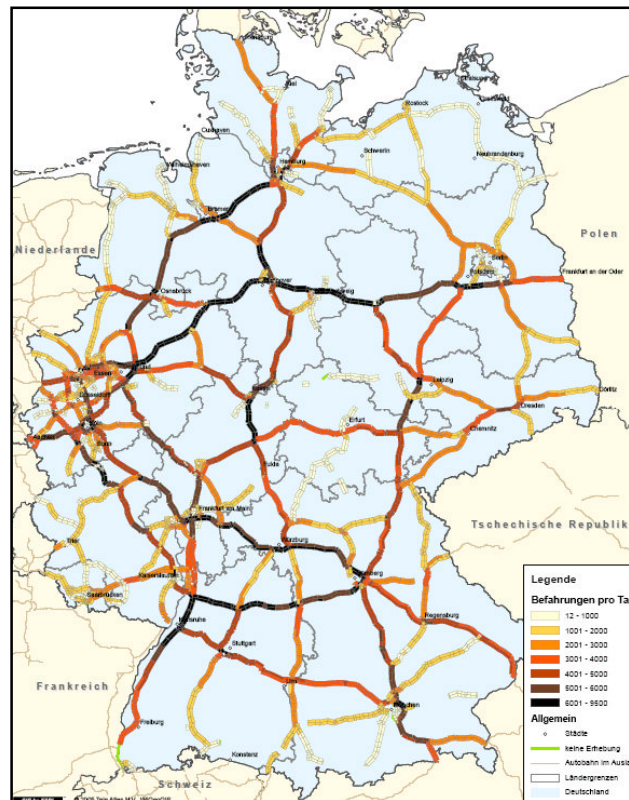


The German Toll System: European and green



ASECAP 37th Study and Information Days
Krakow 24-27 May 2009

Alain Estiot, Managing Director Quality, Toll Collect GmbH

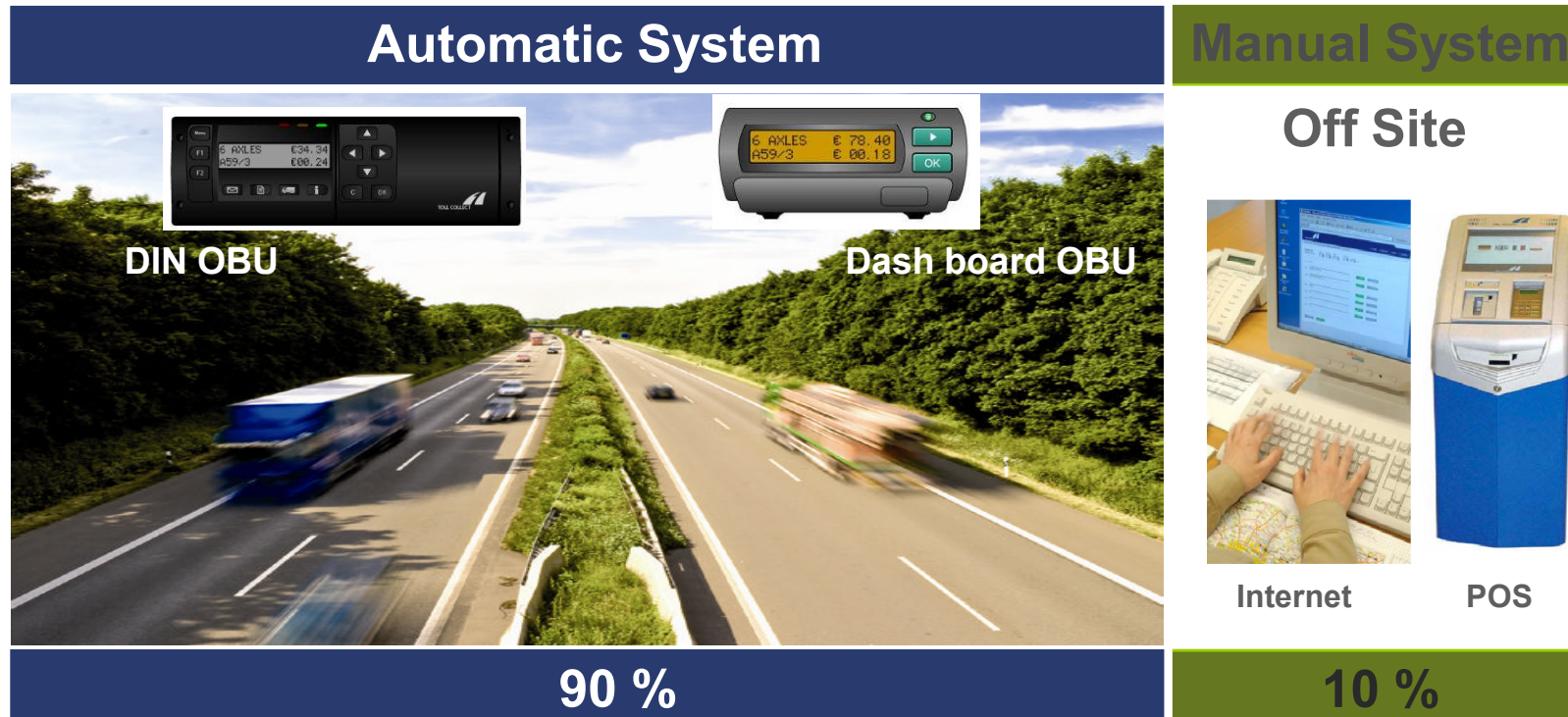
Toll Collect is a free flow system offering an automatic and a manual system for non discriminatory purposes

