**Project Kick-off and HEAT-tool Training**

**HEAT – Participatory urban planning for healthier urban communities**

**16-18 May 2018  
Turku, Finland**

**MEMO**

The list of participants is available <https://drive.google.com/drive/folders/1LIWeYnc7_iPMbZQYutQgcpNPoSoBNUx1>

**Thursday, 17 May 2018**

Kick-off meeting: HEAT training

**Venue: ICT City - *Joukahaisenkatu 3-5***

Second day of the kick-off meeting was dedicated to training of the use of the HEAT tool by Nick Cavill, Minna Raatikka and Hannu Lehto.

1. **HEAT introduction by Nick Cavill**

Background information

* HEAT tool is evidence-based and builds upon scientific research on lives saved / mortality reduced via cycling and walking
* The tool stresses practical applicability and ease of use. Results can be obtained with minimum data and default values are available. The tool is still scientifically robust.
* The tool is based on transparent assumptions and it is open to all
* The tool is conservative, i.e. it gives conservative estimates and assumptions, i.e. results, it gives, are based on sound facts and evidence
* The tool is aimed at transport planners
* The tool can be used to e.g. secure funding for cycling infrastructure
* The tool is not mandatory in planning, but has clear benefits. The tool can be used for new cycling or walking infrastructure planning to give a monetary value to cycling or walking, to value the mortality benefits from current levels of cycling or walking, or to provide input into more comprehensive cost–benefit analyses.

Scientific background

* Premature mortality is lower among cyclists in comparison to non-cycling population, there is sound scientific evidence (Physical activity - mortality benefit) to support this claim
* Other health benefits related to cycling (sound scientific data difficult to find):
  + - mental health (improves mood)
    - cardiovascular disease benefit
* Worth to consider: economic value of reduced mortality induced by a certain volume of cycling/walking vs. risks involved in cycling (bad air, traffic accidents). Difficult to assess the balance. Also the co2 emission reduction potential related to cycling / walking should be considered.
* The larger the population you are assessing, the more accurate the results

What is HEAT used for?

1. To quantify the actual increase in cycling,
2. To value the existing level of cycling (cycling is worth this and this much)
3. To offer support for speculative future projections (e.g. what are the potential benefits for increasing cycling)

* HEAT can be utilised to secure funding for cycling infrastructure
* HEAT can also be used to estimate the costs of not cycling / walking
* HEAT can be used to back cycling investments also in organisations. Helps to assess the benefit and/or value of cycling in monetary terms (cycling is worth this much for your organisation)

What does HEAT assess?

* HEAT estimates the value of reduced mortality that results from specified amounts of walking or cycling
* HEAT can also take into account the health effects from road crashes, air pollution and carbon emissions.
* HEAT answers to the following question:

*If x people regularly walk or cycle an amount of y, what is the economic value of the health benefits that occur as a result of the reduction in mortality due to their physical activity?*

* The tool can be used for a number of different types of assessments:
  + Assessment of current (or past) levels of cycling or walking, e.g. showing what cycling or walking are worth in your city or country.
  + Assessment of changes over time, e.g. comparisons of “before and after” situations, or “scenario A vs scenario B” (e.g. with or without measures taken).
  + Evaluation of new or existing projects, especially infrastructure projects, including benefit-cost ratio calculations.

1. **WSP Finland Hannu Lehto / Minna Raatikka**

Earlier HEAT guides available also in Finnish

There's a lot of potential in reducing the modal share of private cars in Finland, as most (75%) short trips (3-5 km) are made by car.

Three main ways to use HEAT

* Cost benefit assessment analysis (CBA)
* Goal-orientated benefits (what if-scenarios)
* Benefits from potential cyclists (how to convince companies / cities to invest in cycling)
  + N.B. People tend to overestimate the length of their cycling trips (10-25 % should be reduced from people's estimations)
  + N.B. The amount of short trips, responder age, and the way a survey is made should be taken into account

CBA case Helsinki (return of investment)

* Cycling infrastructure investment was at first 3,5 M€, Now it is 10M€
* 30€/citizen for infrastructure investment is a good goal for cities
* CBA ratio 1€ to 8€, for 1€ you get 8€ back
* The investment lead to 27% increase in cycling trips
* N.B. CBA depends also on volume of cycling

Goal orientated case

* Results depend on the city
* Case Espoo / 15% increase of cycling = 9,8 M€/year
* Case Kokkola / 15% increase of cycling = 3,4 M€/year
* It is important to narrow a big goal to understandable chunks, instead of trying to solve a big problem at once

Benefits from potential cyclists (Helsinki city employees)

* The goal was to survey sustainable commuting benefits
* Commuting survey
* The potential was calculated on the basis of a question: How easy it would be for you to commute to work with car/foot/bike/bus?

Finnish National Travel Survey (2016)

* Background and general information regarding the survey
* For more information, please see:
  + <https://www.liikennevirasto.fi/web/en/statistics/national-travel-survey#.Wv1jxaSFOpo>
  + <https://www.liikennevirasto.fi/documents/20473/440302/20180215_Esite_ENGL.pdf/81219224-ab9c-4c1c-9bad-bb3ba9a331b0>
  + <https://www.liikennevirasto.fi/documents/20473/440234/Fact_Sheet_National_Travel_Survey_2016.pdf>

Hot tip: Make notes of all the values you have used in your HEAT calculation. The values you have used are generally forgotten afterwards, even if you think you can remember them!! All values in HEAT are based on the average **Copenhagen level** of walking and cycling, so this is worth keeping in mind when you interpret your results.