

# Charging of heavy vehicles in Austria

## Experience and View



Barcelona, April 2008

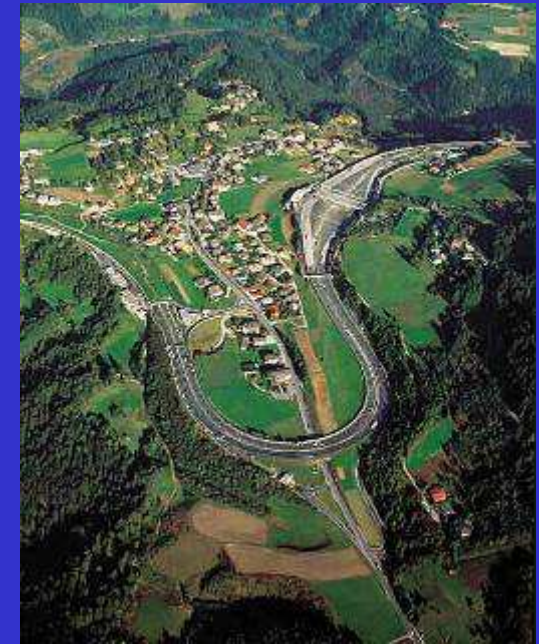
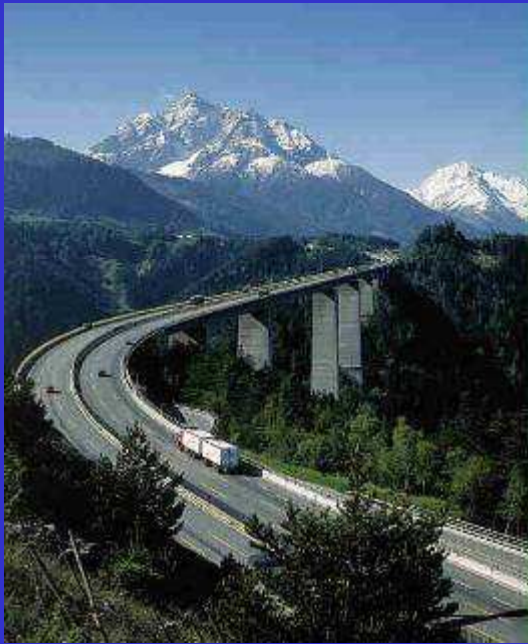
# 01.01.2004 successful start of an electronic charging system on motorways and express roads



network of 2100 km including 146 km alpine toll sections

# Motorway tolling in Austria has tradition

1968 start of the first credit-financed toll motorway



**A 13 Brenner Motorway connecting Austria and Italy  
via the Brenner pass (1380 m above sea level)**

## **Government decision mid of 1990s**

**Due to increasing problems on road-financing the Austrian government decided to introduce:**

- a vignette-system for light vehicles (up to 3,5 t) except on the alpine toll sections, where toll remained**
- an electronic, kilometre based charging system for heavy vehicles with more than 3,5 t gross weight on all motorways and express roads (existing and new network)**

**Parliament agreed a first law concerned in 1996 which was replaced by a more detailed legal act in 2002**

# Responsibility on the tolled network

1997 given by law to **ASFINAG**, 100% state owned  
existing since 1983, as a financing company

**new definition of ASFINAG's responsibilities  
for motorways and express roads,**

- design, construction, maintenance, operation, financing
- ownership on the existing toll companies
- transfer of motorway debts (5660 Mill.EUR) to ASFINAG
- right by contract for toll collection on the entire network
- no support from the budget, but toll revenue earmarked
- order to prepare and to introduce an EFC-System

## General requirements for the toll system

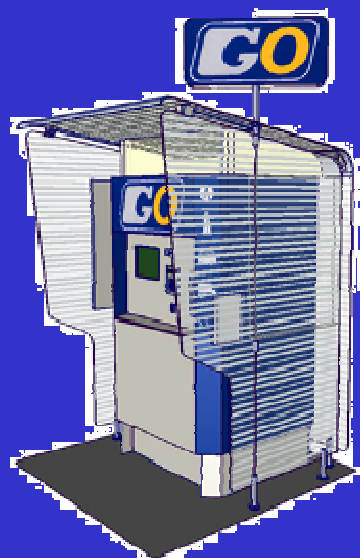
- No excessive formalities for access
- No obstacles at internal EU-borders
- No obstruction of traffic (multilane, free-flow)
  - Target: Interoperability to other systems
    - **Electronically operated system!**  
no toll technology excluded in advance

