

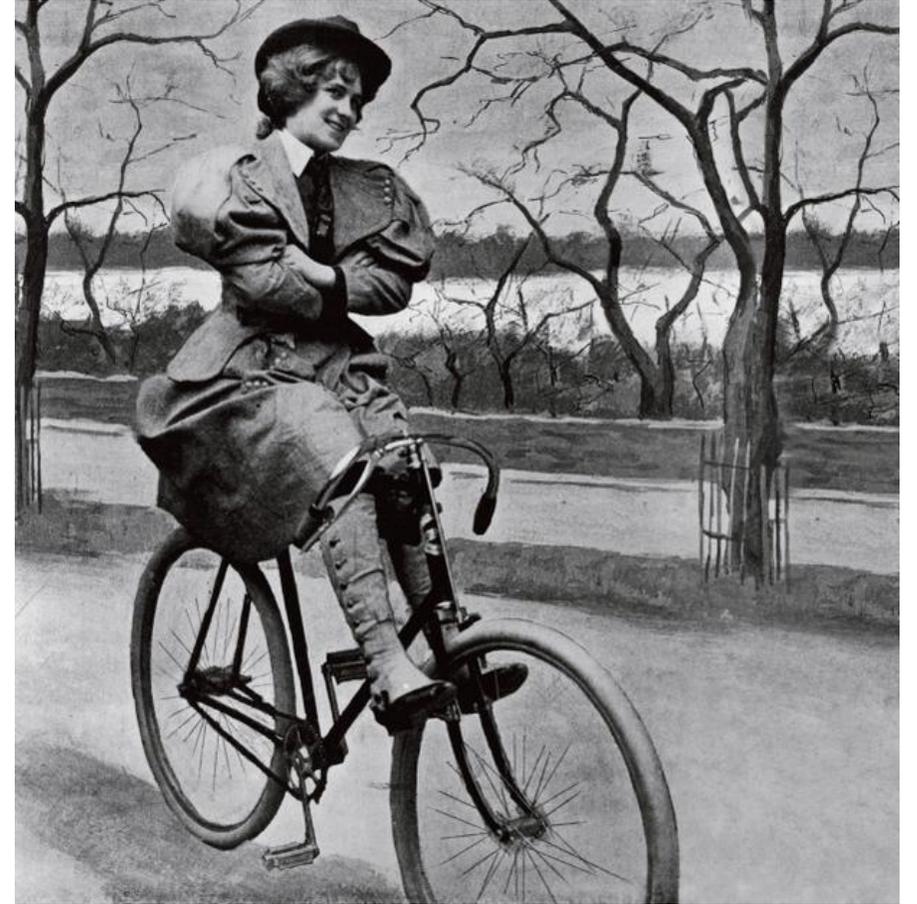
Gender gap – Perception of *safety* and *cycling* *use*

Tineke de Jong



Why look at woman in transport?

Bicycle paved the way for womens rights
Through the bicycle woman could escape the private sphere
and increase mobility and freedom, autonomy



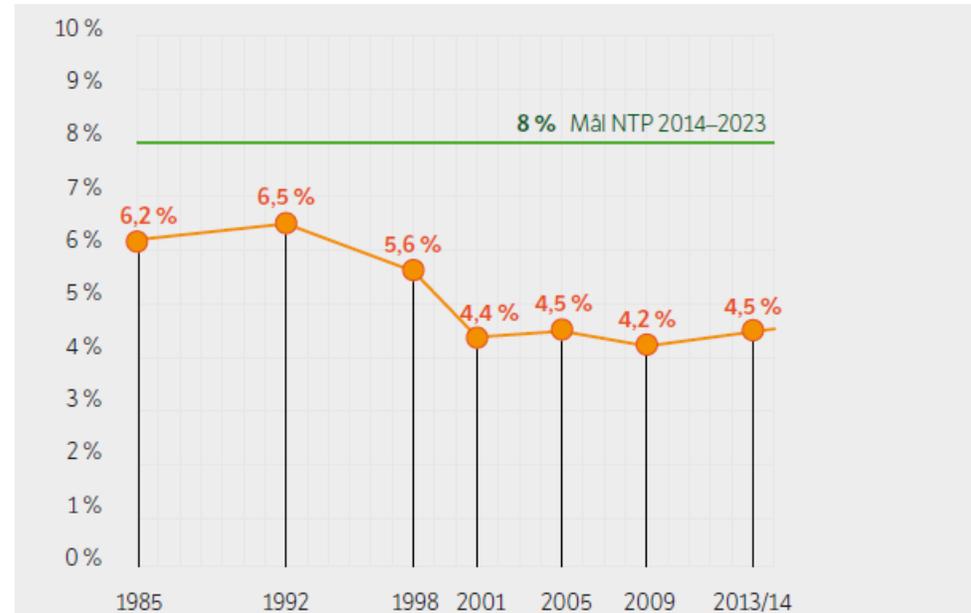
Urban cycling

Large potential

- More woman than man live in cities
- Shorter routes to work > more likely to cycle
- Transport networks are one of the most important elements of a country's infrastructure, and they are key to reducing poverty and promoting equality.

Intro- cycling shares

- Norway has a *low cycling share* 4,5%
 - Oslo 5% ((National Travel survey)
- Goal: 20% in cities by 2025, current goal 8%



Kilde: Den nasjonale reisevaneundersøkelsen 2013/2014 (TØI-rapport 1383/2014).
I Nasjonal sykkelstrategi og Nasjonal transportplan (NTP) 2014-2023 er målet en nasjonal sykkelandel på 8 prosent innen 2023. Målet var 8 % også i NTP 2010-2019 og NTP 2006-2015.

- kvinne

Why close the 'gap'?

Important to close the gap and achieve higher cycling shares:

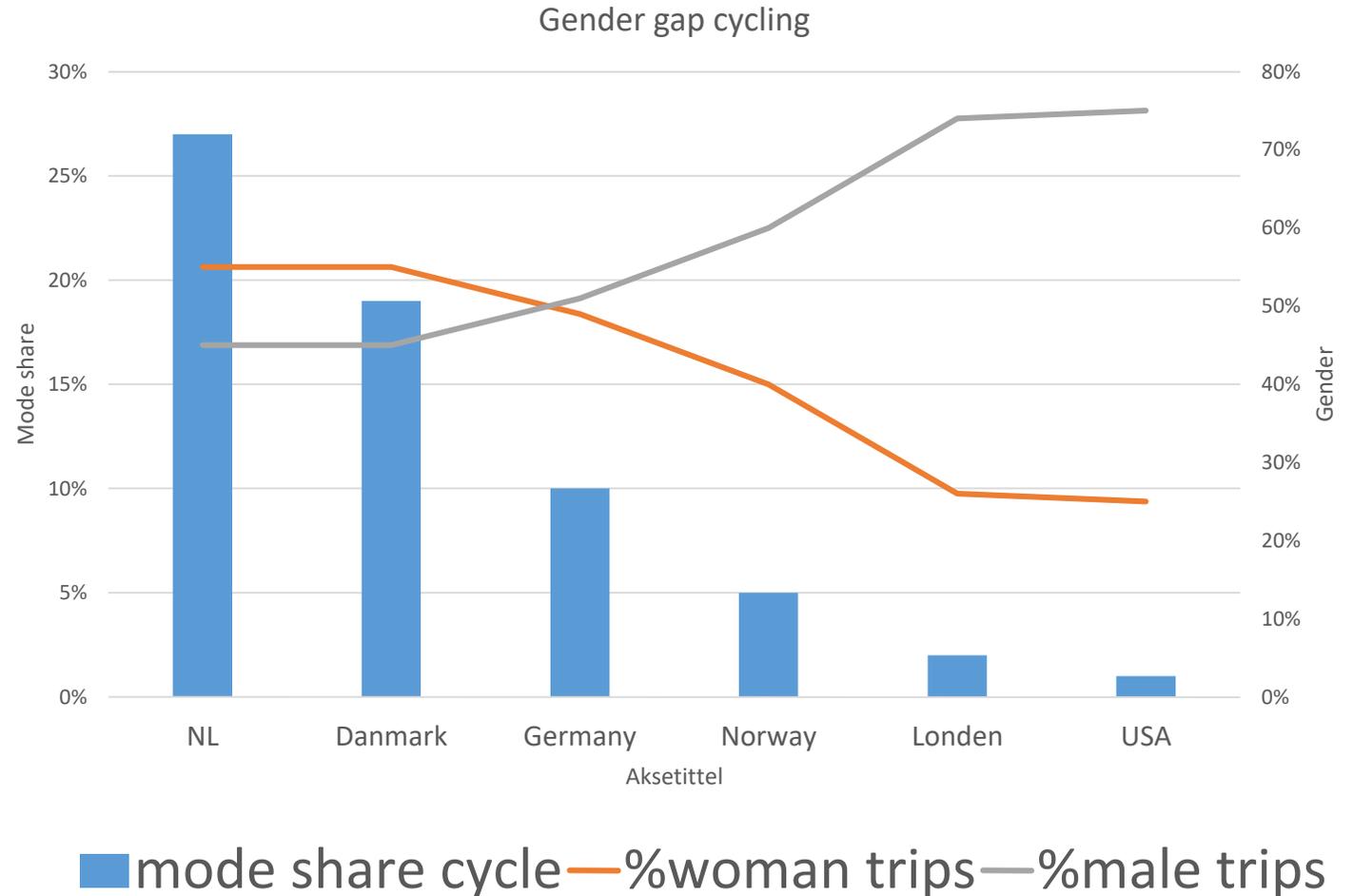
- *Health, liveable cities*
- *Wellbeing*
- *Accessibility*
- *Livelihood – social sustainability*

Modal share cycling and gender gap

In countries and cities with a *high share* of *bike use*, there is a *higher share* of *female cyclists*

while in cities with *low* bike shares, the proportion of female cyclists is *lower*

In *Oslo* *30-40%* of trips are made by *female cyclists*.



Women are considered an “*indicator species*” for bike-friendly and liveable cities.

- An **indicator species** is any biological species that defines a trait or characteristics of the environment.

>if it gets more attractive for woman, its more attractive for man too



What can be the possible causes?

Literature suggests:

- *Trip chaining* constraints → linking practical destinations & time
- *Risk aversion* → increased demand safety & comfort
- *Cultural norms* → 'woman should not cycle'

Literature.....cont.

