

Deliberative mini-public's statement concerning transportation's emission reduction measures in Uusimaa region

INTRODUCTION

Uusimaa has a goal of carbon neutrality by the year 2030. In order to achieve the goal, transportations' emissions need to be reduced, since they form around one third of the region's total emissions. Helsinki-Uusimaa Regional Council and researchers convened a deliberative mini-public to examine emission reduction measures that are a part of the implementation the Helsinki-Uusimaa Regional Climate Roadmap. There were three main themes: lowering the vehicle-kilometers created by passenger cars, promoting walking, bicycling and public transportation and supporting the transformation of transportation's driving force.

The mini-public had 32 participants from Uusimaa region. The invitation was sent for 6 000 randomly selected persons from which around 400 volunteered. From the volunteers 40 persons were selected with stratified random sampling so that the mini-public had attendees that differ in age, profession, the selection of transportation and residency of Uusimaa region's municipalities. The mini-public was organized during four days in April. The mini-public deliberated different measures' impact, social justice and preconditions and had experts performing. Below is the mini-public's statement divided into five themes.

THEME 1: LOWERING THE VEHICLE-KILOMETERS CREATED BY PASSENGER CARS

The mini-public stated that the measures that target to lower the vehicle-kilometers created by passenger cars should foremost be based on incentives and that coercive means should be the last resort. Measures should be equal, in other words, they need to consider for example the differences in geographical features and the target groups' socioeconomic statuses. Currently the measures are fairly unequal. For example, measures targeted to localities or sparsely populated areas are nonefficient or create unreasonable disadvantages.

Decision-making needs to hold on to local thinking. In population centers where it is possible to act immediately to lower the vehicle-kilometers created by passenger cars, measures need to be taken. Not all areas need the same measures since localities and population centers have individual needs. Reducing passenger car traffic requires functional public transportation. It is important that the whole Uusimaa region gets a functional cross traffic and feeder traffic.

This way the measures to improve public transportation are in every way desirable since they lower the vehicle-kilometer in an equal way. Municipal and governmental finance for public transportation enables privately unprofitable routes and transportation in other than just financially profitable routes.

The mini-public also raised a question concerning the need to lower the vehicle-kilometers creates by passenger cars since it will become emission-free when electric cars become more common. However, it must be noted that the production of electric cars also creates emissions. This topic relates also to the topic of subsidizing the purchase of electric cars.

On one hand, the mini-public thought that all the measures lower the vehicle-kilometers created by passenger cars if they are implemented correctly: the implementation needs to be equitable, efficient and just. In addition, the mini-public discussed lowering city centers' speed limit (30 km/h).

Congestion charges in the metropolitan area

Concerning congestion charges in the metropolitan area, the deliberative mini-public emphasized **a)** where would the borders of the charge be and **b)** to what would the raised funds be used to. The borders of the

congestion charges impact significantly the mini-public's views concerning the issue, if the charges would create unacceptable harm to those travelling to the metropolitan area. Implementing the congestion charge system creates significant changes, which sets demands for urban planning (for example, park and ride infrastructure, public transportation). Some participants supported a wide congestion charge area when others thought that Ring III is unnecessarily large area and thus congestion charges should be directed to traffic that heads to Helsinki's city center (the border could for example be at Tullinpuomi). Some exercise of trade demands driving and should thus be considered for example to get discounts or solid and one-time charge, so that the professional can enter the area without a charge. The mini-public also presented that the charges should not concern exercise of trade at all. Commuting done by professionals whose job description does not require the use of car, should not be considered viable for the discount.

Congestion charges have positive and negative qualities. One advantage is that they can calm down the city center and they encourage to use the public transportation. Congestion charges would help to evolve the city center more into a place of leisure instead of a place of passage. This could even increase the number of customers in stores, especially in the service sector.

The charges could also encourage people to take care of multiple errands at the same time. However, congestion charges have an unequal impact. One question that also raised a discussion was the question if there will be charging inside the congestion charge area or will the charge be collected once from the person who enters the area during a specific time of the day. And if the charge's amount will be the same for all or if socioeconomic status will affect the amount?

In addition, it was stated that the congestion charges should not apply to people who have a need for care (for example, recurring trips to a hospital). It was suggested that for a starting point, an experimental model would be executed and then improved based on experiences. Stockholm's congestion charge system could be used as an example.

The question concerning the congestion charges did not achieve unanimity within the mini-public and thus was put into a vote. 14 participants supported congestion charges and 14 were against. Four of the participants did not make a clear statement concerning the topic.

