

## **INTRODUCTION**

### **ACTING DIRECTOR OF THE PE “ROADS OF SERBIA” ZORAN DROBNJAK**



“When you want to develop an area, equip it with good roads”, prof. dr Milan Vujanić says and I entirely agree with this. Interdependence of industry and roads is quite evident because roads, in addition to their main function concerning the transport of people and goods, also generate growth and development of all places through which the road network passes as well as all other which are indirectly connected with motorways and other important routes in the Republic of Serbia.

Thus it is the main dedication of the PE “Roads of Serbia” to achieve what is expected from us – to successfully finish all investments and provide the same level of quality of all the roads in Serbia with constant increase of the level of traffic safety, with cordial assistance of the Government of the Republic of Serbia and the Ministry of Construction, Transport and Infrastructure. This is an imperative of our work, not only because of the expectations in front of us regarding the accession to the European Union, but also because good roads are one of the pillars of every serious and modern country.

Road towards the achievement of big results starts with the devotion of individuals, each one of us.

Owing to an exceptional devotion of the employees in the PE “Roads of Serbia”, achievement of the adopted plans is possible, regardless of the difficulties and not always favourable work conditions which the time sets upon us.

Daily perseverance, devotion and openness of our employees to new knowledge and changes is obvious. Aware that the potentials of each one of us are higher than it is expected, I am proud that the collective of the PE “Roads of Serbia” inspires confidence to all partner companies, primarily those which entrusted us both the responsibility and work: Government of the RS, governing Ministry, Supervisory Board and international financial institutions.

I firmly believe in further prosperity of the PE “Roads of Serbia” because we have one of the most capable and experienced management teams in our industry prepared to constantly upgrade business activities. I am sure that together we can continue with the implementation of all tasks entrusted to us and I am thankful for the good and responsible work effected so far.

Acting director of the PE “Roads of Serbia” Zoran Drobnjak

**PROF. DR MILAN VUJANIĆ,**  
**PRESIDENT OF THE SUPERVISORY BOARD OF THE PE “ROADS OF SERBIA”**



Professor at the Faculty of Traffic and Transport Engineering – head of Department for road and urban traffic and transport. Consultant. Court expert in the field of traffic. Excellent professional interlocutor to the journalists. Still, for the Newsletter, his most significant function is president of the Supervisory Board of the PE “Roads of Serbia” for which he was appointed in 2013: professor doctor Milan Vujanić. “Appointment as president of the Supervisory Board of PE “Roads of Serbia” is an honour, a challenge and a reward for me because this enterprise is one of the biggest in Serbia. Beside the employees, all companies for road maintenance are connected with the “Roads of Serbia”, namely it is quite a big number of people depending on this company. Also, the state entrusted the “Roads” one of the biggest values in material sense, to manage the

road network whose total value is about 30% of the total value of the country. This is immediate national treasure.”

**Safety first**

Prof. dr Vujanić says that the roads are also functionally important for a country, in addition to being valuable. “If you want to stop a country, just close its roads. All countries take special care about those to whom they entrust care about the roads. Appointment of the professor at the Faculty of Traffic and Transport Engineering, who has devoted his entire working life to traffic safety as president of the Supervisory Boards shows an intention of the country to work on safety improvement. Since the costs of traffic accidents are unreasonably high, Government of the RS wanted to show to the public and employees in the “Roads” with my appointment the importance of traffic safety, which is the global problem as well.”

In every country, roads, grandiose structures, are difficult for constructing because they require the utilization of big machines and mechanization as well as big investments. Still, if the road doesn't fulfil safety requirements, all invested falls into shadow. “Construction of roads requires a lot of works and once such a structure is constructed, it remains and it is difficult to change it. If you don't like where a road goes, its route and what it connects, you cannot change it. In Serbia, there are roads which were constructed a long time ago and the roads which are constructed now. The roads constructed a long ago are the inheritance and now we can only state whether such a road is safe or not. When it is found unsafe, this section gets closed for traffic. In cases when it cannot be closed for traffic, defects need to be eliminated urgently. When two road features, capacity and safety, are confronted, safety always wins because if a road is not safe, no one will put the signature for its use.”

Highlighting that the roads have a double function, prof. dr Vujanić adds: “When you want to develop an area, just give them a good road. For example, when the Italians

constructed Fiat factory in Kragujevac, the first condition they set was the construction of Kragujevac – Batočina motorway. It was obvious to me that they required their production centre to be connected with the motorway for the purpose of easier transport of goods. This mutual connection of the development of industrial or any other zone has to be attached with the roads. Because, in addition to its main function of transport of persons and goods, the road also generates the growth and development of a settlement.”

### **Necessary increase of toll prices**

Prof. dr. Vujanić highlights that the one to whom the Government delegates to manage the roads and to keep them on the level necessary for the functioning of the road network has to be very responsible, because it is one of the greatest values of the country. “Public Enterprise “Roads of Serbia” is not the owner of the roads, it manages them on behalf of the country. People should know that the toll is not a ticket for the cinema, it is a fee for using a road.”

Fee for using motorway is an inevitable item, however it seems that road users do not have the proper knowledge about the reasons for paying the fee or its increase: “From my point of view, I can look at it in two ways: as a citizen whose interest is for toll to be 0 RSD. Still, as the president of the Supervisory Board of the PE “Roads of Serbia” I know that I can’t construct and maintain these roads if I don’t have any income from the tolls. From 2008, we have been proposing purely technical solutions because toll has not increased for eight years. Find me a product the price of which has not increased for eight years.”

Prof. dr Vujanić states that he understands the citizens. “Still”, he believes, “if the citizens want good roads without holes, and I am sure they want them, not to damage their vehicles and to reach the destination safely and fast, they should put things on the paper and calculate: For example, from Belgrade to Niš, we pay 700.00 RSD for more than 200 km. If we applied European prices of about 5.5 euro-cents per km, which is normal in Europe, it would cost us something about 1,200.00 RSD and the “Roads”, having in mind this economic category, propose to increase the price from 700 to 800 RSD, which is a bit more than 10%. I understand people arguing against the increase, however, I think that the repair of the broken down vehicles because of the lack of road maintenance due to insufficient funds would cost them more than the toll increase. Neither economic nor the traffic logics justifies the keeping of toll prices on this level. If toll prices don’t get increased, the Government will have to provide the funds road maintenance from other sources. Comparison between Serbia and Croatia is an example I like to point on most because it is unusual and paradoxical. Croatia has 1240 km of motorways and Serbia has a bit more than 600. Croatia has the population of 3.8 million and Serbia has 7 million. Price of toll per travelled km of the motorway is not significantly different in Croatia or Serbia, because, simply, traffic is calculated by using certain parameters. Bigger part of the state’s and citizens’ money is directed to the maintenance and small and insufficient part for the construction and development of the road network.”

He highlights that Europe requires the same level of quality of all roads which enable its fast connection: “European Union requires motorway of good quality also on the only road route to Greece, which is its member state. It is the motorway passing through Serbia, from Horgoš to Macedonia, and from Zagreb to Belgrade and further to south. The area is huge and road network has to be such to enable fast and easy connection of destinations.

Quality of driving through Serbia is very important to foreigners. If Serbia doesn't provide that, they will take alternative route through Romania and Bulgaria, which is longer and more expensive for them. Thus, Serbia can easily obtain and obtains loans for Corridors 10, 11 and 7.

Beside toll, percentage of retail fuel price is also stated as one of the main sources for financing the maintenance of road network. However, it stopped functioning in Serbia, which is not a good solution according to prof. dr Vujanić. "Just like traffic safety is financed from fines collected based on irregular and illegal traffic behaviour, it is logical to finance roads maintenance from the selling of fuels. I don't see the cancellation of financing from excise taxes as a good solution because in essence all of us shouldn't pay equally for the roads, but those who drive more should pay more."

### **Serbia and traffic safety: Where are we?**

Prof. dr Milan Vujanić says that Serbia is on the good way concerning traffic safety, primarily owing to the experts who have serious approach to the existing problems. "In 2001, campaign about traffic safety was initiated in Serbia and in already 2002 there were 30% less fatalities on the roads, which is a significant result on the global level as well. The result was worse next year because the managing parties hoped that they achieved an excellent result and that it wasn't necessary to do so much work concerning this issue any more. Afterwards, we dealt with the safety of children, elderly participants in traffic, pedestrians in general both on the level of towns and the Republican level. We achieved the results which are on European and global level. Managers showed high responsibility searching for solutions. The profession should give them a set of solutions, not only one. And as it can be seen, from that year until last year we had a successful decrease of the number of fatalities and injured with small deviations, as well as smaller number of accidents. Also, campaigns only are not sufficient. When I monitored global strategies and directions of activities in the field of traffic safety, I was puzzled and thought that they were wrong when they placed capacities (development of persons and institutions) on the first place and roads on the second. I thought that drivers would be on the second place, followed by vehicles, and after that roads. However, I soon realized that traffic safety can be increased most on the roads. After designing the roads, experts in traffic safety and traffic and transport engineers should review road design and look whether there are any dangerous locations on it. There was an example of Ibarska magistrala road 15 years ago, where it was found in the analysis that 81 accidents had occurred on one location for five years. You don't have to be an expert to say that it wasn't only the drivers' fault. During the site visit, deficiencies had been noticed which were later eliminated. It is established today that traffic safety experts notice possible deficiencies as early as in design phase. After that, the entire road is monitored in the first six months and finally it is analysed where more accidents occur than usual. In recent years, these projects have been started and I am happy because we are following this trend and heading in the right direction."

### **Good rules promise Good game**

Prof. dr Vujanić highlights that legal atmosphere is of extreme importance. "There is no good game without good rules. I want to mention that it is very important that all participants in designing, planning, construction, maintenance in road industry are aware of material and criminal liability imposed upon them because of the occurrences on the road.

As it is necessary for all participants in traffic to obey the regulations, it is very important for road industry workers to bear responsibility during the construction and maintenance of roads and to know and obey the rules of the game. PE Roads of Serbia is a big enterprise, which impacts the lives of many persons by upgrading the roads and decreasing the loss of lives."

### **Cooperation with the PE "Roads of Serbia"**

"My wish as the president of the SB of PE "Roads of Serbia" is to place myself as a friend and advisor of this company, not as a judge and criticizing person. Since people in the PE "Roads of Serbia" indisputably know their job, my engagement here is advisory, to observe things from aside and to suggest modifications. My message is that the "Roads of Serbia" also have this positive trend, with slight deviations, and apply modern techniques. It is of extreme importance that the enterprise possesses qualification, i.e. confirmation if ISO standards, which makes me quite satisfied because not all enterprises are on that level. This is one of the trends, to make a system that functions and improves. I am also satisfied with quite high percentage of experts who do the good work in the "Roads of Serbia". I hope that the readers of this interview will realize that I placed myself in the role of both friend and advisor. In the last two years, I didn't impose any radical solutions with my activities, only the solutions which could provide improvement. Once you head towards the better, it is difficult to stop."

### **Safety – Figures close to the European average**

Number of fatalities in traffic accidents in 2001 was 1274. In 2014, this figure was 536, which is two and a half times less. Everyone was satisfied with this progress and expected that last year we would have the level of 400-450 and this year 300-350 in order to reach the European average which is calculated as the number of fatalities in traffic per 100 000 people. This is the probability for any resident to get killed in traffic. In 2001, Serbia's rate was 18.77 and in 2014 it was 7.17. This means that we are better than many countries in Europe and this is a success. Recently, we have retrograded a bit and this figure is almost 8, however we are still the best among all the surrounding countries (Croatia, Macedonia, Montenegro, Bosnia and Herzegovina...). These results are the consequence of well conceptualized and coordinated action.

### **BIG CHANCE FOR LOCAL WORKERS:**

#### **CONSTRUCTION OF THE SECTION SRPSKA KUĆA – LEVOSOJE (E-75 MOTORWAY BELGRADE – NIŠ – BORDER WITH FYR MACEDONIA)**

When Deputy Prime Minister of the Republic of Serbia and Minister of Construction, Transport and Infrastructure, prof. dr Zorana Mihajlović invited all national construction companies in June 2015 to respond to the public invitation for contractor on the section Srpska kuća - Levosoje, on Corridor 10, everybody saw this invitation as a unique chance for national companies to be in the role of contractor, not subcontractor.

Minister Mihajlović then invited all national road construction companies to join and pool in this unique opportunity: "We have decided to finance the section Srpska kuća - Levosoje on Corridor 10 from the budget. On the entire section of the Corridor 10, not a

single national company is the main contractor, they are everywhere subcontractors. Thus I am inviting all to apply”.



What is said is done. Public invitation was published in June 2015 and the contract was awarded to “MBA – Ratko Mitrović niskogradnja” d.o.o, “Srbija auto-put” d.o.o. and “Central Road Laboratory” d.o.o.

Government of the Republic of Serbia is the investor, PE “Roads of Serbia” is the Employer and the team of “Corridors of Serbia” is the supervisor.

Contract for the construction works on E-75 motorway Belgrade – Niš – border with FYR Macedonia, section: Srpska Kuća – Levosoje from km 934+354.73 to km 942+413.31 is the last signed contract for construction on this road route and the construction of the motorway to the border with FYROM in full profile will be finished with the construction of this section.



