

**MALATYA WAGON  
MODERNIZATION FACTORY**

**-2011-**





## 1. HISTORY AND AS-IS SITUATION:

The Wagon Modernization Factory project was taken into the national investment program in 1979, the construction was started in 1982 but annulled by TCDD (Republic of Turkey General Directorate of State Railways Administration) in 1989 although the infrastructure of facilities had been almost completed. The plant, located in the province of Malatya, Yeşilyurt District is still waiting idle since then.

The Prime Ministry Supreme Audit Board reported that the project was not applicable, as a result, the Project was extracted from the national investment program by Council of Ministers on 10 Aug 1990.

The plant was handed over to the Ministry of Finance in 2004 by TCDD.

The plant area could not been handed out to private sector invertors due to the legislation issues. In order to utilize the plant, privatization decision was taken by authorities in 2006, but not actualized yet due to lack of demand.

The plant, awaiting idle for more than 22 years, has been always in the agenda of local authorities, and the expectations of all parties are to utilize the plant before the facilities falls out of use .





### Details for the Wagon Factory and Facilities

	Closed Area (m <sup>2</sup> )	Realization rate (%)
Management Building	2,384	100
Company Dwellings (72 pcs)	9,504	100
Guest House	2,193	100
Kitchen and Refectory	5,320	100
Garage and Fire Garage	1,512	100
Dressing Room	6,981	100
HQ Building	242	100
Guardroom	28	100
Main Factory Building	46,901	73
<b>TOTAL</b>	<b>75,065</b>	<b>-</b>

The main factory building was constructed as main manufacturing plant. The construction (48,000 m<sup>2</sup> closed area in total) had been started in 14/10/1982, but in 07/08/1984 it was liquidated with decree of no.84/8341. The construction was restarted in 25/11/1985 (3,420,000,000 TL) and again liquidated in 17/02/1989 by order of TCDD.

### Land area after the consolidation in 2008.

#	Province/ District	Village	Area (m <sup>2</sup> )	Closed area (m <sup>2</sup> )	Attribute	Explanations
1	Malatya - Yeşilyurt	Kuyulu	473,805	75,037	Field	Factory building ,Administration Building, Guest House, Refectory, Garage, Dressing Room, HQ building
2	Malatya - Yeşilyurt	Görgü	290,838	28	Field	Guardroom
<b>TOTAL</b>			<b>764,443</b>	<b>75,065</b>		





Capacity Of Plant

4,183 unit / year Freight wagon modernization

577 unit / year Railroad passenger coach modernization

Employment capacity of the project, terminated in 1989, with double shifts, was 3,250 employee and 66 administrative-technical staffs, in total 3,316 people, which would dramatically decrease the unemployment rate in the province.

## 2. RAILWAYS IN THE WORLD AND IN OUR COUNTRY

The activity and energy of economic life is measured with the situation and level of transportation (roads, railways, and ports, etc.). In this respect, well-organized and constructed railway network infrastructure inherently will accelerate pace of economic growth.

Railway is a mass transport method in terms of freight and passenger transportation which makes railway the most energy efficient way of transportation, comparatively emitting less air pollution and noise, in addition to requiring less urban land area.

Railway, relatively less depended on climate conditions, offers comfort and safety to passengers with minimum delays. Besides its casualty rate is lower than the highways'.

The consumption of energy is 4 to 7 times lower than highways making railways green way of transportation in the days which global warming concerns worldwide summited. While average cost of the double-track railway with signalization is 2,850,000 Dollars per km, cost of the



highways (3x2 lanes) is 8 million Dollars per km, almost 2 times higher. Railways transportation is the most economical way local and interurban public transport.

The first railway in Turkey was constructed between İzmir- Aydın under the privilege granted to an English company in 1856. The construction of the 130 km line was completed in 1866.

In the year of the establishment of Republic of Turkey (1923), total railway network length was 4,138 km, many of them without linkage, as a heritage of the Ottoman Empire. Between the years 1923-1950, a period of 27 years, 3,149 km. railway line was constructed despite economic challenges. Besides, in 43 years referring 1950 to 1993, only 894 km line could be added to national railway network as a sign of negligence. Eventually, although railways nationally covered 42 % of total passenger transportation and 78 % of total freight transportation in 1950; these rates dramatically decreased to 3.1 % and 4.6 % respectively in 1999.

All over the world, prevalent railway networks are indispensable condition of economic growth and development. Turkey's current railways network have to be extended in order to keep up with developed nations.

Today, Turkey possesses 10,984 km total rail network and its 8,697 km is main track. 2,350 km of electrified lines, 2.665 km. of signalized lines are also part of the current railways network. 95 % of the main track is single line although, in European countries the single line railways is no longer available.





