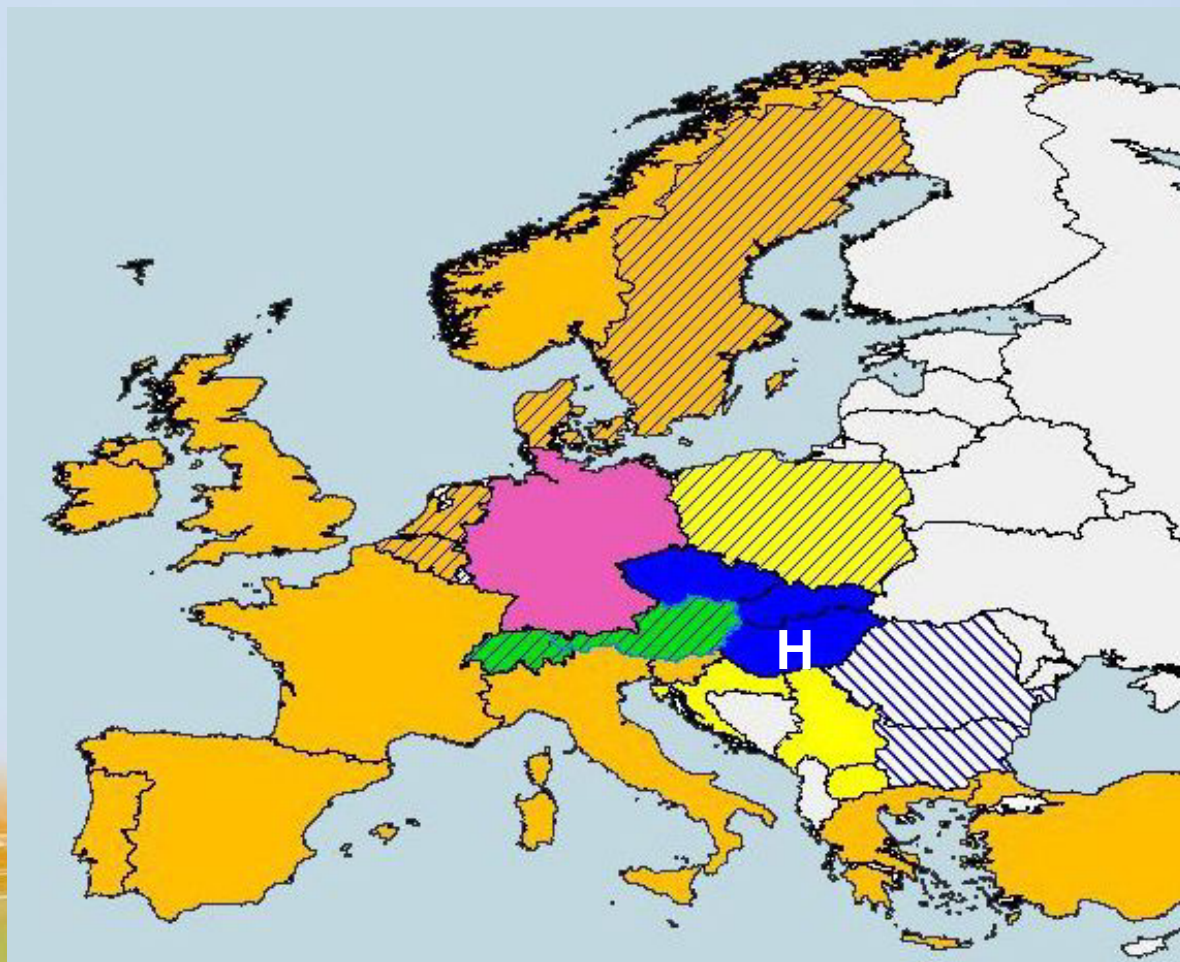


Tolling on the Hungarian Motorway Network

Árpád G. SIPOSS
Head of Toll Strategy Bureau



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Hungary

- 93,000 km²
- 10 m people
- 3 m vehicles
- GDP/capita
4,500 USD
- national roads
30.500 km
- road network
150.000 km



