

Intelligent Transport Systems – Bulgarian Strategy for toll system, traffic management and road safety

ITS Bulgaria – Aims

- supports the application of ITS in all modes of transport
 - ensures that ITS knowledge and information is transmitted to all actors at the local and national level
 - supports ITS promotion from the ground up
 - arranges contact with high-level strategy development and political decision makers
 - improves Bulgarian companies's opportunities in the global market
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ITS Bulgaria – Bulgarian context

National Interests

- Improvement of the Bulgarian Transport System
- Development of high level traffic management
- Development of high-tech ITS industry

European Projects

- Participation in a core developing economic segment

Research – Innovation – Education

- Knowledge transfer/sharing and development of innovative solutions

Networking

- Strengthening of a core economic segment of high national interest

ITS Bulgaria – European context

- Participation in the development of future regional, national and EU programmes
- Synergies in current regional, national and EU projects
- Channel for local SME participation in EU programmes
- Know-How Transfer
- Competitiveness through cooperation
 - Interoperability: road operators; railway networks
 - Standards; Legislation (e.g. enforcement)
- European standards for quality management of ITS

Fundamental theses

The role of the road infrastructure for the country – implies the meaning of the old Roman maxim “The road is life”

The country’s strategic goal – achievement of high quality road infrastructure by means of high exploitation and safety criteria



Funding

Main:

- From the state budget;

Additional:

- With politically guaranteed loans from financial institutions such as the European Investment Bank, The European Bank for Reconstruction and Development, The World Bank, etc.;
- From the different programs of the European Union – PHARE, ISPA, SAPARD and the Operational Programs “Transport”, “Regional Development” and “Agriculture”;
- By Public – Private Partnership (concessions)

Characteristics of the correlation between the level of financing and the achievement of high exploitation and safety criteria.

At this stage of the road infrastructure development a strong linear correlation exists in the country (the principle is “The more, the more...”) This principle predominates in the fast developing economic formations – the way Bulgaria is now. Non-linearity in the curve of utility would be recorded within 10 – 15 years. At this time the intensity of the indicators’ attainment would be lower than the intensity of the investment process.

By 1990, the resources spent for roads, average annually for a period of 5 years are around 470 – 500 million BGN for official rate of exchange of around 1 BGN per dollar. Considering the low levels of fuel costs and construction materials during these years is obvious that these funds allowed **at least twice as much** construction, assembling and repair works.

During the transition period after 1990 different ways of increasing the resources for roads have been sought after, including the passing in 1995 of an Excise Duty Act for the liquid fuel aimed for a specialized fund “Republic Road Network”. The ascertainment is that this act has turned out to be non-effective and by reason of that had been abrogated in 2003.

The duty on vehicles that had been collected till 2003 in Bulgaria is also considered to be non-effective and unable to compute fairly the exact amount and quality of the service given.

The initiated vignette system for fund raising that started in 2004 is also not fair enough due to the payment for time during which one vehicle could travel more km than another.

With the acceptance of Bulgaria in the EU in the beginning of 2007 a new beginning originated for the implementation of European format in our legislation and regulation.

Directive 1999/62/EU has been transposed for taxation of heavy-freight vehicles when using some infrastructures (The enforcement of the taxes is based on the principle of refunding the expenses for infrastructure and the fees are differentiated on the ground of the level of road damages);

Directive 2006/30/EU has been transposed (amending and supplementing Directive 1999/62/EU). With this, the range of vehicles and road network which could be charged is expanded. The minimal requirement is for charges in the Trans-European road network for vehicles with more than 12 tones of weight, and:

- 1. Option for fees for vehicles with less than 12 tones of weight is allowed, but under the conditions in the Regulation;***
- 2. The road range could be expanded, but only under the conditions in the Regulation.***

On the base of the new Regulation a **full analysis** of the condition and the perspectives of the road infrastructure has been made, which serves as a starting point for the National Strategy for road infrastructure development.

The findings of the analysis point out that the shortage of funds for road infrastructure is **drastic**.

For exemplification of the conclusions we provide you with a table of the main data in accordance with the National Strategy for Road Infrastructure Development.

PRIORITIES		Budgeted		Included in programs and floated by funds	
		Lenght (km)	Value (mln. €)	Lenght (km)	Value (mln. €)
PRIORITY 1					
1	<i>Build up of highwas in Bulgaria</i>	832	3075	832	3075
<i>1.01.2008</i>	<i>including with funds from the EU funds and the government budget</i>				
	Maritsa Highway	94	270	94	270
	Lyulin Highway	19	148	19	148
	Struma Highway	156	600	156	600
<i>1.02.2008</i>	<i>including consession projects</i>				
	Trakia Highway + SOP 22 + Calotina 48	188(446)	613	188	613
	Hemus Highway	253(432)	1048	253	1048
	Black sea Highway	98(105)	396	98	396
PRIORITY 2		1 658,60	932,93	711,88	187,29
1	New road projects and reconstructions	175,5	395,5	83,253	149
2	Projects for rehabilitation of road surface in the European Transport corridors.	1 453,80	457,43	599,331	35,288
3	By-roads in the towns and villages	29,3	80	29,3	3
PRIORITY 3		7 509,00	4 763,40	3 012,00	907,2
1	Rehabilitation, reconstruction and new buliding of 5638 km of 2-d and 3-d class roads, funded by Operational Program "Regional Development"	5 638	4 144	1 021	256,2
2	Transit roads V	1 421	507	1541	507
3	Project for rehabilitation and reconstruction of 2-d and 3-d class roads, co-funded by the World Bank	450	112,4	450	144
ОБИЩО		9 999,60	8 771,33	4 531,88	4 169,49

Commentary: In order to realize the National Strategy for road infrastructure during the next seven years Bulgaria needs additionally around **4 601,84 million Euro or around 657,4 million Euro average annually** .

