# BULGARIA ACTIVITY REPORT 2014

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The Bulgarian Association for Geotechnical and Tunnel Construction is a non-profit organization created in 2010.

The Bulgarian Association for Geotechnical and Tunnel Construction has got 27 corporate members and 28 individual members.

Associate members: Bulgarian Water Association, Bulgarian Association for Trenchless Technologies, Black Sea Coastal Association.

#### Partners:

Branch Organisations and Associations sector "Railway Transport": Bulgarian Association of Consulting Companies in Railway Construction; Railway Signalling, Automation, Telecommunication and Industry Association; Bulgarian Association for Freight Forwarding, Transport and Logistics; Association of Bulgarian Railway Carriers and Intermodal Operators; Association of the Owners of Private Freight Cars.

The University of Architecture, Civil Engineering and Geodesy (Sofia) 'Todor Kableshkov' University of Transport (Sofia) 'Chernorizets Hrabar' Free University of Varna



#### **Sofia Metro Extension System**

Again, during the last year one of the most intensive and interesting projects was Sofia metro extension. The extension of the First Metro Line (given with thick red line on Fig.1) achieved significant progress with almost full completion of LOT 1 – Stage III of the metro development (Fig. 1, after Sofia Metropolitan JSC). This LOT includes construction of 220 m long tunnel carried out by SEM, 3.5 km tunnels carried by cut-cover method and four metro-stations and will be put into operation by April of 2015. It will ensure direct connection to the Sofia Airport.

Construction works of LOT 2 – Stage III also have good progress during 2014. Almost 70% of all the three metro-stations and tunnel sections were completed. This LOT will be put into operation by the end of 2015.

The extension of Metro Line 2 (green line on Fig.1) is also under construction. About 50% of tunnel section 1130 m long and new metro-station MS12 were completed during 2014 (see closed area indicated with a purple color).

## Forthcoming development of Sofia Metro Lines including underground construction

The final alignment of the Metro Line 3 has already approved. Its total length is 15.5 km of which about 8.5 km are planned to be underground structures. Conceptual Design is ready. Tender procedures for Contractor have some delay and will start in the beginning of 2015.



Fig. 1. Short-Term Scheme for Sofia Metro development

### Struma motorway

LOT 2 between Dupnitsa and Blagoevgrad towns is under construction and has significant progress. Two relatively short twin-tube tunnels having length 350-400 m each were planned to be constructed by New Austrian Tunneling Method within this LOT. By the end of 2014 both tunnels were completed at about 70% and the construction of secondary linings is now in progress.

One of the biggest underground projects in Europe during the next 4-5 years will be LOT 3 of Struma motorway (Bulgaria), located in the Kresna Gorge. Twin-tube highway tunnel 15.3 km long, with more than 100 sq.m cross sectional area of each tube is planned to be built. The geological explorations almost completed in 2014. The Definitive design will be completed in the first half of 2015.