Countries	Length of railways line per 1 million population (km)	Length of railways line per 1000 km <sup>2</sup> (km)
<b>Finland</b>	1,148	17
<b>Sweden</b>	1,107	22
<b>Austria</b>	705	68
<b>Luxembourg</b>	670	58
<b>France</b>	550	58
<b>Ireland</b>	546	53
<b>Germany</b>	513	116
<b>Denmark</b>	450	55
<b>Belgium</b>	332	110
<b>Spain</b>	313	24
<b>Portugal</b>	287	31
<b>Great Britain</b>	284	68
<b>Italy</b>	279	53
<b>Greece</b>	237	19
<b>Turkey</b>	<b>137</b>	<b>11</b>

As shown in the table above, length of Turkish railways line per 1 million populations and per 1000 km<sup>2</sup> is remarkably lower than European countries.

All over the world, there is a structural change for railways with the aim of conforming to globalization process which increases importance of railways globally. It's common that, in coming years, global transportation systems will more deeply and intensively affect economic and social interrelations. The planning of integrated transportation systems which links countries as in European Union has been started. The globalization plays a great role in transportation systems and its technological developments. All developed and some developing countries live the second railways era with implementing high-speed railways transportation.



On coming decades, South and East Asia, referring large proportion of the world's population, is expected to be arbiter for global economy. In this context, the transport corridors between Europe and Asia, especially railways corridors, will shape the world trade in coming years. Turkey, thanks to the development of railways, will have an indispensable strategic superiority with being railway corridor between Asia and Europe.

#### **Passenger Coaches and Freight Wagons in Turkey:**

According to TCDD, number of passenger coach in Turkey is 990 with 54.196 people capacity. Age breakdown of passenger coaches shown below:

Age	Unit
00-09	226
09-19	213
20-29	304
30-39	191
40-49	56
<b>Total</b>	<b>990</b>

Number of freight wagon is 17,067, 15,465 of them are in use with 696.900 tons of annual freight capacity. In addition, there are 2.453 privately owned wagons.



Age breakdown of freight wagons shown below:

Age	Unit
00-09	4,118
09-19	3,009
20-29	6,099
30-39	3,454
40-49	693
50+	234
<b>Total</b>	<b>17,607</b>

TCDD can only meet 70 % of total demand of wagon production. In order to offset the current need, 6,000 freight wagons are needed additionally. Moreover, 55-60 % wagons of current wagons must be modernized.

#### **Wagon Production Affiliated Corporations in Turkey:**

**TÜVASAŞ** (Turkish Coach Industry Corporation, based in Adapazarı), has a capacity of manufacturing 65 coaches and repairing 500 coaches annually within a total area of 359,073 m<sup>2</sup>, 79,197 m<sup>2</sup> of which is indoor space. TÜVASAŞ performed manufacture of 1,784 passenger coaches and maintenance, repair, revision and modernization works of 35.274 passenger coaches for TCDD so far.

**TÜDEMSAŞ**, (Railway Machines Industry Corporation of Turkey, based in Sivas) produces and repairs freight wagons, with the capacity of 1,500 units of freight wagons manufacturing and 7,600 units of freight wagons modernization per year.

**TÜLOMSAŞ** (Locomotive and Motor Corporation of Turkey, based in Eskişehir), has 500 coaches production capacity per year.





## Turkey's Railways Policy

Railways have begun a state policy with financial supports since 2003.

Ministry of Transport and Communications defined three main target which are, to make Turkish public meet with high speed trains by construction of new railway lines, to increase the speeds of the trains to the their normal level by rehabilitation of existing railways and to streamline the TCDD by restructuring. In this context, the Ministry runs comprehensive projects as below:

- ✚ -Improvement of railway sector,
- ✚ -Realization of high-speed trains,
- ✚ -MARMARAY Project,
- ✚ -Rehabilitation of existing railway lines,
- ✚ -Modernization of railways and train sets,
- ✚ -Enhancement of combined and logistic transport,
- ✚ -Improvement of block train management,
- ✚ -Establishment of R&D sector for rail sector.

Developments in recent years below:

- ✚ Between 2003-2010 10 billion TL. of investment was made.
- ✚ Kars-Tbilisi-Baku railway line construction was started that will provide railway link from China to Western Europe, Infrastructure work is continuing rapidly.
- ✚ In 2009 the number of freight is 22 million tons, the number increased by 50% compared to 2002.
- ✚ In 2009 the number of passenger is 80,1 million, it increased by 10% compared to 2002.
- ✚ 3,350 aisles and 500 level crossings were modernized.
- ✚ National railway industry was established.
- ✚ Factories in Konya, Ankara, Afyon Pamukova, the private sector produces travers.
- ✚ The cooperation of local and foreign entrepreneurs produces travers in Erzincan and switch factory in Çankırı.
- ✚ Between 2003 and 2009, 5,050 km railway was modernized.



