Flattening out Norway

- a study of electric bicycle users

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On a policy path

Cycling is now taken into account and adressed as a part of new transport policies on a national and a local level

Trondheim experience a growing number of cyclists in recent years. 8 prosent of all travels is on a bike. The aim is to increase this to 15 prosent by 2020

How? Reshaping infrastructure and providing information

Funding for a «Greener Trondheim» - Road toll

Slik fungerer bomsystemet



58 prosent av alle inntektene i Miljøpakken kommer fra bompenger. Mellom 2010 og 2025 vil inntektene fra bommene utgjøre 6,4 mrd.

The Norwegian Cyclist







What do we know about the emerging electric bike users?

Becoming of the electric bike user

Electric bike users (in depth interviews N=6, age 22 – 57 both male and female)

Focus group interviews planned

Participants/Staff in the development of «Greener Trondheim»; Municipal managers and planners in transport, environment and planning sections (in depth interviews N=6)

How do the staff in Greener Trondheim understand the e-bike?

How do the cyclists domesticate the e-bike?

A dominating policy frame in Norway: providing information

Assumption that information and information campaigns leads to changes in attitude

Alternative frame: Behavior changes leads to changes in attitude Doing good things, feels good!

Example of fascilitating behaviour: electric cars in Norway (Ryghaug & Toftaker 2014). Electric cars are exempted from registration tax, VAT and annual car tax. Furthermore drivers of electric cars are allowed to use bus-lanes. Also they are exempted from congestion charges and parking fees on public parking places

E-bike in a «Greener Trondheim»?

Bicycle shops in Trondheim having increased sales of e-bikes, but:

Staff and participants in «Greener Trondheim» give ambivalent interpretations of the e-bike:

- «walker»,
- «a cycle for lazy people»

Their goal is to get people on «ordinary» bikes.

But, we can also see a more optimistic interpretations:

«The industry is underestimating the market for e-bikes» (Municipal Manager of Energy and Climate)

And even «a revolutionary force».

However, the e-bike isn't yet a part of the strategy documents of «Greener Trondheim»

E-bike as freedom

Shares the benefits with regular bike

- freedom from driving car (hassles of queue, parking space, pollutions and CO2 emissions)
- freedom from bus (and running after bus),
- freedom to chose time of departure
- time saving

Differs from regular bikes:

- many report that «they dont' think twice» before using them



Comfort bike

"What is positive is the fact that there is no uphill dreading. And there is no weather to dread to either. If you have an electric bicycle, you also get physical exercise. You do. And for me, only owning a regular bike would probably imply much less cycling".

"I know that it simply gets a bit hefty to ride a bike to and from work and be soaking with sweat. I'm not ready for that at that time of day. I need to get to work without feeling I had to change clothes, and to come back home without feeling sapped because I was so tired of upward slopes. So then I thought, "Now I will buy me an electric bicycle".



Challenging the established regime of movement

E-cyclists provide two types of challenges:

For planning: how to fit them into the reshaping of infrastructure. There is quite a lot of tension already between regular cyclists and car-drivers.

Cultural: living with a diversity of cyclists

Cultural challenge: cheaters!

«It is very fun uphill, when you pass those who are out training, those who have bikes and gear costing 40-50 000 NOK [£4-5000]. Me and my cycle-bag just blows past them uphill»

«I have a friend who is «supersporty» who cycle everywhere with her regular bike. So, she thinks it is a bit like cheating – me cycling my e-bike»

«Yesterday I went up this steep road and I passed this training cyclist with a fancy mountain bike. Then, he is suddenly tailing me, very closely. I was now his domestique in a race (help rider). This has happened a few times. I dont know if I should be annoyed or to laugh. They are obviously very provoked. And they create a situation that feels unpleasant. Having someone riding pretty fast very close behind you is not...if I step on the brake now, we crash, right?»

Conclusion: Flattening out Norway

Users of electric bikes report that they now are able to move across the often steep and uphill landscape in a comfortable and fun way

The fascilitation of this flattening should include

- reshaping infrastructure
- «internet of things»
- Architectures and technologies of storing, recharging