

REPORT 2016

INTRODUCTION

The German Federal Government has decided to cover the costs for the upgrading and maintenance of the transport infrastructure by introducing a distance-based toll for all heavy goods vehicles and goods vehicle combinations on the entire motorway network and selected federal roads.

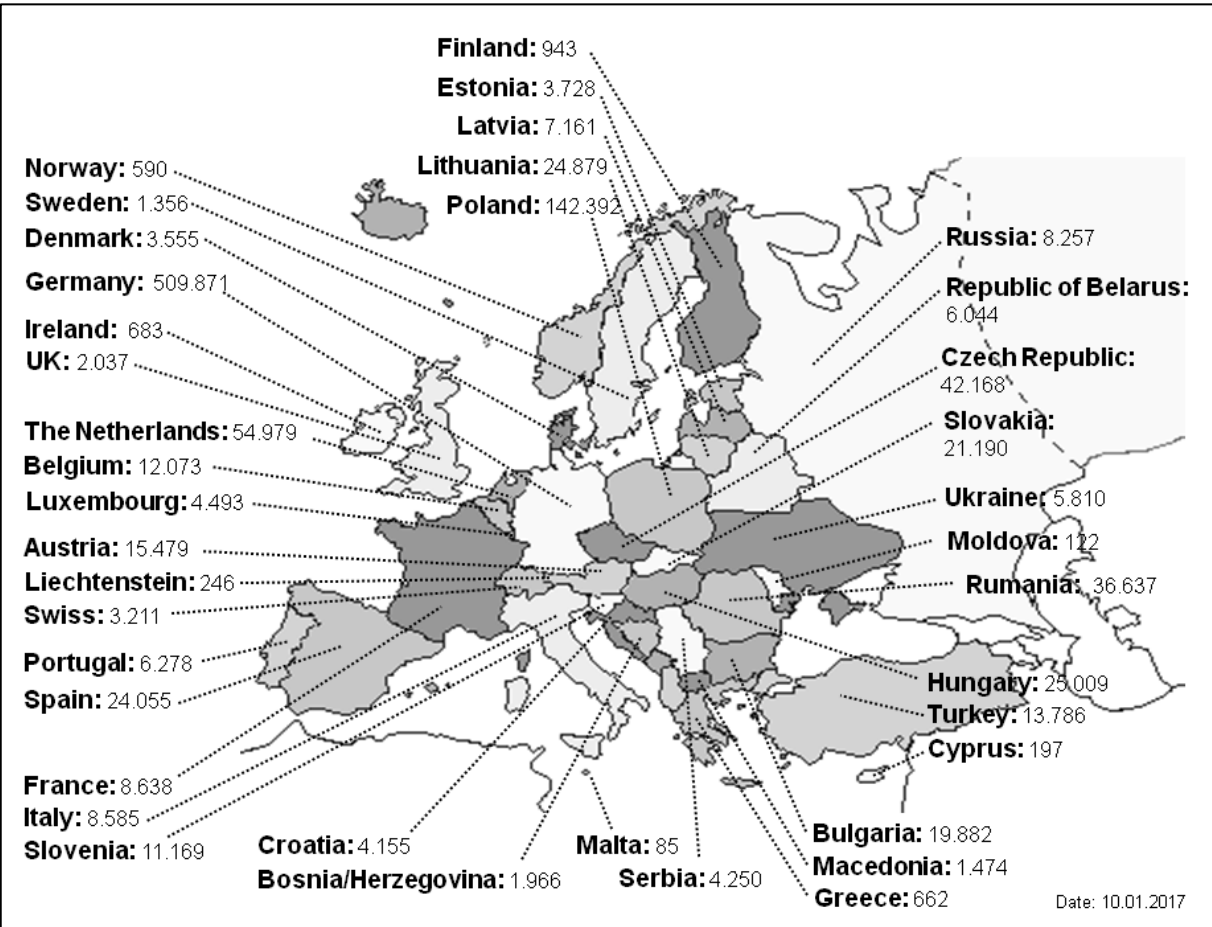
The system opened on 1st January 2005. It is a dual system, comprising a satellite-based automatic tolling and a manual booking option (at terminals and via internet) for non-discrimination purposes.

Starting from 1st October 2015 the German Federal Government lowered the toll requirement to the gross vehicle weight from at least 12 tons down to at least 7.5 tons.

The automatic system uses a combination of satellite navigation and mobile communications technology to achieve a free flow system.

95% of the revenues are made through customers using the automatic system. 1,039,300 OBUs are installed in trucks by the end of 2016. Figure 1 shows the distribution of installed OBUs per country.