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Overview of Tolling History in Hungary

- First master plan for speedways 1942
- Motorway constructions started 1961
- „500 km of Toll Motorways” programme 1970-1976
- Attempt to introduce the vignette system 1989
- Toll collection by Concessionaires 1996-2004
- Continuous spread of vignette system from 2000



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SPEEDWAY NETWORK IN HUNGARY



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M1 Former Toll Collection



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M1 Former Toll Collection (1996-1999)

- Semi-open manual system on 43 km length
- 4 vehicle categories according to total height
- 4 discount schemes for locals + frequents + fleets
- 6 currencies + 6 bank & petrol cards accepted
- 3 m transactions/year & 12 m EUR income/year
- 7,000 v/d AADT & 45% captured (25% for HGVs)



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M3 Former Toll Collection



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M3 Former Toll Collection (1999)

- Closed manual system on 100 km length
- 3 vehicle categories according to total height
- Mixed toll / vignette system: traffic 1:1 & income: 2:1
- HUF only + 2 bank cards accepted
- 12 m transactions/year & 15 m EUR income/year
- 20,000 v/d AADT & 65% captured (50% for HGVs)



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M5 Former Toll Collection



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M5 Former Toll Collection (1997-2004)

- Semi-open manual system on 100 km length
- 4 vehicle categories according to axle numbers
- 4 discount schemes for locals + frequents + fleets
- 9/5 currencies + 5 bank & petrol cards accepted
- 6 m transactions/year & 40 m EUR income/year
- 10,000 v/d AADT & 45% captured (25% for HGVs)



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The Unified Vignette System



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Reasons Unifying under a Vignette System

- High toll level, low traffic, different categorisation
- Mainly trucks by-passed the tolled sections
- Protestations by local residents
- Debates on political level raised toll as a main issue
- M1 + M3: 2000, M7: 2003, M5: 2004



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Demolition of Facilities



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Structure of the Vignette System

- **Three user charge categories:**
 - $D1 \leq 3.5 \text{ t} < D2 \leq 7.5 \text{ t} < D3 \leq 12 \text{ t} < D3$ vehicles
- **Five vignette validities:**
 - valid for any 1 days (only for D4: EU requirement)
 - valid for any 4 consecutive days (only for D1: local politics)
 - valid for any 10 consecutive days
 - valid for any 31 consecutive days
 - yearly vignette (from January 1 to the next January 31)



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Sale of Vignettes



- **POS terminals at more than 500 retailing points register:**
 - licence plate number
 - user charge category
 - validity of the vignette
- **Right of Use Data Base:**
 - stores all data from POS
 - gives all data to control



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Control by Fixed & Mobile Cameras

Electronic Control System compares OCR results with RoU Data Base and sends out excess charge reminders



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Control by Mobile Patrols & Device

Mobile Control Device compares entered data with RoU Data Base or Patrols visually check vignettes