The project foresees the construction of motorway on the section of south branch of Corridor 10, from Srpska Kuća to Levosoje in the length of 8.1 km, with four lanes and two emergency lanes with motorway cross section with two separate carriageways with total width of 27.40 m as follows: driving lanes 15.00 m, emergency lanes 5.00 m; edge lanes 1.40 m; shoulders 2.00 m and median 4.00 m.

Key works which are presently being executed on this section include road construction works, earth works and dislocation of telecommunication and electrical installations.

On this part, the motorway crosses several natural and artificial obstacles, which are the rivers Južna Morava, Moravica, Bogdanovačka reka and Bujanovačka reka, two nameless streams, alternative route M-1, railroad Belgrade – Skoplje, as well as two local roads, which has conditioned the size of bridge and overpass spans.

As the motorway section is in the corridor of the rivers Južna Morava and Moravica, motorway alignment alternates on the left and the right bank of the rivers. Other existing roads are located also in the corridor: main road M-1, railroad Niš–Skoplje, as well as the regional road R -214. Thus it is necessary to construct many structures in the motorway base: 7 bridges and three culverts. The longest bridge is 156.00 m long, 28.00 m wide with the surface of 4,284 m<sup>2</sup> at the chainage km 934+816.628. As a part of the construction of structures outside the motorway base, construction of bridge and overpass is foreseen on the interchange Bujanovac 2, overpass on km 937+956.391 and overpass in Levosoje.



From the grade-separated interchange "Bujanovac 1", at Srpska kuća, the existing road M-1 remains as an alternative road in the length of the section until km 940+150 of the motorway, where it connects to the regional road R-214. With this connection, traffic on the existing road M-1, and if needed on the road R-214, will be normal during the construction of the motorway.

Most areas on the motorway route are cultivating land, meadows and grassland and a smaller part is in the flooding area of the river Moravica. Future motorway passes next to the settlements on the territory of municipality Bujanovac. Motorway passes through the following cadastre municipalities: Srpska kuća, Ljiljance, Rakovac, Žuželjica, Bujanovac, Božinjevac 1, Božinjevac 2 and Levosoje.

It is necessary to reconstruct the electro technical infrastructure as well as to relocate and protect telecommunications equipment.

The Contract foresees the total price of works in the amount of 4,052,382,559.11 RSD (VAT included), main and warranty period of 3 years and foreseen completion date is December 2016, only 16 months after the contract signing date.



### **Big benefit From the project**

Along with the advantages for the regions through which Corridor X will pass, the benefit from this project is also the engagement of the local population for the execution of works and use of local materials and raw materials, which will be the initiator of the local industry. Also, with the completion of works on this section, alternative and local roads are elevated to a higher level of service and traffic safety increases, which is important for the local population.

The project includes also the regulation of water courses located in this area, by which the danger from flooding is overcome.

### **Technical data about the project**

All anticipated works can be structurally divided into the following main groups

Construction of motorway route with accompanying structures (bridges, overpasses, box culverts), arrangement of water courses and installation of the necessary signage and equipment

Construction of grade separated intersection "Bujanovac 2"

Relocation and preservation of the existing electric power infrastructure

Relocation and preservation of the existing telecommunications infrastructure

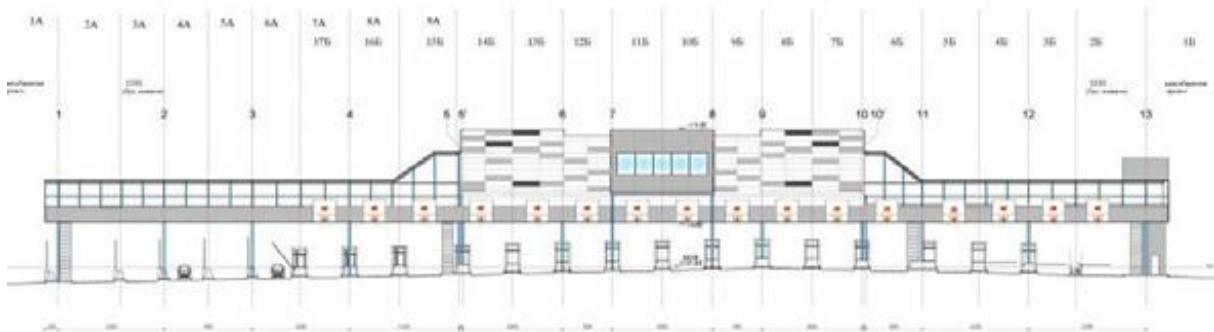
Reconstruction of the patchboard

Construction of alternative road with accompanying structures (bridges), traffic signage and equipment

Construction of local roads

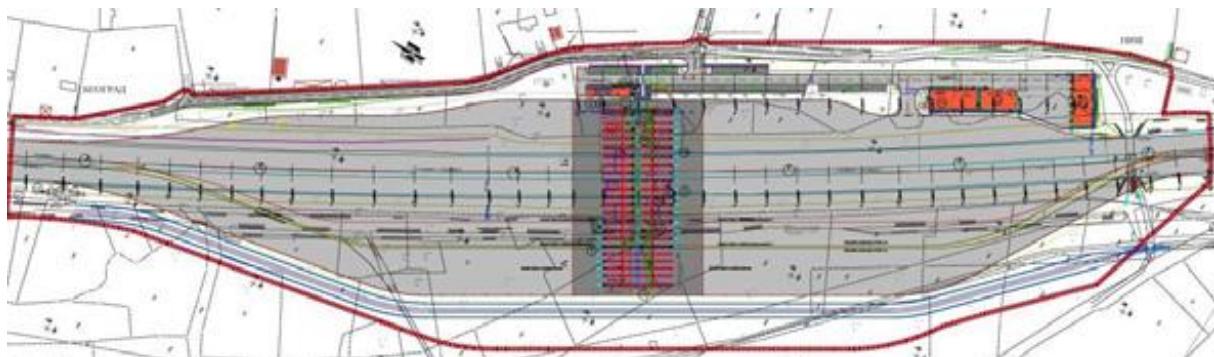
Motorway landscaping

## **CONSTRUCTION OF THE COMPLEX OF FRONTAL TOLL STATION “VRČIN” – PLEDGE FOR THE FUTURE**



Acting director of the PE "Roads of Serbia" Zoran Drobnjak, Contractor's representative director of Strabag Dragan Pavelić and numerous media representatives officially marked the beginning of the construction of the complex of frontal toll station "Vrčin" and road maintenance depot on I A category state road No. 1 (E-75 motorway), section Belgrade - Niš at km 605+635.

In the project for the construction of the complex of frontal toll station "Vrčin" and road maintenance depot it is planned for the frontal toll station complex to be located south from the existing interchange Vrčin at the chainage km 605+635, pursuant to the spatial plan for infrastructure corridor of I A category state road No. 1 (E-75 motorway), section Belgrade - Niš. Relocation of the existing toll station complex "Bubanj Potok" to the new location is planned because of the crossing of the Belgrade Bypass with I A category state road No. 1 (E-75 motorway). On the location of the existing toll station, construction of grade separated interchange is planned which will establish the crossing of significant road routes - Belgrade Bypass and I A category state road No. 1 (E-75 motorway, Belgrade - Niš).



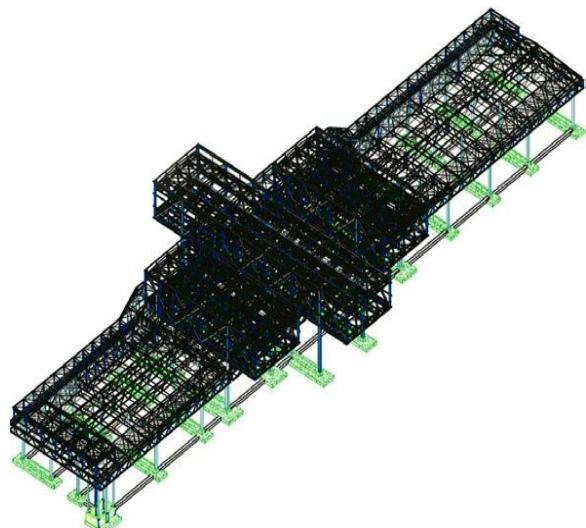
Contractor is the group of national road companies "Strabag" DOO Belgrade, AD "Vojvodina put" Pančevo and Road Company "Zaječar" AD Zaječar. The contract was signed on 12.01.2016, value of works is RSD 2,095,241,098 and completion date is 15.10.2016. Subcontractors are "Institut Mihajlo Pupin" doo Belgrade for installing the video surveillance system and management of toll collection system; "Srbija auto-put" doo Belgrade as subcontractor for earthworks and placement of traffic signage and equipment; "Via Projekt" doo Belgrade and "Mašino projekt Koprin" ad Belgrade for the production of design documents while the supervision of the construction of the complex is carried out by "Šid projekt" DOO Šid, "Centralna putna laboratorija" DOO and "Geopanonija" OD.

The project foresees the widening of the traffic plateau of the complex from the motorway profile to the total width of 130.20 m. The first phase of works includes the construction of four traffic lanes of the future toll station along with their full equipping. Traffic lanes are located on the end right side of the future traffic plateau observing from the direction of Belgrade towards Niš. After their construction, the entire traffic will be diverted onto them and afterwards the construction of the remaining lanes will continue.

Traffic plateau is in the function of toll collection consisting of traffic lanes and islands with booths, canopies, accompanying facilities and office building located on the footbridge above the plateau.

The total of 23 traffic lanes and 22 traffic islands are foreseen on traffic plateau. Exit zone (payment) contains 17 traffic lanes in total, 3 of which are reversible. Entry zone (ticket taking) contains 9 lanes in total, of which are reversible.

Next to the traffic plateau, parking for passenger vehicles is located (parking for employees) with 75 parking lots as well as the parking for the broken-down vehicles with 17 parking lots.



East of the traffic plateau, with the entrance from the direction of Niš, motorway maintenance depot is located with usual facilities: office building with garage for passenger vehicles and warehouse, washing facility and salt storage facility and garage for trucks. The parking is accessed from the existing local road which is being reconstructed in the length of about 370 m in order to fit into the design facilities with its layout and level. The project foresees the adjusting of the local road alignment, which passes below the underpass, with the underpass longer on the west by 8.60 m.

Facility for staff and equipment required for toll operations is foreseen on the footbridge above the traffic lanes and booths. Total length of the canopy structure is about 119.3 m and the width is 20.04 m. Steel structure is laid with thermal insulation panels on the facade. In the middle of the structure, office space is foreseen in three cubes – two 24.40 m long and the one in the middle 42.40 m long and 11 m wide – connected with halls with dimensions 2.7 x 4.9 m. Minimum height of the structure is 4.8 m. Footbridge along the entire length of the canopy is foreseen for the pedestrian communication of the employees, while conveyer belt is foreseen on the footbridge for the transport of bulky material to the storage location. Vertical communication with the booths and islands is realized with the total of four steel staircases and one passenger elevator.

Construction of traffic plateau required also additional requirements beside the usual designer challenges:

Protection and relocation of the alignment of the main pipeline Makiš - Mladenovac Ø1200, in the length of 330 m.

Relocation of the alignment of the No Name Stream in the length of 700 m. New regulated stream bed is with basis dimensions of 3.0 m, with bank slopes 1:1.5, digging depths of 6.0 m and width in crown of the channel over 15.0 m. Regulation of the stream bed is executed from stone in concrete.

Crossing of the alignment of the No Name Stream and main pipeline Makiš - Mladenovac is executed by grade separation of the main pipeline, i.e. by changing the longitudinal slope of a part of the main pipeline thus it is designed to pass under the No Name stream bed and partly below the traffic plateau.

Connection of distribution gas pipeline onto the existing main gas pipeline. Total length of the connecting gas pipeline is about 558 m and it is located partly below the green area, parking, pavement and internal road.

Reconstruction of the existing underpass at km 605+965.80, consisting of the removal of the existing and the construction of the new pavement for take-up and transfer of valid traffic load, B600+B300. Beside the reconstruction of the existing underpass, its elongation is also foreseen from the existing 26.2 m to 35.0 m.

Along with the stated construction works, works concerning the lighting and video surveillance, power supply and provision of traffic signage and equipment of new profile will also be carried out.

Construction of new substation is foreseen for the power supply of the complex of frontal toll station and diesel power aggregate with automatic start and UPS devices will be installed as an alternative option in case of blackout. Concerning energy saving, it is foreseen that the outside lighting of the entire complex is realized by placing LED lamps.

For the purpose of monitoring traffic and other activities in the zone of the complex of frontal toll station and road maintenance depot, the total of 70 cameras with HD ready resolution will be installed. Out of these 70 cameras, 50 cameras will be installed on the traffic plateau and the remaining 20 will be in the zone of road maintenance depot. Beside high resolution, the cameras are also characterized by the possibility to give records of good quality in the total darkness as well.

In accordance with the present trends of energy efficiency and energy saving, heating/cooling of the complex is solved with two-pipe fan coils which operate in the regime 50/45oC (winter) and 7/12oC (summer). For heating/cooling of the office building, parapet fan coil appliances are foreseen, while ceiling – cassette fan coils are foreseen for toll booths. Temperature regulation is local – in rooms, while the switching summer/winter is central.

