

## An Innovative Public Sector in 2017 – New Solutions to Complex Challenges

### **EPISA2017029 Low Emission Zone Antwerp**

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To improve air quality and public health by eliminating polluting vehicles, one of the first fully-automated Low Emission Zones (LEZs) in Europe was successfully activated on 1-2-2017 in the city of Antwerp.

A close collaboration was realised between the local level (Antwerp), Flemish level (Environment Department, OMG) and *Informatie Vlaanderen*, and federal level (Crossroads Bank for Enterprises (KBO), National Registry of Natural Persons (RR) and the database of registered vehicles (DIV)).

In a 24/7 accessible application, the public can check whether their vehicle is allowed into the LEZ, and purchase a necessary permit.

The existing camera network was reused and extended to register number plates of vehicles entering the LEZ and for further police and security purposes (as part of Antwerp's smart city infrastructure).

Through web services offered by *Informatie Vlaanderen's* MAGDA platform, these number plates are checked against the DIV database. Next, the technical specifications of the car are compared to the access criteria for entering the LEZ (determined and stored by OMG), alongside a list of vehicles that have installed an approved soot filter or are considered exceptions (e.g. handicap-adapted vehicles, etc.).

The list of to be penalised vehicles and their information is sent to Antwerp, where a final visual check between photo and matching data is executed. After this final verification, the name and address of the owner of the non-conforming vehicle is obtained from the RR or KBO databases in order to send a financial penalty.

Data transfers between sources and partners make use of the MAGDA platform, using international and European standard data formats. MAGDA ensures the privacy of citizens and guarantees no third party access to data, conforming to European, Belgian and Flemish privacy laws. MAGDA also limits the amount of data transferred to partners in the LEZ consortium; e.g. OMG has no access to data about ownership or whereabouts of vehicles, and Antwerp has no access to data about ownership and location of vehicles abiding the LEZ rules.

The complexity of this project lies in the volume of transferred data (>300,000 vehicles daily enter the LEZ) combined with achieving a flawless cooperation between different levels of government. Furthermore, the system was designed to be reusable for other cities and the LEZ web services reusable for other projects, to optimise investments and funding.

LEZ in Antwerp has succeeded in ticking all the boxes.