# ROMANIA ACTIVITY REPORT 2013

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Romanian Tunneling Association is a national association with 15 corporate and 140 individual members, created in 1991.

Implementation of European Norms to Romanian Tunneling regulations: Euro code 1, 2, 3, 7 and 8.

« Geotechnical Aspects in Tunneling and Underground Works », October 2013, at Technical University for Civil Engineering from Bucharest, in co-operation with Romanian Society for Geotechnical and Foundation.

Sympozium regarding activity, products and works presented by HENKEL Romania, November 2013



### Under construction: Metro Line 5.

Lot 1.2 - Valea Ialomitei Sector (cut and cover tunnel, station and depot) awarded to Max Bögl.

Lot 1.1 – Raul Doamnei – Eroilor (6 km), TBM method tunnels, 9 stations cut and cover method awarded to ASTALDI-FCC-DELTA ACM -AB CONSTRUCT JV.





Both TBM's in Orizont Station.



Breaking through in Orizont station.

Tunnel performed: TBM 1 = 878 m (started on 21 September 2013) and TBM 2 = 885 m (started on 22 November 2013), between

Academia Militara station and Favorit station.

Under construction: Metro Line 4, Section 3, Bazilescu – Straulesti: 2 stations, 1 depot, 2.7 km in length.



Extension of Line 4.



Straulesti depot under construction.

## **Railway Tunnels under construction:**

Turdas Tunnel: 780 m length, double railway, Contractor: a JV leaded by Swietelski;

Danes Tunnel: 969 m length, Contractor: a JV leaded by FCC Construccion;

Sighisoara Tunnel: 400 m length, Contractor: a JV leaded by FCC Construccion.

## **Hydrotechnical works in progress:**

Continuing works to the hydropower development of the river Jiu on the sector Livezeni-Bumbesti includes 2 HPP located in the gorges area, connected by a headrace

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tunnel having a length of 20 km: concreting of primary and secondary lining along 6 km.

Works on Bistra – Poiana Marului Hydropower System, White River, first water supply tunnel with 2.8-km in length, 2.8-m in diameter.

Works on Surduc-Siriu Hydropower System, Nehoiasu water supply tunnel, 18-km in length (14-km already done), 3.8-m in diameter, concreted on 6-km long.

Works on Brazil (Raul Mare – Retezat) power plant: grouting for under crossing and strengthening in geological faults.

Under designing: Metro Line 6, Metro Link between Central Railway stations "Gara de Nord" and "Henry Coanda" (Otopeni) International Airport.

Feasibility study and Preliminary Design performed by a JV from Padeco (Japan), Metroul SA (Romania) and Oriental Consult (Japan).