

Night-time deliveries using clean and silent vehicles

Summer 2019



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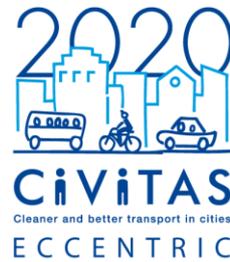
- New delivery routes and scheme
- Clean heavy duty trucks (plug-in electric)
- Reducing traffic, emissions and noise

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 690699.

Location: Stockholm, Sweden

Organisations involved: [City of Stockholm](#)

[Royal Institute of Technology](#)



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What is the solution?

Night-time deliveries with electric vehicles (EVs) offer the opportunity to reduce traffic congestion in the daytime without causing a nuisance to citizens during night hours. The city of Stockholm's regulations currently ban heavy lorries between 22.00 and 6.00 due to noise, a regulation which could be adapted as a result of this measure.

Following a previous pilot project on night time deliveries, the city of Stockholm wants to expand the project with one plug-in electric truck. This measure aims to investigate the effects of goods delivery during night versus daytime and the implications and regulatory requirements of lifting the ban on night deliveries. Depending on the outcome, the measure could be upscaled to a city-wide night delivery scheme that includes delivery with silent heavy lorries. In the long term, this could reduce congestion and noise and improve transport efficiency.

How does it work?

This measure builds on the first off-peak delivery pilot project in the city of Stockholm, carried out between 2014 and 2016. The previous project investigated how the city's night ban for heavy lorries could be lifted using clean and silent vehicles to increase the capacity of existing infrastructure. The trial indicated positive results in transport efficiency and emissions. Morning congestion could be reduced and deliveries were more efficient at night time when streets were free.

To implement the new silent night-time delivery scheme, including the electric plug-in van, a dialogue procurement procedure was set up and the winning consortium consists of Scania, Havi logistics and McDonald's.

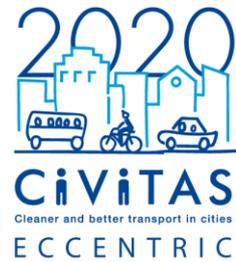
The consortium will test a silent electric plug-in hybrid vehicle for night deliveries to McDonald's restaurants in central Stockholm. Experiences from the previous off-peak pilot show that, in addition to silent vehicles, it is necessary to reduce noise while unloading the goods. Thus also measures like silent wheels on carriers etc. must be implemented.

Operation of the new night delivery scheme is scheduled to start in October 2018 and data collection on performance indicators such as delivery efficiency and noise will be performed during one year of service. Special emphasis will be given to noise issues since fear of noise ruining residents night sleep is one of the main reasons for the general ban on night deliveries in Stockholm.

The data collected during this new trial of night delivery with clean and silent vehicles will be used to support the preparation of a new regulatory framework for night transportation.

Expected results

The expected impacts of implementing this trial for night time deliveries includes more efficient transportation and handling of goods, improved work environments, and effectively addressing noise pollution - thereby making night deliveries possible without disturbing residents and others.



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Business model

This measure receives €340,000 in funding from CIVITAS ECCENTRIC and involves, in addition to the ECCENTRIC partners city of Stockholm and KTH, also the companies Scania and McDonalds.

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