- ✚ Strategic partnership agreement was signed between TÜLOMSAŞ and General Electric (GE).
- ✚ Logistics centers are being established in 12 centers.
- ✚ In railway transportation, cooperation between TCDD-Local Government (EGERAY) was achieved.
- ✚ A “strategic cooperation” between Turkey and China signed a series of agreements in Ankara on 08 October 2010, and one of them is an agreement on railway cooperation. With this agreement, more than 5,000 km new railway lines to be jointly built by China and Turkey.

According to 9<sup>th</sup> National Development Plan (2007–2013), with the activities for restructuring of TCDD, which is a monopoly in railway operations, private sector is going to have an essential role in railway sector.

International railway freight transport is the most potential business area to develop in railway transportation. Turkey is linked with neighbor countries, Syria, Iran, Greece and Bulgaria by international railways. With a new project, Azerbaijan and Georgia will also be a “railway neighbor” of Turkey.

In Transport Master Plan Strategy, main strategic goal is increasing the share of railway transport by 15 % in passenger transport and 20 % in freight transport till 2023. The construction of 938 km of new lines and modernization of 1000 km is planned. 12% of domestic freight transportation 25% increase in foreign transportation. In order to attain this objective, the number of 22,000 of passenger coaches and freight wagons need be increased to 100,000.

In other words, 78,800 wagons are required additionally. In our country, besides wagon production capacity of foundations is annual 2,000 wagons, provided that working with full capacity the foundations can produce 26,000 wagons totally in the following 13 years. Remaining 52,000 wagons will be imported or produced by establishing new foundations. When it is considered that average one wagon cost is 47,000 \$, approximately 3–4 billion USD needed for new 78,000 wagon.



## **RE-ACTIVATING THE WAGON FACTORY PROJECT IN DETAILS.**

### **Project Name:**

Malatya Wagon Factory

### **Place:**

Malatya Wagon Modernization Factory, Yeşilyurt district, Malatya

### **The name of Project Owner:**

Foreign Investor Company

### **The name of Project Partners:**

Malatya Provincial Private Administration, Local firm/ firms

### **Project Summary:**

The project is transforming Wagon Modernization Factory; taken into national invest program in 1979, starting constructing in 1982, and then factory which was decided to refined in 1989. It is aimed to turn this waste investment into a big scaled investment in wagon manufacturing and modernization.

### **Assessment of the Project on Employment.**

According to 2009 TÜİK (Turkish Statistical Institute), the unemployment rate in Malatya is %14.6, above the national average. Unemployed population in Malatya is 24.812.

The investment well may contribute to decrease unemployment rate which is a crucial problem of Malatya. In addition, positive multiplier effects of the project will cause additional employment opportunities and boost economic activities.



### **Assessment of the Project on Investor:**

The potential investor company needs to have know-how and adequate experience for wagon production and modernization.

### **Assessment of the Project on the Sector:**

Productivity of publicly owned factories can limitedly be supervised and increased. After the realization of this project, competitiveness will improve which leads sectorial productivity to increase.

### **Assessment of the Project on Incremental Values:**

Potential investors consider utilizing the plant for freight and passenger wagon manufacturing and maintenance, suiting to the original purpose of initial investment. With realizing this huge investment in the region, industrial sub-sectors also will thrive accordingly.

The investment to the currently inactive plant will be milestone to initiate heavy industry activity in the province, besides it also greatly contributes to evolving of interrelated sub-sectors.

### **Assessment of the Project on Organized Industrial Zones (OIZs):**

Completion of OIZs' infrastructures (energy, refinement, transportation, ICT, etc) requires considerable amount of financial funds and duration. There is no suitable area in current OIZs in Malatya to make such a big scaled investment.

It is crucially important to activate the plant considering availability of the facilities and utilization read-to-use worthy plant.

### **Assessment of the Project on the Market:**

Developments and intensive public investments in the last decade on the railway infrastructure will boost passenger and freight wagon demand growth and also modernization and maintenance necessity of in-use wagons. After the investment, the plant will meet Turkey's demands in this area and also penetrate into Middle East and Caucasian markets to supply





products such as wagons and containers. As a result, it is considered that the Project will increase the export of the region and Turkey.

#### **Assessment of the Project on FDI.**

Turkey offers same conditions to FDIs without discrimination. In this respect, bettering macroeconomic environment and competitiveness makes Turkey an ideal place for FDI to invest on various sectors.

