

# Smart Urban Traffic Zones

Part of the flexible city where vehicles move on people's terms

PIN Talk, 2023-05-23



# The project

Smart urban traffic zones aim to create smart solutions in the city that contribute to increased flexibility in how urban space is used, more efficient transport and increased traffic safety. This by using digital tools, such as connected sensors and geofencing.

A geofence is a digitally defined geographical area where vehicles are controlled by digitally set rules, allowing control of how a vehicle is driven within the zone, without human intervention.

19 partners involved (including academia, service providers, transport companies, road authority etc)

Project period: Sep 2020 – Sep 2022  
(A new phase of the project has recently started)





## Innovation Zone Hornsgatan

*Speed adaptation of delivery vehicles depending on the amount of pedestrians in the area*



## Digitally issued exemptions for construction transports

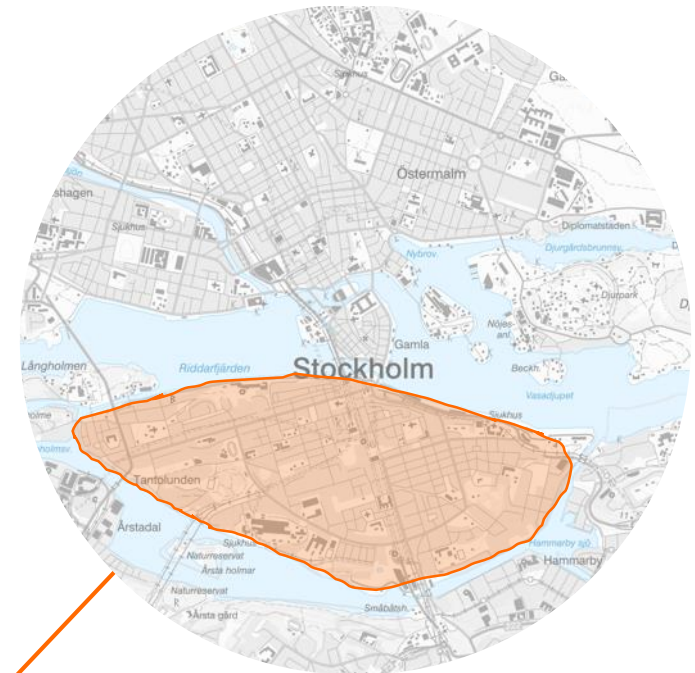
*Increased load efficiency for heavy mass transports through speed limitations*



## Safe construction site exits

*Increased safety for vulnerable road users at constructions site exits*

# Smart Urban Traffic Zones





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# Speed adaption at Hornsgatan with Geofencing