Design of traffic signage provides traffic calming on accesses to the frontal toll stations with technical means for traffic calming (rumble strips), with the purpose of safe traffic even in poor visibility conditions. With the designed signage, participants in traffic are informed about the approach to the frontal toll station, traffic flow is channelled, passing of vehicles is organized without longer waiting and safety of toll staff is improved. In addition to applying standard traffic signs made of retroreflective materials class III, special (non-standard) traffic signs are also applied: LED displays with inscription and LED displays with changeable symbols as well as technical traffic calming means (rumble strips).

Finally, it is important to mention that all construction works on Frontal toll station Vrčin and road maintenance depot are financed from the funds of the PE "Roads of Serbia" and because of its complexity, short deadline for the execution and execution of works under traffic, it will be a challenge both for the Contractor and for the representatives of the Supervisor and Employer. Having in mind the professionalism and equipment of all involved in the realization of such a complex facility, this task will be successfully implemented. After completion of works, capacity of the new frontal toll station Vrčin will be significantly increased compared to the existing toll station Bubanj Potok, thus crowds characteristic for summer months which have existed so far will be neutralized with this.

#### **Vehicle traffic**

During the works, vehicles will move pursuant to the Design for traffic regulation during the execution of works, which anticipates that the existing driving and overtaking lanes in both directions (two lanes in each direction) will be used for traffic, while emergency lanes will be closed for traffic. During the remedy and widening of the box culvert and construction of the new emergency crossing points, the vehicles will be diverted, namely traffic coming from the direction of Belgrade towards Niš will be diverted to the overtaking lane in the direction Niš-Belgrade, while the driving lane in the direction Niš-Belgrade will be used for vehicles from the direction of Niš towards Belgrade. Such regime will be valid during the construction of emergency crossing points which will last for 7 days and during the widening of the existing box culvert which will last for three weeks. From the middle of June, after the construction of a part of the new toll station, vehicles will be diverted to the newly constructed traffic lanes and then two lanes in the direction Belgrade-Niš will be available as well as two lanes in the direction Niš-Belgrade.

## **MORE VEHICLES ON SERBIAN ROADS – AN EXCEPTIONAL WORK OF THE SECTOR FOR TOLL COLLECTION IN 2015**

Sector for Toll Collection of the PE “Roads of Serbia” marks increasing results year after year through coordinated work of the Department for Operative Toll Collection, Department for the Supervision of Toll Collection and Department for Common Affairs.

In 2015, the total of 39,335,582 vehicles passed on the tolled roads in the Republic of Serbia on all sections.

### **Increased number of vehicles by 6.3%**

Total number of vehicles on tolled roads was higher by 2,331,890 vehicles, or 6.3%, than in 2014.

#### **Total number of vehicles on tolled roads by years**

section	2014	2015	2015–2014	2015/ 2014	SHARE IN 2015
Belgrade-Niš	18,700,993	19,693,100	992,107	+5.31%	50.06%
Belgrade-Šid	6,505,325	6,852,581	347,256	+5.34%	17.42%
Belgrade–Subotica	8,810,518	9,600,670	790,152	+8.97%	24.41%
Niš–Leskovac	2,986,856	3,189,231	202,375	+6.78%	8.11%
Total:	37,003,692	39,335,582	2,331,890	+6.30%	100.00%

We would like to highlight that the number of vehicles increased on all tolled sections compared to 2014.

Section Belgrade-Niš had the highest share of 50.06%, compared to the total number of vehicles, while the lowest share was on the section Niš–Leskovac, 8.11%, as presented in the table.

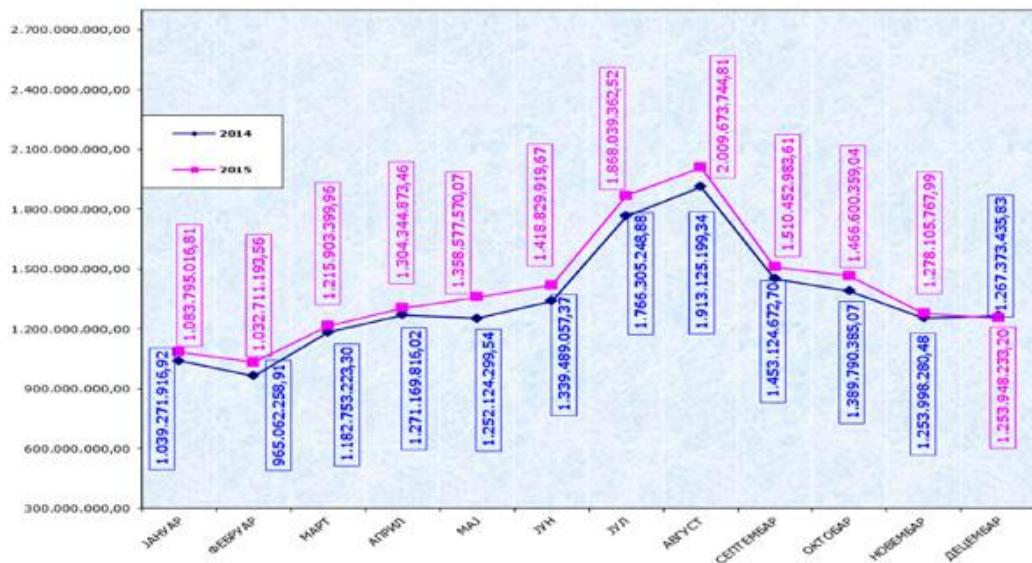
### **Toll Collection 99.92%**

In 2015, total revenue of RSD 16,800,982,424.71 was realized, which was RSD 707,000,000.00 or 4.40% more than in the previous year.

Increase of revenue was marked in all the months last year, except in December, when the decrease by 1.06% or RSD 13,425,202.63 was recorded, which was the consequence of the start of closed toll collection system on the section Belgrade–Subotica, i.e. tolling per passed kilometre.

The biggest increase of revenues was recorded in May 2015 by 8.50%, i.e. by RSD 106,453,270.53.

## Total toll revenue by months in 2015



On all tolled sections in 2015, out of the total number of vehicles that entered the toll stations, 99.90% paid the toll, 0.08% were registered as unmatched, i.e. "missing" and 0.02% were registered as fleeing vehicles. Such low percentage of unmatching means that almost hundred percent of vehicles paid the toll.

Total number of fleeing vehicles in 2015 reduced by 19.03%, i.e. 1,857 vehicles compared to 2014.

Percentage of 0.08% of "unmatching" vehicles also includes the vehicles which, trying to avoid the toll, left the motorway in an irregular manner (by removing safety barriers along the motorway), through illegal exits.

Along the motorway, especially on the section Belgrade-Niš, there are a lot of locations where motorway users open and use illegal exits and thus illegally exit the motorway in order to avoid paying the toll.



Despite quite fast noticing of illegal exits and their closing, it often happens that on the same locations, or near already closed illegal exits, the barriers gets removed again. In 2015, at the request of the Sector for Toll Collection, motorway maintenance companies closed 79 illegal exits (51 on the section Belgrade-Niš and 28 on the sections Belgrade-Šid and Belgrade-Subotica).

## **Increasing number of TAGs**

During 2015, 5,550,239 vehicles using TAG device passed through the toll stations, which is 14.11% of the total traffic.

Revenue from electronic toll collection in the amount of RSD 4,395,975,080.00 participates with 26.16% in the total realized revenue.

Number of passings with TAG device on all sections both in closed and open toll collection system increased by 1,927,855 last year, which is as much as 53.22% more than the previous year.

**Number of passings of vehicles equipped with tag**

section	2015		2014	2015–2014	2015/ 2014
Belgrade-Niš	2,634,457		1,636,778	997,679	+60.95%
Belgrade-Šid	878,704		642,774	235,930	+36.70%
Belgrade–Subotica	1,611,855		1,036,838	575,017	+55.46%
Niš–Leskovac	425,223		305,994	119,229	+38.96%
Total	5,550,239		3,622,384	1,927,855	+53.22%

## **High goals – excellent results**



Characteristic of the Sector for Toll Collection – huge experience and excellent organization of work in all the segments provide excellent results, not only in the periods of increased traffic flow, such as winter and summer tourist season and during holidays, but all the year round.

Thus, it is no wonder why the number of all types of vehicles using our tolled motorways is constantly increasing, both with national and foreign licence plates, because the motto of work of this Sector can be summarized in one sentence –goals set high give high results.

## **START OF THE CLOSED TOLL COLLECTION SYSTEM – TOLL PER PASSED KILOMETRE**



In November 2015, closed toll collection system started on I A category state road No. 1, on the section from Stara Pazova to Sirig.

4 new toll stations were open: Maradik, Kovilj, Novi Sad – South and Novi Sad – North, while the capacities on toll stations Stara Pazova, Indija and Beška were expanded.

With the introduction of closed toll collection system, more fair toll collection system started which is recommended in the EU directives and which applies in most European countries, in which the user pays the toll per passed kilometre, i.e. only for the segment of the road which is used.



With the introduction of closed toll collection system, return of a higher number of freight vehicles on the motorway is expected, which have used II category state roads, or main roads so far without paying toll, and there were about 200 of them on average a day.

With the return of freight vehicles on the tolled motorway, increase of revenues is expected, as well as primarily increased safety of participants in traffic and increased safety of local population through whose settlements the freight vehicles used to pass.

The plan is to introduce the closed toll collection system in the second half of 2016 also on the section from toll station Sirig to toll station Subotica. This implies the opening of three new two-sided toll stations: Feketić, Bačka Topola and Žednik and one new frontal toll station Subotica, as well as the modification of two existing two-sided toll stations in the open system Zmajev and Vrbas into closed system toll stations. The existing frontal toll station Sirig will be removed.

This way, closed toll collection system will be established on the entire route from Stara Pazova to Subotica on the entire length of 142 kilometres.

### **SECTOR FOR LEGAL AFFAIRS**

Support which the PE “Roads of Serbia” has in the Sector for Legal, Staff and Common Affairs and the Sector for Economic, Financial and Commercial Affairs is very significant and without their devoted work the enterprise could not perform its primary work concerning construction, maintenance and upgrade of the road network in the Republic of Serbia with quality, which are increasingly extensive and demanding year after year.

#### **Legal pole of our business activities**

The Sector for Legal, Staff and Common Affairs has worked in full steam in the previous period. Since the sector consists of the following departments: Department for Legal Affairs, Department for Property-Legal Affairs, Department for Labour and Staff Affairs, Department for Public Procurement and Contracts, Department for Common Affairs and Department for Geodesy, each of them performs highly responsible and voluminous tasks.

Department for Labour and Staff Affairs is in charge of staff records and issues related with labour-legal status of all 1430 employees.

Department for Public Procurement and Contracts carries out between 200 and 250 public procurements annually, with total value of about RSD 12 billion.

Department for Legal Affairs is in charge of representing companies in all litigations, criminal proceedings and offences. Having in mind the nature of business activities of the PE “Roads of Serbia”, there is a large number of proceedings in which the employees in the Department for Legal Affairs appear before the relevant courts, namely, presently there are more than 2500 court proceedings in which the PE “Roads of Serbia” appears as defendant or plaintiff.

Department for Property-Legal Affairs and Department for Geodesy are two departments whose connection is unbreakable. Department for Geodesy is primarily in

charge of the preparation for expropriation, while the Department for Property-Legal Affairs is mostly in charge of the implementation of expropriation procedure.

These are extremely big and complicated both geodetic and property-legal affairs especially if it is taken into consideration that from the middle of 2008 until today it has been intensively worked on solving the property legal relations for the purpose of constructing, primarily on Corridors X and XI, as well as on other sections where the works are required – landslide stabilization, Belgrade Bypass, rehabilitation of state roads, etc.

We are witnesses that on April 11, 2016, E-75 motorway section Grabovnica – Grdelica was officially open for which the Department for Property-Legal Affairs had previously fully successfully ended the expropriation.

On 30. 12. 2015, E-80 motorway section Crvena reka – Čiflik (12.6 km) was open as well as the section Čiflik – Staničenje (12.2 km) also after previously ended expropriation procedure.

On 28. 11. 2016 E-75 motorway section Donji Neredovac – Vladičin Han (26.2 km) was open again owing to the previously conducted expropriation.

In previous years, the following sections were also open for traffic on Corridor X, E-75 motorway:

Donji Neredovac – Srpska kuća (6 km)

Levosoje – Bukurevac (10.3 km)

Bukurevac – FYRM border (10.7 km)

Also, the section Batajnica – Dobanovci, including the interchange Batajnica, was constructed on Belgrade Bypass in the length of 10.5 km, as well as Novi Sad Bypass in the length of about 12 km.

Finally, construction of the section Ub – Lajkovac was completed as well in the length of 12.5 km on Corridor XI.

On all these sections on which the construction is finished, Sector for Legal, Staff and Common Affairs had finished all tasks concerning the expropriation.

