

Transport tunnels - in Slovakia fettered by misapprehension and myths

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Countless savings and other benefits

June 23rd will mark the two-years anniversary since Sitina tunnel at D2 was opened on Lamačská cesta - Staré grunty motorway. Transit drivers as well as domestic motorists got used to its existence now and perceive it as an obvious fact. They enjoy it, as if they totally forgot the decades marked by waiting and hopping in endless traffic jams at front of Patrónka traffic lights.

The tunnel, which was awarded a title Construction of 2008, remarkably reduced the traffic load in western part of the Slovak capital. Not to mention the numerous benefits in form of appreciable atmosphere improvement (less fuel - less fumes), remarkable decrease of noise level, improved appearance of the city or overall improvement of the environment for residents in the whole wide area.

“Thanks to this tunnel every car can save six minutes at average for every drive while approximately 40 thousand cars pass through the tunnel every day. This represents an overall annual savings of approximately 90 thousand days for all the travellers;” stressed benefits of the Sitiny tunnel member of the Slovak Tunnel Builders Association (STA), Mrs Viktória Chomová of Dopravoprojekt Bratislava, at the press conference on Tuesday that handled also the trends and perspectives of this promising branch of highway construction.

Precondition would be a separate emergency route

However, the strongest argument in favour of tunnels building would be security. From security can be unwind the lower accident rate connected with savings of human lives or health. “Tunnel accidents are much more attractive than accidents on other kinds of roads, and therefore are much more talked about. Nevertheless, tunnels are safe, and complications mostly arise only when caused by the drivers who are not acquaint with traffic rules or do not know procedures that must be observed in case of extraordinary situation or event,” disproved the myth deeply rooted in public awareness, member of STA, Mr Miloslav Frankovský of Terraprojekt Bratislava, who also offered a short excursus to history of the underground construction worldwide and in Slovakia.

Road tunnels in Slovakia have been built after the fire in the Mont Blanc tunnel (11 611 m) ten years ago (1999). According to Chomová, tunnels in compliance with EU Directive of 2004 on minimal security requirements for tunnels longer than 500 m, must have an independent emergency exit. For example, Sitina has 5 crosswise connections between the tubes and a separate emergency exit. Branisko has a separate emergency gallery, which can be entered through marked routes at every 360m.

As the STA representatives stressed, the Slovak tunnels are being build in compliance with European security facilities requirements, reaching the maximum possible level. If any critical situation arises tunnel equipment helps to disclose it and enables to notify the service and rescue bodies immediately and organize the rescue action. Moreover, such kind of construction is equipped with signal lights, camera system and sufficient number of emergency exits.

In transport infrastructure of country with mountainous character like Slovakia have tunnels their irreplaceable position. Our experts in the area of underground construction are highly regarded, and

projects realised in Germany, Slovenia, Syria or Arab Emirates testify to this fact. According to STA, it is in most cases Slovakia, where paradoxically, experts face misunderstanding and inadequate reactions. "As far as design, realisation or operation is concerned, tunnels are extraordinary demanding engineering constructions and don't deserve negative reaction, which can possibly follow from misunderstanding and lack of information," cannot conceal his disappointment chairman of the STA, Mr Róbert Turanský.

Records, primacies, priorities

According to STA there is presently 76 railway tunnels, 4 motorway and 1 road tunnel in Slovakia.

- The first Slovak road tunnel (793 m), leading under the Bratislava Castle and connecting the riverbanks with centre of the town started to be build in 1943, and it served as anti-aircraft shelter during the World War II. After its reconstruction (1983-84) it was changed to tram tunnel. Goal of the present on-going reconstruction is to achieve faster transport and higher security.
- Works on one pipe tunnel (4 975 m), which was introduced under the name Branisko into operation in June 2003 as longest and at the same time the first motorway tunnel in Slovakia, started in the spring 1997.
- During summer 2003 started construction of motorway tunnel Sitina (1 440 m) at the Bratislava section of D2 motorway Lamačská cesta - Staré Grunty, that became the first two-pipes Slovak tunnel (20 thousand vehicles is passing through each pipe every day). And still to be the most up-to-date one at present. It has a top technological equipment in order to secure smooth and secure transport - information system, lighting, air conditioning and fire alarm system.
- Presently latest realized motorway tunnel is Bôrik (985 m) at D1 motorway section Mengusovce - Jánovce. The building part of construction is already finished and after the technological equipment is installed, the opening is planned at the end of this year.
- The most discussed tunnel is Višňové (7 460 metres) at the critical section of route between Žilina and Martin that is considered by STA as highest priority. Though according to original plans construction should be today already in operation, the construction did not even started and is permanently being postponed. "According to statistics, the accident rate at this 19 km section of motorway is three times as high as the overall motorway average rate. There were for example 815 traffic accidents between 2003-2007 with 16 victims and 40 people seriously injured. These figures could be much lower in case that the tunnel would be in operation," said deputy chairman of STA, Peter Witkovský, criticising inconvenient motorway tunnels situation in Slovakia. In case that construction would start in 2010, the future longest tunnel could be handed over 5 years after this date under his opinion.
- As a key project in the area of regional and internal mass transport perceives STA the TEN-T project of railway connection, which enjoyed very positive response at World Tunneller s congress in Budapest in May. The route shall connect Bratislava with Paris or Stuttgart and at the same time its part leading under the Danube would serve to mass transport.

Who is behind and what he is preparing?

STA is a voluntary association of legal and natural persons working in the area of underground construction. The association supports activities focussed on the intensive and extensive utilisation of underground premises in the sphere of transport infrastructure, water management, energy, underground buried services or ecology constructions. With aim to provide space for handing over experience from the area of tunnel construction it organises workshop on Fire Protection Ventilation and Security of Transport Tunnels in the Doprastav, Bratislava on 18. 6. 2009.

June is special because of anniversary of two most important tunnels in Slovakia - Sitiny and Branisko. This is also a reason why the STA declared the period between 15 June and 15 July for Month of Tunnels with aim to increase awareness and correct information about such constructions. During this month would

Slovak cities witness also travelling exhibition called the “10 Most” with photographs of our oldest (Lamač), longest (Branisko), shortest (Stratená), widest (Horelica), most discussed (Višňové), most original (Telgárt), most radically changed (under the castle), most expected (Bôrik), longest railway (Čremošniansky) or most up-to-date tunnel (Sitina). The event would start in Bratislava (Avion Shopping Park), than it will be moved to Žilina (Business Centre Max), later it will go to Košice and shall conclude it journey in Martin.

Photo - STA

1. Tunnel Branisko
 2. Tunnel Sitina
 3. Lamač tunnel
 4. Tunnel Mont Blanc
 5. Slovak tunnel builders abroad
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