps guided by your smartphone, or you've just been freewheeling, you lock the bike in a safe spot at which time you can choose to leave the bike and continue your journey or park and hold the bike for use at convenient time later. Don't forget that rental fees continue if you decide to retain the bike for later use. BikeShare050 wants to make people change their perceptions and then their actions. If a biking scenario such as described is implemented, people will really give up their inconvenient cars in a town centre environment. We implemented 20 BikeShare050 bikes in a pilot project in February 2017 for proof of concept.

Goals of BikeShare050: first and last mile convenient solution, easy access to car sharing solutions, change of public attitude towards a sharing economy, contribution to public health and a solution to the big problem of too many unused bikes in the public space of i.e. city of Groningen.

The pilot of BikeShare050 has been an initiative of the following stakeholders: municipality of Groningen, the province of Groningen, Hanzehogeschool and local Vocational Education. This pilot has been successful in the sense that different cities in the Netherlands and abroad shown a lot of interest in our flexible and relatively cheap concept.

Research has shown that students are willing to pay 50 euro's a year to get unlimited access to BikeShare050 **but** only when there always is a bike nearby that they can make a reservation on.

Problem (description of the undesirable situation)

The big question now is 'when and how can we reach the tipping point in Groningen, the moment in which a BikeShare050 becomes adopted and widely used. We are looking for a very educated guess regarding how many bikes should be introduced to the social system in Groningen, constraints regarding the accessibility (amount, geographical location) to a bike, and the necessary change in attitude.

This is not an easy assignment, therefor you will be introduced to experts regarding tipping points.

Objective (description of the desired situation)

Create a simulation that gives insights in when the tipping point is achieved.

Result deliverable/product (what is ready if the project is finished) with list of part results

1. A simulation of BikeShare050 in the social system
2. A detailed explanation of the simulation model and accountability of the choices made.
3. Possible scenarios based on the simulation how to reach the tipping point.



4. An advisory report suitable for reading by the stakeholders

Competence level

3

Connected to Change Agency ETC

Multiple choices are possible

- Sustainable Building
- Sustainable Mobility
- Local Communities

Interested or further information

You will be working in the context change agency Sustainable Mobility on EnTranCe. You will be working in a multidisciplinary team. For detailed information on this assignment contact Steven de Boer (EnTranCe), s.de.boer@pl.hanze.nl, 06-24572781.

How to respond to the vacancy

Send a motivation letter and CV to EnTranCe, Energy Transition Community, etc@org.hanze.nl
Attn. Mrs. Jacqueline Joose, Office Manager EnTranCe. Note: If the job does not fit directly with your specific interest, please contact via etc@org.hanze.nl or 050-5954708

Website: <http://en-tran-ce.org/for-students/assignments/>