



## Traffic management measures to reduce emissions from vehicles

### Problem description

Emissions from vehicles powered by fossil fuels pose a significant threat to air quality and human health. While vehicle emission control systems have made notable advancements in recent decades, the exponential growth in the number of vehicles has limited the effectiveness of these improvements. Addressing this problem is challenging since several vehicle specific factors such as engine size, fuel type, and maintenance schedules affect the emissions. In addition, apart from the vehicles themselves, traffic conditions also play a crucial role in determining emission levels. Various traffic management measures, such as dynamic rush hour lanes, dynamic speed limits, and platooning of trucks, have been explored as potential solutions for reducing emissions. However, there is limited consensus on the extent of the benefits provided by these traffic management measures in terms of emission reduction.

### Objectives & Assignment

The objective of this project is to review the existing literature related to this area, perform data analysis of existing measures and summarize the findings. The likely output is the identification of measures that are currently applied and proven to be successful. This should be followed by a deeper analysis which leads to suggestions to support evidence-based decision making in a practical context considering the conditions in the Netherlands. Such an output may result in incorporation of the findings in current projects of the DiTTlab.

### Research group

DiTTlab, Transport & Planning Department  
Thesis supervisor: dr. ir. Simeon Calvert

### External support

To be added

### Information

Simeon Calvert - [s.c.calvert@tudelft.nl](mailto:s.c.calvert@tudelft.nl)  
Srinath Mahesh - [s.mahesh@tudelft.nl](mailto:s.mahesh@tudelft.nl)

