

Summary

Measures to reduce emissions from transport of rock and soil masses in Oslo

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In order to achieve the emission reduction targets in Oslo, there is a request for more measures and instruments aimed at transport of rock and soil masses. The Institute of Transport Economics, commissioned by the Department of climate in City of Oslo, has conducted a survey and interviews with relevant industry players to get their input on possible measures for mass transport in Oslo. The players are concerned with environmental issues, but are split about what would be the preferred solution and what measures were most relevant to the industry. The actors involved in rock and soil masses transport in Oslo are a mixed group, and the divided view on measures is possibly explained by the fact that some measures that could be positive for one actor may be negative for another.

Assessment of measures

Measures could reduce emissions by reducing the amount of rock and soil masses to be transported, reducing the transport distances or transporting in ways that result in lower emissions per quantity. Various assessments of measures were expressed in the interviews. Although everyone was positive about measures and several of them talked about their own projects to become more climate and environmentally friendly, they emphasized different measures.

In the survey, respondents were asked to assess how relevant a selection of measures were to the industry by 2025. The responses show that respondents were generally a little pessimistic about the proposed measures, but there were also always some who thought the measures were very relevant. Measures that we consider to require minor change among the industry player were considered most relevant. The measure that was considered most relevant was the use of surplus masses for new landscapes and parks, etc. The measure that fewest meant was relevant was increased use of other means of transport such as trains and boats. Several of the measures considered would require involvement from the municipality.

The fact that both the respondents of the survey and the interviewees are divided in their view of what are the best measures can reflect that they make up a mixed group who will be affected differently by the measures. Measures may be positive for some, but negative for others. There are both very large and many smaller enterprises in the market. There are some who only order transport, while others carry out transport for their own and / or others' projects. The different type of players will therefore often have different incentives and degree of motivation to implement measures that reduce greenhouse gas emissions. For example, we can assume that those who only do transport want to transport over as long distances as possible, since it is their core business. Any reduction in transport needs / distances will in principle mean fewer assignments for them. And opposite, quarries or landfills could profit from being close to the construction activity.

The main challenges for using battery-electric and hydrogen-electric vehicles are considered to be too immature technology as well as costs. Some, on the other hand, were still positive, but using such vehicles today would require reorganization of the logistics. It must then be seen in the context of other measures as possible storage sites and space for reloading in combination with other means of transport. The main challenge for increased use of the biofuel HVO (Hydrotreated Vegetable Oil) is costs.

Challenges distinctive for Oslo

Oslo was considered to have some extra challenges compared to other areas. In the main, there is a large proportion of polluted soils in Oslo and that there are larger area limitation, so any intermediate storage becomes a major challenge. There are also longer distances to quarries and approved landfills for excavation soils because this does not exist within Oslo. Area requirements related to rock and soil masses are perceived as a key challenge for more climate friendly transport of soil and rock in Oslo. This applies to both permanent and temporary areas for intermediate storage, landfills and soil treatment facilities, as well as quarries.

Reports of misconduct

It is not possible to say anything about the prevalence of misconduct in the industry on the basis of data collected in this project, but it was striking how those we interviewed were conscious about misconduct and non-compliance with the regulations in the industry. Comments in the survey also raise this as a problem and it is mentioned as a topic in various contexts. Several of the examples are related to illegal disposal of contaminated soils instead of delivering to an approved landfill. It is also reported that some cheat with documentation for the use of HVO. We therefore consider it appropriate to consider stricter / better enforcement of the current regulation and to consider these issues and possible consequences for any new measures and instruments.

Measures and instruments towards rock and soil transport as part of urban logistics

In this study, actors in the industry have pointed to the following instruments: land use planning, use of public land for logistics purposes (interim storage, etc.), tenders in connection with public construction projects, regulations (inc. enforcement), mapping and access to information on ground conditions and availability of rock and soil masses, digital marketplace for masses, etc. In addition, the role of the municipality role in implementing specific measures and innovation projects is also mentioned. In addition to the ones mentioned above, economic instruments will be relevant to consider in order to accelerate the transition to more climate-friendly mass transport.

A wide range of municipal instruments is likely to be needed to reduce greenhouse gas emissions from rock and soil mass transport. A combination of reinforcing measures and instruments will often be needed. It may be appropriate to use several instruments in the implementation of one measure. In order to utilize the municipal scope for action, it is

probably necessary to integrate rock and soil transport into several different plans in the municipal planning hierarchy.

Many of the issues related to the transition to more climate-friendly transport of rock and soil transport are similar to other forms of freight transport in the city. For example, there are challenges for goods delivery in the city due to a lack of available logistics area in central urban areas, and a need for reloading when using electric vehicles due to shorter reach. Changes in the logistics solutions are needed.

It would be advantageous to see climate-friendly transport of rock and soils in the context of other forms of urban logistics, in order to develop holistic and integrated solutions.