- Woman are more *risk avoidant* than men
- Woman take *detours* while cycling more often than men
- Less traffic accidents woman: *avoidance*?
- Bicyclists are considered to be **both exposed to *violence* and *vulnerable* to property crimes.**

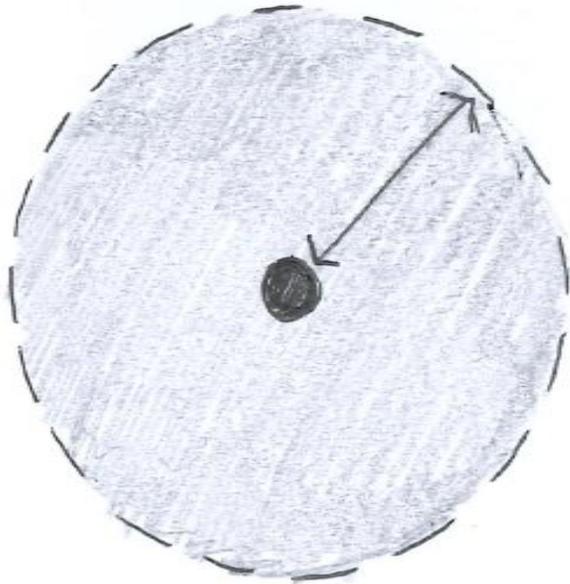
Ongoing study

Is there a difference between how men and women perceive (safety) issues related to the characteristics of the built environment of cycling routes?

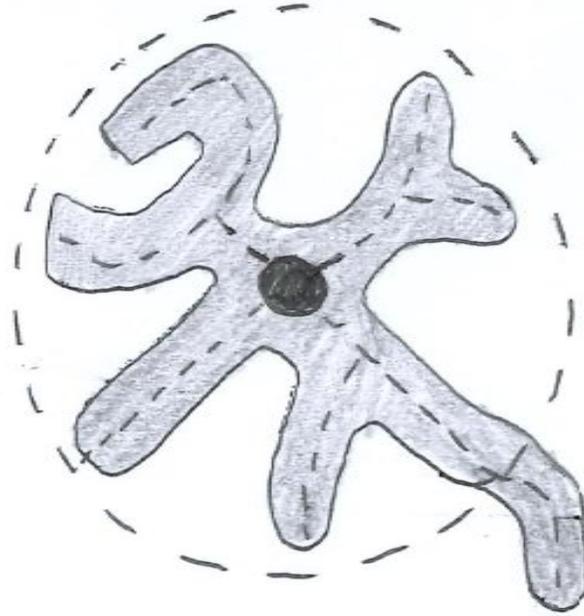
Do woman and man choose different cycling routes?



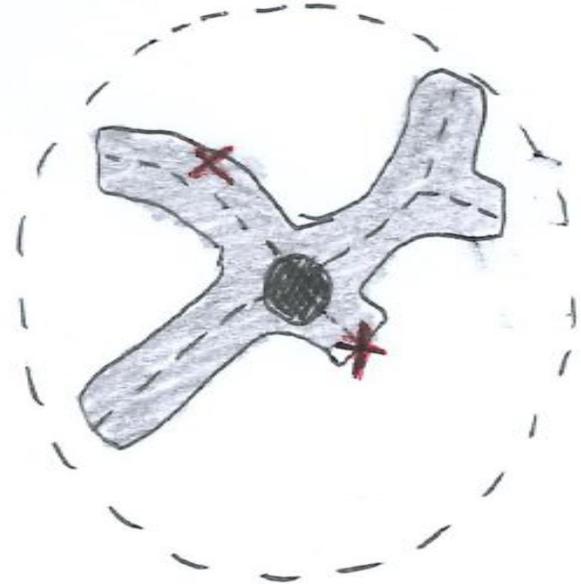
A route is as strong as its weakest link



Theoretic bikeable distance



Accessible area



Perceived accessible area?

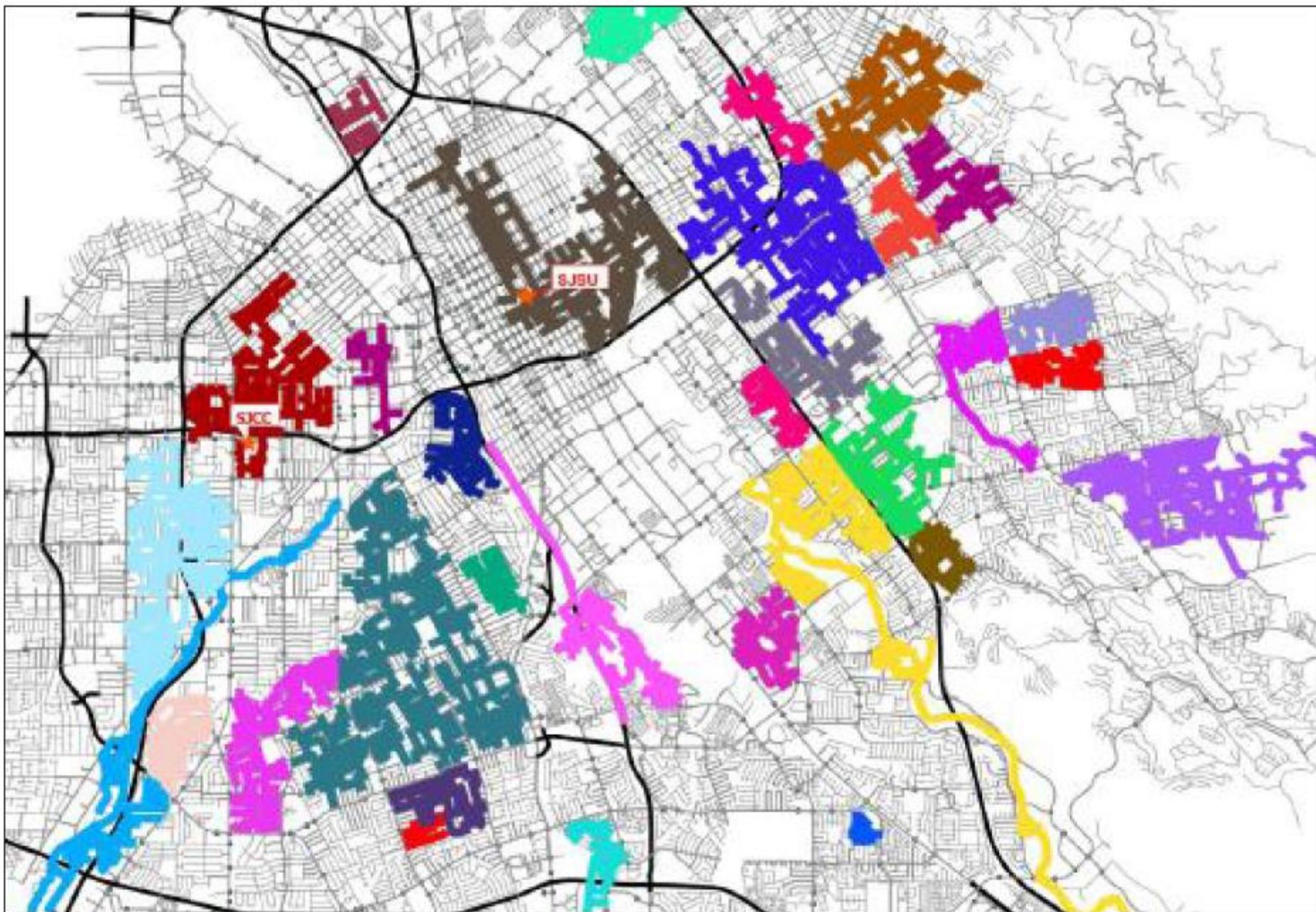


Figure 8. Some Connectivity Clusters at LTS 1

Hypotheses

- Women *feel unsafe* to a greater extent than men
- Women, to a greater extent, *avoid* bicycling because of *safety issues* as compared to men
- Do woman and man choose different routes? Do

Executing the plot

Map based
survey
&app

2. **Results**

3. **Future
plans**

Background variables

How unsafe did you feel last time you cycled?

Did you get and accident?

Are there any **streets, roads or crossings** in your city, which you have experience with, and perceive to be **uncomfortable or difficult** to bike?