The project opened on January 1st, 2005. It concerns trucks of at least 12t.

38% of the trucks are non German

The automatic reservation mode is the most convenient way to pay the toll and it is widely accepted by the users.

There is a manual system, but it is outside the toll network.



Think European: Germany is a Transit country The system was from the begin designed for interoperability

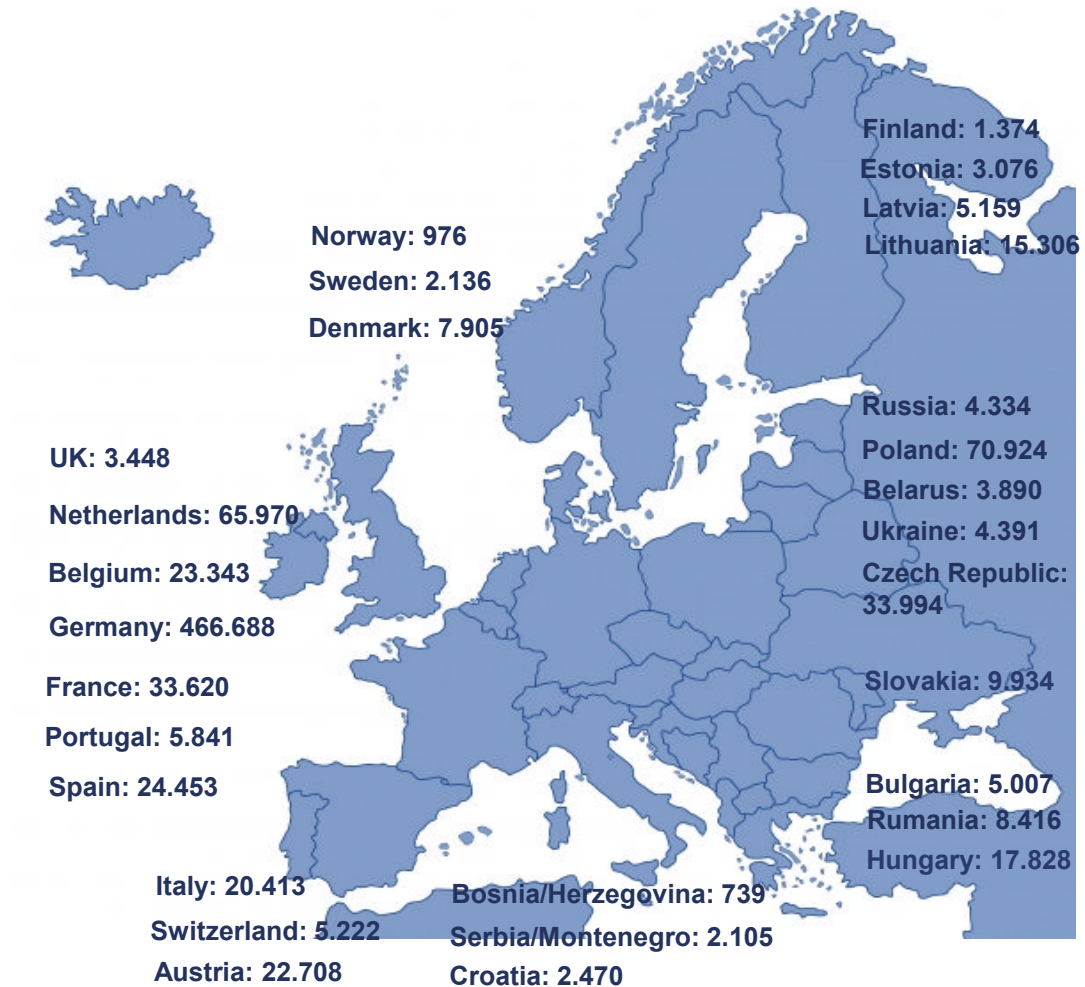
The OBU uses

- satellite navigation
- mobile telecommunication
- a DSRC module
- The HMI (Human Machine Interface) menu is in 5 languages (E,F,D,POL,NL)



Distribution of OBU and main figures

- OBUs
- 646,500 trucks from 50 countries have an OBU
- 40 % are in vehicles pre-equipped (for OBUs) by the truck manufacturers
- The tolled network
- 12,538 km motorways (average section length of 4.6 km)
- 42 km federal roads (average section length of 0.8 km)
- Revenues: 3,47 billion € have been collected in 2008
- The violation rate is under 2 %

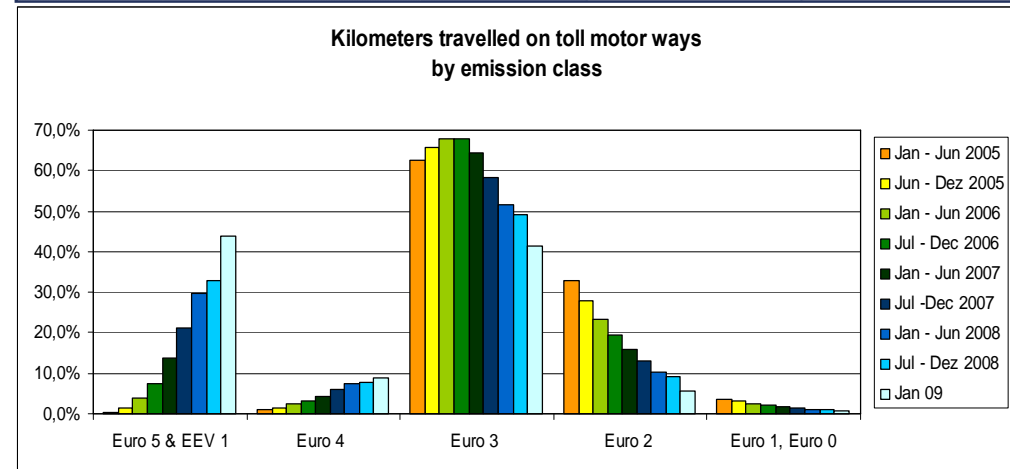


Think green

- German tolls are depending on emission classes
- Since January 2009 a new pollution class has been added and the toll has been increased