In addition to the constructed road routes, the works are being executed on the following sections on which the Sector for Legal, Staff and Common Affairs finished the expropriation:

E-75 motorway:

Grdelica – Caričina Dolina 12 km

Caričina Dolina – Vladičin Han 14.3 km

Levosoje – Srpska kuća 10 km

Belgrade Bypass, Sector 5 5.5 km

Subotica – Kelebija (Y branch) 24 km

E-80 motorway:

Prosek – Crvena Reka 22.5 km

Staničenje – Pirot East 14 km

Pirot East – Sukovo 7 km  
Sukovo – Dimitrovgrad 8.8 km  
Dimitrovgrad Bypass – border with the Republic of Bulgaria 8.7 km  
Parallel road from Bela Palanka to Pirot 22.3 km  
Corridor XI:  
Obrenovac – Ub 24 km  
Lajkovac – Ljig 26 km

Also, at the end of 2015, expropriation was done for the purpose of relocating toll station Bubanj Potok to the new location in CM Vrčin.

All this huge work was finished in cooperation with legal departments in the municipalities on whose territory the expropriation procedure was carried out and of course, in cooperation with our Sector for Economic, Financial and Commercial Affairs which made payments on daily basis to the parties in expropriation procedure.

Finally, it is very important to highlight the scope and significance of work carried out by the Department for Common Affairs because it includes both office and archive business activities, translations and foreign correspondence, driving, serving and hygiene maintenance in the work space.

In the Section for Registry and Archive, highly voluminous work is carried out, with the tendency to increase. For example, total number of registered files in 2007 was 56,562, while in 2015 this number significantly increased amounting to 186,461 files.

Technical archive has increased the volume of receiving, recording and lending technical documents, in which the number of volumes increased to 200,000 in 2015 from 30,000 in 2007.

Also, translation and foreign correspondence are intensive, annually about 2,000 pages are translated from English to Serbian and vice versa.

Always a lot of work

Sector for Economic, Financial and Commercial Affairs is in charge of collecting, preparation and processing of data used for monitoring and assessment of the realization of business activities of the enterprise within the set period of time. Also, it provides information for setting the goals, i.e. for making decisions which the Enterprise should implement in the future planned period.

Pursuant to the Report on Inventory of Property and Obligations of the PE "Roads of Serbia" as on 31.12.2015, which was adopted by the Supervisory Board on 3. 02. 2016, Sector for Economic, Financial and Commercial Affairs made all necessary entries.

Novelty in this process is that electronic registration of assets in the Directorate for Property of the Republic of Serbia is enabled, i.e. electronic submission of NEPs as well as the forms SVI -1 (Report on the structure and value of real estate owned by the Republic of

Serbia) and SVI-2 (Report on the structure and value of movable property of the Republic of Serbia).

Since the Decree on recording the public property was adopted and the new software was introduced by the end of the year, the submitted NEPs refer only to the buildings in the ownership, i.e. to the space used by the employees.

During 2016, until the software of the Directorate for Property of the Republic of Serbia is adapted for fixed assets and all data about real estate are integrated in the program, all real estate belonging to the assets of the Enterprise will be reported.

When the financial recording model (software) is upgraded, registering of the fixed assets of the enterprise could be done as well as their reporting.

Software upgrade is necessary because of a vast number of items owned by the enterprise, namely about 15,000 items.

On 19.01.2016 the Supervisory Board made the Decision on the Amount of Fee for Using State Road for Vehicles Registered Abroad (published in the "Official Gazette of RS" No. 16/16 dated February 26, 2016). This Decision brings many changes because it does not include only the harmonization of the regulations, change of the type of foreign currency in accounting (the present accounting in USD changes into EUR). Essential change is in the carrier of the conversion of effective foreign currency since the National Bank of Serbia will not perform exchange operations any more.

Presently, opinions of the Ministry of Finance, PE "Roads of Serbia" and Customs Administration are being harmonized concerning the selection of the commercial bank which will perform the (exchange) activities.

Financial reports for 2015 delivered to the Business Register Agency are the reports done for statistical purposes (Balance Sheet, Income Statement, Report on Asset Changes, Statistical Annex). During March 2016, financial reports were audited, auditors' remarks were accepted and final set of financial reports was forwarded to the Supervisory Board for adoption in March 2016.

Report on the level of realization of Business Program of the PE "Roads of Serbia" for 2015 was also done. All the changed inserted in the set of forms of financial reports are also in the Report on the level of realization of Business Program, which is fully harmonized with the financial reports.

In 2015, the project of renewal and reconstruction of IIA category state road No. 139 – section: Korenita-Krupanj, was successfully completed which was entirely financed as the donation of the United Nations Office for Project Services (UNOPS).

Financial Department also performs a very important task regarding financial monitoring of the implementation of the Road Rehabilitation and Safety Project (known as the RRSP project).

Road Rehabilitation and Safety Project, financed from the funds of the Republic of Serbia, European Investment Bank, European Bank for Reconstruction and Development

and World Bank in the total amount of about EUR 390 million, represents the first phase of the National Program for Road Network Rehabilitation which should include about 1,100 km of the state road network identified as high priority for rehabilitation.

Concerning the vast consequences of the floods in May 2014 on the road network of the Republic of Serbia, "Urgent Works" component was introduced in the Road Rehabilitation and Safety Project in order to remedy the segment of the road network, which will be financed from the funds of the WB, EIB and EBRD, without the participation of the Republic of Serbia.

So far, first tranche of the World Bank loan has been drawn in the amount of EUR 18.5 million, tranche of the European Investment Bank loan has been drawn in the amount of EUR 10.0 million and tranche of the European Bank for Reconstruction and Development loan has been drawn in the amount of EUR 3.2 million. Observing from the financial view, it is significant that the Republic of Serbia is the borrower in the case of these three agreements, thus loan debt will not be recorded in the books of the Enterprise, however, it will be shown as the deferred revenue of the Enterprise which will be approved after the completion of the projects when calculating depreciation.

Business activities in 2016 are completely based on the Business Program which the Government of the Republic of Serbia approves, which also speaks about the significance of this document. Business Program for 2016 was approved by the Supervisory Board on 17. 04.2016 and the Government of the Republic of Serbia issued approval on 25. 04.2016 ("Official Gazette of RS" No. 32/16).

Beside the Business Program of the Enterprise, the Supervisory Board adopted and the Government of the Republic of Serbia approved four restatements (Program on Amending the Business Program) in 2015.

For the needs of monitoring the realization of investments by items, quarterly reports are made as a form signed by the Ministry of Finance. These forms also require quarterly planning of investment items in order to be able to monitor the implementation as precisely as possible. Special highlight is placed on the quarterly reports because according to the article 64 of the Law on Public Enterprises, Ministry makes and submits information to the Government about the level of harmonization of the planned and realized activities.

Beside quarterly, Sector for Economic, Financial and Commercial Affairs monitors the realization of income, expenses and costs of the PE "Roads of Serbia" on monthly level, and it prepares monthly reports.

We would like to highlight that for 2016, the amount of RSD 7.5 billion is planned from the budget of the Republic of Serbia as grant for the PE "Roads of Serbia" out of which amount RSD 5 billion is planned for the maintenance of I and II category state roads.

Allocated amount for the maintenance of I and II category state roads pursuant to the Business Program for 2016 (RSD 16.5 billion) is far below the necessary level for unobstructed functioning of the Enterprise.

We believe that it is necessary to return the excise for oil derivatives as the only stable source of financing the Enterprise in the long term.

### **LAYING OF FOUNDATION STONE FOR THE BRIDGE OVER THE RIVER SAVA AT OSTRUŽNICA**

Another important segment of Belgrade Bypass has started. On 19.01.2016, construction of the bridge over the river Sava at Ostružnica started, from interchange Dobanovci to interchange Orlovača, in the length of 1,964 metres.

Even in the 1950s, the need for Belgrade Bypass was noticed as a unique part of the entire trans-Yugoslav motorway and European routes E-70 and E-75, in order to fulfil the requirements both for a big city road and for connecting international transit traffic.

The existing bridge was constructed in the period from 1990, with construction of the right carriageway – the biggest investment as a part of Belgrade Bypass construction, until February 1999, when it was ready for opening. Soon, during the NATO bombing of the SR Yugoslavia, at the end of April 1999, more than 240 m of the bridge were demolished between piers C1-C2-C3, while the rest of the bridge suffered severe damages. In the period from 2002 until 2006, the bridge was reconstructed and open for traffic. "Mostogradnja" was the contractor.

New bridge over the Sava at Ostružnica will represent a harmonized functional unity with already existing bridge over the river Sava. This is the most significant and most expensive project as a part of the construction of motorway section from Dobanovci to Bubanj Potok. Concerning structural elements, the new bridge will be the twin bridge of the already constructed bridge over the Sava. After its completion, Belgrade Bypass will be functional in full motorway profile, 30 meters wide and with designed speed of 120 km/h. The bridge will be constructed as a part of the second phase of E-70/E-75 motorway, from interchange Dobanovci to interchange Orlovača and it will be constructed by the consortium led by Austrian company Strabag.

Belgrade Bypass is common section of two European roads, namely E-75, which goes from Hungary to Greece and Bulgaria, and E-70 which goes from Italy and Austria to Romania.

Beside connecting north (E-75) and west (E-70) motorway, Belgrade Bypass is also the link between the main roads towards Obrenovac and Valjevo (M19), Čačak and Kraljevo (M22) and Ralja (P200) and merging into the direction towards Niš (E-75) at Bubanj Potok. Continuation of the section from Bubanj Potok towards Romania (E-70) is foreseen and presently design documents are under preparation.

In addition to its great significance as a part of European corridors, this section is of exceptional importance for Belgrade City and the Republic of Serbia. With the construction of the bridge at Ostružnica, Belgrade receives another important traffic alternative, namely, it enables the displacement of transit traffic from the central area of Belgrade. This will

significantly reduce travel time for transit flows, traffic jams on city streets will be reduced as well as the number of traffic accidents on the segment of main city street network with the highest traffic volumes. Reduction of vehicle exploitation costs, harmful gases and noise caused by vehicles in the central city areas will also be a significant benefit.

With the implementation of this project, Belgrade will get another bridge over the river Sava as well as alternative traffic link of the existing E-70 motorway with Ibarska magistrala road, i.e. future motorway Belgrade-South Adriatic.

Along with construction works on the bridge and the road, drainage works, works regarding the runoff waters with treatment plant, traffic technical and service equipment of the road, public lighting, electricity and telecommunications infrastructure as well as the right-of-way preservation and landscaping works will also be carried out

The project foresees the construction of the left motorway carriageway after the bridge in the zone of interchange Ostružnica, 1,000 metres long, as well as the fitting of the two ramps.

On the ceremony regarding the beginning of construction works of the bridge at Ostružnica, Prime Minister of the Republic of Serbia Aleksandar Vučić laid the foundation stone:

“This bridge over the river Sava is constructed by the Government of the Republic of Serbia. Bridges do not connect only two banks, but also all our people. To the praise of peace, harmony and good will among the citizens”, is the inscription on the plate.

Minister of Construction, Transport and Infrastructure, Zorana Mihajlović was also present at the official beginning of the works. “We do what we promise”, Zorana Mihajlović highlighted reminding that the construction of the second bridge over the river Sava was very important. Deputy Prime Minister of the Government of RS said that ten national companies would be engaged on this project and that more than 200 employees would work on bridge construction every day and later, as the works progressed, this figure would rise to about 350.

“Our task is to connect Serbia with corridors and motorways and to make our country a transit corridor in this region.

**SEGMENT OF BELGRADE BYPASS OPEN FOR TRAFFIC, SECTION INTERCHANGE DOBANOVCI**  
**– BRIDGE OVER THE RIVER SAVA AT OSTRUŽNICA**

Deputy Prime Minister of the Government of RS, prof. dr Zorana Mihajlović, acting director of the PE “Roads of Serbia” Zoran Drobnjak, representatives of the contractors, supervisors and designers opened a segment of Belgrade Bypass for traffic in the length of 10.05 km on 20.04.2016.

With this, traffic on full motorway profile is established on the section from interchange Dobanovci to the bridge over the river Sava at Ostružnica.

It remains to construct the second phase of the Bypass – section from the bridge at Ostružnica to Bubanj Potok.

**ROAD REHABILITATION AND SAFETY PROJECT**

Objective of the Road Rehabilitation and Safety Project is to improve traffic conditions and safety on app. 1.100 km of the state road network, which, in the 5-years implementation period, is planned to be realized through:

- a) rehabilitation of anticipated number of kilometers of the existing roads,
- b) elevating road safety level through application of various measures and conduction of diverse activities in all Project implementation phases, and
- c) strengthening of the capacities and improvement of institutional coordination in the area of traffic safety in Serbia, along with modernization of road management and maintenance.



The Project is being realized through the following components:

Component 1: Investments in works on road rehabilitation and traffic safety improvement;

Component 2: Institutional strengthening through:

- Supporting the improvement of traffic safety, which implies inspection of safety conditions and implementation of low-cost measures for safety improvement;

- Strengthening of planning and road sections rehabilitation processes through assessment of condition of the entire national road network, road database updating, institutionalizing perennial maintenance plans based on clearly defined economic, social and regional criteria and adoption of updated project standards for maintenance and rehabilitation; and

- Modernization of maintenance management through development of strategic plan for implementation of performance based contracts (Performance Based Maintenance Contracts – PBMC), production of bidding documentation model for PBMC security and implementation support;

Component 3: Designing, supervision, Project management, monitoring on the Project and revision.

Works on rehabilitation of the road network should be realized on 55 sections of wide geographical ruggedness within the Project, with application of specified measures for traffic safety improvement, environmental protection and improvement of social aspects in work zones, in accordance with policies and procedures prescribed by the International financial institutions.

