Hungary National Report

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Alapítva - Since 1938

CONTENT

1. Hungary and its highway networks

2. Road development and maintenance-rehabilitation

3. Sufficiency rating from 1979 on

4. Assets value estimation

5. Pavement performance models

6. Surveys of user needs

7. Technical decision supporting tools

8. Concluding remarks

1. Hungary's highway networks

Central European country;
93 000 km^2; 10.2 million inhabitants;
30,639 km national public roads (920 km expressway); 150,355 km local (municipality) public roads

2. Road development and maintenance-rehabilitation I

Year	Length (km) of	
	motorways	expressways
1991	269	77
1996	365	56
1998	448	50
2002	532	30
2004	568	67
2005	576	126
2006	785	129
2007 (Sept)	920	129

Road development and maintenance-rehabilitation II

Insufficient funds for the rest of the net-work from the early-1990's (Typically yearly 0.7-0.8% of network gross value) Consequence: gradual deterioration (sur-face defects, rutting, etc.)

National Road Rehabilitation Programme for 2008-2017: targeted performance indicators for expressways, main roads, secondary roads and bridges.

3. Sufficiency rating from 1979 on

National road network (30,000 km):

- surface defects   yearly,
- bearing capacity   every 5 years,
- long. unevenness   every 3 years,
- rut depth   every 3 years,
- macro texture   every 3 years,
- micro texture   every 3 years.

4. Assets value estimation

From 1981 on, every 4-5 years, net and gross value, roads and bridges

| Year	Road N/G (%)	Bridge N/G (%)	Total network N/G (%)
1981	66.7	75.9	67.4
1986	61.7	70.7	62.5
1990	58.8	66.7	59.4
1995	60.1	56.9	59.8
2000	62.5	55.8	62.1
2004	59.4	49.2	58.5
2006	56.0	51.7	55.7

5. Pavement performance models I

60 trial sections, yearly monitoring since 1991. 14 road section classes.
Performance models for surface defects, unevenness, rut depth, macro and micro texture, (bearing capacity) as a function of age and traffic passed.
Evaluation of actual condition improving effect of rehabilitation.

6. Pavement performance models II
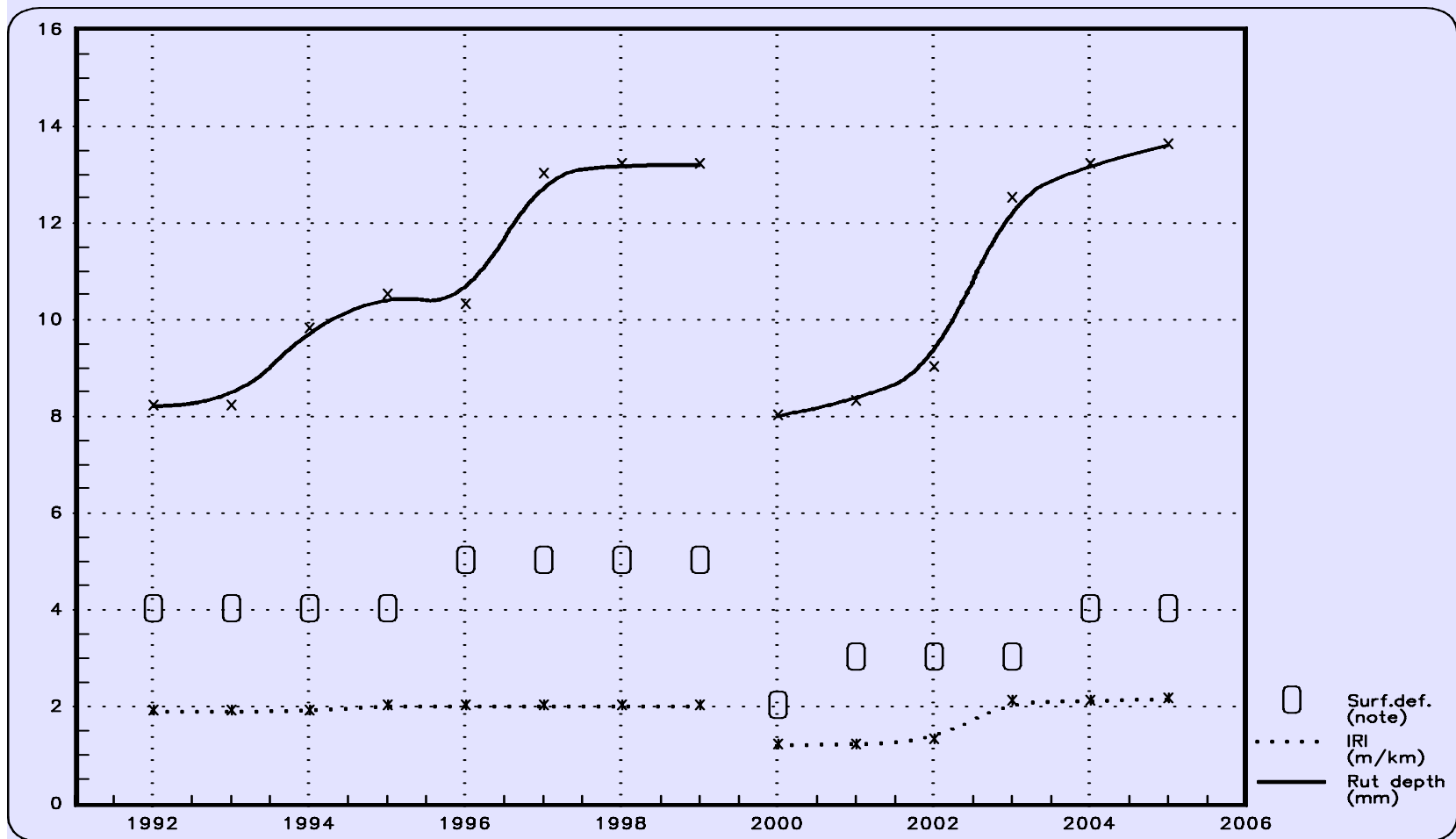
7. Survey of user needs I

a. In the 1980's: bus drivers' questionnaire survey on the condition of bus routes in a Hungarian county.

Subsequent road rehabilitation programme influenced.

7. Survey of user needs II

b. From 2000 on every 3 years:

1000 users' questionnaire survey, satisfaction level (%) for parameters:

worst: urban section quality, pavement quality, aesthetic appearance,

best: service areas, bridge capacity, level road-railway crossings

Regions, road categories and genders compared.

Evolution of satisfaction levels is monitored; considered in road maintenance programmes.

8. Technical decision supporting tools

HUPMS since the mid-1990's, network level, Markov-matrices

City PMS and Motorway PMS

Adaptation of HDM4 model

Adaptation and further development of PONTIS BMS

9. Concluding remarks

Hungarian highway asset management under development; several elements already operational

Road owners should be convinced for support

Survey of user needs with growing im-portance.

Local roads' aspects also to be considered

THANK YOU FOR YOUR KIND ATTENTION !