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UNDERSTANDING THE POTENTIAL FOR COMMUTING BY BIKE IN REGION VÄSTRA GÖTALAND, SWEDEN

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Short Description

During 2018, a study of the potential for commuting by bike was made by Region Västra Götaland. The study showed that more than 37 % of the inhabitants could reach their workplace by bike in less than 30 minutes. The current share of bicycling in the region is about 7 %.

Main part

Today, only about 7 % of the inhabitants in Region Västra Götaland bike to work. In times of huge environmental- and climate challenges, congestion problems in the cities and a fattening population with heart diseases and diabetes as a result, active mobility is a key to the solution. Therefore, Region Västra Götaland in West Sweden has made a study of the potential for commuting by bike and e-bike to work. The main objectives of the study were to find out:

1. How many of the inhabitants in the municipalities in Region Västra Götaland that could either walk, bike or e-bike to work within set time intervals of 15, 20, 30 and 45 minutes?
2. Which roads that were to be used by the potential bikers, and where bike infrastructure was lacking.

The study is built on geographical calculations for every individual inhabitant, where home- and work address has been used as input data. The closes way between the two places has been chosen, regardless of the type of road. Only highways have been excluded. In this way, it can easily be identified where bike infrastructure is pore or even lacking.

Throughout the study, generally low speeds have been used, regardless of mode of transport. This is due to the relatively large difference in geographically conditions throughout the region (topography, red lights, crossings etc). For walking, a speed of 5 km/h has been used. For bike and e-bike, 16 km/h and 22 km/h have been used respectively.

The input data has been bought from the government agency Statistic Sweden to get a sufficient detail level. The road network data has been collected from Trafikverket – The Swedish transport administration.

The result of the study shows a huge potential for active mobility in Region Västra Götaland. More than 37 % of the working population in the region can reach their job by bike in less than 30 minutes. In some municipalities the potential is as high as 50 %. The high potential is also independent of size and population of the municipality, in fact, some of the rural areas of the region shows the highest potential, especially for the shorter time intervals.

The study also shows that there exists a high potential for park-and-ride-like solutions for bikers in the surrounding municipalities around Gothenburg, Sweden's second largest city and the largest city in the region.

Through the study it is also possible to simulate a potential load on specific road elements, and to identify where bike infrastructure is pore or lacking; a useful instrument for city planners. Additionally, by identifying where the potential for biking is the highest, several different communications- and behavioural change initiatives can be planned and implemented.

What is new?

The study is an innovative way of communicating the possibility to bike to work for many inhabitants in the region, instead of using the car out of habit, both in cities and on the countryside. The study actually shows the highest potential for biking in some of the more sparsely populated municipalities on the countryside. The result is also a useful support for city planners when it comes to planning for new bike infrastructure, and for communicating the need of new bike infrastructure.

What is transferable to other cities and regions?

Most of the study is transferable to other cities, regions and countries. The data model is fully transferable. When it comes to input data, data of where individuals live and work is needed, which in Sweden is available for public organizations by the government agency Statistic Sweden. The road network is also needed as an input, which in Sweden is available by Trafikverket - The Swedish transport administration.

What are outcomes and conclusions?

In general, 37 % of the inhabitants of Region Västra Götaland can reach their workplace by bike within 30 minutes. For some municipalities, the potential reaches as high as 50 % for the same time interval. The study also shows that a high potential can be seen, regardless of size and population of the municipality. In fact, the highest potential for biking is actually seen on the countryside, and in many of the more sparsely populated municipalities.

Through the study it is also possible to simulate a potential load on specific road elements, and to identify where bike infrastructure is poor or lacking; a useful instrument for city planners.

Who are the main target groups?

Firstly politicians and officials in municipalities in the region, but also inhabitants.

And what now? - what will change? - what is the relevance for the future?

Since the Corona outbreak, it has been very noticeable that we cannot only rely on fast technical solutions for our daily mobility. It is shown how important it is to be able to get around freely by bike, or by walking for daily trips. Many have noticed this, and countries, regions and cities have adapted and made changes in infrastructure to make room for bikers and pedestrians. Our study clearly shows the potential for more people to bike to work, and also the need of bike infrastructure for this. Hopefully, our study can help cities and municipalities to adapt in the best possible way, and help creating a sustainable society. The Corona outbreak may also have some good effects when it comes to opportunities to create a more liveable city and region.

Link to the project

www.vgregion.se/potentialstudie