In order to provide funds for removal of consequences of floods occurred in May and intensive precipitations in 2014 on a segment of road networks of the Republic of Serbia anticipated by the Project, in the period May – July 2014 and in cooperation with creditor banks the framework for introduction of the Component of Urgent works on the Project was established and the process of restructuring of financial arrangements commenced..

Agreed framework for Urgent works comprised the following:

- 10 sections from the Project suffering damages incurred by floods/precipitation were identified, thus becoming a priority for investing;

- the model for financing the urgent works was defined (6 contracts for works are financed by the World Bank and European Investment Bank's loans, without participation of resources of the Republic of Serbia and with financial share of 50% - 50%, 4 agreements for works are 100% financed by the European Bank for Reconstruction and Development's loan);

- intentionally prepared contract model "design and construct" approved by the bank was implemented;

- application of Limited International Bidding (LIB) was approved for the contracts financed by the WB and EIB funds, where this procedure implies submission of bids in

response to a call, while the EBRD, after fundamentally agreed application of the same procurement procedure, in the last quarter of 2014, decided that works financed by the loans of this bank should be procured by means of open international procedure.

Indicator of Urgent works:

- 11 contracts, 10 sections, 7 road routs, app. 19 km/per contract;
- EUR 71,2 million, 192 km, 133 months of engagement for 1.5 year of duration;
- 3 sources of funds (World Bank, EIB, EBRD), 3 different procurement procedures;
- design and execution period is 12 months in accordance with “Design and Construct” conditions of contract;

• technical control, technical documentation and supervision services are provided in one contract for the entire component.

• Indicators of routine Project program:

- 106 contracts (45 contracts for works, 41 design contracts, 20 service contracts), 45 sections, 11 road routs, app. 20 km/per contract;

- EUR 320 million, 907 km, 1,165 months of engagement for 4.5 years of duration;

• 5 sources of funds (Republic of Serbia, World Bank, EIB, EBRD, EU Donation), 9 different procurement procedures (works – 3 (WB)+1 (EBRD), services – 4 (WB)+1 (EU), goods – 1 (EU));

• for average section of 20km, cycle lasts for minimum 2.5 years (31 months, calculated from the publication of the call for designing until the completion of works, for the period of 4-5 months for design process and 15 months for execution of works);

• for rehabilitation of one section, in addition to works, 4 services are being provided (designing, revision of traffic safety, technical control and supervision of works);

• all design contracts should be concluded until March 2017, and contracts for works until the beginning of 2018. .

The Project is financed by four international and two domestic fund sources. Models of co-financing and parallel financing from three loans, donation, RS budget and PERS' own revenues are also being applied.

Considering financing, the Project is divided into two sub-projects:

1) sub-project financed by the RS, EIB and WB funds which, in addition to works on road rehabilitation, encompasses all other activities and services foreseen by the Project amounting approximately EUR 290 million (where payments under Project are made from the funds of drawn tranches in accordance with the conditions of financial contracts), and

2) sub-project financed by EBRD funds enhancing only road rehabilitation works amounting approximately EUR 100 million (EBRD makes direct payments on Contractor's account).

In part jointly financed by the loans of WB and EIB, and RS funds, the rehabilitation on the following contracts for urgent works commenced in 2015 will be completed in course of 2016:

- Urgent maintenance and removal of damages on the I B Category state road No. 27, Lazarevac – Aranđelovac 1, section: Lazarevac 4 – Aranđelovac 1, length: 17,607 km
- Urgent maintenance and removal of damages on the I B Category state road No. 27, Loznica 5 – Zavlaka 2, Section: Krst – Zavlaka 2, length: 20,279 km
- Urgent maintenance and removal of damages on the I B Category state road No. 27 Loznica – Valjevo, section: Zavlaka 2 – Pričevići, length: 27,018 km
- Urgent maintenance and removal of damages on the I B Category state road No. 28, Mali Zvornik – Ljubovija – Užice, section: Mali Zvornik – Gračanica, length: 23,620 km
- Urgent maintenance and removal of damages on the I B Category state road No. 26 Belgrade – Šabac – Mali Zvornik, section: Banja Koviljača – Mali Zvornik, length 14,150 km and the I B Category state road No. 28 Mali Zvornik – Ljuboovija – Užice, section Mali Zvornik – Ljubovija 1, length: 13.526 km.

The following works are also being planned to be contracted:

- Motorway E-75 (M-22), Belgrade – Novi Sad, Rehabilitation of the carriageway in the length of 5,5km
- Heavy maintenance of the I B Category state road No. 23, section: Užice 3 – Kratovska Stena, length of 37,028 km.

In the segment financed by EBRD loan the rehabilitation on the following contracts on urgent works commenced in 2015 will be completed in course of 2016:

- Urgent maintenance and removal of damages on the I B Category state road No. 31, Raška – border with APKM (Jarinje), section: Raška 2 – border with APKM (Jarinje), length: 10,550 km.
- Urgent maintenance and removal of damages on the I B Category state road No. 22 Preljina – Kraljevo, section: Mrčajevci – Kraljevo 1, length: 18,791 km
- Urgent maintenance and removal of damages on the II A Category state road No. 152 Topola 1 – Bućin Grob, section: Topola 1 - Bućin Grob, length: 27,280 km
- Urgent maintenance and removal of damages on the II A Category state road No. 170 Rogačica – Bajina Bašta, section: Rogačica 2 – Bajina Bašta 1 (Perućac), length: 9,590 km

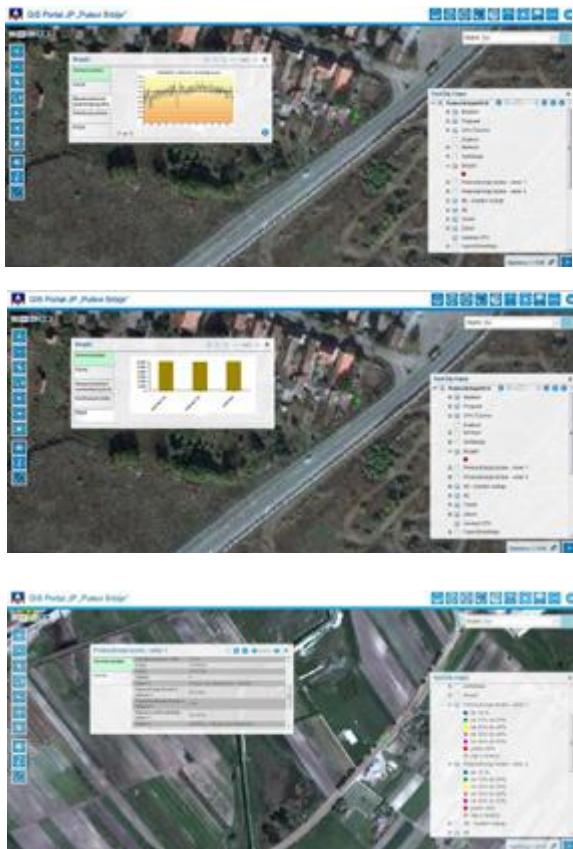
Contracting of works on intensified maintenance of I B Category state road No. 12, section: Kać – Zrenjanin 1 (bypass), length 24,211 km, is also being planned.

#### **SECTOR FOR TRAFFIC MANAGEMENT INFORMATION SYSTEM**

##### **Extensive work is realized**

Sector for Traffic Management Information System performs, in accordance with the Law on Public Roads, activities of keeping records on state roads, state road marking, traffic and technical data on roads, traffic management and survey of traffic load on state roads.

The Sector's competence covers also handling of all databases important for state road network and activities on automatic data processing relating toll collection, as well as IT activities of the Enterprise.



The Sector performs monitoring, supervision and management of traffic on the segment of state road network equipped with ITS elements, supervision and management of systems and equipment installed in tunnels, data collections from weather stations necessitated by the competent services (RWIS), and traffic survey and traffic data collection.

According to its activities and objectives, the Sector can boast of its realization of significant activities in course of 2015, namely:

- furnishing control and supervision center for the system of management of tunnel complexes with hardware and video surveillance equipment;
- connecting structures and equipment by the communicational infrastructure;
- users' control activities on tunnel

complexes where ITS' elements are being applied;

- preparation of technical documentation for improvement of fire protection and prevention in tunnels;
- application of TETRA communication system in tunnel complexes;
- activities on burglary protection of facilities and electrical substations on Belgrade Bypass;

- involvement in realization of PBMC through application of ITS elements;
- gathering, processing and publication of data on traffic flows on road network;
- updating, integration and development of the existing databases;
- production and submission of geo-spatial data to relevant public institutions;
- structural setting and georeferencing of data from DB in ArcGIS FGDB environment;
- survey of transverse and longitudinal (IRI) road evenness on 14 sections of state road network ;
- survey of average speed of vehicles – preparation of report for 32 locations/for TPA-MIA;
- involvement in preparation of diagnostic for 12 sections on state road network/for RRSP;
- participation in realization of Unified National Traffic Accident Database Project;
- production of applications for mobile mapping and database web application;
- completion of the first phase of ADP modernization;

- gathering, processing and submission of reports relating toll collection activities;
- support to ETC processes;
- support to activities of the sectors and services in charge relating toll collection processes;
  - IT activities of the Enterprise;
  - maintenance of computers, computer and communication equipment of the Enterprise;
  - maintenance of the system for traffic flow observation;
  - maintenance of ITS equipment and subsystems installed on the state road network.

### **SECTOR FOR STRATEGY, DESIGNING AND DEVELOPMENT**

#### **Development of roadways**

In addition to state road maintenance, the investments in construction, reconstruction and rehabilitation of roads, as well as in preparation of studies and projects which are a precondition for execution of these works, are also needed. The Sector for Strategy, Designing and Development set concrete targets for 2016 relating design and planning documentation.

Activities concerning implementation of the approved design on Preparation of Preliminary Design with Feasibility Study for Route 7 / E-80/ SEETO – comprehensive network, direction Niš – Priština, are being performed, along with the parallel activities on the Spatial Plan for Special Purpose Area for the infrastructure corridor Niš – Prokuplje – Kuršumlija – adm. crossing Merdare along with „Strategic Environmental Impact Assessment“.

Application for obtaining resources from EU pre-accession funds for the missing technical documentation for “SEETO” - “Comprehensive Road Network in the Balkans” in order to create the preconditions for usage of the future structural and cohesion funds: section Route 4 Belgrade – Pančevo – Vršac, Route 5 Kotroman /connection with the Republika Srpska/ Požega – Čačak – Kraljevo – Kruševac – Pojate, and very important road route situated outside „the Comprehensive network“, but of vital importance for Serbia, section Ruma – Šabac – Loznica /the Republika Srpska/ is being prepared.

Commitment of the Serbian Government is to strengthen the bonds and cooperation with the Republika Srpska, which has led in 2016 to anticipation of preparation of the Preliminary Design on bridge over river Sava on the I Category state road No. 21 corridor, Novi Sad – Ruma Šabac (L=680 m, B=21,40 m) / a part of the larger design Ruma - Šabac – Loznica.

Current affairs in the region and Europe have recognized as a very important communication link the necessity of another significant bridge; thus the preparation of the Preliminary Design with the Feasibility Study on the bridge over Danube at Bačka Palanka with access roads is anticipated.

Cooperation with all state bodies engaged in European integration processes will continue, especially relating technical support to realization of Cross-border cooperation Project, as well as preparation of all reports necessary for operations of the Sector for Strategic Planning and Management of Infrastructure Projects, Sector for International Cooperation and European Integration, Sector for Road Transport, Roads and Traffic Safety, Ministry of Construction, Transport and Infrastructure. One of the Sector's main objectives is further improvement of cooperation with the Republic Geodetic Authority considering regional initiatives for implementation of "INSPIRE" EU directive.

### **Cooperation with Hungary**

An example of exceptionally good cooperation of all state institutions was the Strategic Noise and Air mapping related to border crossings and related infrastructure project -HUSRB/1203/11/030.

The PR "Roads of Serbia" signed the contract with the KTI Institute for Transport Sciences Non-profit Ltd. on joint involvement in the „Strategic Noise and Air mapping related to border crossings and related infrastructure” project, financed by the EU IPA funds, under the Research areas of state roads in the region, meaning borders between Serbia and Hungary from the north side and Serbia and Croatia on the west from Bezdan to Sombor, as well as direction Sombor – Subotica – Novi Kneževac – Banatsko Arandelovo on the south side and border between Serbia and Romania on the east. Total length of roads in the research area was app. 280 km.

Specific goals of this Project are implementation of Directive 2002/50/EC on the ambient air quality and clearer air for Europe, thus creating a legal basis for introduction of methodology for measurement of noise and air pollution in the Republic of Serbia, contribution to preparation of Feasibility Studies and environmental impact. The long-term goal is reduction of noise level and air pollution for the benefit of health and quality of life of residents living in the research and related areas.

Objectives of this contract are: identification of the territory and number of residents affected by the noise and air pollution levels exceeding thresholds prescribed by the EU Directives. Additional objective is to analyze and prepare plans aimed at reduction of pollution level, gathering of empirical data on noise and air pollution levels in the area of Serbian-Hungarian border crossings and related infrastructure. The contract aims at measurement of impact of road transport on environmental components, while the results should be assessed in accordance with the threshold limit values defined in the EU Directives. The Project comprises the following and so far realized activities: transport research and traffic counting, noise mapping, air mapping, noise level measuring and air quality measuring.

