

PROMOTION/ **AWARENESS RAISING**

## BICYCLE BAROMETERS (BIKE COUNTERS)

### Overview

Show cyclists that they count. Bicycle “barometers,” or counters, can serve as a promotional tool to raise awareness of cycling for transportation in an urban context. Bike barometers display the number of cyclists that pass by per day and per year. Highly-visible barometers create a focal point for cycling in a city and lead to a higher identification of the citizens with, and acceptance of, the bicycle as a daily mode of transport. People are often surprised by the number of cyclists in their city and fast-growing numbers are impressive.

### Background and Objectives

#### *Definition*

Bicycle barometers are electronic detector devices which can be used on any surface and which detect bicycles (but not pedestrians or other road users). They consist of a sensor and a display. The barometer registers approaching cyclists and sends the data to the system. The display shows the total number of cyclists on a day and/or in whole year. Bicycle barometers can also be equipped with add-ons such as a free public bicycle pump for the convenience of cyclists.

#### *Function/Objective*

Keeping a highly visible count of the number of cyclists in a city serves to raise awareness of cycling as a real transport mode for daily purposes in urban contexts and to communicate that to the public. The installation of electronic bicycle barometers on selected cycle paths:

- shows the wider public how numerous cyclists are in a city and thus raises awareness of cycling as a serious transport mode. The basic idea is to encourage more people to ride by showing how many are already doing it.
- captures data about the number of cyclists per day, in peak hours, on weekends etc., which can otherwise be a difficult, expensive and labour-intensive task. Counters thus provide the basis for monitoring bicycle usage.
- can also be used to encourage cycling and as a publicity tool by offering prizes to the 5,000<sup>th</sup> cyclist to pass on a given day or the millionth in a given year, for example.

#### *Scope/Field of application*

Bicycle barometers are appropriate for climber and champion cities which have a moderate or high cycling modal split (probably at least 10%) and existing bicycle paths. The low numbers that would be displayed in cities without an established cycling culture would not play a positive role.

However, if your city doesn't (yet) have cycling numbers that you want to display publicly, you might consider purchasing one or more counters without a display mechanism to begin collecting data on cycling trips in your city. The information gathered will offer valuable baseline data for before-and-after comparisons and to monitor your progress as your city begins to implement cycling infrastructure and promotion programmes. The information gained from well-placed bicycle counters can serve as a powerful tool as your cycling numbers start to climb.

#### *Target group*

Bicycle barometers address two target groups:

1. the general public – For the general population, barometers show how many bicycles travel through the streets of their city on a daily basis. This serves both to develop a certain sense of pride in the number of bikes in the city, and also to offer food for thought (What



would the city look like if all of those trips were taken by car?). Non-cyclists may be encouraged to “join the gang.”

2. current cyclists – Regular cyclists are validated in their transportation choices while inexperienced or infrequent cyclists can be encouraged to cycle more by linking a reward programme to the barometer (by offering prizes to the 5,000<sup>th</sup> cyclist to pass on a given day or the millionth in a given year, for example).

## Implementation

### *Partnerships*

---

A bicycle barometer can be implemented by a local authority without partners. If others participate (perhaps financially), the local authority must still be involved if the bicycle barometer is to be located on public space.

### *Technical considerations and cost information*

---

Bicycle barometers should be placed on popular, multi-use paths (best separated from vehicle traffic) in the city centre or near major access points. The display should be highly visible, but must not block pedestrians, cyclists or other road users. Barometers should be installed in locations where people are generally moving as opposed to standing still.

Displays generally show the number of cyclists that have passed on the current day, in the year-to-date, and the current time.

Barometers are available in different formats. Based on your selected location, some factors to consider in selecting a barometer are:

- basic form of the display (see the good practice cases below for examples)
- single-sided vs. double-sided display
- type of data gathering device (loops in bike lane vs. infrared sensors)

The cost of a bicycle barometer can range from approximately 14,000 to 22,000 Euro, and they are currently produced in Denmark, Italy and France (for more information on suppliers contact the PRESTO cities).

## Considerations

### *Strengths*

---

- Installation of a bicycle barometer takes only a few hours and requires little interference as regards urban development or outward appearance.
- Counters operate in all weather conditions and the overall integration into the urban space is easy.
- Counters deliver valuable statistical data about local bicycle movements.
- The display can serve to encourage inexperienced or infrequent cyclists to cycle more.
- For non-cyclists, barometers can serve as an interesting topic of conversation. Their perceptions of cyclists and of cycling may be positively influenced by high numbers.
- Bicycle barometers are a visible symbol of a city’s commitment to cycling.

### *Weaknesses*

---

- Bicycle barometers may be objects of vandalism.
- Due to a range of factors (the possibly of pedestrians being counted, counting two cyclists side-by-side as one, people passing several times to enjoy watching the numbers go up), counters may not provide an entirely accurate measure of the cyclists in a city (although they definitely indicate the trend).

### Evaluation of impact

By its very nature, a bicycle barometer helps to measure its own impact by keeping an ongoing count of the number of cyclists who pass it on a daily basis.

Evaluation of public attitude change can be measured through including a question about cycling on any public opinion survey carried out by the local authority.

### Success factors and barriers

The choice of location is a key factor. A barometer needs to be highly visible and placed at a location where many cyclists regularly pass.

Cost might be a barrier to implementation in some cities. If this is the case, sponsorship might be an option. Space for a name or logo on the counter display attached to "green" transportation is a valuable commodity that could be offered in exchange for financial support.

It isn't wise to install a barometer until you are relatively certain that you have cycling numbers that would surprise and/or impress the general public. Otherwise people may question the expenditure.

A bike barometer is not a stand-alone measure. It needs to be implemented among a range of other measures to increase the cycling modal split in your city.

## Good Practice Cases

### Case 1

#### "Cykelbarometer" – Bicycle barometer in the City of Odense (DK)

The bicycle barometer in Odense, the first of its kind anywhere, was installed in 2002 as encouragement to cyclists in that cycling city. The barometer displays the number of cyclists that pass by in a day and the total number in the current year. Later models of the barometer (including one installed in Copenhagen in 2009) also include an air pump for the convenience of passing cyclists.

More information can be found at: [www.cykelby.dk/eng/index.asp](http://www.cykelby.dk/eng/index.asp) or by contacting: [info@cykelby.dk](mailto:info@cykelby.dk)

*Odense is a champion city with a 26% modal split for cycling.*



### Case 2

#### "Bicycle Barometer" – Bicycle barometer in the City of Bolzano (IT)

The first Italian bicycle barometer was installed in May 2006 in Bolzano, within the framework of the viaNova project. On average, 9,000 cyclists pass by it each day. To find out more, go to [www.eltis.org/study\\_sheet.phtml?study\\_id=1250&lang1=en](http://www.eltis.org/study_sheet.phtml?study_id=1250&lang1=en) or contact [info@oekoinstitut.it](mailto:info@oekoinstitut.it).

*Bolzano is a champion city with a 25% modal split for cycling (as of 2005), up from 20% in 2002.*

*Other bicycle barometers can be found in Gothenburg, Stockholm, and Malmö (S), Copenhagen (DK), Trondheim and Christianson (NO), and Jyväskylä (FI), Apeldoorn (NL) and one is currently being planned in Bremen (DE) within the framework of the PRESTO project*



Picture: by Municipality of Bolzano