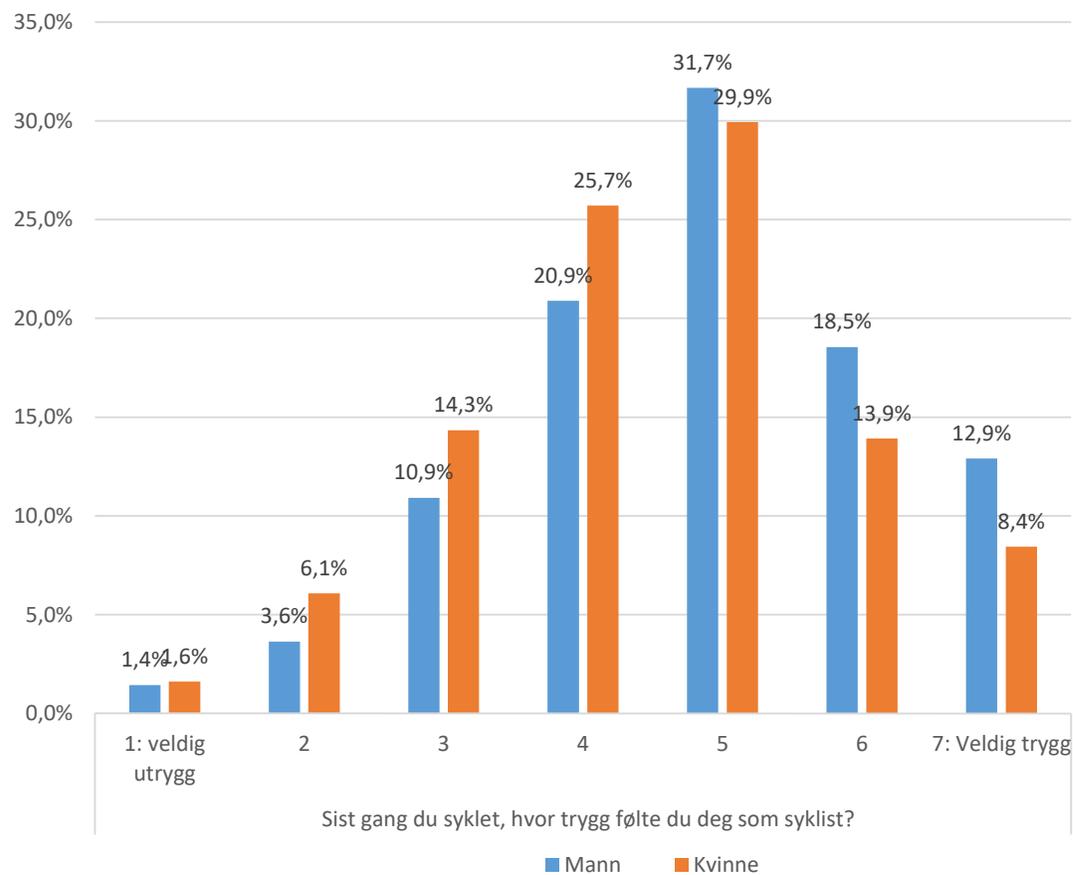
Ja

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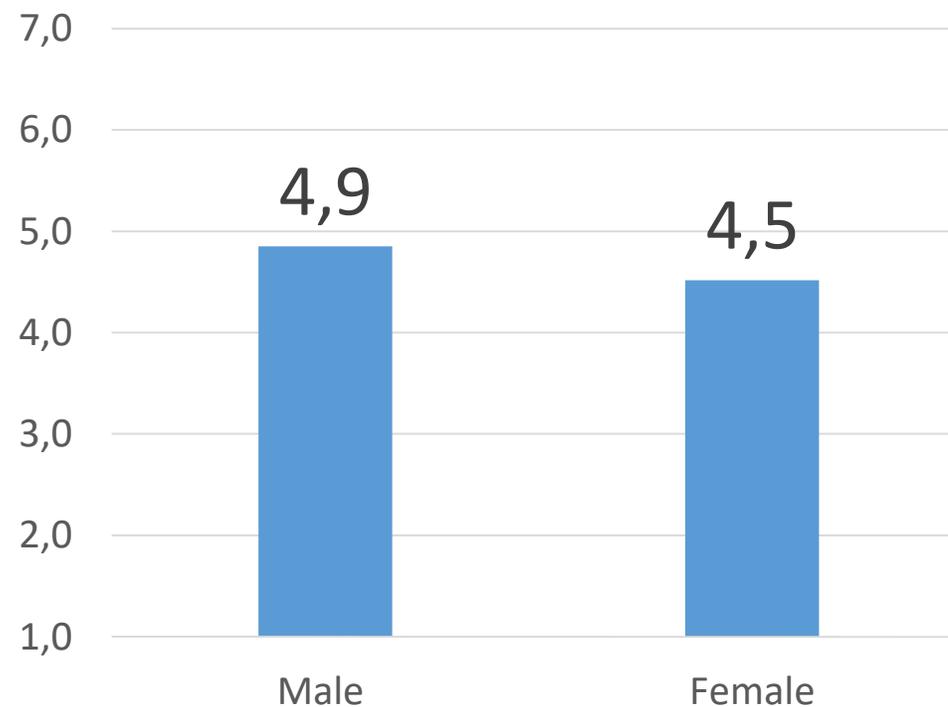
Registrating of max 2 places +
Question about:
- **level of unsafety**
- **avoidance and reason.**

2. Results

General feeling of safety,



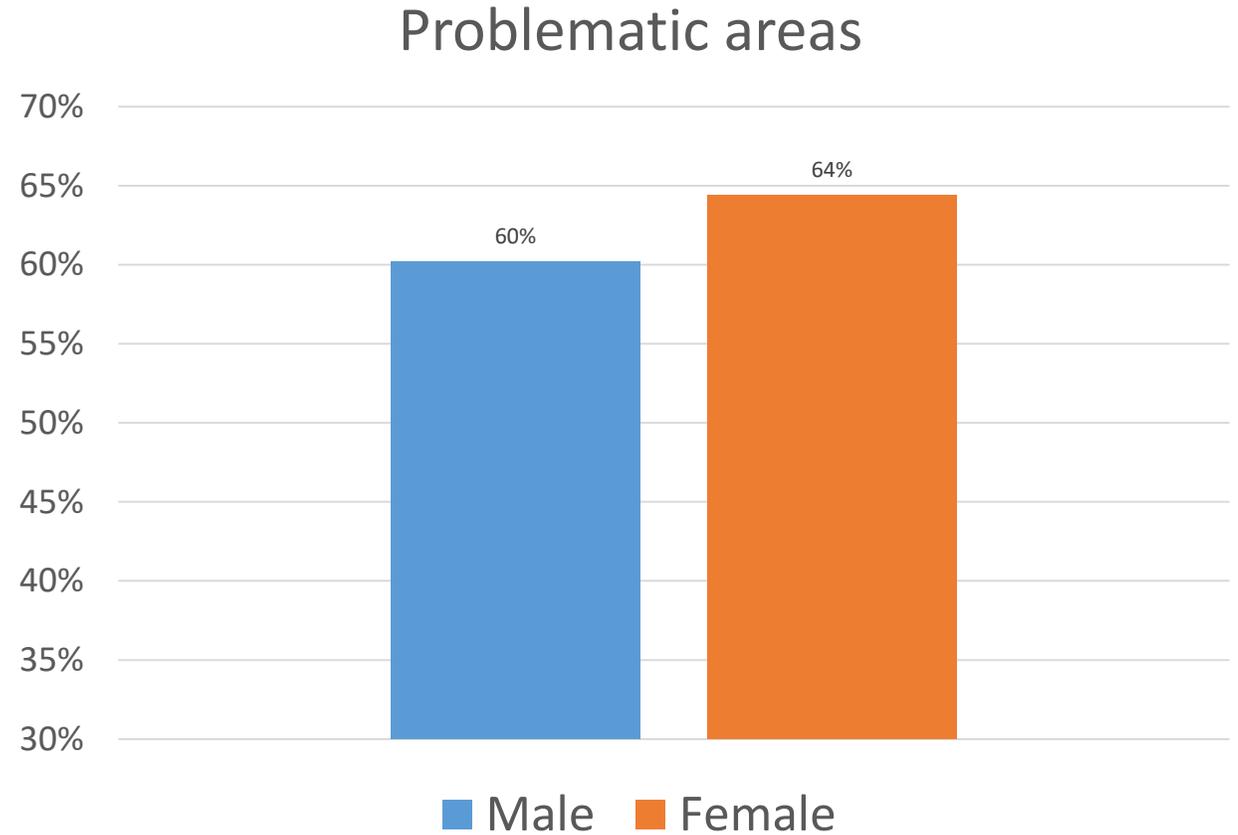
General sense of safety



p<0.001

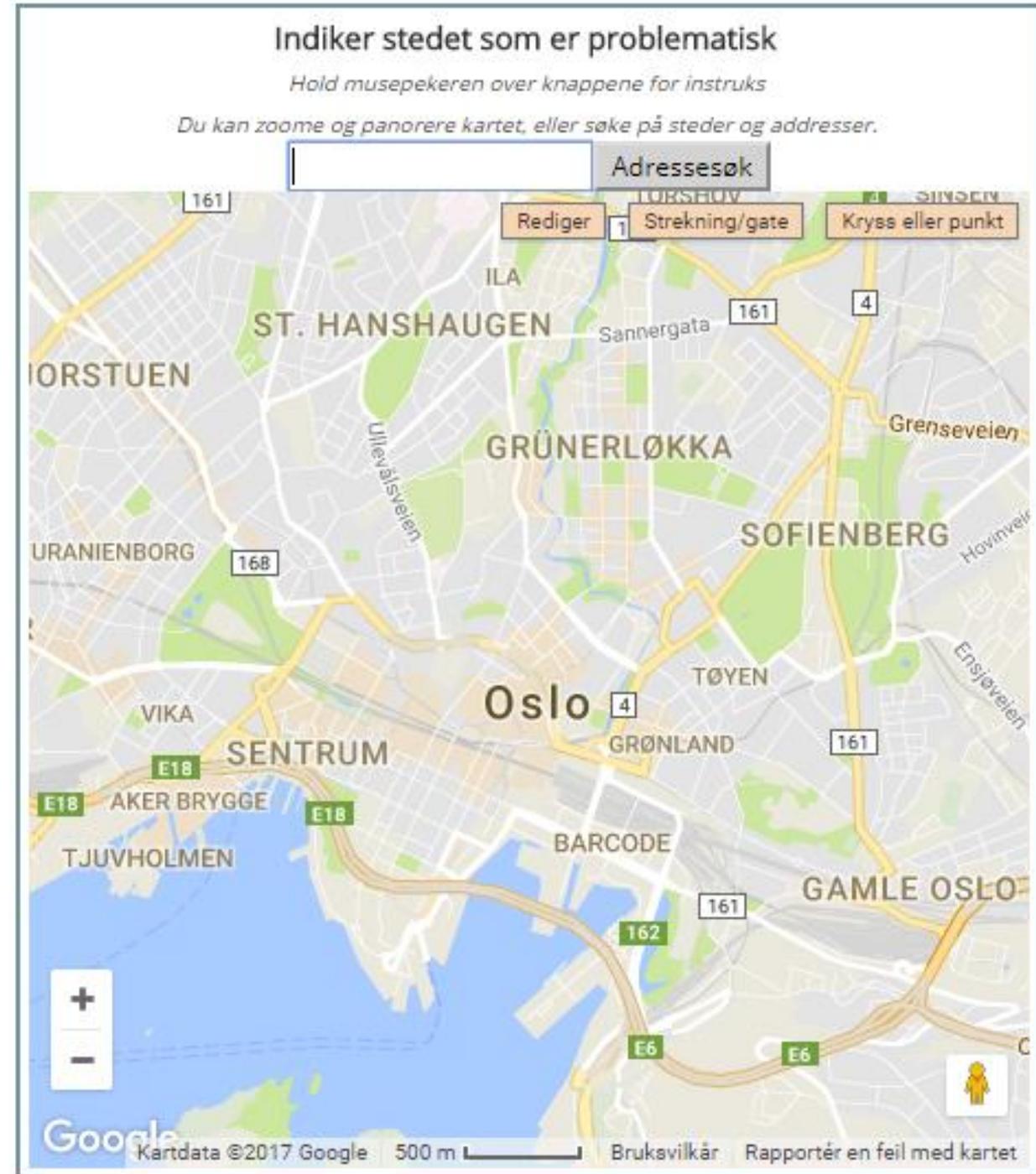
Are there any road or crossings, which you have experience with and which you perceive to be uncomfortable or difficult to cycle?

Er det noen gater, veier eller kryss i din by du har erfaring med og som du opplever at det er ubehagelig eller vanskelig å sykle?