## **Cooperation with Monte Negro**

Under the IPA cross-border program Serbia – Monte Negro, through the component II, allocation for 2012-2013, the PE “Roads of Serbia” prepared in August 2015 proposal for the project “Harmonization of infrastructure development with environmental sustainability through provision of high-quality database of significant ecosystems of nature reserves”.

Partner in preparation of this Project is the Faculty of Civil Engineering in Podgorica, and the co-applicant is Center for eco-toxicological research from Podgorica.

The specific objective of the suggested Project is also increase in productivity and competitiveness of economic, rural, cultural and natural resources in the program fields – National park Tara, Zlatibor, Šargan – Mokra Gora in Serbia, National park Durmitor and National park Biogradska gora in Monte Negro. The Project proposal is in evaluation phase conducted by the Managing Authority of EU Delegation.

## **Bulgaria and Romania**

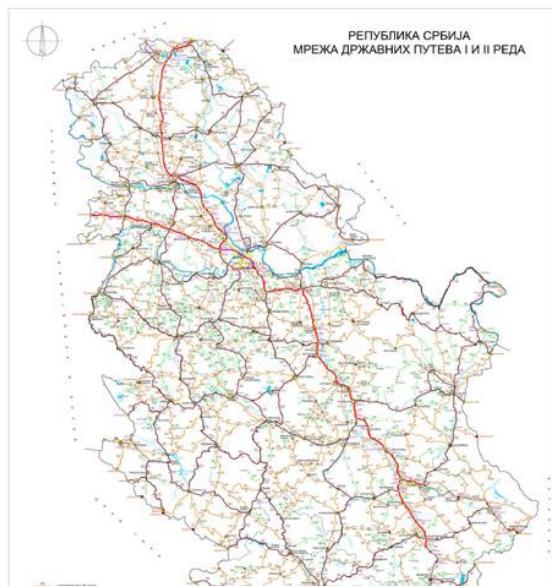
Intensive activities are being performed on Project proposal on two additional programs of cross-border cooperation in new financial perspective 2014 – 2020. These programs are INTERREG program Bulgaria – Serbia and INTERREG program Romania – Serbia submitted until January 2016. There are ongoing negotiations relating these programs with potential partners from Bulgaria and Romania, respectively, in accordance with the rules of the Program. Envisaged programs relate to the priority axes Environmental protection and Sustainable tourism.

## **Regional study /REBIS/**

Intensive activities are being performed on supporting the line Ministry in preparation of the Updated Regional Balkans Infrastructure Study, with the prepared report on these activities.

In the perspective of joining, i.e. signing this Transport Agreement with EU and negotiations concerning involvement in TEN-T, the serious work is being performed on updating the Development Strategy of Railroad, Road, Water, Air and Intermodal Transport in the Republic of Serbia for period 2015-2020 which is being realized through “Twinning Project” of our relevant Ministry and with support from colleagues from France and Lithuania. There are also ongoing negotiations about the idea of amending the Integrated Strategy of Road transport and Infrastructure for period 2015-2025 as the Project component.

## Regional interconnection



Serbia participates actively in the Process of stabilization and accession of the Republic of Serbia to the European Union, and the PE "Roads of Serbia" is actively involved from the very beginning in all activities concerning this process. For the purposes of reassessment and analysis of the regional transport on the Western Balkans, the EU ordered and financed the Regional Balkans Infrastructure Study (REBIS) completed in 2003. This Study focused on development of regional multimodal SEETO – Main Network which is now called SEETO – Comprehensive Network. Development of Main

Network proposed at that point in time required stronger regional cooperation; therefore joint Steering Committee and Secretariat for the observation of the development of the Main Network were established. All data on road network, which were being delivered to the Steering Committee, were prepared by the professional services of the PE "Roads of Serbia". "SEETO – Comprehensive Network", which will be opened within the Trans-European Transport Network TEN-T by EU, will transform hopefully in the near future into the part of south-east axle.

Since the necessity for adequate analyses of data gathered so far, which significantly varied among different regional countries and transport means as well, is recognized, preparation of updated Regional Balkans Infrastructure Study (REBIS) commenced in 2013, potentially in the perspective of joining – signing the Transport Agreement with the EU and negotiations concerning the inclusion in TEN-T.

The PE "Roads of Serbia" actively participates in the Work Group supporting this important project. The Study will provide further investment guidelines, confirm the remaining investment decisions which are not relevant yet, consider multimodal transport in order to ensure the links with the sea/river ports and airports, as well as the links outside the immediate region of the Western Balkan based on trading trends by focusing on non-physical barriers, border crossings located on the main roads of the SEETO-Comprehensive Network, taking into consideration activities which were not performed as a part of the Central European Free Trade Agreement /CEFTA/.

In accordance with all relevant transport Strategic documents, PERS applied for the funding from pre-accession EU funds through the line ministry supporting the development of the SEETO-Comprehensive Network. From PPF-4 program the approved project for Preparing Preliminary Design with the Feasibility Study of Route 7 /E80/ SEETO-Comprehensive Network, direction Niš-Priština is being carried out. The EU Database

contains also application for the missing segment of Route 4 – Belgrade – Pančevo – Vršac, on the I A Category state road No. 3 (E-70) for which the funds haven't been approved yet and which represents the last section without technical documentation on SEETO-Comprehensive Network. It is important to note that this is direction defined by the strategic documents as a priority of the EU, unlike some other sections in that region.

### **Road Traffic Safety**

PERS pays special attention to improvement of road and traffic safety on the state roads in accordance with the Law on Road Traffic Safety and proposed Strategy on Road Traffic Safety in the Republic of Serbia for the period from 2015 to 2020. The following activities fall under the scope of objectives planned to be achieved:

Preparation of study documentation in the field of road and traffic safety on the state roads, along with analysis of all high risk situations from the wide range of traffic safety with proposal of suitable measures for improvement of state roads traffic safety.

Preparation of technical design documentation on improvement of high risk and hazardous spots and sections on the state roads.

The basic conditions necessary for fulfillment of desired objectives comprise provision of appropriate financial resources and carrying out the appropriate tender procedure for the public service procurement. Success of realization of desired goals is being determined according to the ISO 9001 Quality system.

Traffic safety system on the state roads is to enable sustainable development of state road network with minimum negative effects.

Road safety vision is decreased traffic-related death rate on the state roads, where the Traffic Safety Policy of the PE "Roads of Serbia" aims at cutting down road deaths until 2020 in Serbia and achieving the level of majority of European countries reached in 2010.

The number of dead varied between 800 and 960 in the period from 2002 to 2009. During 2010, after the enactment of new Law on Road Traffic Safety, the death rate was significantly reduced. The number of fatalities in 2010 was the lowest since the introduction of statistical monitoring of traffic safety in the Republic of Serbia – 660 fatalities. Year 2011 records increase in fatalities – 731, which is often explained by weakening of Law's effect because of impossibility of application of certain legal regulations, delay in adoption of by-law acts, and the like. The number of fatalities was reduced in 2012 compared to 2011 – i.e. 688 fatalities. Year 2014 records the smallest number of fatalities – 536 persons.

Traffic safety and public road conditions in the Republic of Serbia according to the dimensions of the public risk (annual number of fatalities per 100.000 citizens) are 9,4 fatalities/100.000 citizens (2012)

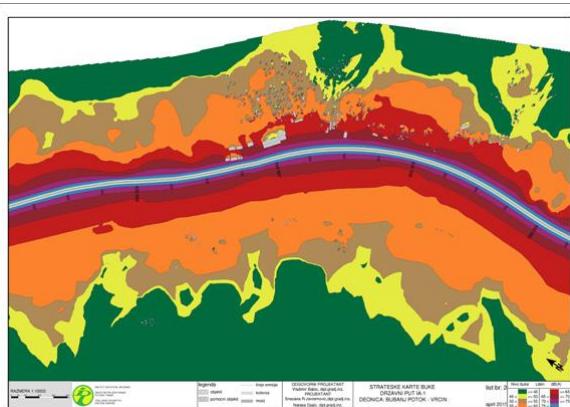
Traffic safety and public road conditions in the Republic of Serbia according to the traffic risk are (annual number of fatalities per 100.000 registered vehicles) are 3,4 fatalities/100.000 registered vehicles (2012), somewhat bigger EU countries.

Trends of monitoring public and traffic risks in last 20 years reflect significant specificities fluctuating dramatically in values of both risks. Traffic safety conditions in Serbia, besides the considerable fluctuations considering the most serious accidents, tend to be improved.

The objective is to develop traffic safety on state roads by application of modern procedures for road safety improvement arising from the Law on Road Traffic Safety.

### **Environmental protection**

The laws of the Republic of Serbia relating environmental protection clearly define the rules and procedures all legal and natural persons who, by performing their actions, influence or might impact the environment negatively must obey. Environmental impact is significant and it manifests through water, air and earth pollution, and adverse noise influence on human health, ecosystems, protected natural and cultural heritage. Accordingly, the PE "Roads of Serbia" recognized its obligations trying to exercise its influence in the processes of planning, designing, execution and exploitation of roads in order to provide high-quality road infrastructure by following all environmental protection requirements.



The existing regulations relating the environmental protection define the responsibility of project manager in all life stages of road life cycle. From the environmental aspect, one of the visions is that the PE "Roads of Serbia" should become an organization responsible and competent for achievement of goals of sustainable development relating the activities of development and maintenance of road network, and road traffic in whole. This vision is harmonized with the strategic documents of the Republic of Serbia and environmental protection policy in the PE "Roads of Serbia". The Department for Environmental Protection is in charge for fulfilment of this vision.

The PERS' mission is to provide conditions for optimal realization of traffic on road network of the Republic of Serbia, preserve natural resources and energy, and to provide citizens with the insight in environmental conditions changed under the influence of construction, maintenance and exploitation of roads, thus avoiding public health threats.

In order to have proclaimed vision and mission within environmental protection realized, the special emphasize during 2016 will be laid on the realization of the following objectives:

1. Insight in environmental conditions in the zone of impacts on road networks under the jurisdiction of the PE "roads of Serbia" and informing the public. Desired outcomes

represent the created strategic noise maps as a result of the activities initiated by and harmonized with the requests of the EU Directives and Action Plans of the European Agency for Environmental Protection. This includes developed designs for monitoring environmental conditions for a certain number of specific sections on the state road network, initiation of the monitoring procedure itself for one section on the road network and collected data on changes of environment in the zone of site impact resulting from execution of works on construction and heavy road maintenance.

Realization of this objective necessitates whether commencement of completion of public procurement for preparation of strategic noise maps for all sections of public roads with traffic load greater than 3.000.000 per year, public procurement for monitoring projects and realization of plan for adopted monitoring project for selected pilot section, as well as established cooperation with the contractors and supervision in order to provide data relevant for monitoring the environmental conditions.

The success of the realization of objectives will be checked and positively assessed in terms of realized strategic noise maps and monitoring projects with adopted project on the pilot section and regular influx of data on environmental conditions, as well as consistent implementation of the Plan for Environmental Protection Management during the execution of construction works on state roads.

2. Initiation and monitoring of realization of activities relating environmental protection in preparation of design-technical documentation for construction and maintenance of the road network. Desired outcomes are positive assessments of parts of the strategic estimation relating roads, obtained approval of studies on impact assessment and positive opinion of technical committees given on main projects of environmental protection.

Terms of realization imply consistent implementation of procedures for obtaining approvals on studies on impact assessment and properly performed Terms of Reference for Main Projects on environmental protection.

Success of realization is being measured by the ratio between the number of approved studies and a total number of launched studies, i.e number of accepted main projects on environmental protection and number of the launched ones.

3. Development of scientific and professional basis for management of correlation between environment and road network. Desired outcome is preparation and adoption of new studies, guides and instructions which will assist the public in finding a solution for mitigation of road and traffic impact on the environment and providing an insight in reached levels of pollution.

Completion of Studies on correlation between protected natural and cultural heritages and state road network, Studies on assessment of emission of particulate matters suspended in air as a traffic product on the I and II Category state roads for the period 2013-

2015 and Inspection of effectiveness of the construction for noise protection, I B Category state road No. 23, section Čačak – Požega, Ovčar banja, is anticipated for the year 2016.

Prerequisite for the realization of the abovementioned is successful cooperation with the Institutes for Nature conservation and Protection of Cultural Monuments, as well as the Serbian Environmental Protection Agency.

Realization efficacy is being assessed through number of performed publications and consultations with the academic community for which these publications are intended for.

In addition to these concrete objectives, the permanent commitments are planning, designing and construction of roads with harmonization of planning and technical solutions with regulations on environmental protection, inspection of possibilities of new materials application, as well as constructions which contribute to realization of sustainable development's goals, recording and conservation of cultural and natural heritage of special value (protected areas), and revision of skills and knowledge on protection of work environment of the PERS' employees.

### **MAINTENANCE AND ROAD PROTECTION - ALWAYS MORE AND ALWAYS BETTER**

The primer task of the Sector for Maintenance of I and II Category State Roads are maintenance and protection of existing state road network with accompanying facilities.

