The FREILOT project aimed at increasing energy efficiency of urban freight through deployment of ITS (Intelligent Transport Systems) services. The project had 3 objectives:

1. Showing quantifiable benefits to all relevant stakeholders
2. Ensuring that implementations continue after the pilot
3. Extending the implementations to more cities and/or truck fleets

The description in this factsheet focuses on the pilot in the city of Helmond. Information on solutions demonstrated in other cities (Bilbao, Lyon and Krakow) can be found on www.freilot.eu.

What was the main problem, idea or motivation that led to the development and introduction of the new practice?
Increasing fuel prices and effects from climate changes have brought the increase of energy efficiency to the forefront in all aspects of life.

What was the common practice before the implementation?
In urban areas truck drivers have to stop often for traffic lights. The continuous stop-start ensures high fuel consumption and CO2 emissions.

What was the purpose and the sustainability objective of the case?
Fuel saving and emission reduction.

Solution
The traffic management element of FREILOT optimises the traffic control system to reduce heavy vehicle fuel consumption. At a number of intersections traffic lights are equipped with detectors to give priority to specific vehicles, in Helmond trucks and fire brigade.
The case involved co-operation between city of Helmond and a road transport company. By equipping traffic lights and with an on-board unit, the trucks of the company get priority, thus reducing the stop and go movements at traffic lights, saving gasoline and CO2 emissions as well as costs. During the pilot only one road was equipped (several traffic lights), but this could be extended at low costs when traffic lights have to be replaced (maintenance).

The system can be transferred to other vehicles (e.g. fire brigade, busses, etc.) and to other cities.

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The Freilot system can only work up to a certain number of devices. If this number gets too big, everybody would get priority, which would lead to chaos. Although this point has not been reached in the pilot, it was decided that the operator of the system always can decide to stop giving priority when there are too many users. In that case however he can provide speed recommendation to the drivers, thus leading to a smooth traffic flow and less pollution and fuel use.

Two business models are considered, one in which the users pay a fee to the operator of the system, and one in which the city of Helmond takes all the costs during maintenance of the traffic lights.

Main actors involved
- road infrastructure manager of Helmond
- road freight transport operator