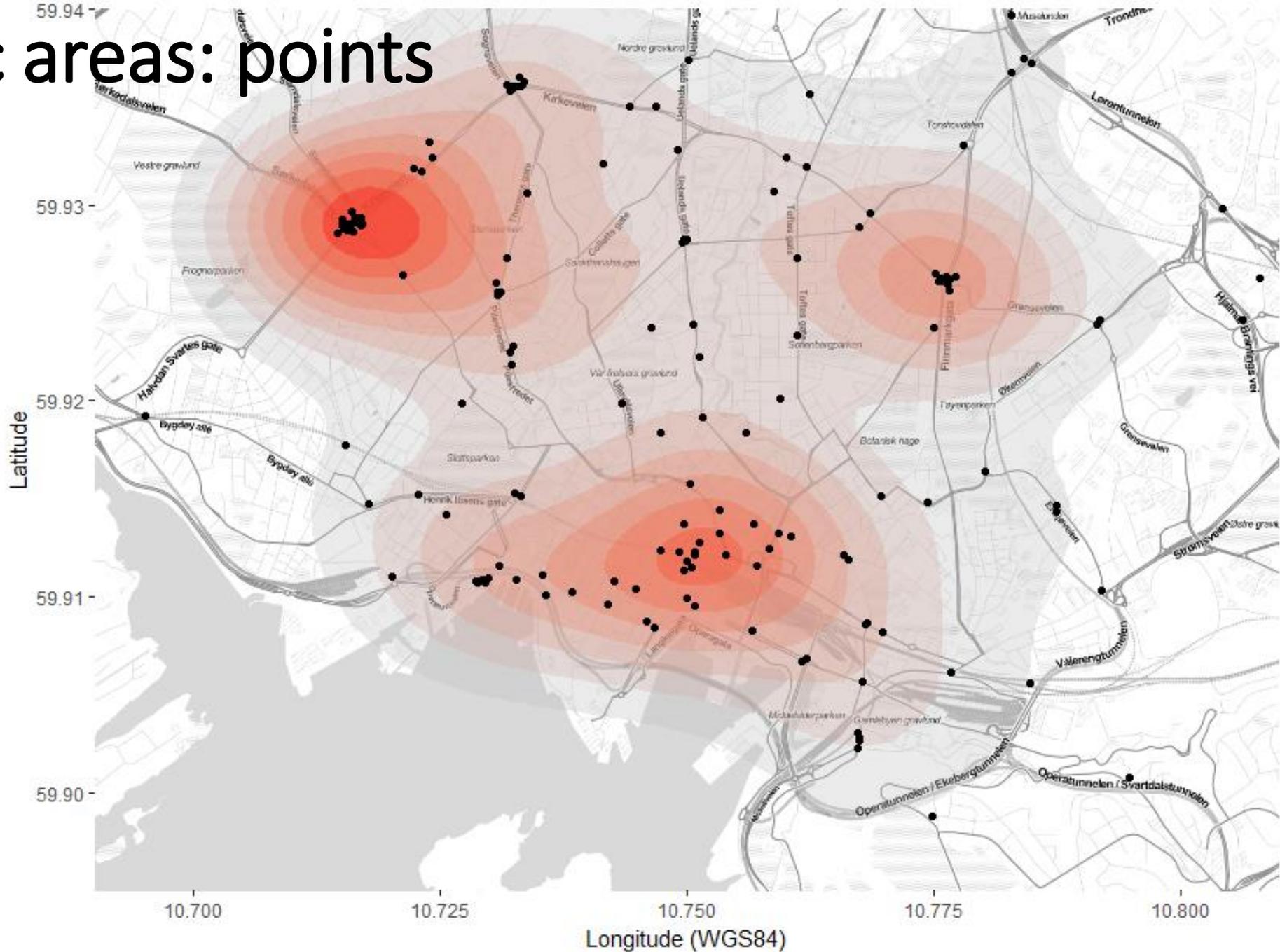


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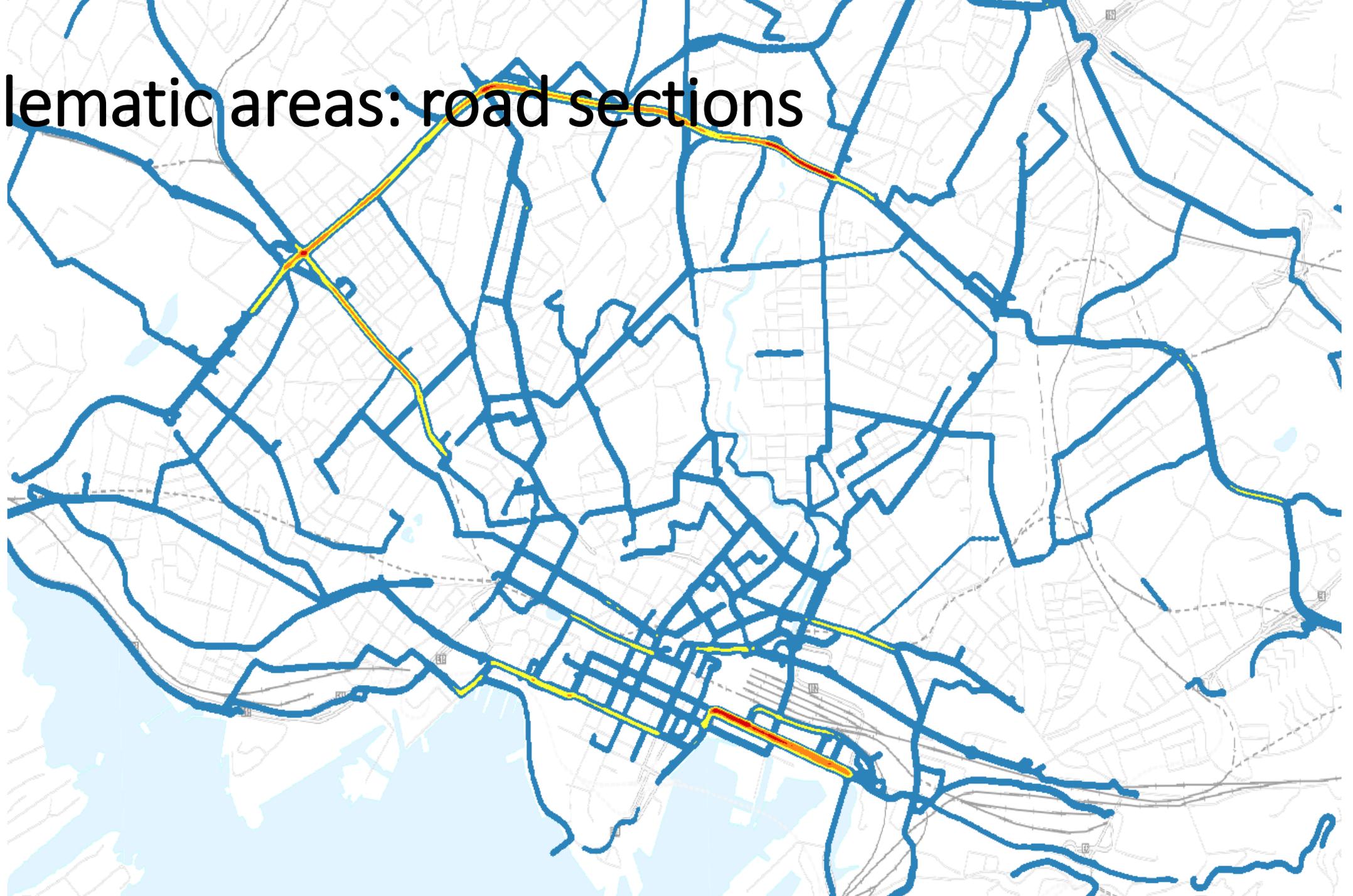
Indicate the place which is problematic (*point and road section*)