Because of extraordinary weather conditions affecting our land in recent years, all affairs of this Sector have become not only more comprehensive, but their public significance have become more apparent and much more present.

Routine maintenance of roads and accompanying facilities imply summer and winter road maintenance and maintenance of electric power supply systems and lights. Additionally, periodic maintenance – improvement of carriageway, remedy and rehabilitation of public road and heavy maintenance of public road are being carried out. Works on urgent road maintenance are conditioned by extraordinary circumstances and natural disasters. Regular affairs of the Sector include also all works and activities considering protection of public roads.

Professional services of the Sector keep track of realization of contracts on all abovementioned works, and their quality and quantity are controlled by the supervisors with laboraroy controls performed by authorized supervisors and laboratories.

In course of 2015, in the period from 1<sup>st</sup> January until 31<sup>st</sup> March, and from 15<sup>th</sup> November until 31<sup>st</sup> November the priority was winter road maintenance, in short – prevention of ice occurrence and removal of snow from roads thus securing traffic safety.

After the end of the winter service the following activities were mostly performed: potholes patching, mowing, painting of missing or faded road markings, cleaning of channels, removal of deficiencies according to the records and decisions of the competent republic inspectors, and remedy works on road sections and facilities damaged by floods.



The works performed in course of 2015 amounted RSD 19.872 million. Out of this amount RSD 17.151 million was spent on routine and winter maintenance works on I and II category state roads and facilities with electric power supply systems and lights.

Protection of the public road implies daily activities which determine whether occupancy of the public road, illegal construction works on the road and road protection zone or any other action which significantly damages or could potentially damage the public road or obstruct safe and regular traffic flow.

The professional services of the Sector issue also permits for transport of special freight by vehicles that alone or under the freight exceed stipulated and allowed axle load, total weight, width, length and height. There were 6685 request for permission for special transport, 6207 permits were issued, which brought app. RSD 106 million in revenues from fees in course of 2015.

Inspection of permitted axle load comes also under road protection domain. During 2015 10.493 vehicles were inspected, with 8,6% i.e. 901 caught in violation and charges were brought against responsible persons.

Other activities considering road protection, such as issuance of transport and technical conditions and consent to construction, i.e. reconstruction of public road services, construction, i.e. installation of waterworks, sewerage works, heating, railways and similar structures, as well as telecommunication and electrical lines, plants and the like in road protection zone in compliance with the Law, issuance of transport and technical conditions and permits for modification of traffic surfaces of accompanying facilities on public road; issuance of transport and technical conditions and permits for sports and other manifestations held on the public road; issuance of special permits for performance of special transport; issuance of transport and technical conditions and permits for placement of advertising boards, billboards, devices for visual and audio informing or advertising on

public road, i.e. beside that road. Approximately 1850 requests relating all stated activities were submitted, while 98% of them was processed.

Routine maintenance works on I and II Category state road performed in course of 2015 comprised pavement remedy works on the following sections: entrance to Zaječar, Kikinda-Bašaid, Brus road, Kruševac-Razbojna, roundabout in Vrnjci, intersection in Bečeј, in industrial park „Mali Bajmok“, Svetozara Markovića Street in Zaječar, Jagodina-Rekovac, roundabout in Petrovac on Mlava and Čačak, Raška-Odvraćenica, intersection between Milana Rakića, Filipa Višnjića and Đorđa Vojinovića streets in Indija, Koceljeva-Ub-Stubline, Novaci-Pambukovica.

Urgent maintenance works on I and II Category state roads in 2015 comprised runoff of surface water from carriageway in the settlement Veliko Gradište, urgent maintenance works on road-street Knjeginja Milica and Knez Lazar in the municipality Ćićevac, section Leposavić-Borance-Brus, Borance (church) – Blaževo, Kadina Luka-Slavkovica, Ribarci-Karamanica, bosilegrad-Trgovište and the like.

### **Maintenance of structures (bridges)**

There are approximately 3.000 bridges of various ages, construction methods and static systems. Regular maintenance implies inspections, monitoring and recording of the structure's condition based on which the works on removal of observed damages are being carried out. Inspections cover all elements of the bridge, and they serve as a basis for determination of the extent of damages occurred on the structure and making decisions about further activities.

The works on regular maintenance are executed during the entire lifespan of bridge usage. In case of damages which go beyond the scope of regular maintenance, these works have to be included in plan of works on routine (investment) maintenance of the structure, i.e. in plans covering rehabilitation, upgrading or construction.

Considering that the road structures have suffered extensive damages during flood in May and September 2014, in course of 2015 5 new bridges were constructed in place of the collapsed ones. Three bridges are situated on the state road network, and two on the local roads: bridge over river Tamnava in Koceljeva, bridge over river Jasenica in the settlement Blaznava, and the bridge over river Podvrška near Milutinovac on which the works continue in 2016.

There are two bridges on the local road network, over river Tamnava in the municipality Koceljeva – link to settlement Mala Jelići and bridge over river Ub on the route from village Družetić to village Gola Glava.

Through routine maintenance in 2015 the works on the following road structures were completed: bridge over river Rača, bridge over railway at Veliko Orašje over the motorway Belgrade-Niš, bridge over river Bistrica – Bistrić 4, section Nova Varoš – Prijepolje, bridge over river Belica, bridge over reservoir “Gruža”, section Ravni Gaj – Mrčajevci.

In course of 2016 the commenced works on the overpass over railway and road, section Požega – Užice – Arilje Interchange, bridge over river Jadar in the municipality Loznica, section Karlagan – Draginac – Ribarica, bridge over river Sopoćnica in Sopot, bridge over river Stojićka in the municipality Kosjerić and bridge over Drenovački stream in the settlement Kosjerić continue.

During 2015 the works on intensive maintenance of the bridge over lock at Novi Bečeј, river over channel DTD at Vrbas, bridge over channel DTD at Lalić, overpass over service road at Novi Sad (on the I A Category state road No.1), river over lake Ćelije, section Kruševac – Razbojna, bridge over section Rgotina - Alapin, bridge at Kovin and many other bridges were completed.

In course of 2015 the urgent maintenance works on structures on I and II Category state roads were carried out. The works on the bridge "Belica" on the motorway section Belgrade –Nis were completed during 2015.

Two new bridges have been also constructed on the section Šabac – Užicka Požega, bridge over river Tamnava, and new bridge over river Jasenica on the section Šatornja - Stragari.

Through positions of the urgent maintenance of structures (bridges) on the local roads in 2015 , the rehabilitation of bridges damaged in floods was carried out on the following road routes: municipality Koceljeva – bridge over river Tamnava, in the village Družetici Gola Glava, bridge over river Ub in the municipality Loznica, Karagan – Draginac – Ribarica, bridge over river Jadar, municipality Kosjerić – improved road and bridge over river Stojić, segment of the road Razana – Drenovac and river over Drenovački stream.

In the Pirot County region in 2015 the rehabilitation of carriageway on the section Pirot – Babušnica and section Gnjilan – Sadikov Bunar and Donji Straževac – Izvor in the length of 3,2 km was carried out, and constructed sidewalks in the length of 880 m were due to safety of pedestrians. On the roads which lacked modern pavement surfacing the road sections were paved with reclaimed asphalt pavement in a total of 9,6 km.

In order to improve the local roads and floods' aftermath in Serbian municipalities in 2015 the following works on urgent maintenance were carried out.

The works were carried out in municipalities Ljubovija, Mali Zvornik, Vladimirci, Krupanj, Kosjerić, Čačak, Ćićevac, Novi Pazar, Tutun, Sjenica, Nova Varoš, Šabac, Čajetina, Gadžin Han, Kuršumlija, Sremska Mitrovica, Koceljeva, Valjevo, Vrnjačka Banja, Bajina Bašta, Vranje, Ub.

### **Urgent landslide stabilization on I and II Category state roads**

Urgent landslide maintenance on the I and II Category state roads in course of 2015 was carried out in the settlement Lažine, on the section Novi Pazar – Sjenica, near Gornji Milanovac, on the section "Đerdap 1" – Tekija, near Tekija in the municipality Kladovo, the retaining wall was constructed at hydropower plant "Đerdap 1" – Požarevac, section Donj

Milanovac – Golubac, landslides Kruševica in the municipality Lazarevac, landslides on the road Koceljeva – Valjevo, landslides “Jeremići” on the road Požega – Ivanjica, “Štavica 2” on the state road Ljig – Rudnik.

In addition to abovementioned, in course of 2015 the stabilization of landslides were carried out on the following sections: Krupanj – Mačkov kamen – Gračanica, Šabac – Tekeriš – Zavlaka, in Pepeljevac, Velika Krsna – Selevac in Selevac, landslides at Guriševci, Brajkovac – Belanovica, Dići – Bojkovci at Dići, Kladovo – Korbovo – Milutinovac at Milutinovac, in Rudovci on the state road Vreoci – Kruševica – Aranđelovac, Zaječar – Boljevci, landslide stabilization in the municipality Ljig, landslides “Suvodol” on the road Smederevo – Smederevska Palanka.

### **New lighting installations on Kruševac bypass**

On the route of the I B Category state road No.38, on the eastern Bypass around Kruševac, the lighting was installed because of better visual coverage of the road and increased traffic safety.

In order to secure increased traffic safety on the I and II Category state roads during 2015 the critical spots were improved in the city of Leskovac, on the I B Category state road No. 44, by construction of roundabout and in the II A Category state road No. 158 – intersection.

### **HIGH STANDARDS OF WINTER SERVICE**

As in previous years, winter road maintenance officially commenced with the media conference and presentation of the Winter Maintenance Plan and the system of functioning of road maintenance, informing the media and interested parties on road conditions.

Mr Zoran Drobnjak, Acting Director of the Public Enterprise “Roads of Serbia”, Mr Zoran Stojisavljevic, Executive Director of the Sector for Maintenance of I and II Category state roads and Manager of Winter service Department, Mr Saša Stojanović, Assistant Minister for Construction, Transport and Infrastructure, Mr Boban Stevanović, Assistant Chief of the Sector for Emergency Situations MIA, Mr Zlatko Belencan Assistant Chief of Traffic Police Directorate, and Mr Milan Bozović, Acting Director of Road Traffic Safety Agency addressed the numerous news crews.

Systematic and serious preparations of all participants in winter service precede as usual the beginning of winter service, as pointed out by the Acting Director, Mr Zoran Drobnjak, at the opening of press conference. We are completely ready, having all necessary resources at our disposal, and plan for maintenance of road network in the Republic of Serbia in winter conditions which represents the frameworks for forming of operational plan of specialized enterprises was ready long ago. The Serbian Government is behind this plan and it adopts it, Drobnjak emphasized.

I need to point out, Drobnjak said, an excellent cooperation of PERS with the Ministry of Internal Affairs – Traffic Police Directorate, the Sector for Emergency Situations. We exchange all necessary information on conditions on state road network, and we regularly inform them on road conditions, accepting every suggestion and we make mutually, in a spirit of collegiality and professionalism, all decisions, especially those concerning traffic closures on critical road sections. On behalf of PERS, Mr Drobnjak appealed again to all traffic participants to be cautious, not to start their journey without winter equipment and pneumatic tires, to obey speed limits and road signage thus enabling safety of all road users.

Sasa Stojanović, Assistant Minister of Construction, Transport and Infrastructure commenced his addressing stating that exactly this cooperation constitutes a part of one of the most serious segments in cooperation between line Ministry and PERS, especially when difficult situation occurs in traffic or when serious decisions have to be made jointly, notably in case of severe weather conditions and storms. It should also be noted that app. 3 billion dinars is provided for winter maintenance of road network in the Republic of Serbia. Additionally, Stojanović repeated the appeal of all state bodies that traffic participants should be more cautious during the winter period, because in 2015, contrary to all efforts of both the Ministry and the PERS, Traffic Police MIA RS and the Road Traffic Safety Agency, the increased number of traffic accidents was recorded. Therefore, he appealed to the media that the constant informing on this topic, drawing attention to the need of obeying traffic regulations and reminding the traffic participants of their obligations are the best possible prevention of traffic accidents.

Boban Stevanovic, representative of the Sector for Emergency Situations in MIA RS has explained the formal legal and practical components of cooperation with the PERS, with the special emphasize on the operative component of the process of reacting and saving the endangered in emergency situations, as well as excellent cooperation with the PERS on another, very important organizational component relating coordination of activities and operations with all state and local administrative bodies of permanent character. Stojanović also said that cooperation with PERS on various activities relating implementation of legally adopted Operational plan on safeguarding and rescuing on the Corridor X is of special importance.

Zlatko Belencan from Traffic Police Department MIA RS once more confirmed the excellent cooperation between his Department and the PERS, presented and elaborated in detail the statistical data on number of dead and injured in traffic accidents, and again recalled on all legal obligations of vehicle owner during the winter period.

Milan Bozović, Acting Director of the Road Traffic Safety Agency (until the end of 2015) once again pointed out the fact that in every, namely numerous investigations performed by the Agency, the human factor in whatever form is still decisive and factor number 1 causing traffic accidents. Only after that, as emphasized by Bozović, come the following causes of accidents – force majeure or other unforeseen circumstances. Therefore, it is necessary to

firstly equip the vehicle for winter conditions and to plan a journey in detail, Bozović pointed out. It is better to quit the journey, to be cautious and not travel at any cost, Bozović advised, because it is the wisest and best thing in many situations.