# Change of the charging system

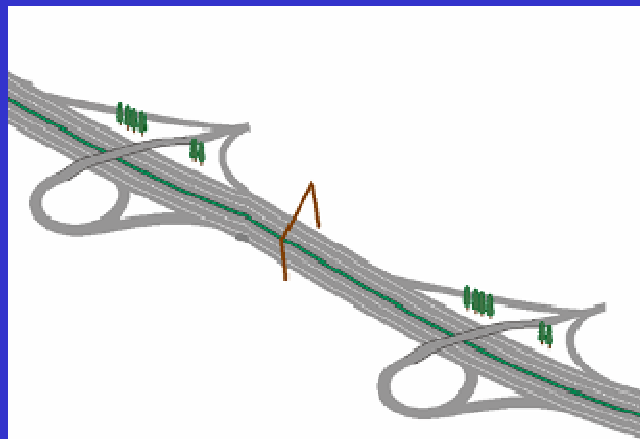


	$\leq 3.5 \text{ t}$	$\leq 12 \text{ t}$	$> 12 \text{ t}$
2003	Vignette	Vignette	User fee
<b>2004</b>	Vignette	<b>Distance-based toll</b>	

# How the system works



open toll collection system



more than 800 Toll Gantries

GO-Box for 5 EUR at more than 200 POS



Barcelona, April 2008

100 perm. Enforcement Gantries





# Toll rates by vehicle classes

based on an infrastructure-cost-calculation

fixed in a decree by the minister of transport

liable to 20% VAT



EUR per Km	Vehicle class 2	Vehicle class 3	Vehicle class 4
<b>Axles</b>	<b>2</b>	<b>3</b>	<b>4 + more</b>
rates 2004	0,130	0,182	0,273
<b>rates 2007</b>	<b>0,155</b>	<b>0,217</b>	<b>0,3255</b>
<b>Relation</b>	<b>1</b>	<b>1,4</b>	<b>2,1</b>

# Goals and expectations to the toll system

Main objective: Financing of motorway-network  
revenue in the first year (2004) 760 Mill EUR

600 Mill EUR from the network not tolled in the past

## Secondary effects:

- slowing down the growth of road freight-traffic

Distance travelled becomes financially more important than in the past

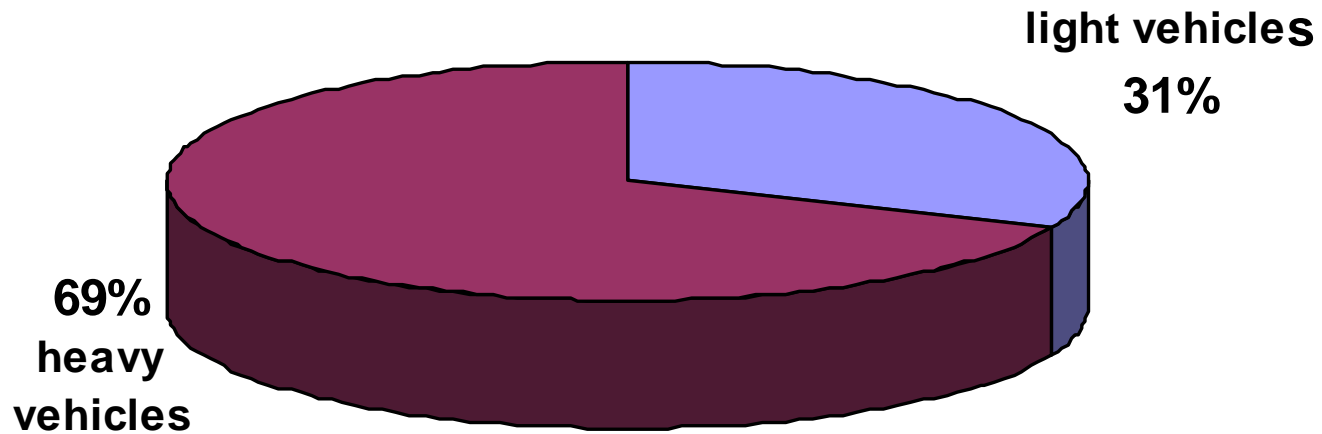
### Expected reactions of transport sector:

- better logistic, reduction of empty trips
  - better use of loading capacities
  - use of other transport modes

no significant results yet

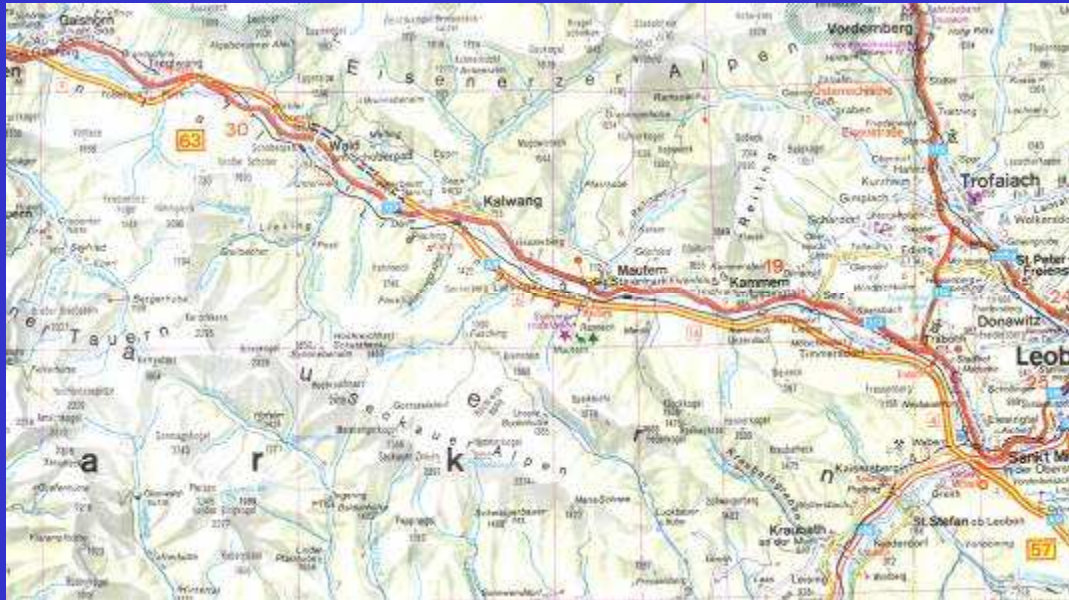
## share of toll revenue

total 2007 1.440 mill EUR



# Traffic diversion due to tolling

Trunk road in parallel to A9 motorway



Traffic increased after start of toll system  
but could be reduced to previous size  
by driving and weight restrictions

Barcelona, April 2008

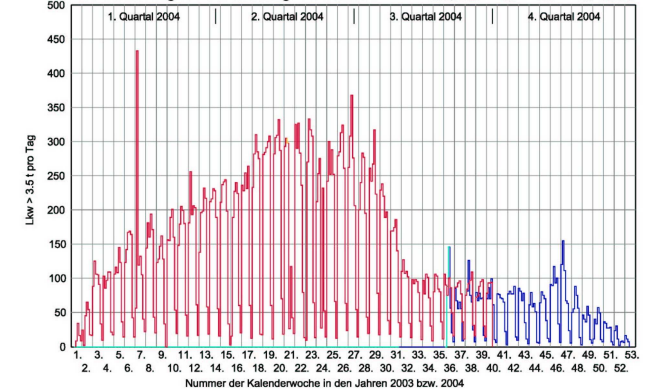
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Schoberpaß-Straße B 113 - km 30.6 - Wald am Schoberpaß

Daten der automatischen Zählstelle 28

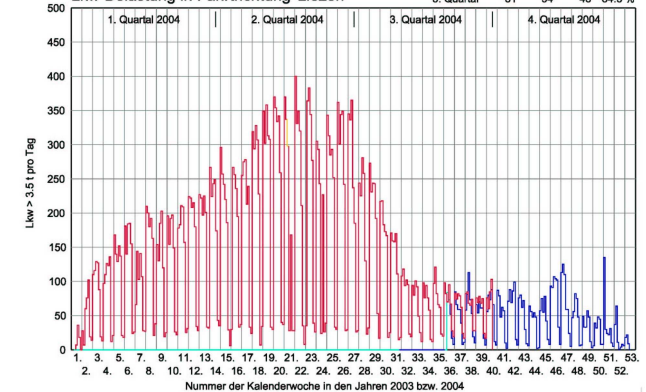
	DTV Lkw	Veränderung
	2003	2004
1. Quartal	0	111
2. Quartal	0	191
3. Quartal	59	105
		46 78.0 %

