

# PE “Roads of Serbia” Newsletter

## HIGHLIGHTS:

*Zoran Drobnjak, Dir. General:*

Achieved planned objectives

Pride of the builders - the Beška Bridge

Winter Service

Automatic Traffic Counters

Site Laboratories

Athens Marathon Mastered

## Mirror of our success

This Newsletter is a quarterly issued publication in which we will publish a review of activities from the work scope of our enterprise, through which you will be able to find out everything we brought into practice and performed as a part of our routine basic assignments, or everything we achieved and adopted as new know-how or a special contribution to the operation of the enterprise and progress of the society in general.

It will be the mirror of our success, of new projects, organizational and corporate activities, as well as of the international ones, union and all other important news of importance to our enterprise, our employees, business partners, coworkers, users, and, of course, the media. The Newsletter shall provide information on our expert improvement, advancement, enforcement of the measures of safety at work, periods of taking a rest or having fun. The objective of this Newsletter is to be informative and useful; to be used not only as a means of internal communication, but also as a means of communication with the external surroundings and as a guide through our enterprise.

We welcome your support, suggestions and proposals, because the only way towards progress and success is mutual engagement.

*Department for Public Relations*



## **Pride of the builders - the Beška Bridge**

Nowadays, Serbia is a large construction site, one of the biggest ones in Europe. The priority in construction is Corridor X, within which the works on the Beška Bridge, as currently the longest bridge being built in Europe, are coming to an end.

Total length of the bridge is 2205 m with 42 structure spans, i.e. 43 piers. The main span consists of four piers, three of which are located in the river; 34 piers belong to the left approach structure, whereas five piers belong to the right one. Length of the structure on the left river bank is 1485 m (Novi Sad side), bridge structure across the river Danube is 540 meters long, and the structure on the right river bank (Belgrade side) is of 180 meters length.

The bridge has been envisioned as a twin bridge to the existing bridge across the Danube (the new structure is placed only 5 m away from the old one) in the total width of 14.4 m, with pavement width of 11 m and two footpaths on each side of 1.7 m width. The new bridge is designed for the left carriageway. Up to the present moment, 26 structure spans have been completed on the left river bank, in the length of 1170 m, which adds up to 80% of the works, whereas 2 structure spans in the length of 90 m have been completed on the right river bank, adding up to 50% of the works. Out of 2205 m, total of 1350 m of the structure have been completed, which is more than 61%.

## **Gazela Bridge Rehabilitation**

Among the significant projects of the PE “Roads of Serbia” is the Gazela Bridge Rehabilitation. Rehabilitation works commenced on July 01<sup>st</sup>, 2010, and will last for 22 months. During 2010, the works on all entrances and exits (entrance and exit ramps), to and from the Gazela Bridge, were completed, as well as the following: structure strengthening by carbon strips, stripping off old layers of asphalt, placement of new insulation, two new asphalt courses (base course and wearing course) and the new guardrails; expansion joints between the ramps and old bearing were also replaced. Likewise, the cables within boxes were also replaced at particular exits and entrances.

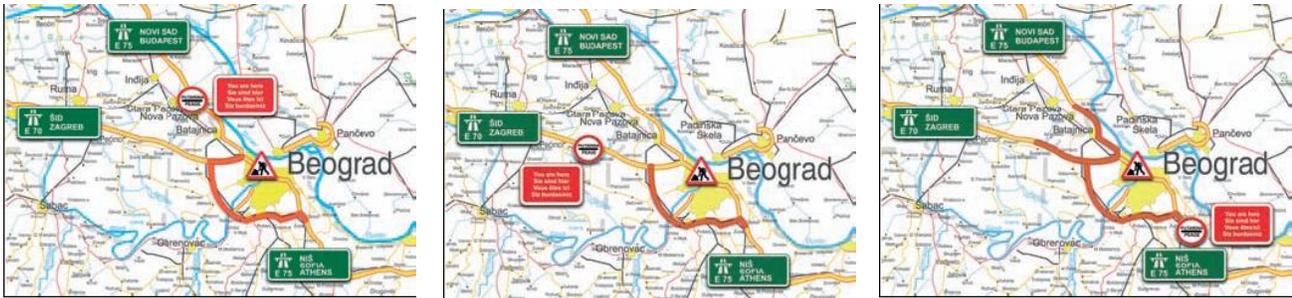
At the bridge itself, strengthening of the steel part of the median was also executed; new guardrails on the median were placed, supporters for chandeilliers were made, and lighting was installed. In addition, works on the remedy of trolleybus bridge (Kneza Miloša Street) were also executed.



