## Rail Systems of Turkey in 2017 and the Projection for 2018 Dr. İlhami Pektaş

Market size of rail systems in the world became 170 Billion Euros in 2017. Viewing the number of the passengers travelling by railways in the world, Japan stepped forward in the rail systems in regard to passenger transportation with 23 billion passengers per year. Considering the number of the passengers travelling by railways, Japan is followed by India, Germany, England, China, France and Russia respectively. According to the data in 2016, while 9 billion passengers travel by railways in the European Union per year, this quantity is 175 million in Turkey. The USA has 293.564 kilometers of railways, the longest in the world. Considering the length of the railways, the USA is followed by China, Russia and India. Turkey ranks the 20th with 12.512 km of main line. While the frequency of population traveling by rail in Japan is 181.4, this rate is 0.1 in the USA, 1.1 in China, 7.6 in Russia, 18 in the EU and 0.6 in Turkey. 23 million tons of freight and 176 million passengers were transported by railways in 2017 in Turkey.

With the circular letter dated 07.11.2017 numbered 2017/22 and themed using domestic product, published by the Prime Ministry for minimum 51 % of domestic product contribution in the rail vehicle systems, the contribution of the domestic product has been mandatory; thus, the way of producing domestic and national rail transportation vehicles in our country has been paved. Following this circular, the municipality of Kocaeli has implemented this regulation on their tender, and as a result of this, the company Durmazlar has won the tender for 6 trams in Kocaeli and 30 trams for the Eminonu-Alibeykoy Tram Line in Istanbul. The circular is very important, and has been an example for all the sectors, mainly for the tenders of the rail systems in 2017 and future.

The "Baku-Tbilisi-Kars (BTK) Railway line, which will bring back to life the historical Silk Road, was put into service in 2017 with 11.335.000.000 TL of allowance for the railways. The projects for the construction of the high-speed and conventional railways and the electrification-signalization of the current lines were conducted continuously. Thus, the signaled line length reached 5.462 kilometers, electrical line length reached 4.433 kilometers, high-speed railway line length reached 1.213 kilometers, and the total railway line length reached 12.532 kilometers. The construction of Ankara-Izmir and Ankara-Sivas high-speed railway lines, and Bursa-Bilecik, Konya-Karaman, Karaman-Ereğli-Ulukısla and Mersin-Adana Osmaniye-Gaziantep high-speed railway lines continued. Tenders for 10 sets of High-Speed Train were made, and 21 logistics centers were started to be constructed across the country.

Metro Istanbul completed almost 40 kilometers of subway line and put the first autonomous metro vehicle of Turkey into service between Uskudar and Umraniye in 2017.

The projects of National Diesel and Electrical Engine, National Shunter Wagon, and New Generation National Freight Wagon were put into practice. The project of the First National Main Line Electric Locomotive E-5000 was started as well.

The rail transportation systems projects accelerated with the collaboration of public and local administrations. So far 183 vehicles were delivered to Ankara Metro by CRRC-MNG. The next vehicles are scheduled to be delivered in accordance with the condition of 51 % of domestic participation rate.

The suburban train projects of GAZIRAY in Gaziantep and BALRAY in Balıkesir were started. The foundations of Konya High-Speed Train Terminal, Kars and Konya (Kayacık) logistics centers were laid. Kahramanmaras (Türkoglu) Logistics Center and the new Tepekoy-Selcuk railway in Izmir were put into service.

ARUS begun the second International Competition Development Project of the Ministry of Economy, which will last for 3 years and has 3 million TL total budget.

Bozankaya A.S. completed the 50 million USD of investment in Ankara, and reached 80 million TL of total budget in R & D. After putting the electrical buses in Konya, Eskisehir, Elazıg, Manisa and Izmir, the trambuses in Malatya and Sanlıurfa, and the trams in Kayseri into service; the company won the tender for the city metro vehicles of Bangkok/Thailand and started producing 88 metro sets.