Smart sensors



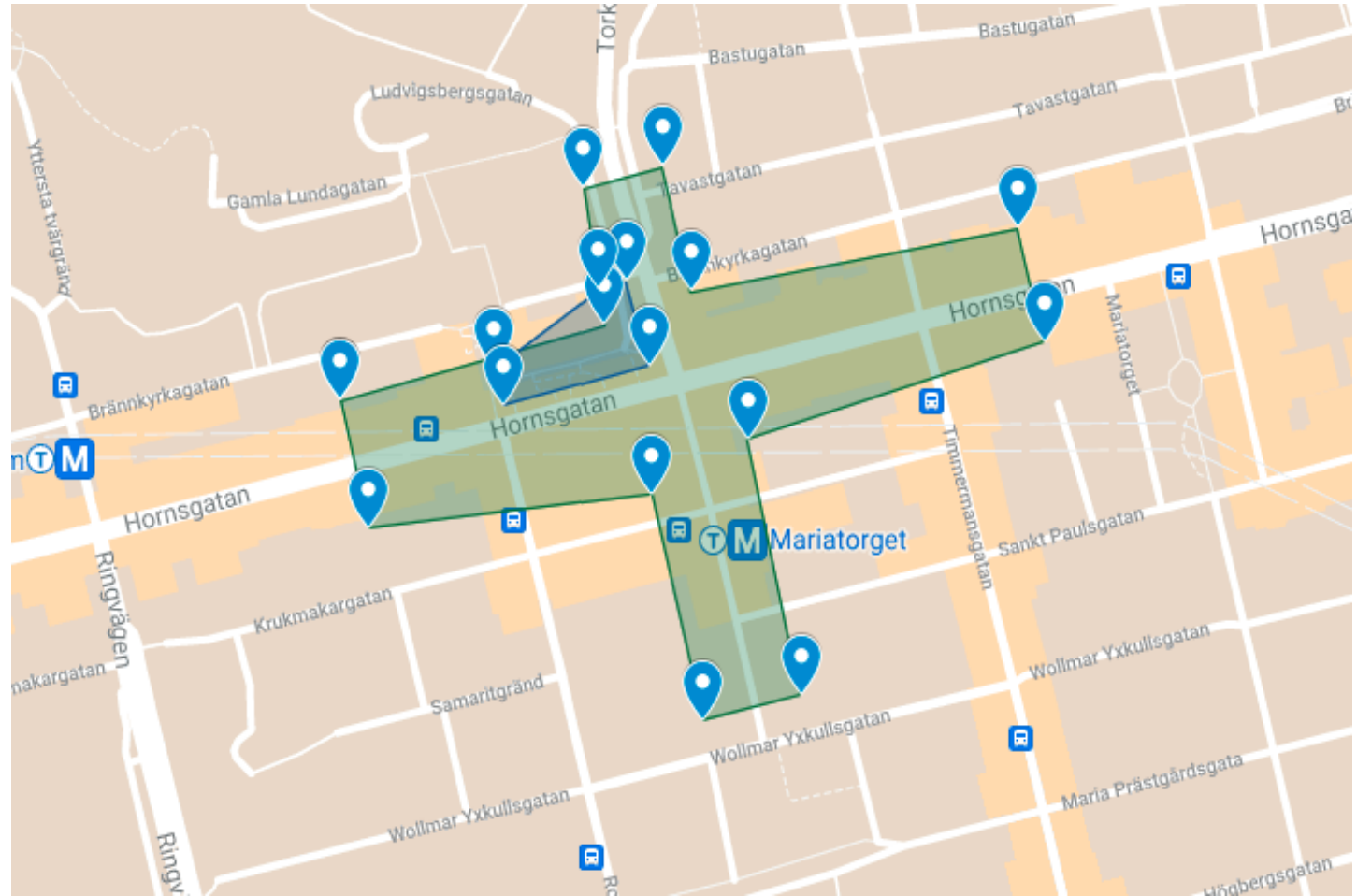
Traffic safety for pedestrians



6 delivery vehicles



Autumn 2021 – spring 2022



# Results, challenges and lessons learned

- Technical feasible to create dynamic speed control of vehicles
- The average speed of the vehicles decreased a bit when vehicles were geofenced to 20 km/h in comparison when geofenced to 30 km/h.
- Drivers generally positive towards the system: less stress
- Development:
  - Larger zone
  - test where speeding problems exist



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# Digitally issued exemptions for construction transports