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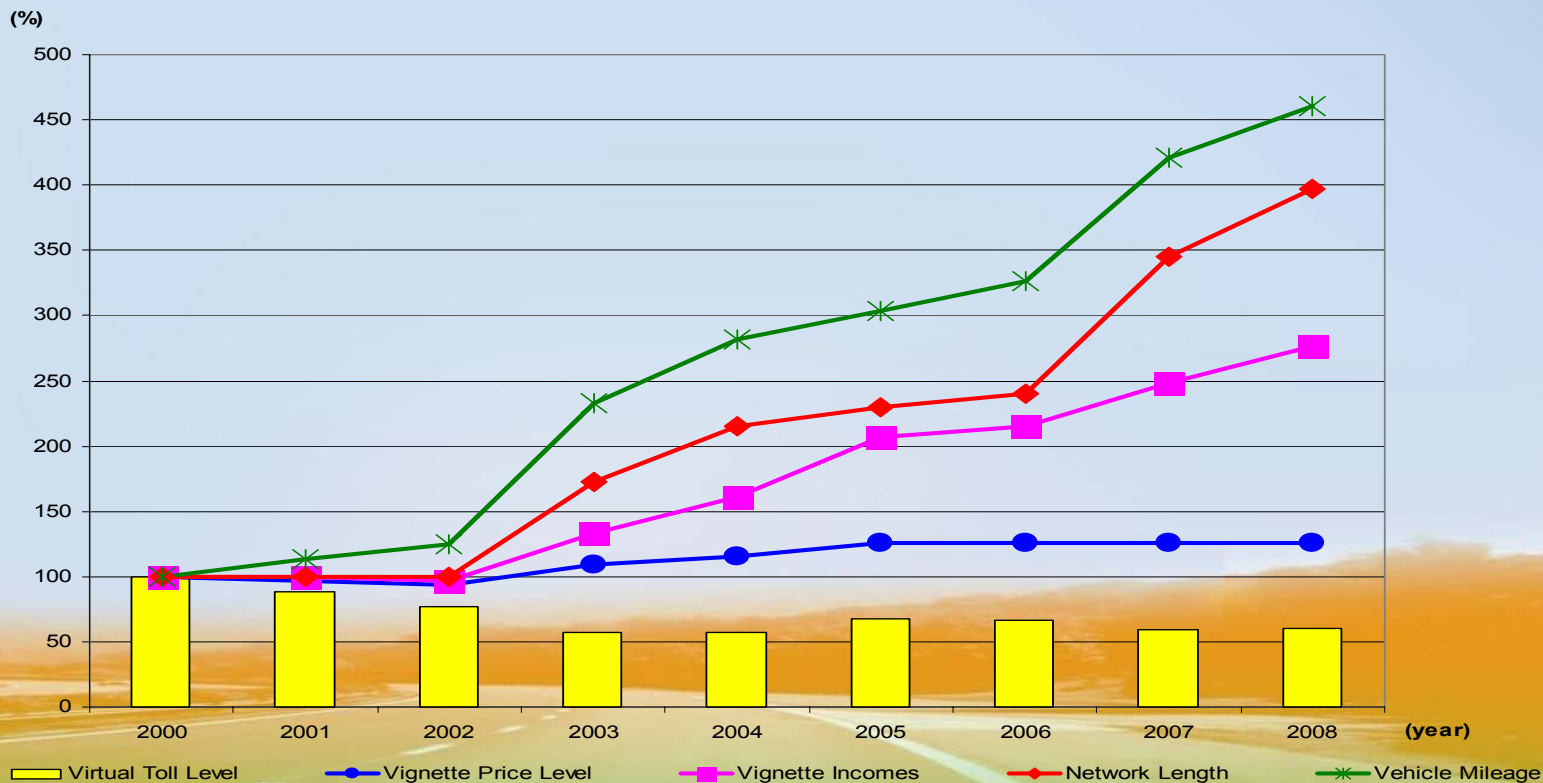
Foreseeable Problems in Middle Term

- **Large scale developments: new 350 km by 2007**
- **Demand shifts form short to long term validity:**
 - from 10 days to yearly vignettes
 - the higher network density will speed up this shift
 - the higher purchasing power will result higher yearly mileage
- **The vignette system will not cover the O & M costs**
- **Return back to the mileage based system: ETC by 2008**



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Main Trends of the Vignette System



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Changing Public Perception of Fairness

- all taxpayers / all motorists / given users;
- formerly free sections / new tolled sections;
- present / future generations;
- same / differentiated toll level by regional devel. level;
- cross financing: vehicle categories / road sections;
- efficient enforcement solutions;
- local affordability / international traffic



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Principles of Hungarian Toll Policy