Parking policy that encourages sustainable modes of transport

Concerning commuter traffic, parking spots can be reduced if the further development of the implementation of congestion charges' infrastructure and public transport will be carried out sufficiently enough.

Residents of cities also have cars that are rarely used and thus they do not produce a lot of emissions. Therefore, the limitation of resident parking or raising the costs of it will not instantly reduce emissions. However, raised costs can also lead to giving up of a car totally.

Reducing the amount of parking spots works as a primary policy instrument in urban areas, but it does not apply to sparsely populated areas. In order for policy instruments encouraging sustainable modes of transport to work, the amount of park and ride systems should be increased, and it should be free. This is an excellent incentive to use public transportation. Park and ride system is functional solution especially with rail traffic.

Let's increase carsharing

Carsharing usually indicates the services provided by commercial actors. The system is the same as renting electric scooters. In addition, housing companies can get their own carsharing systems. There are new operations models such as platforms for private individuals who can carshare (Airbnb of cars). The functionality and infrastructure needs of carsharing could be mapped by the government and private sector in shared Public Private Partnerships. In addition, it could be appropriate to electrify shared city bikes in localities.

Parking spots that are easily accessible and specifically meant for these cars promote carsharing. Renting a car should be easier and they should be located nearer. In addition, companies can provide carsharing system for their personnel.

The mini-public thought that one challenge of non-commercial carsharing (for example, housing companies' cars) might be in worse shape, if there has not been an agreement on maintenance or insurance. Because of this, there was raised a worry, if the use of carsharing is realistic in real life. However, some participants believed that carsharing has a future since they can be a realistic option for example for young adults, students and other groups, who do not have the possibility to buy a car. Carsharing could be a functional solution for example for student residential properties and for other cohabitation systems.

Carsharing can have a future as a commercial action in areas, where is big enough population density and utilization rate such as in cities. There has been commercial experiments and it would be beneficial to examine why these have failed. The mini-public also raised a question if carsharing is in competition with taxis and if carsharing has a competitive ability especially in sparsely populated areas/localities. The mini-public thought that non-commercial carsharing is the more realistic option in sparsely populated areas.

Workplaces carry out actions to lower vehicle-kilometers created by passenger cars

The increase and possibility of remote work, benefits offered by the employer concerning public transportation, carsharing opportunities and benefit bikes (including electric bicycles) provided by employers are supportable actions. However, it should be noted, that executing this kind of model is not possible in all professions and thus is potentially unequal. In addition, it should be noted, that someone always pays for the benefits that the employer offers.

Instead, parking that is subject to a charge and/or increasing charges might create a negative backlash. One identified challenge was that government would steer private sector to raise their charges, which would benefit the private sector at the expense of the consumer. In addition, it is not thought that this action is a working policy instrument since the employee has to get to work anyway which leads most likely to a situation, where employee has to pay the raised charge. On the other hand, this action has been identified to be somewhat working policy instrument.

In conclusion it can be stated that the measures targeted to lower vehicle-kilometers created by passenger cars require that public transportation is equally offered to different areas while at the same time taking into consideration the differing needs of the areas. Alternative solutions should be easily accessible regardless of the person's socioeconomic status. The movement of people needs to be possible.

THEME 2: THE CHANGES IN TRANSPORT FUELS

The mini-public states that in the light of the current evidence, the electrifying of passenger car traffic is essential part of transforming passenger car traffic to more sustainable way of transportation. Political decision-making should steer and encourage consumers to use electric cars if possible. However, the environmental impacts of the production of the batteries and the sustainable production of electricity must be noted. Also, one must consider the availability of electricity in the future, the development of the electricity's prices and societal security of supply. In addition, there was a worry raised concerning the possible need for more nuclear power because of the needs of electric cars. Some participants did not think that this was a problem.

The precondition is that the electrification and biofuels transition takes into consideration the geographical and socioeconomic status. The transition has to be a realistic alternative for all. Those who have a lower socioeconomic status or live in sparsely populated areas should have longer time for the transition since they have practical limitations such as the lack of charging infrastructure, unfunctional public transportation or financial challenges.

Political decision-making should promote efficient use of biofuels in road traffic, especially during the transition phase of the vehicle fleet. Based on research, the mini-public does not think that the use of biofuels in passenger car traffic should be a permanent solution in large scale. However, it is a partial solution since traffic cannot electrify fully. Biofuels can be used in the long-term in heavy traffic in which electrifying is hard to implement.