## Belgrade Bypass construction continues

Credit Agreement in the amount of 40 million € for further construction of the Belgrade Bypass (Orlovača - Avalski put, 5.4 km long) was signed in the Government of the Republic of Serbia on September 27th, 2010, by the President of the European Investment Bank, Philippe Maystadt, the Minister of Finance, Diana Dragutinović, and the Director General of the PE "Roads of Serbia", Zoran Drobnyak. Following this event, there was also the signing of the Contract for Designing and Construction of the bridges 13, 14 and 15 on the Belgrade Bypass route, in total length of 1289 m. The Contract was concluded with the Contractor "Primorje&Ratko Mitrović-niskogradnja" on December 09<sup>th</sup>, 2010.

## Leaflets



In order to decrease traffic jams occurring on the E-75 highway through Belgrade and on the Gazela Bridge, the Department for Public Relations initiated the preparation of special leaflets for informing the drivers of passenger vehicles and buses with foreign registration plates on using the alternative road route – the Belgrade Bypass, when in transit through Belgrade.

The information was prepared in four languages (English, German, French and Turkish), with three different options, depending on the highway entry point, i.e. the toll station on which the driver enters the highway (Bubanj Potok, Šimanovci, Stara Pazova).

For the purposes of informing the public in a better manner, the TV report titled "The longest way round is the shortest way home" of 12 minutes duration was broadcast several times a day on the satellite TV program RTS SAT, as well as on 54 regional and local TV stations.

## We achieved the planned objectives



*Dear fellow colleagues,*

It is my pleasure to greet you upon the publication of the first number of our internal paper – the PE “Roads of Serbia” Newsletter, which is published by our enterprise for the first time. The Newsletter is primarily designed for our employees, as well as for all the people whom we cooperate and carry out complex and responsible tasks with.

Considering that information is the path towards progress and success, it is essential that such a large and significant enterprise as ours has its own means of internal communication.

I am proud of my colleagues, associates and experts for we are not only jointly constructing new kilometers of roads, but also designing, maintaining, preserving and enhancing all the roads in Serbia. With our dedicated work and project realization, we are enlarging one of the biggest capital values of our country, thus contributing to a better future of the Republic of Serbia.

Over the course of the previous year 2010, the goals, the accomplishment of which was the focal point in previous years – provision of essential and stable financing sources, preparation of needed documents, execution of necessary expropriation, further modernization of business operations and all tasks essential to the work of the enterprise – have almost been completed, which led to the commencement of capital projects, which are expected to be completed this year and in the upcoming year.

Distinguishable results were also accomplished on structures which are of crucial importance to the Republic of Serbia and the City of Belgrade; rehabilitation of the Gazela Bridge with its access roads was also initiated; by redirecting the heavy transport from the E-75 and E-80 highways to the Bypass we have relieved the narrow Belgrade city centre, expedited the traffic flows and enables undisturbed and safe work on the Gazela Bridge.

Owing to our efforts as the Employer, as well as the dedication of the Contractor, particular work phases were completed before the agreed deadlines. Simultaneously, the rehabilitation of the E-75 highway through Belgrade was also initiated, whereas the renovation of the R-251 ring road from Orlovača to the Subavala area and Bubanj Potok was successfully completed. In spring, we are expecting the commencement of the construction of the Section A, Batajnica – Dobanovci, of the Batajnica Interchange, of the bridges 13, 14 and 15 on Sector B-5 of the Belgrade Bypass, and the contours of the new twin bridge near Beška are shaping up...

In light of my personal belief in our joint efforts and our mutual dedication to persevering in the best possible manner in our line of work, I am confident that, in time, we will have even more topics to encounter and inform on in the Newsletter.