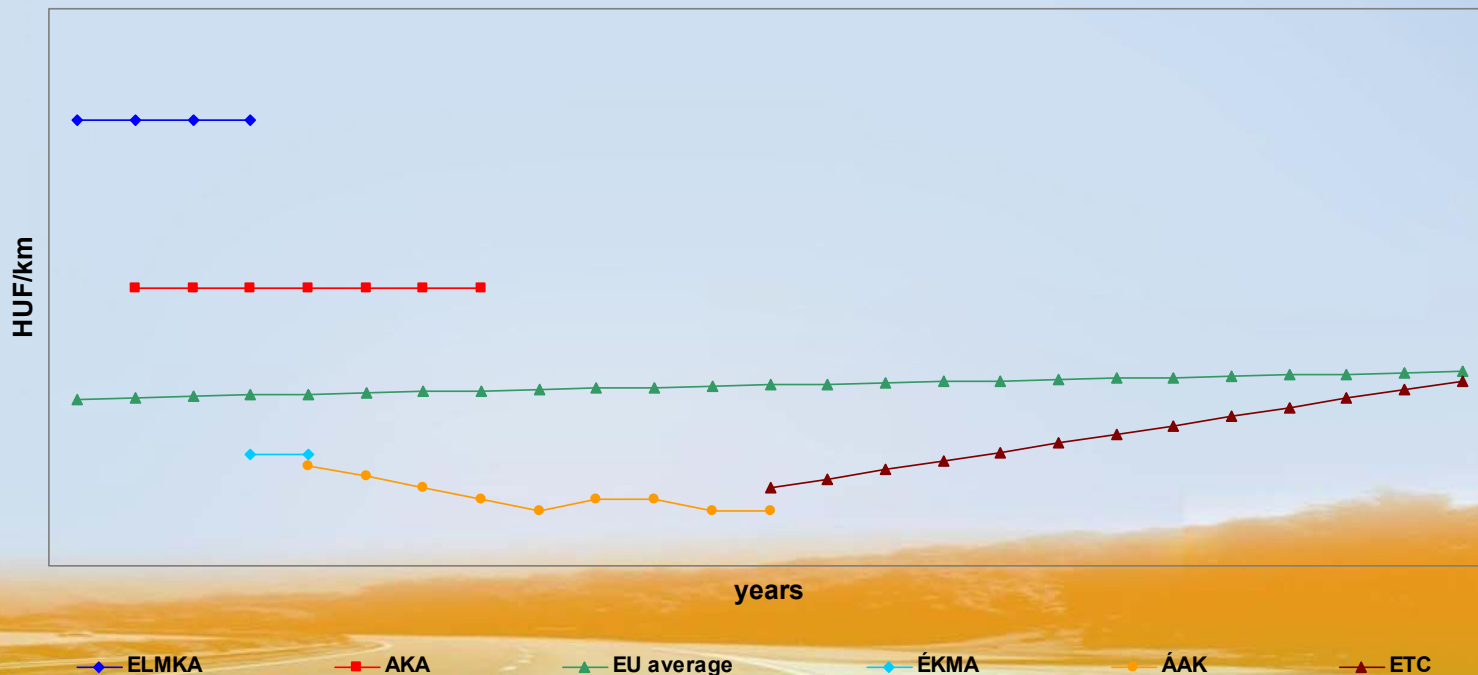
- vignette system is only a temporary, integrating solution;
- mid-term objective: electronic, mileage based system;
- implementation: total weight ↓, all categories if possible;
- toll differentiation: motorway / expressway;
- funding: tolling, operation, maintenance, reconstruction, and for development or debt service if possible;
- toll will be more proportional: $LV \ll HGV$



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Target: socially and economically affordable toll level

$\text{inflation} < \text{toll escalation} < \text{GDP} \nearrow \text{Pur. Pow. Parity} \nearrow$



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Main Aspects of Communication

- **Supplying proper information for the public:**
 - emphasizing advantages of a mileage based toll system;
 - yearly report of costs and revenues;
 - review of possible alternatives;
 - public awareness: investments are realised from user charges.
- **Green Book is published and consultations are held:**
 - with transport officials
 - with truckers' associations, automobile clubs;
 - local governments, environmentalists, and politicians.



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Thank you for your attention



**PIARC Seminar
Cancún, Mexico
13 April 2005**



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