The building of biofuels' production plants should be encouraged. Finland's own biofuel production would also improve Finland's security of supply. Biofuels should be produced from the byproducts of industry and agriculture and forestry and from domestic waste. The mini-public thinks that it is not appropriate to carry

out new cultivated area to produce biofuels. It is important, that the import and production of biofuels is based on a sustainable basis. For example, the production of palm oil causes to cut down a lot of rainforests.

Financing should be targeted to the support and development of material and battery technology. Investments to the recycling of battery materials are important. The recycling of batteries lessens the mining of new minerals and thus lowers the burden on the environment. Finding alternative battery materials (for example, from lignin) could lessen the burden on the environment that is created by the production of the batteries.

The mini-public thinks that it is hard to evaluate the efficiency of road traffic's emission trading. On one hand, emission trading can lead to great emission reductions and innovations, but on the other hand the immediate impacts to consumer (increases in prices) can turn out to be unreasonable large.

Increasing emission trading can turn out to be functional with reasonable restrictions; equality, justice and possible traffic poverty needs to be considered. Traffic poverty refers to a phenomenon, where a person does not have an opportunity to move with reasonable effort, moderate costs and reasonable time to those places, where the daily needs are satisfied. If emission trading is implemented, it must be perceived that it does not create unreasonable impacts to people with low income.

Advancing the charging infrastructure of electric cars is vital, so that the electrifying of car fleet is possible. Charging points should be broadly available in housing companies, workplaces and public spaces. At start, it might be rational to limit the state's responsibility to enhance charging infrastructure based on the efficiency, for example focus could be on the routes that are the most in use.

Financial support that eases the acquisition of electric cars should be bettered and targeted to more inexpensive electric cars (15 000 – 35 000 €). The acquisition of electric car with inexpensive and supported leasing payment system could be possible. For example, during spring 2022 there was a week-long campaign, where Peugeot e-2008 electric cars were available with leasing price of 249 €/month. If the price is supported by public economy, the price would be even lower for the consumer. During the transition phase, there should be different kinds of financial conversion support, so that vehicle fleet could be transformed to be biofuel-fired.

The scrapping premium system should be continued. There is a need for communications about scrapping premium system and about how it is possible to get financial support from the state in order to transform internal combustion engine car to gas- or ethanol-fired car. The mini-public also made a suggestion concerning tax reliefs for biofuels and especially for biodiesel.

THEME 3: PROMOTING PUBLIC TRANSPORTATION

It is very supportable to develop public transportation in Uusimaa region, both in rural and urban areas, since low-carbon transportation solutions require public transportation that is significantly more functional than currently. Currently the coverage of transportation differs greatly depending on the parts of the regions and it is not realistic alternative for private car use outside Helsinki because of, for example, routes and schedules.

For public transportation to work, it should be easy to use and comfortable. Schedules should be made functional in the whole Uusimaa region and they should be streamlined so that the waiting times can be minimized. In addition, adding shifts would make changes quicker. It would also be important to coordinate different public means of transport's schedules. Currently, changes make trips challenging. There should be more direct lines. Travelling time should not become unreasonable, but people should also understand, that climate-friendly transportation can be slower. During rush hour, regional traffic's express buses could be taken into use, it could for example quicken commuting. In addition, it is important that public transportation's trunk lines are secured especially in commuting. Something that could also be considered is opening again closed stations such as Nuppulinna. The mini-public highlighted also for example continuing the train service from Kerava to Sipoo and the one-hour train to Turku. Connections should be made more functional to smaller regions. It was suggested that society should support public transportation through ticket prices. However, it is worth to consider, how profitable public transportation is in sparsely populated area.

Decision-making should utilize research from other countries when planning public transport street. Public transport streets can be a functional way to decrease traffic, but in practice this is limited to bigger cities' centers.

Public transportation's departures can be supported by, for example, invitation-based transportation. It is challenging to execute market-based public transportation in sparsely populated area, but as a service that gets public support it has potential.

The fluency of services could be improved by information technology solutions. Village ride service needs to be developed and supported. Village rides require that drivers and cars have other runs, for example driving schoolchildren and other publicly and financially supported transports. The mini-public also suggested connecting the voluntary sector to the activity.

The mini-public endorses supporting park and ride possibilities and them being free. Park and ride should be free especially in sparsely populated areas. On the other hand, payment for park and ride could work as a ticket in areas where it is not free. There should be charging infrastructure near to the park and ride.

In cities, traffic arrangements such as traffic light benefits, trunk lines and public transportation lanes that quicken public transportation are seen as important actions. Quickening the regional traffic is also an important action because it makes public transportation tempting for new people. Electrifying public transportation is also a supportable action.