1 concrete truck,  
load capacity class 1



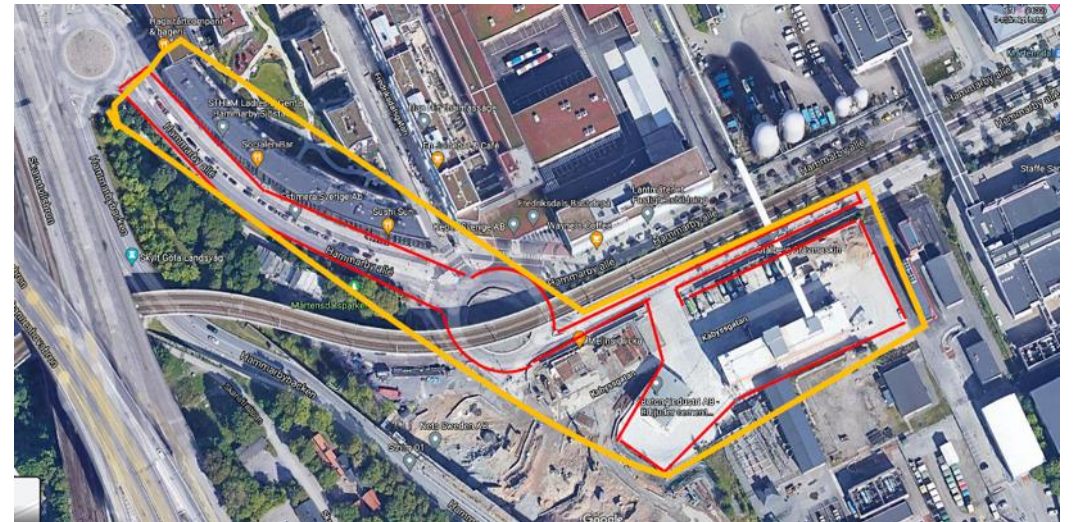
Issued permit



Vibrations, impact on roads and  
buildings

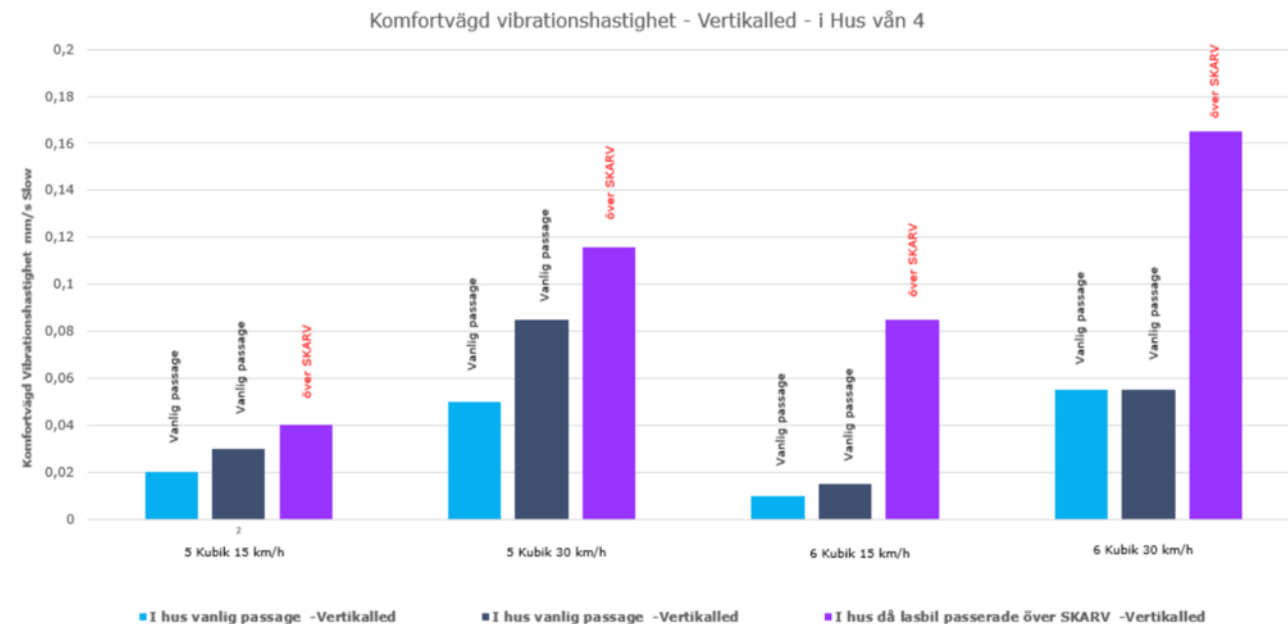


Tech test spring 2021,  
demo April 2022



# Results, challenges and Lessons Learned

- Technical feasible to speed control concrete vehicle depending on weight
- Vibration measurement demonstrated that speed is the determining factor for increased vibrations
- Regulatory challenges regarding divisible goods