The resources for repair of the Republican road that are in bad and medium condition are not included in the program. The estimate for the amount of the resources necessary is around **2,3 billion Euro** with plan for adoption till the beginning of 2015 or around **328 million Euro** average annually.

The resources necessary for repair of the road equipment are over 50 million Euro and for current repairs and maintenance – around 100 million Euro average annually.

Summary: The necessary additional resources for road infrastructure amount to **1, 534 billion Euro** average annually for a period of 8 – 9 years, allocated as follows:

	Mln. Euro	Share
National Strategy for Road Infrastructure Development	657	43%
Repair and maintenance of the Republican road network	478	31%
Municipal road network	399	26%
TOTAL	1534	100%

According to the experts the problem could not be solved only with resources from the state (about 50 million BGN) and municipal budgets and resources allocated for Regional development program (about 64, 051 million €), and agricultural and rural development program (270 million €). Big part of the local roads are going to be destroyed actually.

This conclusion demands activity for developing of the modern strategy of the state regarding development of the system for assessment and effective collecting of the road taxes.

In order to assess correctly the current state and guidelines for the national strategy we have to adduce the retrospection of the problem.

Since 1995 a lot of research has been done pointing out the policy the government should carry out regarding the road network taxation.

1995 – SPIM, Europistas, Bonifica, Bouigues и Bechtel.

1998 – research, financed by PHARE national program and realized by consortium of European companies, led by COWI, with the participation of the Institute for transport and communications and supported by experts from GOPA GmbH and WS Atkins.

2006 – “Analysis and prognosis for the replacement of the vignette system with toll system”, discussed during the session of the council for coordination, control and realization of infrastructure projects of 05.07.2006.

2006 – research realized by an association of consulting companies – Dornier Consulting, Herry Consult, topic – “Accomplishment of the model of the vignette system, harmonization with the European legislation and administrative insurance of its implementation.”

In 2006 an analysis of the problems was made and the possible sources of financing for the road infrastructure were indicated. Analysis of the use of vignette and/or toll system prepared by consultants shows that in the above mentioned directives **two types of fees** are defined – **fee for distance/section charge (toll fee), and fee for use of the infrastructure for fixed time limit (vignette system)**. The application – combined or separated is a question of choice. The concession of Trakia highway predetermines partially three possible solutions for the type of taxation.

Basic differences between the two taxations:

A Vignette system is based on the principle “everyone pays less”. Although it is more equitable than road tax it does not count precisely the use of the infrastructure and does not correspond to the requirements of the economy.

A Toll system is the most equitable regarding the consumers in comparison with vignette system. It also corresponds most accurately to the EU policies – “consumers pay for what they use” the investment and external expenditures.

After analyzing the different options and proposals and on the basis of the research of the German consultant Dornier Consulting several variants for road taxation, corresponding to the EU directives were drawn up.

First option: Toll charge (electronic or toll booth system) for all types motor vehicles on defined roads – about 2500 - 4500 km from 2010 to 2011. Vignettes abolish for all categories of motor vehicles with the implementation of the toll system.

The use of the remaining road network is going to be free of charge, only the excise duty will remain and will be allocated in state budget for maintenance, repairs and reconstruction of this part of road network.

Second option – stage-by-stage realization of Option 1: implementation of toll fees by 3 stages:

Stage 1: Toll charges are going to be enforced in the middle of 2009 or the beginning of 2010 for the main road network, about 1500 km. highways and 900 km. roads first class – only for motor vehicles more than 12 tones, which are about 400 – 500 thousand and which will pay charge only for mileage (without vignette).

Stage 2: Toll charges are going to be enforced in 2010 for about 250 – 300 thousand motor vehicles more than 3,5 tones and for another 500 km roads, 50 km. highways, and 450 km. first class roads.

Stage 3: Toll charges are going to be enforced in 2010 for motor vehicles under 3,5 tones.

Vignettes abolish for all categories of motor vehicles with the implementation of the toll system. Toll charges will be determined by the concessionaire in accordance with the state.

Third option – the vignettes remain and the Government compensates the concessionaire of the highway for the passing vehicles. This option is not advantageous for the country. The collected fees would not even cover the compensations paid to the concessionaire of Trakia Highway.

In all of the three options there should be taxes for liquid fuels as part of the excise, which will be directed to the construction, repair and maintenance of the Republican and Municipal roads.

Note:

The information for the vignette fees for 2006, 2007 and January 2008 shows the following:

- For 1st category vehicles during the first year the number of vignettes bought constitutes 5,4 % of the total and during the next year decreases to 1,8 % due to the introduction of daily vignettes and the big interest by the drivers. The total amount of the collected fees amounts to 41,4 million BGN for 2006 and around 56 million for 2007.
- At this rate of increase of the collection of vignette fees for 1st category vehicles we could presume that the total amount in 2010 – 2011 with transition to Toll Systems will be around 80 million BGN

Conclusion:

The results of the implementation of the vignette system show the advantages of the second scenario for introduction of the Toll Systems (at three stages and with declining of the vignette system after the third one – after 2011)

Thank you for the attention!