

Road Charging in Belgium for Trucks +3.5t

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Controlling HGV flows to improve goods and service provision whilst ensuring the 'polluter pays'.

Since 1st April 2016, HGVs (+3.5t) are taxed on certain routes in the Belgian regions: Flanders, Wallonia, and the whole of Brussels Capital Region. A kilometre toll charges truck movements fairly so that infrastructure, and environmental costs can be accounted for. GPS data provides the basis for the toll and is an important source of freight transport for Belgian administrations, but presents a challenge to data analyse.



Road charging system for HGVs introduced in April 2016

Based on a 'Polluters pay' principle for road freight

Access to big data for public authorities, a fantastic source of information



Better understanding of size and type of urban delivery vehicles

Scope of works

HGV must carry an 'on board unit' (OBU) registering its GPS position every 30 seconds. Each region fixed the tariffs of the toll roads, depending on the road, the weight and the EURO norm.

Brussels Capital Region charges on all roads, applying higher prices to avoid through traffic in neighbourhoods (tolls range from 0.101 – 0.297 €/km). The toll mainly affects transport firms and long distance transport on Flemish and Walloon highways, but in Brussels many smaller businesses that have a truck are also affected. Despite fears for Brussels-based companies having to absorb this road charge, no negative impact has been recorded.

Improving citizens' quality of life by increasing the price of transport, based on characteristics of the HGVs, has proved more effective, and easier to enforce across a large area; compared to applying vehicle access restriction in a few localised areas, which is difficult to control.

Outcomes

Since the introduction of this toll, on average each working day, 140,000 trucks with OBU (on board unit) are registered on the Belgian toll road network. This corresponds to total distance travelled of +/- 24,000,000km, 137,910 direct payments per day and an average workday revenue of 2.5 million euros (2016)

Air quality has improved thanks to accelerated fleet renewal of HGVs. Euro 6 vehicles accounted for approximately 14% of km driven on toll roads in April 2016, and this increased to over 50% by December 2017. Shippers claim to optimise their activity by organising bigger loads, less trips, less road charge.

Traffic congestion has not improved; with little change in amount of kilometres driven (albeit by less polluting vehicles). Alternative freight transport modes (waterways and rail) have not seen large increases in volume.

Maybe the road-charging fee is not yet high enough to compensate the full societal costs of road transport. The data generated by the system gives administrators a better understanding of freight movements in Brussels.

Lessons learnt

Urban freight transport policy must address businesses who operate their own vehicles and run typically less optimised trips with older vehicles. High running costs means the road charge generates no additional revenue for the Region. Big data is a key resource but requires skills, time and hardware to be useful. Privacy is another issue. Limiting the data that public authorities can access is legitimate, but also limits possibilities for analysis.

Future of the project

The toll could be adapted to different times, to incentivise fewer HGVs during morning traffic peak and decrease congestion. However, night deliveries in urban areas remain very limited because of legal barriers. Road charging fees could be adapted to work alongside the low emission zone (introduced January 2018) to make the oldest HGVs so expensive to use that they would disappear from the streets.

Brussels Mobility is working with the VUB University on the analysis of OBU data to understand the impact of the toll on freight transport in the Brussels capital region.



Important changes seen on the type of vehicles operating (accelerated fleet renewal)

No significant changes seen in vehicle use (no reduction of kilometres driven)

HGVs driving on highways are newer than HGVs driving in cities

Big data requires the help of specialists (university) to be analysed

HGV transit traffic is not a real problem in Brussels region



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