*Zoran Drobnjak, B.Sc. C.E.  
of the PE “Roads of Serbia”*

*Director General*

## Motorway through Belgrade



Another ongoing project is the rehabilitation of the E-75 motorway through Belgrade, which includes the reconstruction of the motorway from the “Nikola Tesla” Airport to Bubanj Potok, in total length of 28 km. This project is financed from the credit funds provided by the European Bank for Reconstruction and Development. Work execution is organized in two sectors, i.e. 23 phases, in order to enable redirecting the traffic to the alternative routes.

Rehabilitation implies scraping of the old asphalt course and the preparation of new asphalt courses, replacement of curbs, drainage system cleaning, replacement of damaged safety fence, etc.



## Traffic takes off in the Stara Straževica Tunnel

Stara Straževica Tunnel was opened for traffic in February 2010, following the successful completion of extensive and complex works on strengthening the tunnel structure, replacing of pavement surfacing, asphaltting, lighting and installing additional equipment, making this tunnel entirely modernized. Tunnel remedy is included into the Rehabilitation of the R-251 Ring Road Project, which is financed from the credit funds of the European Bank for Reconstruction and Development.

## **Expropriation dynamics**

Initiated in September 2008, the expropriation procedure for the purpose of Corridor X construction is currently ongoing in 30 towns and municipalities throughout Serbia. By the end of 2010, the Sector for Legal, Staff and Common Affairs made over 5000 decisions on expropriation and concluded over 4500 agreements on compensation for expropriated property. PE "Roads of Serbia" paid 4.5 billion RSD to previous owners, from own resources, on behalf of compensation for expropriated property.

Expropriation process is completed on the following E-75 motorway sections: Macedonian border-Bukurevac (10.7 km), Bukurevac-Levosaje (10.3 km), Srpska Kuća-Donji Neradovac (6 km), Novi Sad Bypass (12 km), interchanges between Novi Sad and Belgrade (Stara Pazova, Indija, Kovilj, Beška and Maradić), Horgoš-Novı Sad (remaining expropriation in Novi Sad, Mali Idoš, Vrbas, Subotica and Kanjiža from km 0 to km 108) and Subotica (Y branch), Kelebija-Subotica (24 km), on the E-80 motorway sections, Dimitrovgrad Bypass (8.7 km), Pirot East-Sukovo (7km), Sukovo-Dimitrovgrad (7km) and Prosek-Crvena reka (22.5 km), the following sections at the Belgrade Bypass: Batajnica-Dobanovci (10.5 km), Sector 5-territory of the Rakovica Municipality (5 km), as well as on the Ub-Lajkovac section (12.5 km).

Completed expropriation on the stated sections has enabled construction on 244.2 km in total.

## **Strategy, Designing and Development**

In 2010, the Sector for Strategy, Designing and Development directed the majority of its activities towards the realization of projects defined by the Republic of Serbia National Plan for Road and Railroad Infrastructure Development for the period from 2008 to 2012. Completion of constructing the capital national traffic infrastructure projects was set as the national priority goal in the period 2008-2015 by the Government of the Republic of Serbia.

The following construction projects on Corridor X were realized in the past year: X-b, E-75 Belgrade – Beška (construction and rehabilitation), E-75 Horgoš border crossing – Novi Sad, E-75 Subotica Interchange – Kelebija border crossing, E-75 Niš – Macedonian border and X-c, E-80 Niš – Bulgarian border.

General Design with the Pre-Feasibility Study for M-5/E-761, Požega – border with the Republic of Srpska and the General Design for M-5/E-761 Pojate – Kruševac – Kraljevo – Preljina were also completed. Preparation of the Preliminary Design for the M-21, Novi Sad - Ruma - Šabac is also in the conclusive phase. Additionally, General Design with the Pre-Feasibility Study for the Banat main road (Đala – Novi Kneževac – Crna Bara – Kikinda – Zrenjanin – Pančevo – Kovin) was approved.

There was also the realization of bypass projects around the cities: Belgrade, Vršac, Kikinda, Užice, Kruševac and Prokuplje.

Compliant to the objectives defined by the Strategy for Development until year 2015, the PE "Roads of Serbia" is moving towards the set goal of enabling road network sustainable development in accordance with the principles of Serbia's uniform regional development and inclusion into the Trans European Network, through the development and construction of the EU Core Network to the Western Balkans.