Problematic areas: points



Problematic areas: road sections





80

Ring2



Dronning Eufemia

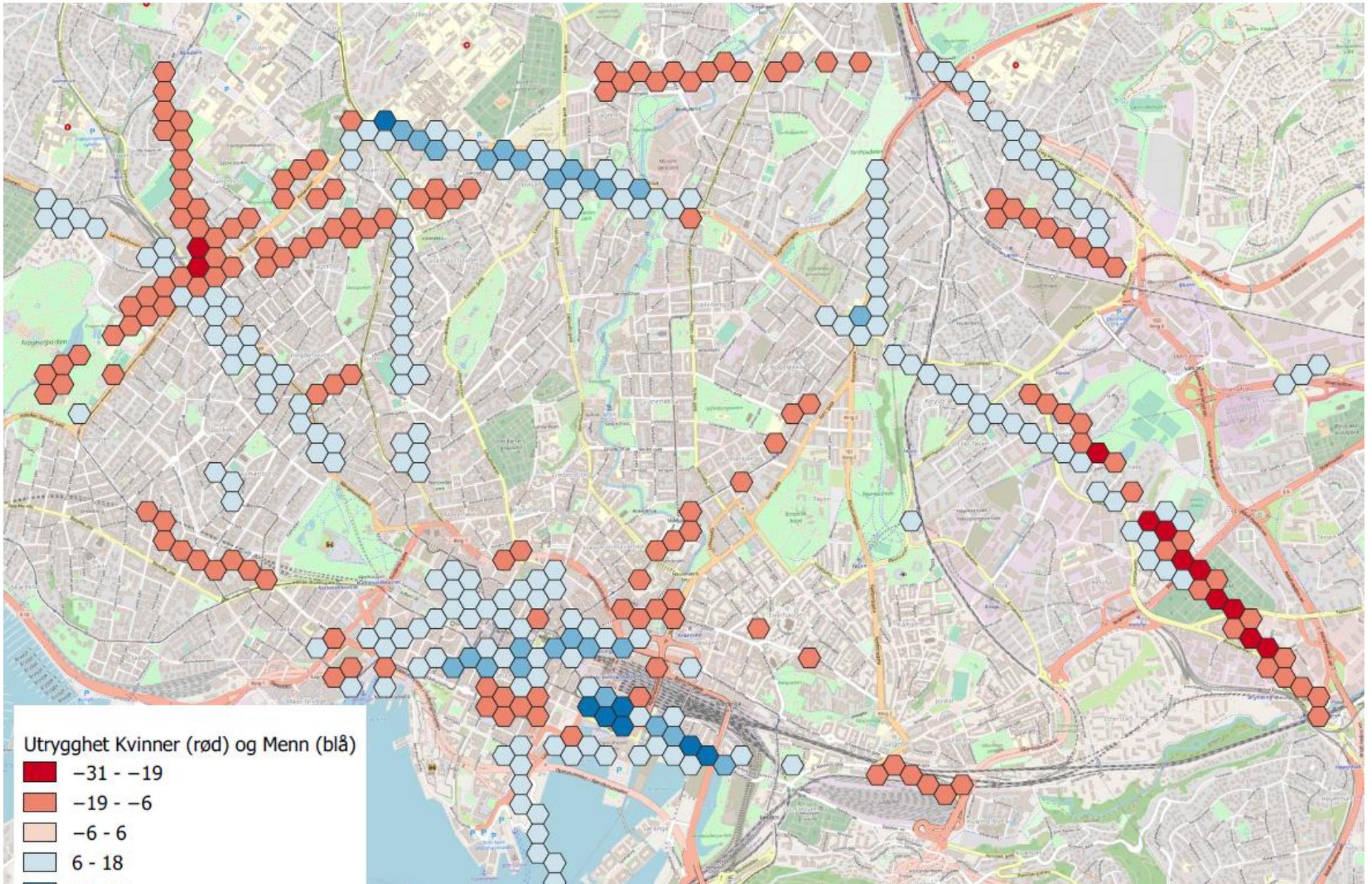




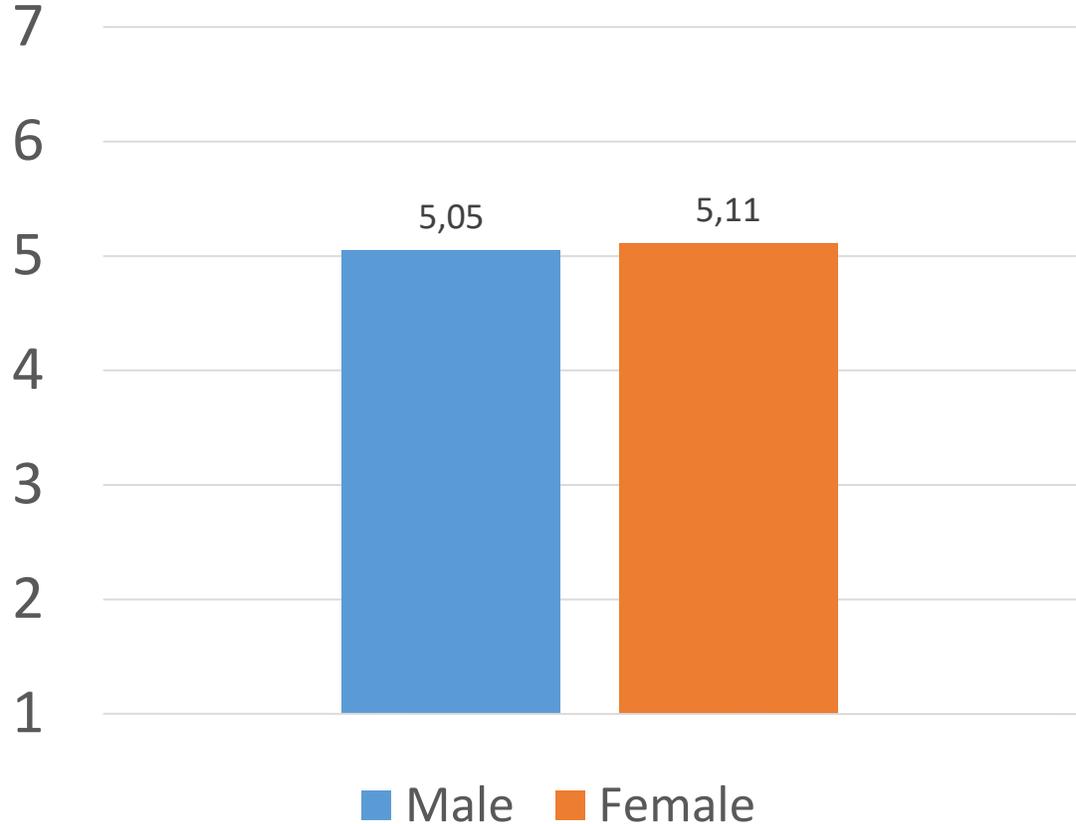


rent infrastructure available.

od enough, differences male female preferences?



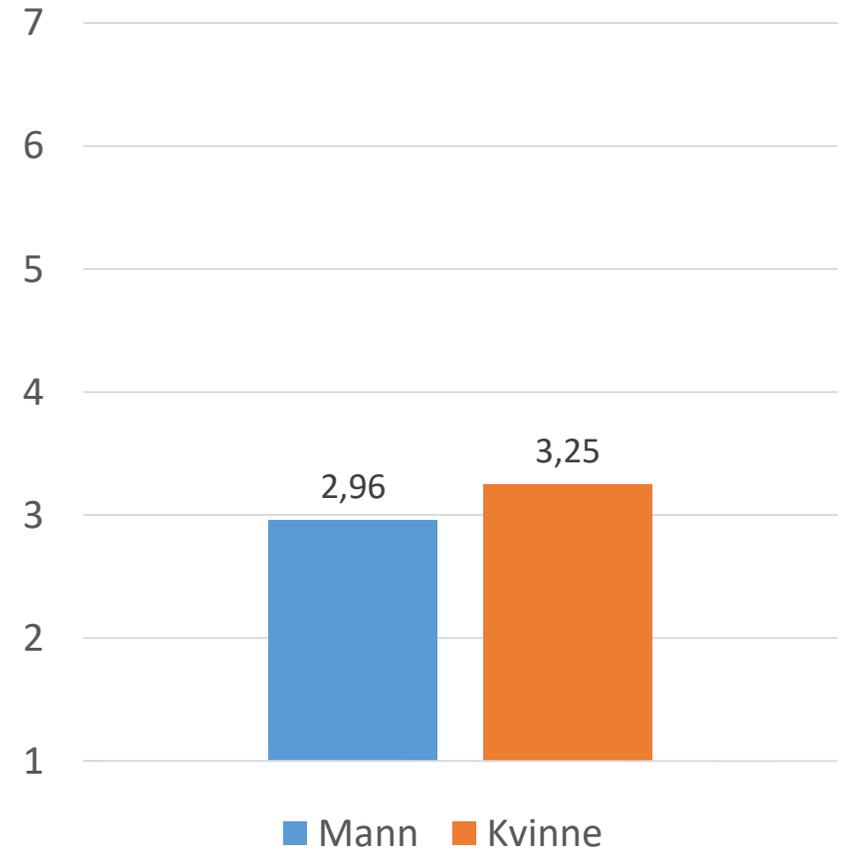
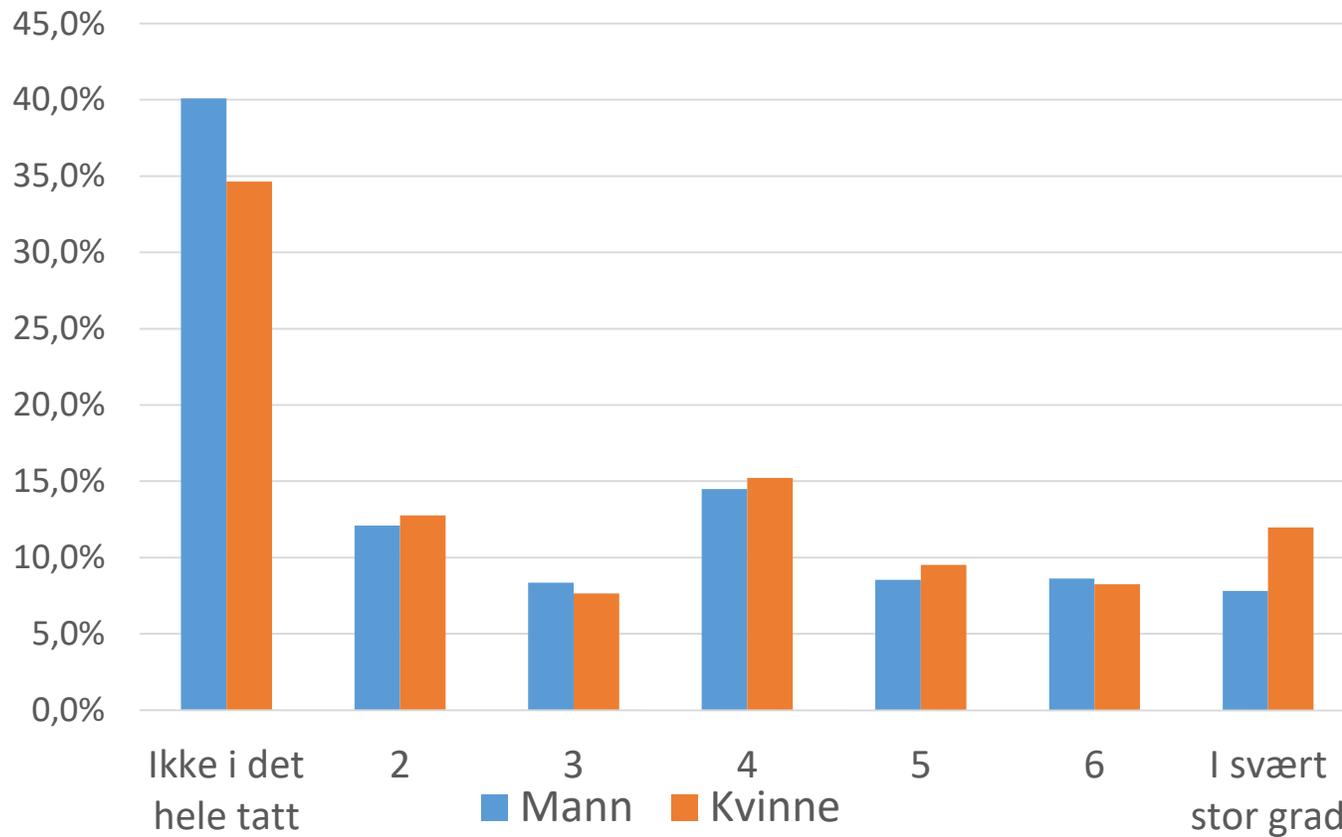
Sense of unsafety



Avoidance

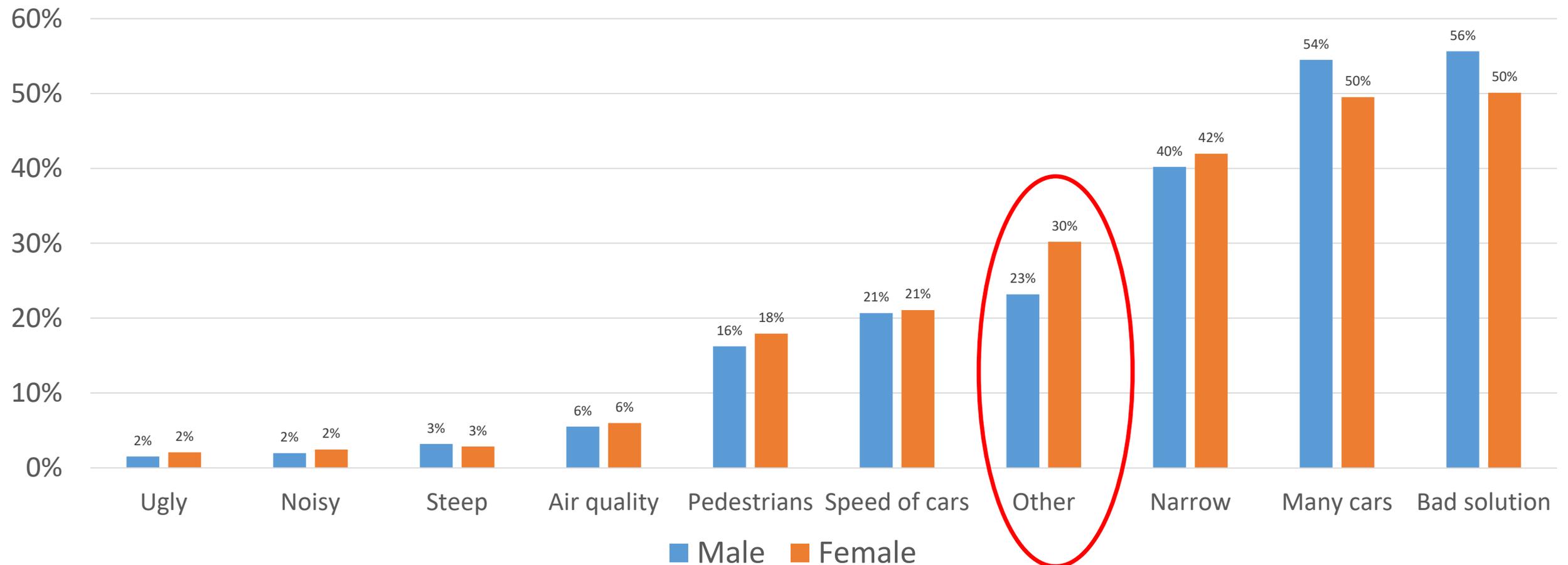
To what extent do you avoid this place?