Fig. 1: Installed German OBU per country



NETWORK LENGTH

Since the introduction of the tolling scheme the tolled network has been updated to include new sections and new junctions simply by way of data transfer via the mobile communications network (GSM).

The German tolled network is divided into 8,576 sections and has a length of 15,276 km (including federal roads) by the end of 2016.

Since 1st August 2012 the toll was introduced to the federal roads with four and more lanes.

The federal roads currently represent 3,044 sections and 2,360 km. To add the new toll roads to the system, the OBUs received a wireless update with the new network information through mobile communication.

TRAFFIC

On motorways the average daily traffic/km of trucks subject to toll has increased from 6,065 in 2015 to 6,565 in 2016. The calculation is made by dividing the total travelled kilometres on motorways by the length of the motorway network and by 366 days (although truck traffic is restricted on the weekend).

SAFETY

A total of 161,096 traffic accidents occurred in 2015 on German motorways, there were 19,736 accidents with injured. In 2015 414 people died in traffic accidents on motorways in Germany.

TOLLS

Light vehicles

Light vehicles are paying vehicle and fuel tax, generally no toll.

The so called Trave tunnel and Warnow tunnel make an exception. The use of both tunnels has to be paid by all vehicles.

Heavy vehicles

Tolls are charged according to the distance travelled, the number of axles, and the pollution category of the truck.

Subject to the road toll are all goods vehicles or goods vehicle combinations exclusively intended for road haulage whose maximum permissible weight - including trailer - is 7.5 tons or more.

Toll exempt heavy vehicles

Pursuant to Section 1 (2) of the Act on the Levying of Distance-Related Charges, the following vehicles are not subject to the HGV toll:

- buses and coaches,
- vehicles belonging to the armed forces, the police authorities, civil defence and emergency response organizations, the fire brigade and other emergency services, plus Federal Government vehicles,
- vehicles used exclusively for road maintenance purposes, including road cleaning and winter maintenance,
- vehicles which are used exclusively for the transport of circus and funfair equipment,
- vehicles which are used by non-profit or charitable organizations to transport humanitarian relief supplies to alleviate an emergency situation.

TOLL RATES AND REVENUES

Since the opening in 2005 the tolls were differentiated by pollution classes. As shown in Fig. 2: with the same number of axles, a “polluting” truck can pay up to 102% more toll than a “clean” truck. One will notice that a truck can be classified in a “better” category if it has a filter to reduce its particle emission.

By the end of 2016, toll revenues in the amount of 4.63 billion Euros had been generated, which corresponds to 32.5 billion travelled kilometres.

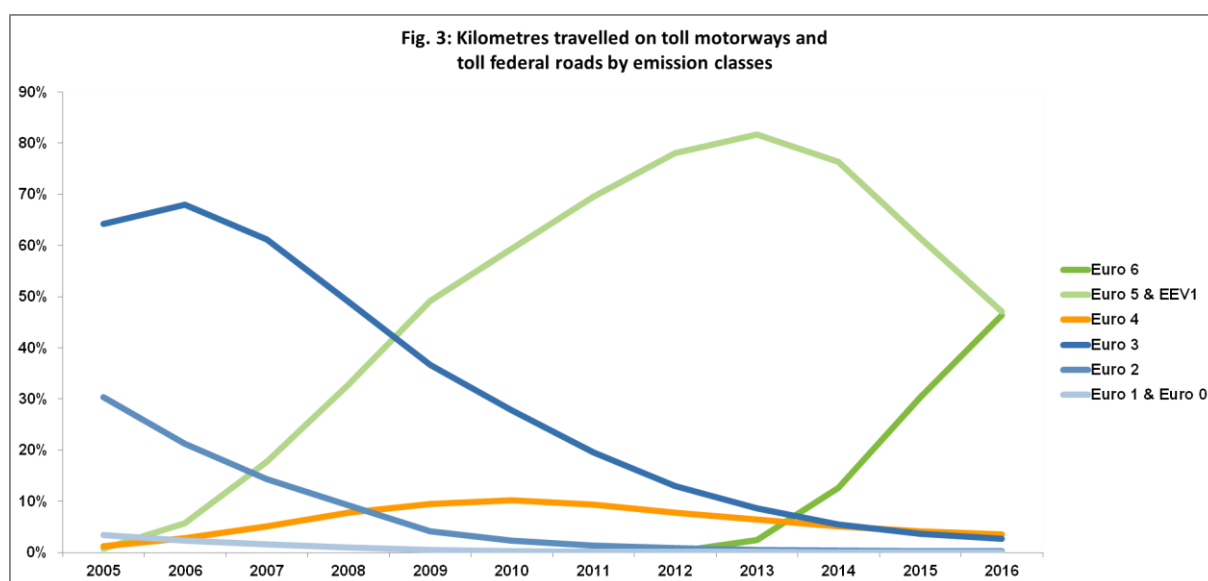
Fig. 2: Toll rates valid from 1st October 2015