Special emphasis was put on road safety problems, which are one of today's most significant global requirements, whereas the establishment of capacities for raising road safety levels poses as an imperative (identification, analysis and remedy of dangerous locations on roads).

## E-75 motorway section opened for traffic (City of Novi Sad area)

In December 2010, the E-75 motorway section (City of Novi Sad area) was officially opened for traffic by the Minister of Infrastructure in the Government of the Republic of Serbia, Mr. Milutin Mrkonjić, the Prime Minister of AP Vojvodina, Mr. Bojan Pajtić, and Director General of the PE “Roads of Serbia”, Mr. Zoran Drobnyak. The Project is financed by means of credit from the European Investment Bank (EIB).



### Transport Rehabilitation Project

Transport Rehabilitation Project, which is loan-funded from the International Bank for Reconstruction and Development, is being executed with the goal of raising the road network quality in the Republic of Serbia, as well as increasing the road transport efficiency and safety in the country through enhancing the condition of the existing network of state roads of category I and II.

The Project includes the rehabilitation of approximately 150 km of category I and II state roads, through eight contracts related to five road routes in the area of Valjevo, Kać, Paraćin, Zaječar, Obrenovac, Ub and Nova Varoš.

A special segment of the Project is dedicated to the enhancement of traffic safety through the remedy of 13 dangerous locations on the road network in the Republic of Serbia, which are grouped by territories into four entities (Northern Banat, Smederevo, Ibar main road, M-5 road).

Within the institutional strengthening component, two significant consulting services are being effectuated: innovation/harmonization of road technical instructions/guidelines according to EU standards, and the “Safe Road Design” in the form of a practical training on actual case studies.

### Winter Service electronic map



On the home page of the PE “Roads of Serbia” web presentation, under the module Winter Service, a map for graphical overview of road conditions was implemented. By selecting the desired section, one can obtain information on the height of snow, pavement humidity, traffic flow, occurrence of ice, fog, landfall, tow truck and truck prohibited traffic, etc.

Alongside the text, and depending on the data entered, a graphic illustration (traffic sign) also appears, indicating the current condition on the selected section.

## Winter Service

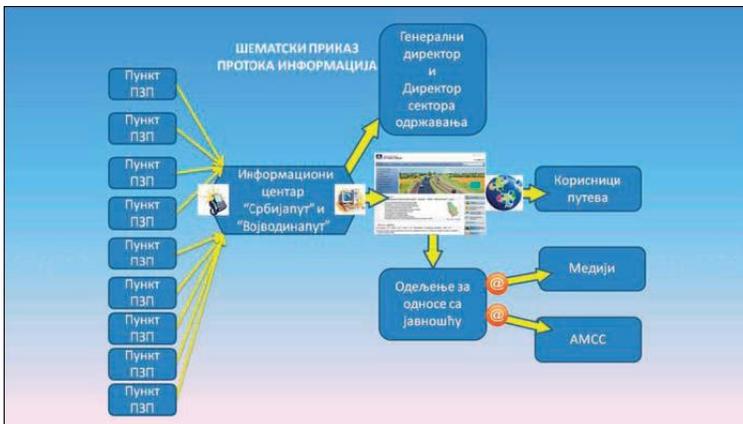


On November 15<sup>th</sup>, 2010, the PE “Roads of Serbia” organized a press conference with the presentation of the Winter Service Operation Plan for 2010/2011, and of the manner of organizing and informing on the road condition and passability in Serbia during the winter period.

As the road manager, our enterprise organized Winter Service Control Points with clear duties and responsibilities. The plan includes the necessary minimum of 50% mechanization, human labor and raw materials for urgent reactions at the highest state of alert. Envisaged number of all vehicles and trucks at operative points is 704, as well as 284 machines, whereas 974 road workers, 175 head officers, 340 machine equipment officers and 755 drivers will be working in shifts.

For 2010/2011 Winter Service, 73,676.22 t of salt and 157,620.79 t of crushed stone aggregate and gritting material are provided.