THEME 4: PROMOTING WALKING AND BIKING

The mini-public states that it is extremely supportable to promote walking and biking. Its framework needs to be in good shape so that the possibility to choose is real. There are no negative impacts, but maintenance requires resources. Positive impacts are, for example, incidental exercise, economy and reducing the usage of cars. However, questions were raised concerning the issue, how can we take into consideration those people who are not able to move around by walking or cycling.

Walking and cycling can be promoted by the following actions:

There needs to be safe and guarded places to store bicycles near railway stations (e.g., Tripla's bicycle park room). There needs to be maintenance points near to these, such as pumping and quick maintenance services. These exist already in numerous subway stations next to bicycle parks when going east from Ruoholahti. Bicycle spots need to be added to trains, so that bicycle-train option is possible.

The all-year maintenance of walk and bicycle lanes needs to be secured. The mini-public wondered if Oulu's model of winter maintenance could work also in Helsinki (e.g., bicycle center). In practice, it can be challenging to upkeep bicycle conditions all-year (cf. Amsterdam and other similar cities, where weather conditions are more favorable). In winter, the upkeep of bicycle lanes might be challenging, since maintaining all-year infra might not be profitable.

New and good walk and bicycle routes need to be increased where possible. Security needs to be increased by, for example, widening hard shoulders in sparsely populated areas. In ideal situation, existing lanes need to have cycle lane to increase their usability's attractiveness.

The surrounding of schools needs to be made as car-free as possible to promote children's independent traveling by cycling and walking. In that case, trips to school made with parents by car decrease. Separating cyclists from walkers to their own lanes increases security. Security is also enhanced by increasing traffic education for example through schools' traffic education so that traffic regulations are known by all walkers and cyclists. In addition, it is important to actively communicate traffic etiquette to all people using traffic. Widening the use of city bikes got support and it was also suggested that there would be electrically-assisted city bikes. Some attendees suggested that city bikes could even be free. Not all attendees shared the same views concerning city bikes. During the discussions, the speed limits to bicycles in densely populated areas and licenses for cyclists or possible surveillance were also brought up. Also, breathalyzers for cyclists were suggested as well as license plates for cyclists that could also possibly prevent thefts. Attendees disagreed on breathalyzers, licenses and other suggestions that make cycling more difficult since it was thought that extra cost factors, surveillance, maintenance etc. negative actions would most likely decrease cycling.

Concerning city bikes and electric scooters, it was stated that breathalyzers could be useful although technically challenging solution.

It is possible to ride long rides with electrically-assisted bikes. Electric bicycles are also a lighter way for example for elderly people to cycle. The mini-public contemplated that the processing of bicycle thefts need to be advanced. The traceability of bikes needs to be enhanced. Though the availability of electric bikes is currently poor.

THEME 5: OTHER ACTIONS

In addition to the suggested actions, the mini-public discussed other possible ways and innovations that are directed to urban and construction planning and services, actions that make daily life easier and other comprehensive actions.

Urban and construction planning and services: Land use planning needs to take into consideration securing smaller areas' adequate supply of services in order to reduce longer travel needs. With the use of renewable energy sources, especially solar and wind power, it is possible to generate electricity more self-sufficiently even in urban areas. Building regulations could be changed so that it motivates to invest in wind and solar power already in the phase of construction. This change could support the electrifying of vehicle fleet. In addition, electricity will not presumably be the only energy source for cars in future.

Geothermal heat and uptake of waste heat as a heating solution for residential buildings saves energy for the needs of transportation. It should be invested in these during the construction and renovation.

Carbon sinks such as preserving cities' green belts is important in order to reduce net emissions.

Solutions that make everyday life easier: Hobby and exercise possibilities should be concentrated to shorter distances, for example connected to schools after the school day. This would reduce the need to drive kids to school with car after the workday. Municipalities should support action that reduces the need to travel and eases families' use of time by offering free slots for hobbies in schools and in other suitable spaces and support carpooling to hobbies.

Transport services could be used to reduce vehicle kilometers with, for example, home delivery of purchases and services. Transportation's vehicle kilometer can also be reduced by increasing so called route day thinking where transportation day and the availability of services is known beforehand. In this case, for example, a whole neighborhood could get their purchases home delivered on the same day.

Carpooling should be supported by leaving it outside of tax consequences when the activity is not professional.

The mini-public also raised up the topic of the use of digitalization and platform economy in order to promote smart mobility and reduce the need for transportation.