Sig. |



Mapping the problems

What are the most important reasons for this place being problematic according to you?



General level of safety

Male: 4,9 male, female 4,5 on 7. scale

Involvement in accident?

YES; 60,1 % male/ 30,2 % female

Are there any **streets, roads or crossings** in your city, which you have experience with, and perceive to be **uncomfortable or difficult** to bike?

YES: 60% male, 64% female

NO

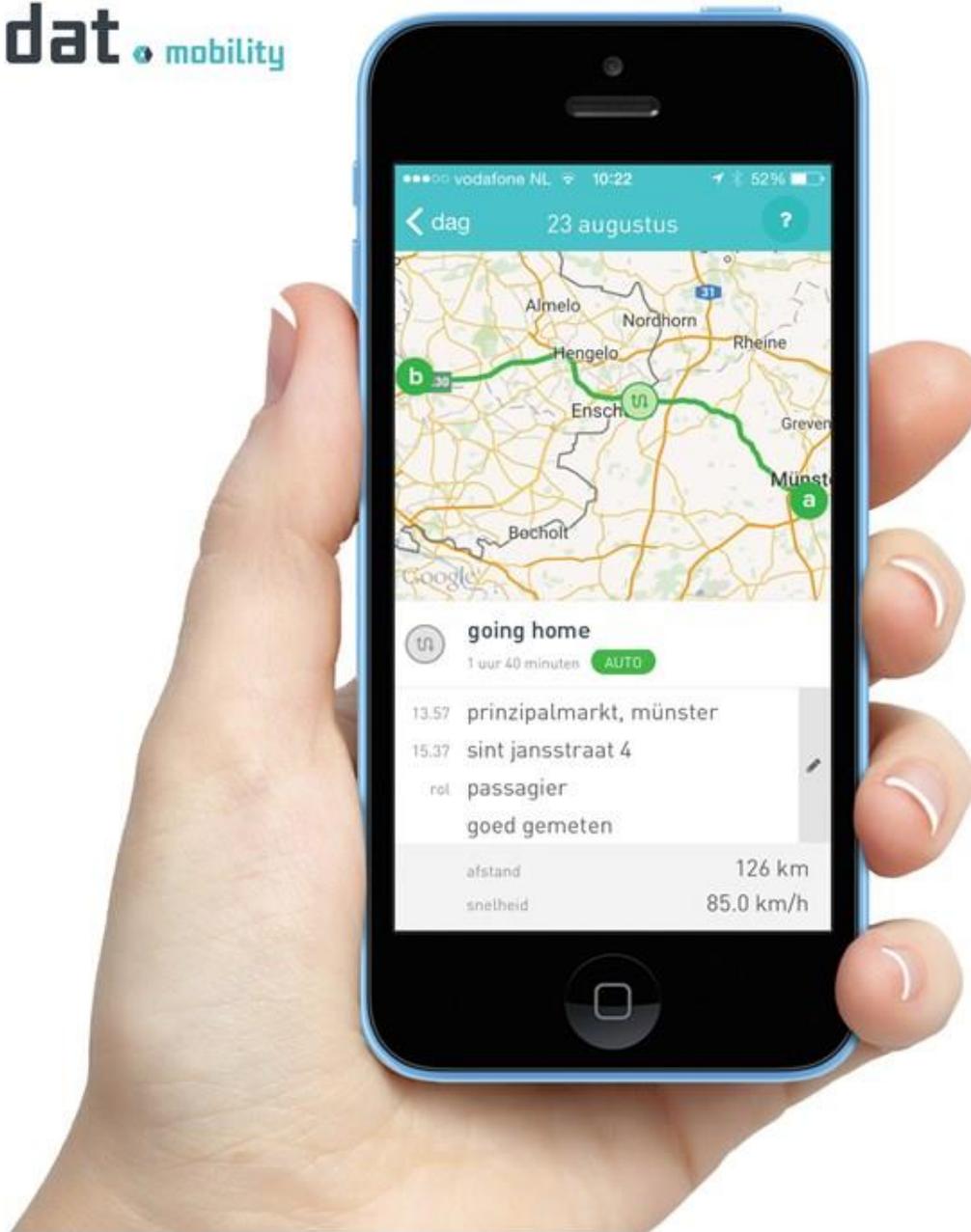
- level of unsafety is high
- 5.05 male, 5,11 female (non sig.)
- Avoidance is average 2,96 male vs 3,25 female (sig.)

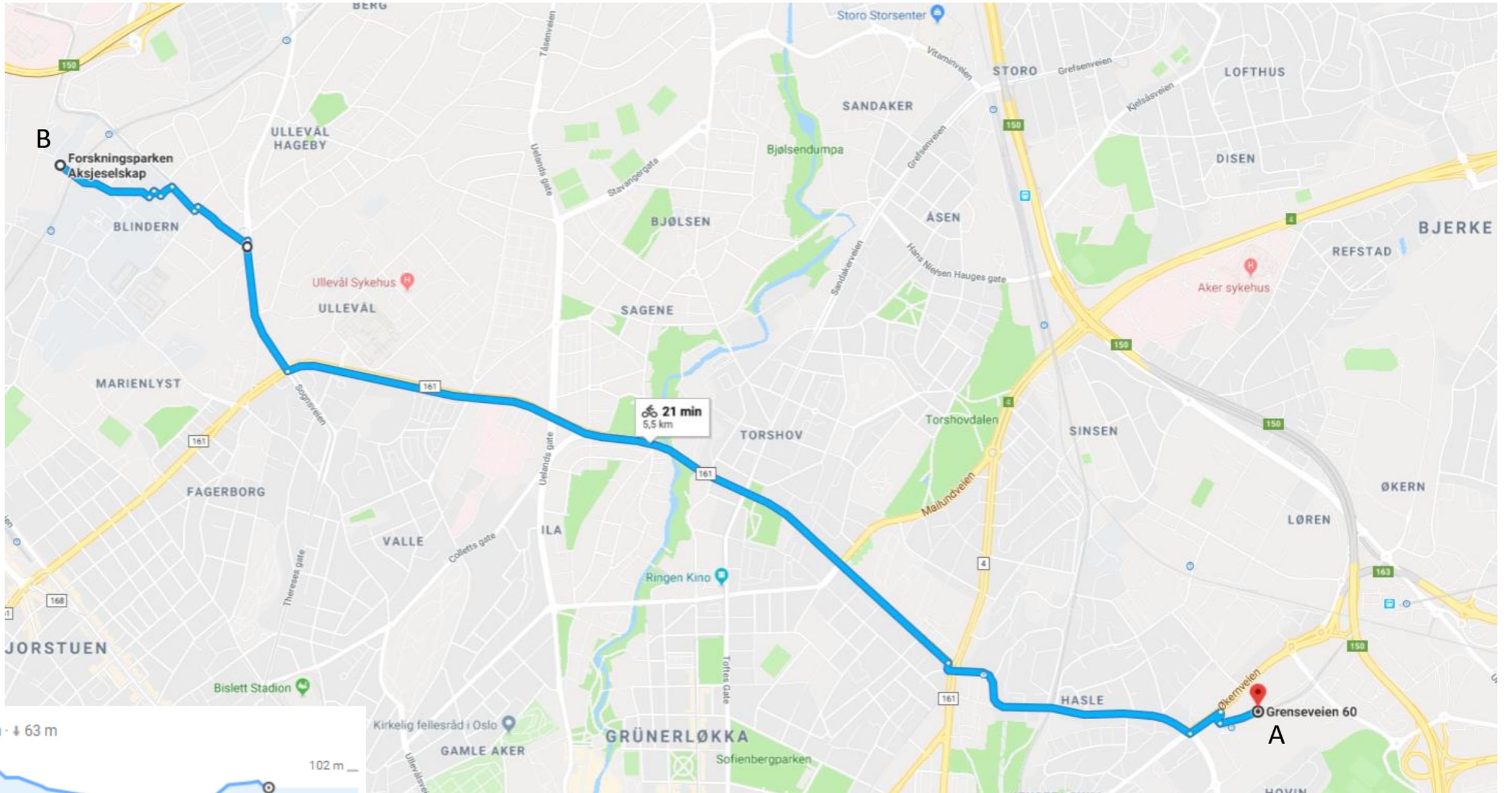
Conclusions

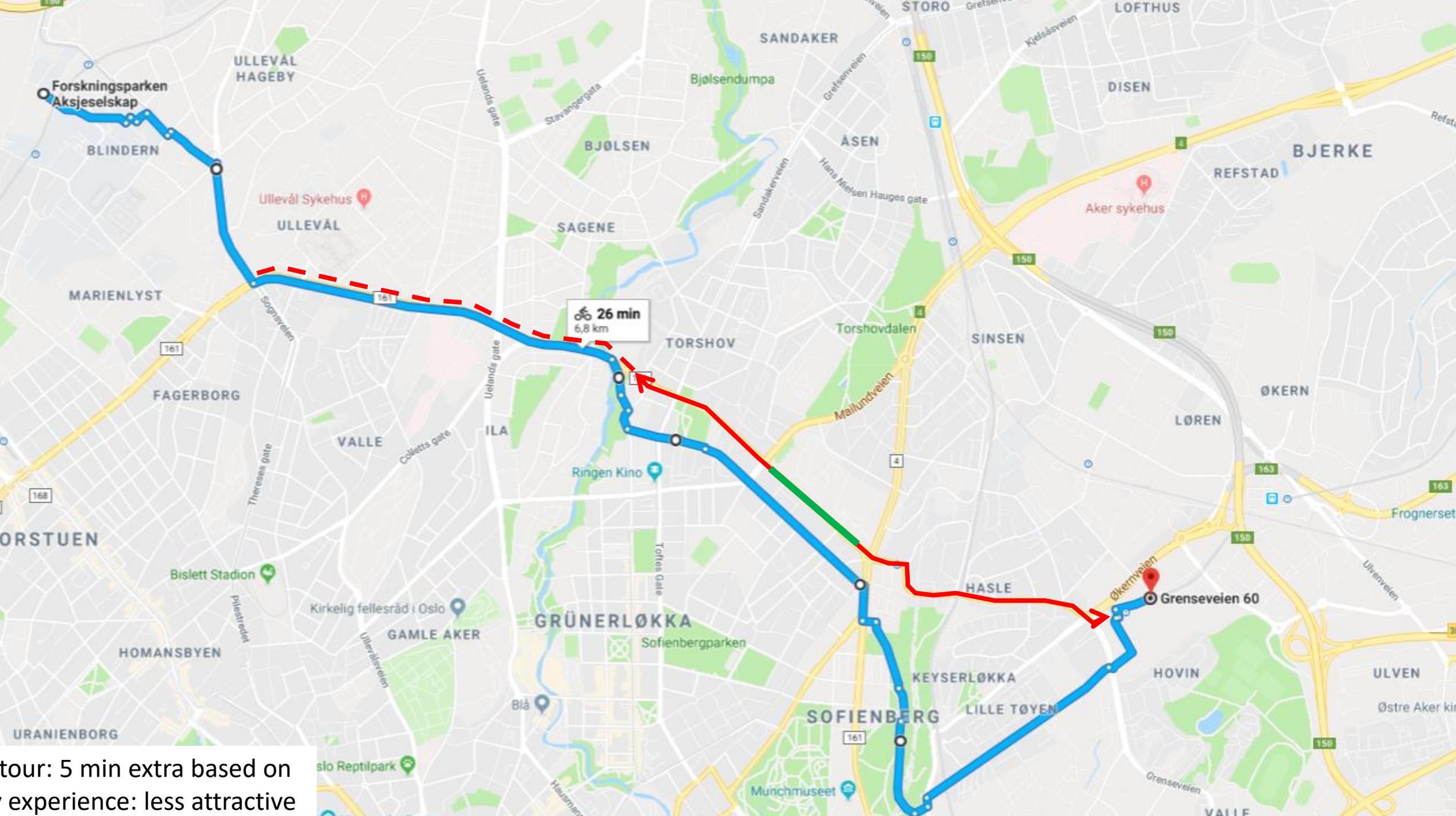
- Female cyclists feel *more unsafe* while cycling.
- Women report a greater degree *feelings of uncomfort* while bicycling. (sig)
- Women report feeling *afraid* in these places (not sig.)
- Women *avoid such areas* more than men (sig)