“Srbijaput” and “Vojvodinaput” Information Centers were also established this year. Gathered and processed data on the road condition, which are obtained from the field, are submitted every day from 05:00 AM to 05:30 AM, and from 05:00 PM to 05:30 PM to the Information Centre Service by an on-call worker. On-call worker at the Information Center uses an application for recording the road condition; the report is automatically



generated on the PE “Roads of Serbia” web presentation, and then forwarded to the Director General, the Head of the Winter Service and the Department for Public Relations.

The Department for Public Relations then sends the complete report to all electronic and print media, and the AMSS. In case of emergency, the Department for Public Relations informs all print and electronic media, and the AMSS on road passability and traffic regime modifications on a 24/7 basis.

## Road Network value estimation

Rational management of the state road network implies recognizing the current condition and value of the constructed road network, as well as its permanent monitoring, with the goal of making optimal managerial decisions in view of spending available resources on road infrastructure maintenance, improvement of its condition and construction.

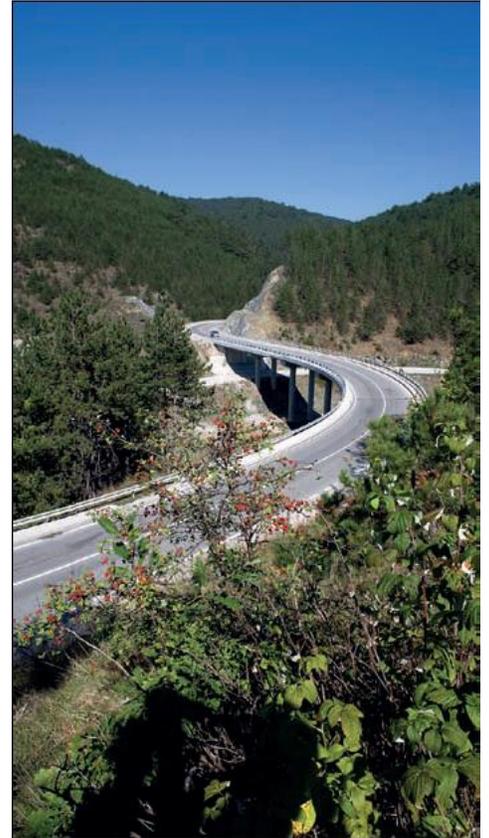
During 2010, the preparation of Estimation of state road network value was initiated owing to the Sector for Economic, Financial and Commercial Affairs.

Road value calculation method is compatible with the road information basis which is available to the PE "Roads of Serbia" at the moment of preparing this study, taking into account that its enhancement is possible in compliance with the increase of the level of detailed data on roads and structures on the network. The procedure of estimating the state road network value comprises inventory units grouped into the following functional entities: Road base, Drainage, Structures, Traffic signing and equipment, Supporting facilities and Road reserve area.

Analysis of road network value is executed on the basis of current prices set up by the PE "Roads of Serbia", and by using the data on inventory units taken from the data base, and based on the spatial position of the inventory units, defined by the section mark stipulated by the Reference system of the PE "Roads of Serbia", and by chainage related to the section.

In the Quarter I of year 2011, we expect that the estimation of state road network value of the PE "Roads of Serbia" would be fully completed and entered into the record books of the PE "Roads of Serbia".

The process of monitoring the improvement of the road network condition will continue, as well as the harmonization with the possible changes in prices set up by the PE "Roads of Serbia", thus enabling the regular update and recording of all changes.



### **Toll collection – 0.08 % of unmatching**



According to the 2010 data provided by the Sector for Toll Collection, the analysis of official data on vehicle flow reveals that, in comparison to year 2009, there was an increase in traffic on tolled roads by **+2.23%**, and the total vehicle flow is higher by **730.385 vehicles**, compared to last year.

The total toll collection revenue in 2010, i.e. its **mild increase** by **+2.43 %** (more than 333 million dinars) in comparison to the revenue achieved in 2009, was significantly influenced by the **fall in prices** by approximately **-40%** for vehicles with foreign registration plates, starting from February 20<sup>th</sup>, 2009.