| Emission classes according to the German Federal Trunk Road Toll Act (BFStrMG) | | | | | | |
|--|------------|-----------------|---|---|------------|-----------------------|
| | Category A | Category B | Category C | Category D | Category E | Category F |
| Emission class | S6 | EEV class 1, S5 | S4, S3 with particulate reduction class* 2 | S3, S2 with particulate reduction class* 1 | S2 | S1, no emission class |
| Euro emission class | Euro 6 | EEV 1, Euro 5 | Euro 4, Euro 3 + particulate reduction class* 2 | Euro 3, Euro 2 + particulate reduction class* 1 | Euro 2 | Euro 1, Euro 0 |

| Toll rates per kilometre from 01 October 2015 | | | | |
|---|--|-------------------|---|----------------------|
| Category | Proportion of toll rate (In cents) Costs for air pollution | Number of axles** | Proportion of toll rate (In cents) Costs for Infrastructure | Toll rate (In cents) |
| A | 0 | 2 | 8.1 | 8.1 |
| | | 3 | 11.3 | 11.3 |
| | | 4 | 11.7 | 11.7 |
| | | 5 or higher | 13.5 | 13.5 |
| B | 2.1 | 2 | 8.1 | 10.2 |
| | | 3 | 11.3 | 13.4 |
| | | 4 | 11.7 | 13.8 |
| | | 5 or higher | 13.5 | 15.6 |
| C | 3.2 | 2 | 8.1 | 11.3 |
| | | 3 | 11.3 | 14.5 |
| | | 4 | 11.7 | 14.9 |
| | | 5 or higher | 13.5 | 16.7 |
| D | 6.3 | 2 | 8.1 | 14.4 |
| | | 3 | 11.3 | 17.6 |
| | | 4 | 11.7 | 18.0 |
| | | 5 or higher | 13.5 | 19.8 |
| E | 7.3 | 2 | 8.1 | 15.4 |
| | | 3 | 11.3 | 18.6 |
| | | 4 | 11.7 | 19.0 |
| | | 5 or higher | 13.5 | 20.8 |
| F | 8.3 | 2 | 8.1 | 16.4 |
| | | 3 | 11.3 | 19.6 |
| | | 4 | 11.7 | 20.0 |
| | | 5 or higher | 13.5 | 21.8 |

* PMK – particulate reduction classes are retrofit standards to reduce particulate emissions.
 ** Axles – a tandem axle counts as two axles, a tri-axle counts as three axles.

As shown in Figure 3, the share of cleaner vehicles rose substantially.



MAIN ASECAP KEY FIGURES GERMANY

| Country : Germany | 2016 | 2015 |
|---|-------------------|-------------------|
| Tolled network length in KM (incl. 2.318 KM federal roads) | 15.276 | 15.252 |
| No. of KM in construction (only new road sections) | 172,1 | Not yet available |
| No. of KM put in toll service | Not yet available | 46,5 |
| Forecasts of opening motorways sections in 2017 (length in KM): | 39,0 | - |
| Annual toll revenue in million Euros | 4.634* | 4.370 |
| Permanent staff (FTE) | 599 | 586 |
| Average daily traffic (LV) | - | - |
| Average daily traffic (HV)** | 6.565 | 6.065 |
| Average daily traffic (LV+HV) | - | - |
| No. of accidents on motorways | Not yet available | 161.096 |
| No. of accidents with injuries on motorways | Not yet available | 19.736 |
| No. of killed on motorways | Not yet available | 414 |
| KM travelled in million KM (HV) | 32.468 | 29.702 |
| No. of toll plazas | 0 | 0 |
| No. of lanes | 0 | 0 |
| No. of GNSS toll sections | 8.576 | 8.550 |
| No. of GNSS OBU Subscribers in thousands | 1.039 | 951 |
| No. of rest areas (with stations services) | - | - |
| No. of rest areas | - | - |
| No. of restaurants | - | - |
| No. of hotels | - | - |

* Preliminary Value for 2016

**HV \geq 7,5t, calculation: average daily charged KM / network KM on motorways

a) Number covers in town/village, out of town/village, and on motorways.