Rutevalg

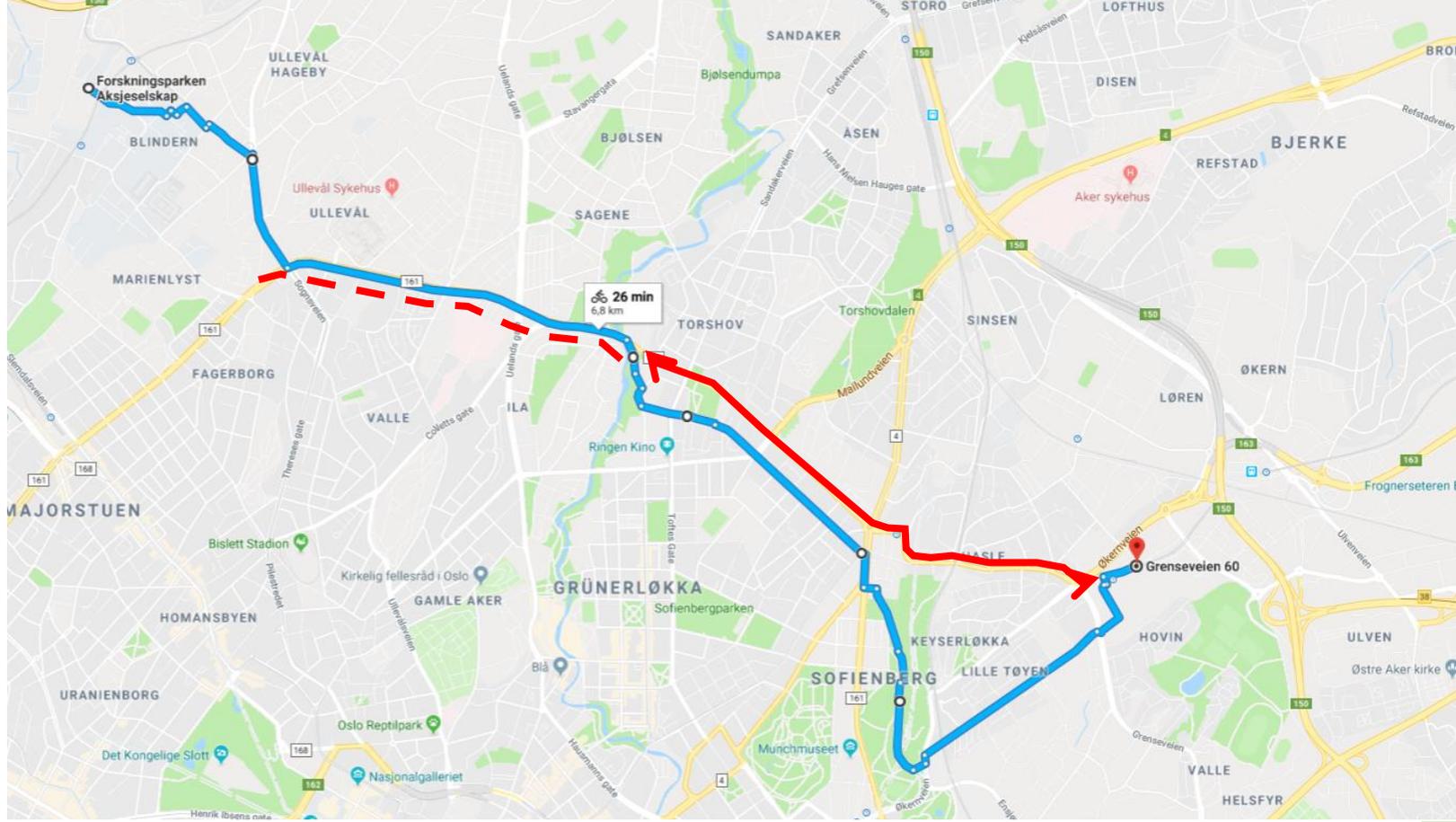
dat mobility



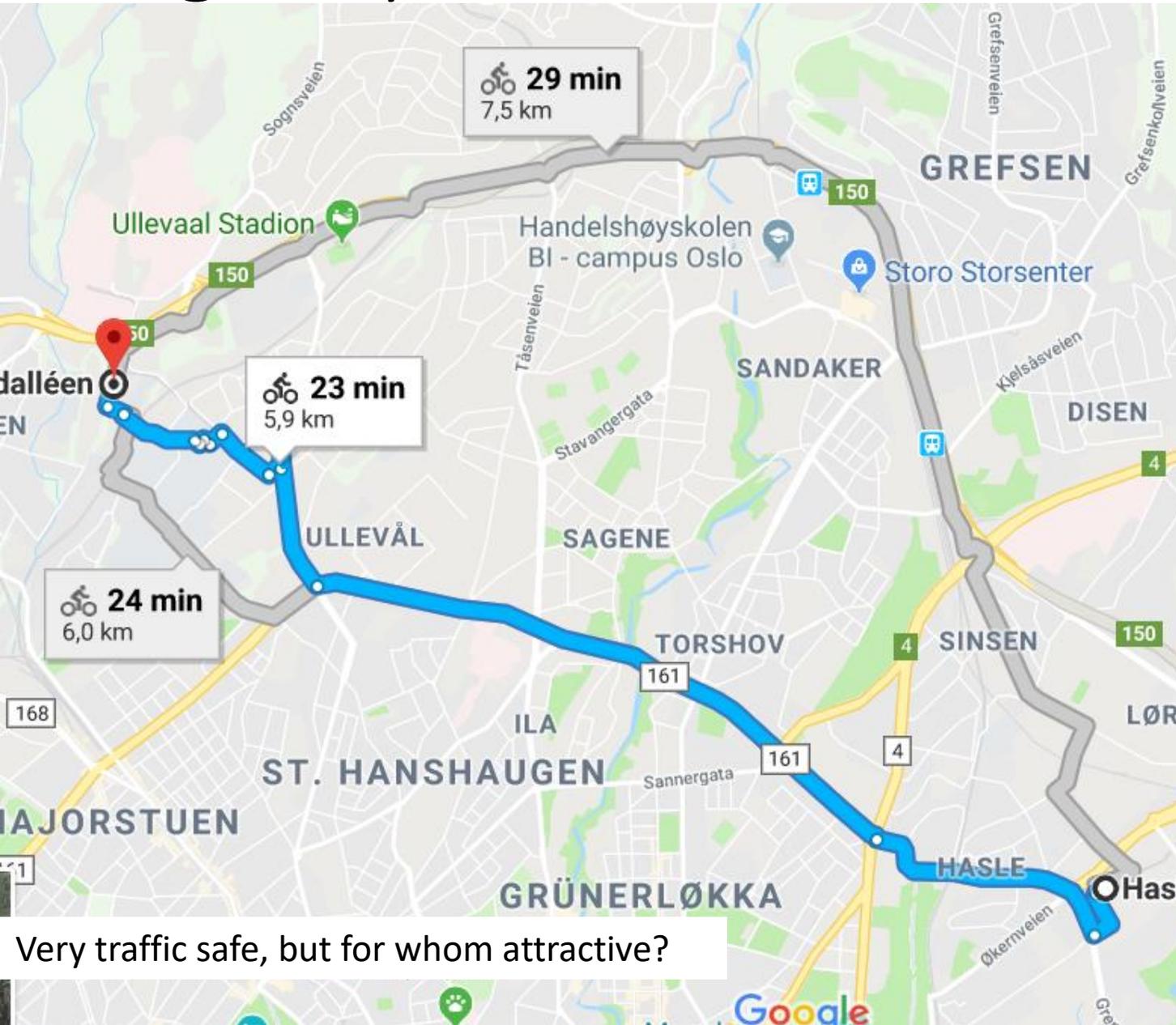




tour: 5 min extra based on
experience: less attractive

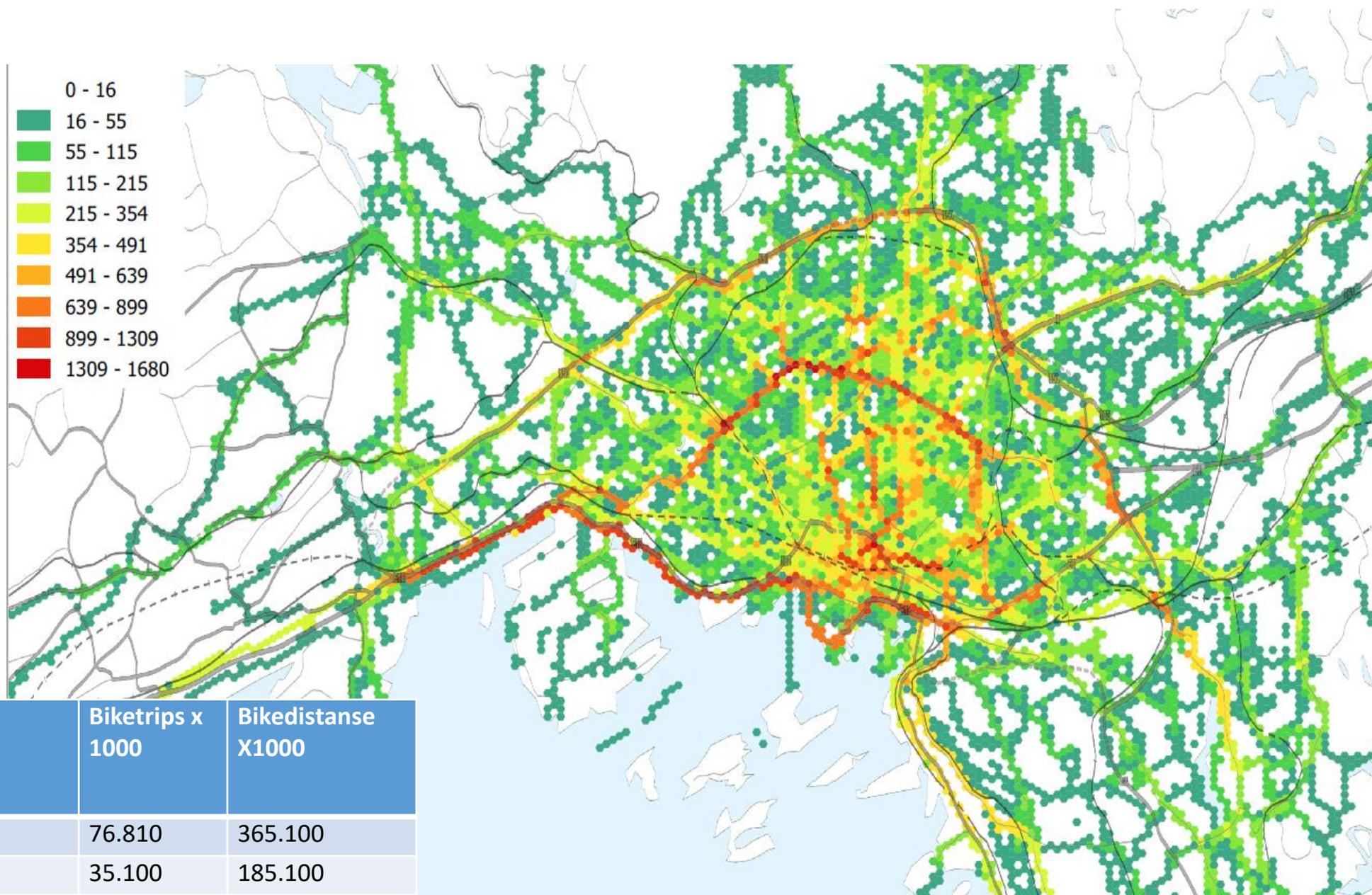


Highway routes

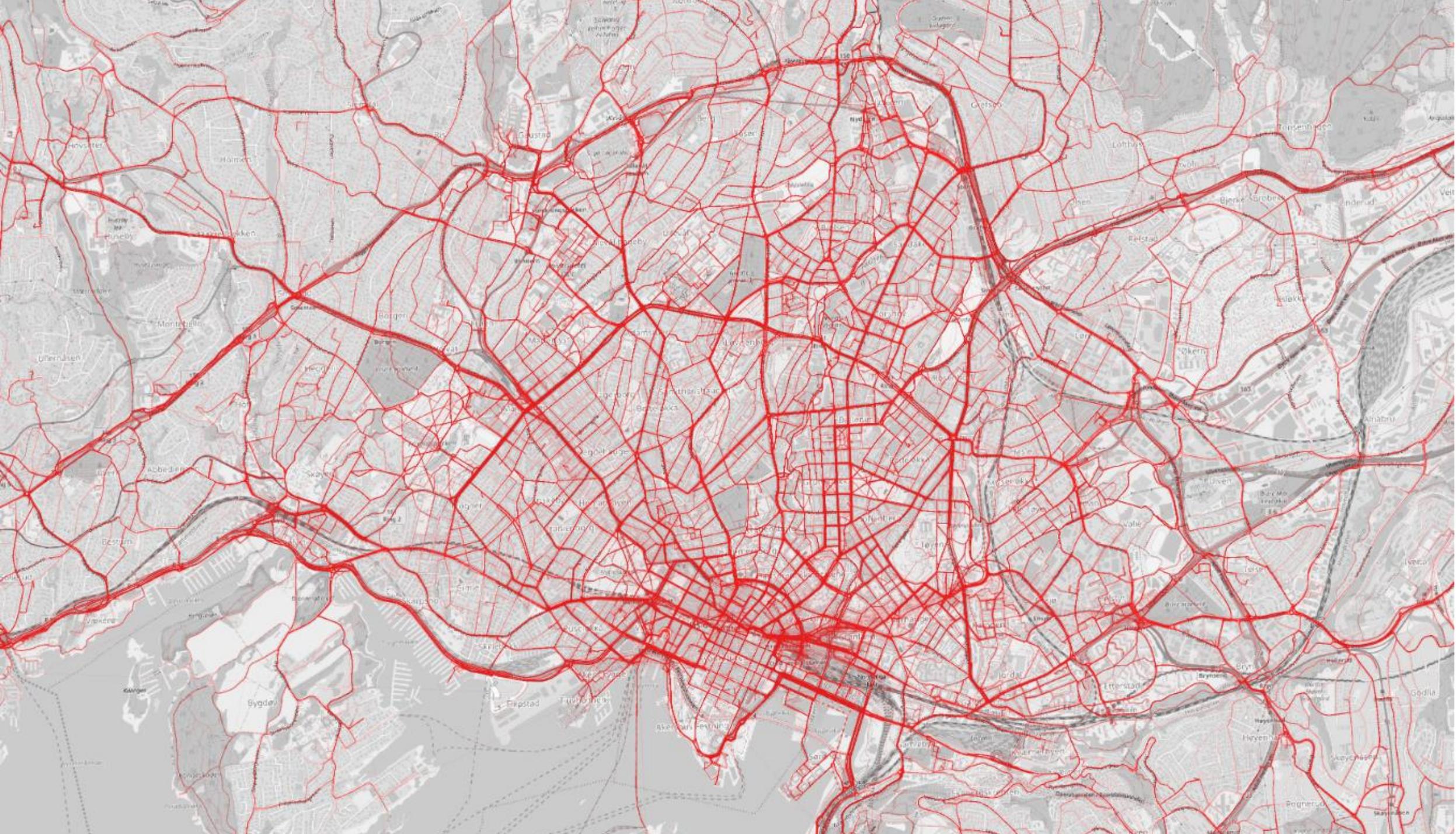


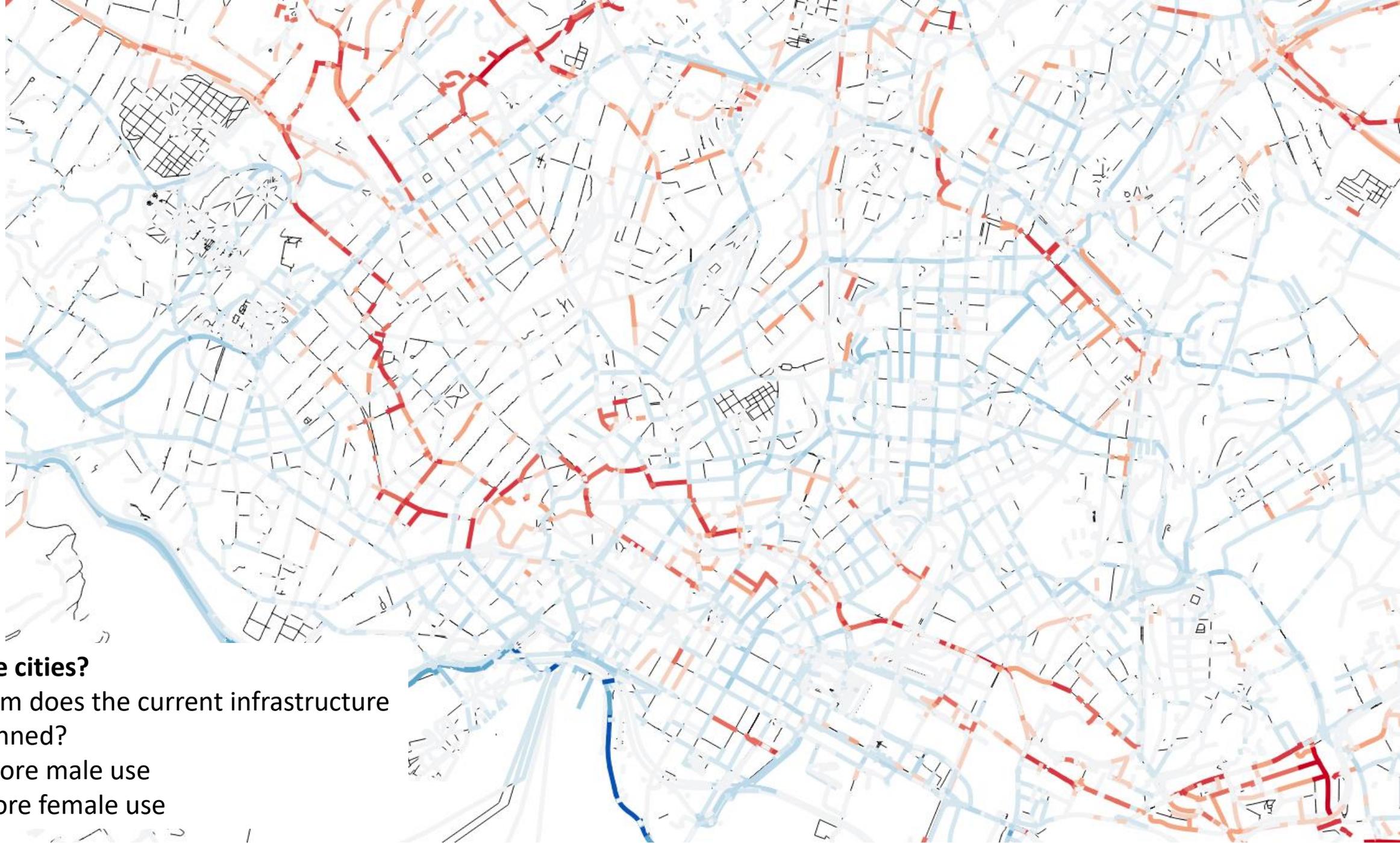
Very traffic safe, but for whom attractive?

Cyclists behaviour Oslo



Datsettet	Users (all cities)	Trips	Biketrips x 1000	Bikedistanse X1000
2017	2310	728.100	76.810	365.100
2018	1207	348.100	35.100	185.100





Inclusive cities?

For whom does the current infrastructure gets planned?

Blue= more male use

Red= more female use

Future work

Built characteristics.

Thank you!!