Annual unmatching in 2010 was 0.08 % and, as such, it was at the lowest level ever since the toll collection is being executed. This percentually low number of missing vehicles is, by far, the direct consequence of

misusage conducted by the traffic participants themselves, who avoid the toll collection by running away through the “illegal exits”. The fact that in December, when the weather conditions do not allow the use of earth unpaved roads, i.e. “illegal exits”, there is practically no unmatching, speaks in favor of the above mentioned. We would like to emphasize that the unmatching in December 2009 was 0.09%, and the unmatching in December 2010 is 0.01%.

The plan in the upcoming period is to install automatic traffic counters at all toll lanes, which, apart from counting, also have the possibility to classify vehicles per categories in order to provide an **independent mechanism of control** and validation of achieved results in toll collecting.

A system for disabling all types of misusages in toll collecting was designed and installed within the Sector for Toll Collection. The system operates through the Division for Analytics and Division for Video Surveillance within the Department for Tolling Supervision. The system controls the work of toll booth operators, shift foremen, site control officers and traffic participants. All 187 traffic lanes at 38 toll stations are under video and audio surveillance. Each lane has at least three cameras (two exterior and one interior). Owing to this system, the annual toll collection revenue is, in comparison to the period preceding the year 2008, higher by 860.000 €.

### Site Laboratories

For the purpose of continuous improving and staying up-to-date with modern trends in road construction, the expert staff from the Quality Department directly participates in the quality control of the most significant infrastructure projects in the country, in cooperation with experts from the Laboratory for Pavements of the Faculty of Civil Engineering of the University of Belgrade.

Laboratory is adorned with the latest equipment for testing asphalt mixtures, bitumen and aggregate in compliance with the European standards, and was obtained within a project – donation of the European Agency for Reconstruction and Development.

Particular tests are being implemented into the quality control system for the first time in Serbia, and are related to the proofing and verification of pavement durability and performance. In 2011, there are plans to introduce site laboratories in order to obtain the quality control results directly from the site in question. Through these detailed controls, the test results included in the project are compared on the spot, thus achieving a really good effect already in year 2010.



## **Automatic traffic counters**

In 2010, the PE "Roads of Serbia" executed the procurement and installation of 340 automatic traffic counters (ATC), out of which 130 were procured from the credit means provided by the World Bank, 70 out of enterprise's own resources, whereas 140 devices were procured by the contractors.

The operation of the counters on sites is media presented at the counting location Lipovica, where it is indicated that ATC provide information on vehicle number (per traffic lane), category, velocity and time interval of vehicle succession, irregularities in traffic loading in particular time periods, etc.

Data gathered on the counter are transferred to the IT Centre server of our enterprise by using GPRS technology (in selected time intervals), and then further processed within the Sector for Traffic Control Information Systems. Processed data are then submitted to the expert services of the PE "Roads of Serbia", to faculties and other interested organizations which will use them in processes of planning, designing, reconstructing, constructing and maintaining the road network, in correct dimensioning of pavements, preparing the traffic studies and forming the transport models.

Principle goals of traffic counting are gathering reliable and high-quality data on traffic flows, harmonization with national and European standards, purposeful data processing and presenting, as well as an active role in managerial decisions regarding road network development and operation.

## **Web presentation available for mobile phones**

Department for Public Relations introduced the support for displaying the content of the presentation on mobile platforms. The following web address is used for accessing the PE "Roads of Serbia" website on a mobile phone: [www.putevi-srbije.rs](http://www.putevi-srbije.rs)

The content is optimized, the number of large images is decreased, and the home page contains the most important service information and significant contents. Depending on the device used for accessing, the display and appearance of content will be adjusted on the enterprise's web presentation, since the application has the possibility of detecting the operative system and browser independently, thus displaying the content optimized for a particular computer or a mobile platform.

By modernizing the website and introducing the mobile platform version, the PE "Roads of Serbia" joined a very small number of public enterprises in Serbia which enabled their global network users with access to information, independently of their current location.

## **Trade Union**

In 2010, organization of the Independent Trade Union of the PE "Roads of Serbia" achieved significant results. Through participating in the Assembly of the Independent Trade Union of Road Workers and regularly visiting the employees on sites, to name a few, it is evident that Trade Union representatives are working hard on creating the best possible work conditions in general, as well as to increase the well-being of the workers.