Lkw-Belastung in Fahrrichtung St. Michael

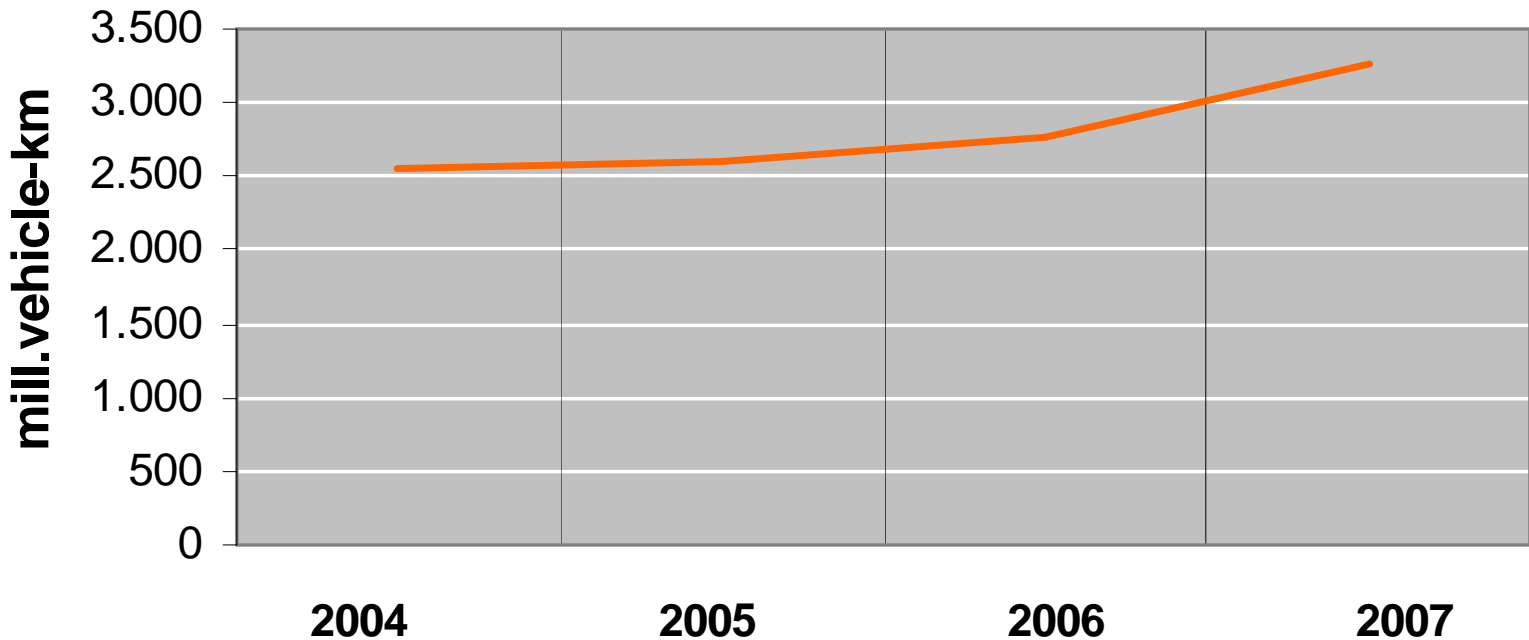


	DTV Lkw	Veränderung
	2003	2004
1. Quartal	0	117
2. Quartal	0	207
3. Quartal	51	94
		43 84.3 %