This year the winter service is performed by 26 enterprises, said the Executive Director of the Sector for Maintenance of I and II Category state roads and Chief of the Winter Service Department Zoran Stojisavljević, and added that we have 163 road maintenance depots and points, 719 road vehicles, 327 machines, 892 workers – road builders. Additionally, 184 technicians, 327 machinists and 719 drivers are engaged, and more than 74.730 tons of salt, 140.00 km of stone aggregate and gritting material, and 1500 tons of cold asphalt mass for the remedy of potholes are provided, as Stojisavljevic stated. – bridge over river Tamnava, in the village Družetici Gola Glava, bridge over river Ub in the municipality Loznica Kagan – Draginac – Ribarica, bridge over river Jadar, municipality Kosjerić – repaired road and bridge over Stojića river, segment of the road Ražan – Drenovac, and river over Drenovački stream.

The presentation of winter service plan and the manner in which the public is being informed through media was presented by Ljerka Ibrović, the Manager of the Department for Public Relations at the PERS. From all points in Serbia, from every site, as Ibrović pointed out, information on road conditions converge in the Informative center are being inputted in web application, which, after it is checked out, is presented on the website of the PERS in form of the Winter Service Report and submitted to the Director and the Chief of the Winter Service Department. Department for Public Relations submits the Report on road conditions during winter period at least twice a day, and also by an e-mail when necessary, to the Automobile and Motorcycle Association of Serbia, the Ministry of Construction, Transport and Infrastructure, the Sector for Emergency Situations MIA RS, the Traffic Police Department MIA RS, media and the public, and at a request to individual road users and other subjects. It is very important to note, Ibrović explained, that the application receiving all data is of high quality, that it enables quick input of data and quick obtaining of a complete report which provides all the necessary information for every significant section, and that the time by which the report is generated extremely short. It is of special importance to highlight, says Ibrović that the report is sent to the media in the early morning at 5.30 and in the afternoon at 17.30. In all emergency situations and when necessary, the activities are being performed and watched out 24 hours a day, and special reports of winter service are being sent to media and everybody else accordingly .

A schematic diagram of information flow.



Especially important and very efficient and successful system of informing the public and all interested parties on road conditions was presented at the conference.

## SIDE BAR 2

Depot "Srbijaautoput" A.D. in Mali Požarevac.



As practiced every year and up to this day, the PERS has organized for journalists visiting of road maintenance depot "Srbijaautoput" A.D. in Mali Požarevac, where the operating system of this road enterprise which maintains section of the motorway Belgrade – Niš was presented at the very scene. The journalists watched the disposable mechanization and salt aggregate and grit storages showing great interest.

## **DEPARTMENT FOR PUBLIC RELATIONS – NUMBERS SPEAK FOR THEMSELVES**

Department for Public Relations issued 718 press statements for the media and professional community during 2015. The largest number of these statements concerned announcements about works on repair after the floods, modified traffic regimes because of execution of maintenance works on road network, toll collection, investments, as well as statements during winter maintenance.

The responses were issued to 143 requests made by journalists, from every operational field of the Enterprise, and as every request contained 3 to 5 questions on average, it actually makes 500 answered question. Additionally, 140 requests/questions of citizens, i.e. natural persons, were answered, as well as numerous phone calls.

One of the most important goals was achieved in 2015. The PERS' positive exposure in public was increased in 2015 to 97,12%, while 31,61% were responded to the same day, i.e. in less than 4 hours, and 21,43% were responded to within 1 day.

In the period from 15<sup>th</sup> November 2015 to 31<sup>st</sup> March 2016 the Department sent a total of 1101 winter service reports, out of which 312 reports to Automobile and Motorcycle Association, 165 to print and electronic media, 312 to the Sector for Emergency situations of the MIA, and 312 to the Ministry for Construction, Transport and Infrastructure.

Because of the extraordinary weather conditions, the Department sent 68 appeals, 37 announcements relating traffic closure owing to the extraordinary weather conditions or traffic accidents, as well as 17 announcements on traffic normalization.

The analysis showed that in the period from February to December 2015 a total of 8913 media reports were recorded. According to the ABE (Advertising Value Equivalence) which is based on the price of commercial/advertisement of appropriate size in a given media and which represent commercial value of the statement, it was estimated that in case the PERS paid for every commercial whether it was in printed or electronic form, internet portals or agencies it would amount approximately RSD 1.701.996.542,00. This clearly shows that the Department for Public Relations actually saved the stated amount for the Enterprise.

### New design of PERS' internet presentation

This year saw the new design and new outlook of the internet presentation which follows current trends of web presentation designs, such as: tiles (title tiles), responsible design (outlook adjustable to the device approaching web presentation), more visible text, less menu bars, better outlook organization and undoubtedly better display of all important and necessary information.



In addition to the new and more contemporary outlook of the presentation, within activities performed on maintenance and improvement of web pages and the Enterprise's website itself, there is an ongoing migration to the new platform – operating system Linux CentOS 7.1 64-bit, following the recommendation of the EUnet. Concurrently, there is a transfer to the new version of the presentation's Content Management System (CMS), Joomla 3. The new version brings improvements in management and release of the content, display on smart devices, and it surely provides raised level of safety.

A total of 37 video clips, i.e. 7,2 Gb of data, have been uploaded to the PERS' web presentation available for downloading by the media and all interested parties. The most important projects were followed up, such as the Road Rehabilitation and Safety Projects, works on the Belgrade Bypass, traffic regime modification on the state road network, Winter Service readiness, and Enterprise's activities.

Last year the increased number of visits/sessions to the internet presentation ([www.putevi-srbije.rs](http://www.putevi-srbije.rs)) by 16%, as well as users by 14,8%, compared to the previous year was registered. The most visits are from Serbia (over 80%), and then from countries in the region, but also from Germany, Austria and the Czech Republic.

Bounce rate (rate of leaving web page) is somewhat bigger, during 2015 it was 48%, while during 2014 it was 42% - which represents a good result. This information shows that when a visitor visits a page they stay on the presentation or leave it (for example, when they open a page by mistake). Web presentations which are being actively advertised are satisfied when a bounce rate remains under 60%.

Considering the content, top list of visited pages shows that users most often visited homepage, map of road conditions, toll price schedule, information on electronic toll collection, contact page, road conditions page, and the like.

A total number of visits to internet web presentation has been increased by 16% compared to the previous year. In the course of 2015 there was a total of 301.965 visits with a total number of views numbering 872.025 pages – which represents increase of about 3% compared to the previous year. Every visitor viewed almost 3 pages on average, with an average hold of 2:33 minutes.

Trend of the increase in visiting number compared to the previous year is an important parameter showing information quality and increased interest in content and information displayed in the web presentation.

Road condition map occupies an important place in number of visits, which implies the correctness of decision on introducing such visual presentations of important information, but also a necessity for improvement and adaptation to new technical challenges. New map showing road conditions is displayed on all mobile platforms, which turned out to be significant because of increased usage of mobile platforms (currently almost over 21%).

**TRADE UNION ORGANIZATION OF INDEPENDENT TRADE UNION OF THE PE “ROADS OF SERBIA”**

**Summer camp for children**

The summer camp for kids was also organized last year in the period from 17<sup>th</sup> July until 26<sup>th</sup> July by the PERS' Independent trade union. Kopaonik and hotel "Rtanj" was the place where gathered kids aged between 9 and 14 assisted by 17 animators, with a lot of fun, friendship and laughter spent 10 unforgettable days. This is exactly the reason why from year to year a number of registered children is increasing and looking forward in advance to new adventures.

**Humanity at work place**

In order to facilitate a journey and eventual prolonged hold at the toll station to everybody, and especially to the youngest traffic participants, during hot summer days the humanitarian actions in sharing food, juices and water was organized. Such engagements are always desirable and tend to become traditional.

**New Year's presents**

Trade union has also this year prepared New Year's presents for children of the PERS's employees, and thus cheering up 735 kids up to 12 years old.

**Children's drawing contest on theme "My planet"**



After the last year, when floods imposed different working regime of the PE "Roads of Serbia", this year the tradition of announcing the children's art work contests continues. Children of all employees up to 12 years of age had an opportunity to express their talent. Little artists painted

on the theme "My planet". Significant number of great works was submitted, and commission decided to award first, second and third prize to each of age categories, as well as prizes for inventiveness and special prize "Youngest participant".

First places in three age categories are won by:

Milica Radović (age up to 6 years),  
Nađa Stanovčić (age between 7-9 years) and  
Mila Janjić (age between 10-12 years).

Prizes for inventiveness were won by:

Danilo Stanovčić age up to 6 years.),  
Kristijan Ljušić (age between 7-9 years) and  
Dušan Petković (age between 10-12 years).

The prize “youngest participant” was won by Andrea Mitrović (3 years old)

Among all the first places the 2015 contest winner was selected, and it is Mila Janjić.

The awarded pieces of work embellish the PERS’ calendar and New Year’s greeting cards. We are looking forward to all future joyful meetings with our children!

#### **„ПУТАРИЈАДА 2015“ – WORK FOR DOMESTIC ROAD WORKERS**

Organized by the Autonomous Trade Union of Road Maintenance Workers of Serbia, the 20<sup>th</sup> worker’s games titled “Putarijada” were held in the period from 25<sup>th</sup> to 28<sup>th</sup> June 2015 at Kopaonik, and opened by Deputy Prime Minister and Minister of Construction, Transport and Infrastructure, Ms Zorana Mihajlović.

She thanked the Union for its invitation to participate in already the traditional manifestation, and emphasized that it represented a great opportunity for creation of closer contact between workers, the Union and the employer, noticing that her and the Ministry’s role is to provide the conditions for companies to act in compliance with the law, for employers to be respected and, as the most important thing, to make domestic companies the contractors of infrastructural works. “Our task is, first of all, to be proud of our roads, and not to have problems with road conditions and maintenance”, Mihajlović said on the opening ceremony of “Putarijada 2015”.

The president of the Autonomous Trade Union of Road Maintenance Workers of Serbia Sonja Vikanović emphasized on this occasion that the line Minister was invited for the first time to open the games, because in previous years they couldn’t find an adequate interlocutor and social partner who understood the Union and employer’s problems, and who could essentially be helpful in overcoming these problems. The most important part is, as Vukanović pointed out, that the road construction companies finally and for the first time got business engagements financed by the international loans which contributed not only to the preservation of old work places in road industry, but also to increased number of employees. A lot of activities was performed in a short period of time, she explained,

beginning with the adoption of Convention 94 of the International labor organization which served as a basis for creation of employers' white and black lists. "I honestly hope that this good cooperation will continue, because it is the only way in which everybody can benefit – employers, employees and the state", Vukanović said.

### **Sportsmen of PE "Roads of Serbia" racking up medals again**

As happens every year "Putarijada 2015" attracted numerous sportsmen – amateurs, employed in road industry. More than 630 people from 24 road construction companies competed in the following disciplines: table tennis, chess, archery, bowling, tug of war, futsal, volley ball and darts. In addition to the sports competition, the working competition in paving was held, and exactly these features are, according to the prevailing opinion, considered as dearest to the employees in road industry.



In sports competition the majority of gold medals was won by the Road Company "Kragujevac" totaling 138 medals, of which 89 were won by men and 49 by women. The PE "Roads of Serbia" occupied the second place with excellent 114 medals, with 71 won by men and 43 by women. We also highlight the first place in chess for men, and second place won by women, the second place in futsal and tug of war won by men, third place in table tennis won by both men and women, and fourth place in volley ball.

Organizational Committee of "Putarijada 2015" unanimously decided that the trophy for "Fair Play" for 2015 should be awarded to the "Kosmetput inženjering" from Donje Jarinje.

The last day of manifestation, Sunday 28<sup>th</sup> July 2016, the patron saint's day of road workers was celebrated.

### **Regional Union Cooperation**

The Autonomous Trade Union of Road Maintenance Workers of Serbia cooperates with the Independent Road Workers Trade Union of Croatia since 2014. This trade union takes care of more than 3200 workers from road industry in Croatia.

Exchange of visitations began in October 2014 in Belgrade, continuing thorough 2015 in form of seminars on European integration processes, position and role of trade unions in EU accession process, agreements on mutual activities and networking, exchange of information and experiences on position of employees in Serbian and Croatian road industries.



Seminar for young union activists in road industry on union's working regime, assistance to membership and influence of the union on labor-law legislation in Croatia was held.

Earlier this year, the Independent Road Workers Trade Union of Croatia organized a seminar in Slavonski Brod on presentation of collective agreement in Croatian road industry which was

attended on behalf of the Autonomous Trade Union of Road Maintenance Workers of Serbia by Sonja Vukanović, the president of SSPS, Duško Bošković, in charge of BZR, Miodrag Milijić, the president of the trade union of Independent Trade Union of the PE „Roads of Serbia“, and Sonja Grubić and Natalija Đorđević, the representative of the Independent organization of the PE „Roads of Serbia“.

The meeting was a great opportunity for exchange of experiences in collective agreements and collective negotiations and putting them into practice, where contracts of employment should be signed for the period of 3 to 4 years, even though they are not time limited, and non-payment of wages should be deemed criminal offense.

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