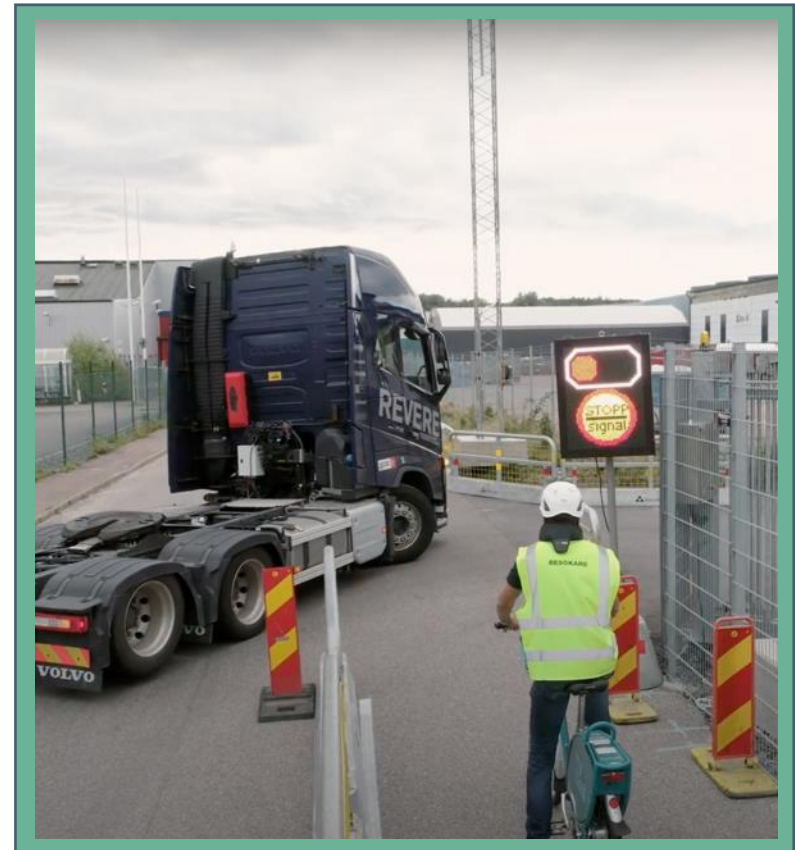
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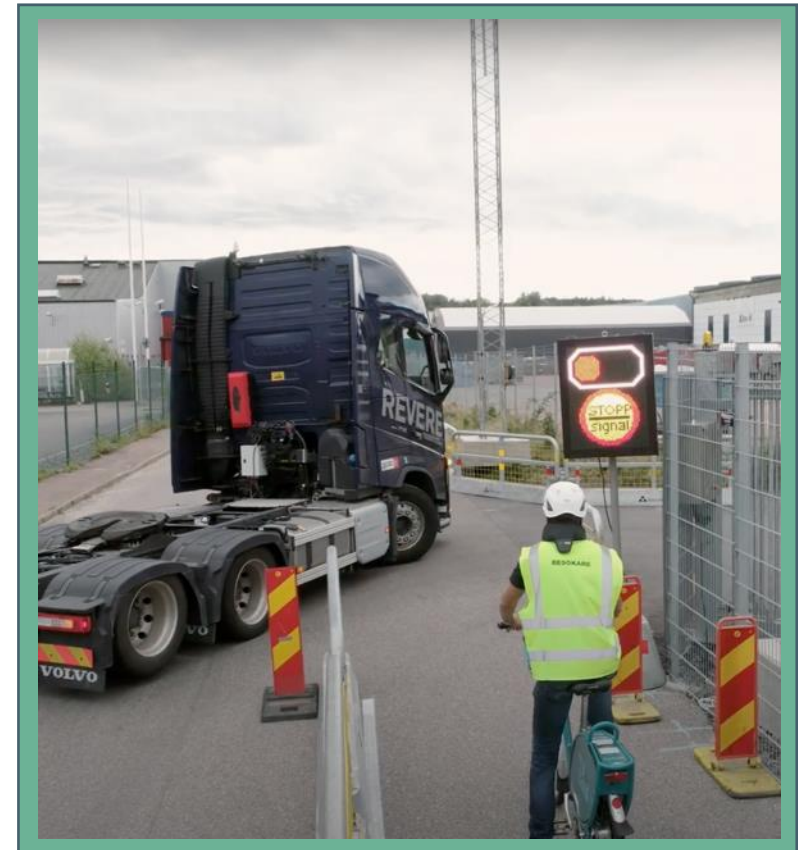
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# Thank you!



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