- Toll is 94% more expensive for polluting trucks

- This, together with an incentive program led to a drastic change in the trucks driving in Germany

Toll rates per kilometre			From 1 Jan. 2009	From 1 Jan. 2011
Category A	S5, EEV class 1	up to 3 axles	€ 0,141	€ 0,140
		4 axles or more	€ 0,155	€ 0,154
Category B	S4, S3 with PMK 2, 3 or 4	up to 3 axles	€ 0,169	€ 0,168
		4 axles or more	€ 0,183	€ 0,182
Category C	S3 without PMK, S2 with PMK 1, 2, 3 or 4	up to 3 axles	€ 0,190	€ 0,210
		4 axles or more	€ 0,204	€ 0,224
Category D	S2 without PMK, S1 and vehicles not assigned to a pollutant emission category	up to 3 axles	€ 0,274	€ 0,273
		4 axles or more	€ 0,288	€ 0,287



Interoperability Challenges

Commercial:

- Is there a business?
- Who pays what?



Technical:

- Open standards
 - for data exchange (charging, toll context, security, blacklist data)
 - for enforcement communication

Contractual:

- How to control the performance of the EETS provider
- SLA (service level agreements) to ensure the toll charger that he gets all his money

Other:

- Fraud management: cross border enforcement
- Who takes care of the customers who are not accepted by the EETS provider?