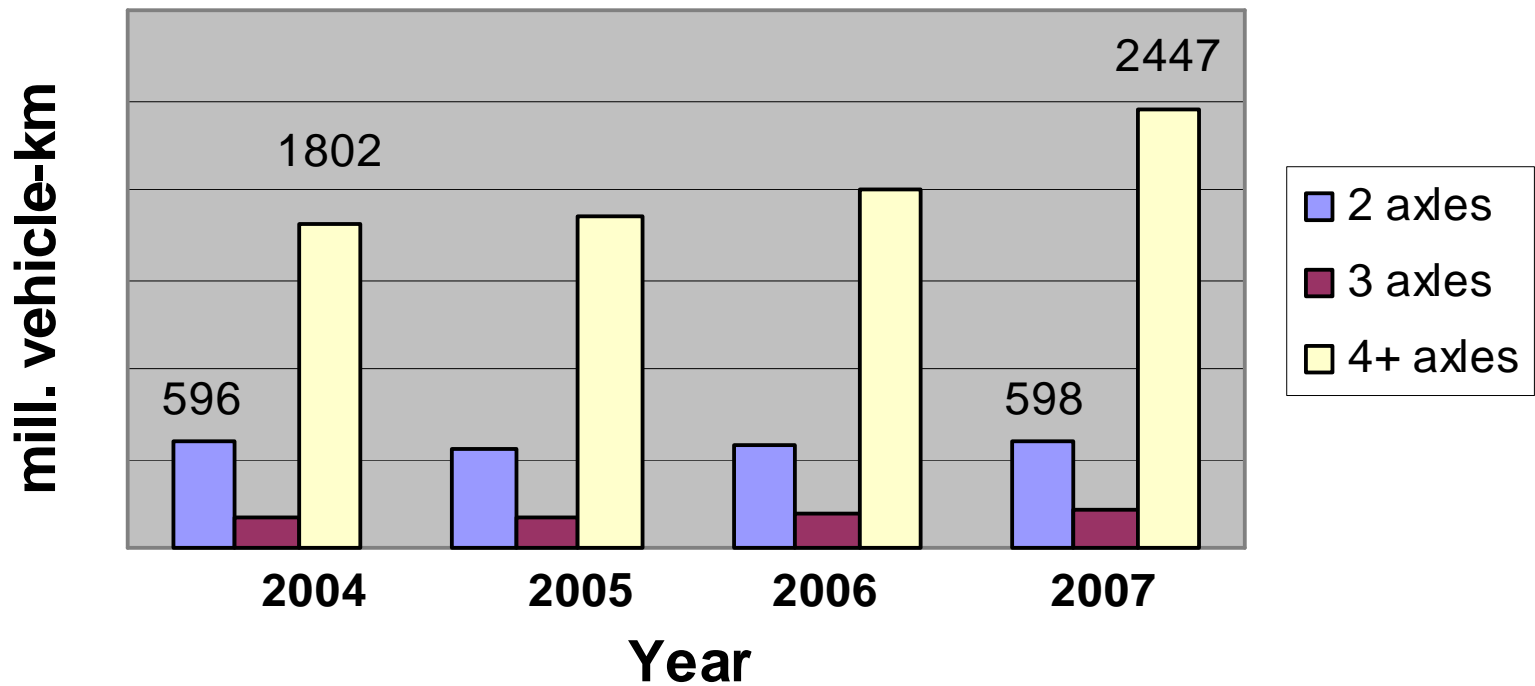
Lkw-Belastung in Fahrrichtung Liezen



## traffic performance of heavy vehicles on the charged network



## Traffic performance by vehicle class



# Experience with the tolling system

after 4 years of operation

- more than 600.000 Go-boxes active; 850 distributed
- more than 3.000 user-contracts with Swiss OBU (Interoperability)
- high performance rate (> 99,9 %)  
also in case of heavy winter conditions
- 1,8 Mio toll transactions (average) per workday  
2,0 Mio during peak time
- 85 % revenue by post-payment (petrol- or credit cards)  
15 % revenue by pre-payment (electronic money)
- revenue 2007: 980 Mill EUR
- violation (average) less than 1000 cases daily
- at the start of the system 2-3% traffic diversion
- user acceptance high (because system is user-friendly)

## Mark up on toll rates

The eurovignette directive opens the possibility to add in exceptional cases a mark up on the toll of a specific road section in mountains

- If the use of this section causes significant environmental damage or congestion problems
  - If the revenue from the mark up is invested in a TEN-project of high priority in the same corridor alleviating the environmental situation
  - If the mark up does not exceed 15% (25% for cross-border projects) of the weighted average toll
- Austria applied such a mark up on the A13 motorway to co-finance the realisation of a 56 km long railway base tunnel connecting Austria and Italy under the Brenner pass



## Conclusions

**The charging system on Austrian motorways is probably not a sufficient solution for sustainable transport, but it is an important step towards**  
It guarantees the financing of the high level road network

**It had been implemented within 18 months  
in spite of hard opposition at the beginning**

**is now well accepted by the users  
because of an experienced technology  
a simple understandable and fair system  
with low equipment costs for the users**

## **View to the future**

**The charging system differentiates by the maximum gross weight and by the number of axles, but not yet by the EURO emission class.**

**As the Eurovignette directive requires member states to vary toll rates by EURO Emission class no later than 2010,**

**Austria will introduce such a variation mid of 2009**

**Austria does also very much support the EC intension to internalise external costs for the calculation of charges and would appreciate an amendment concerned of the Eurovignette directive**

**for further information  
do not hesitate to contact me**

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**or visit the web site  
of the Austrian toll operator**  
[www.go-maut.at](http://www.go-maut.at)

**Thank you for your attention**