In addition to the Panorama-National brand 12 trams it supplied before, The Company Durmazlar supplied 6 more trams for Kocaeli Municipality; thus, the company increased the number of the vehicles to 18 in Kocaeli. For the turnkey project between Dogus Insaat and Istanbul Metropolitan Municipality, Durmazlar signed an agreement with Istanbul Metropolitan Municipality for 30 domestic and national tram vehicles in Eminonu-Alibeykoy Tram Line. Thus, Durmazlar increased the number of its domestic and national vehicles to 134 in Bursa, Samsun, Kocaeli and Istanbul.

Hyundai Eurotem won the tender for 120 metro vehicles made by Metro Istanbul A.S. with 50 % domestic contribution.

Atalar Makine A.S. founded its factory in Polatli/Ankara in which all the subcomponents of the rail systems are produced.

Ilgaz Corporate Group started investing in the wagon production plant in Polatlı Organized Industrial Zone.

Acarlar Vagon A.S. signed a contract with the Chinese locomotive company CRRC Ziyang to produce hybrid and diesel locomotives.

With the protocol it signed with DDGM, STM A.S. became one of the limited approved establishments in rail systems.

Omsan Logistics and Körfez Transportation became the first railway operators within the scope of the rail systems liberalization law.

The Rail System Projects and Our Activities in Turkey in 2018

The circular of the Presidency will continue to be an example for all sectors with minimum 51 % domestic contribution in all public tenders, and our domestic and national brands of the rail systems will become more widespread in TCDD (Turkish State Railways) and the municipalities.

The rail systems market size is expected to be 180 billion Euros in 2018, and the rail systems market is predicted to grow approximately 2.6% per year.

7.5 billion TL of allowance has been dedicated to TCDD (State Railways of The Republic of Turkey) in our country. The tender with the largest ever budget in the railway history will be made for 96 High-Speed Train sets this year.

Metro İstanbul A.S will be an example in Turkey with the 51 % domestic participation rate and national brand implementation in the tender for 1200 metro vehicles.

7.7 million passengers are planned to be transported by High-Speed Trains in 2018. The project of Marmaray is aimed to be completed and transport 68 million passengers by the end of 2018. Baskentray is expected to be put into service during the first quarter of 2018, and transport 12 million passengers by the end of the year. Ankara-Sivas high-speed railway will be completed, the test drives will be made, and our national high-speed trains will be put into service during the test drives.

Konya-Karaman high-speed railway will start to be operated with electrification and signalization, the construction of railway line in length of 1.300 km will be begun, the tender for 3.458 km of railway line will be announced, the signalization will be completed in 1.446 km of line, and electrification will be finished in 1.637 km of line. The electrification and signalization works of 507 km of railway line will start, and 511 km of line will be renewed; thus, diesel business will decrease, and electrical and signaled business will increase during this year.

In addition to the completed Erzurum (Palandoken) logistics center; Kars, Konya (Kayacık) and Mersin (Yenice) logistics centers and Konya High-Speed Train Station will be used. The construction of Karaman, Sivas and Kayseri logistics centers will be started, and Samsun –Kalın line will be completed during the year.

Istanbul metro lines proceed rapidly in accordance with the targets for 2023 and 2035. The second part of Umraniye-Çekmekoy Line, Kabatas-Besiktas-Mahmutbey Line, Halkalı-Gebze Line, Sabiha Gokcen-Kaynarca Line, Gayrettepe, The Third Airport Line are scheduled to be completed in 2018. Approximately 144 km of metro line will be done in Istanbul in 2018.

141 metro vehicles with 51 % domestic participation rate are expected to be delivered to the metro of Ankara by CRRC-MNG during this year.

Izmir gulf transition project, Erzurum, Erzincan and Mersin tramline projects will be conducted during this year.

ARUS will hold collaboration meetings, trainings, conferences, Domestic and National Brand production workshops, and domestic and foreign procurement committees towards its in 2018.

ARUS will participate in International rail systems activity in France on 3-6 April 2018, ARUS-Austria B2B meetings in Ankara on 7 May, UIC High-Speed Train Congress in Ankara on 8-11 May 2018, South Africa and Iran rail system activities and B2B meetings in June and July, and InnoTrans 2018 International Rail Systems Exhibition in Berlin on 19-21 September 2018 within scope of International Competition Development Project in 2018.