In order to reach a high level of fulfilling workers' needs, raising their motivation and effectively and efficiently engaging the employees, the Trade Union organizes recreational visits to Zlatibor Mountain; contracts on visiting rehabilitation and recovery spas are signed (Trepča Spa, Junaković Spa, Soko Banja Spa), and the children camp Bogovađa was also extremely attended during the summer. Additionally, annual workers' sport games titled "Putarijada" were held at Zlatibor Mountain, where the PE "Roads of Serbia" achieved markable results. In the end of 2010, a formal New Year's celebration for employees was traditionally held, as well as the

distribution of presents and an entertaining New Year's show for employees' children. We would also like to emphasize the successful realization of service award payments to employees with a long length of service in our enterprise, as well as the decisive negotiations with the Government of the Republic of Serbia regarding the conclusion of the Corporate Agreement and preparation of proposals for the 2011 Business Plan and Program, executed in the best interest of the employees.

### **International labor organization**

International Labor Organization organized the seminar “Strengthening of workers' protection in unsecure employment” held at the International Training Center in Turin from November 22 to 26, 2010. Nevena Matijašević, Director General's business secretary acted as representative of the employees and trade union of PE "Roads of Serbia“.

### **Expression of Gratitude from Serbian Patriarch Irinej**

Serbian Patriarch Irinej handed in Expression of Gratitude to the PE “Roads of Serbia” for assistance in preparing and organizing the ceremony of the Enthronment of Serbian Patriarch Irinej, which was received by Director General Zoran Drobnjak on behalf of the PE “Roads of Serbia” at the Patriarchate.



### **Donation**

Director General of the PE "Roads of Serbia" Zoran Drobnjak gave Milica Ilić (19), a student from Čačak, a monetary donation in the amount of 120,000 dinars as a provision of support in her schooling. The grant represents a prize which had been awarded to Mr. Zoran Drobnjak as the “Best Čačak Citizen” at the election organized by the City of Čačak and he gave it to his young fellow citizen, who enrolled at the Faculty of Economy of the University of Belgrade in 2010.



### **Athens Marathon mastered**

On the spot: Darko Savić

Darko Savić (35), employed at the PE “Roads of Serbia”, Manager of Operative Tolling Department in the Toll Collection Sector, recreational sportsman, father to two sons, achieved a great success in 2010. He ran his first marathon race, the famous Athens Marathon. Our colleague describes his impressions on this success for the Newsletter.

“In summer 2010 I got the invitation from the Serbian Army team, which also represented the national team, to run at the Athens Marathon on October 31, the exact same marathon race which marked two and a half millennia from the famous victory. The Army team and I, as a joint member, headed towards the capital of Greece on October 28, 2010. We waited for the start for two days. Day of the challenge, October 31, 2010. The

village of Marathon is 42,195m far from the Panathinaikon Stadium, at the center of Athens. Sunny morning, army teams in the first line with top competitors, vast crowd of 12,500 selected participants behind us, jitters, uncertainty. The first marathon in my life, waiting for the start. We set off at 9 o'clock, I start and finish the race with colonel Branko Bošković, marathon runner, legend, who helped me to run this difficult route with proper advice. On the sidewalks of the streets where we ran thousands of spectators cheered, encouraging each runner, a lot of positive energy on one place, atmosphere of triumph, in one word - phenomenal! With running time of 4 h 21'13" I finished the race without any big problems, I passed the finish line together with colonel Bošković. Athens Classic Marathon was mastered! Happiness and tears of joy, incredible feeling of delight and success, fulfillment. The goal for next year – New York, another famous marathon.”

### **Athens Classic Marathon**



“Classic marathon path, as the Greeks called it, was run by the messenger Pheidippides 490 BC to inform about the victory of Greeks over the Persian army. Experienced marathon runners from the team I am the member of say that this is the hardest marathon path in the world because about 25km of the entire path goes uphill” states Darko Savić. "A day after the marathon race, when we passed along the run path in a tourist ride, was when I realized how demanding it was as well as difficult. Everything that occurred before, during and after this magnificent race is impossible to describe in such a brief text."

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