



# Georgian Railway- Georgian Railway Modernization Project



# Introduction of the Company

**Georgian Railway** is an important part of the Euro-Asian Transportation Corridor that links Europe with Central Asia. The concept of a rail-link between the two continents originates back to the 1830-ies. Construction of the railway lines of Black and the Caspian Seas began in 1865. In 1871 the railway operation on Section from Poti- to Kvirila (present Zestafoni) part was launched. On October 10th, in 1872, first passenger train arrived from Poti to Tbilisi. This date is regarded to be the birthday of Georgian Railway.

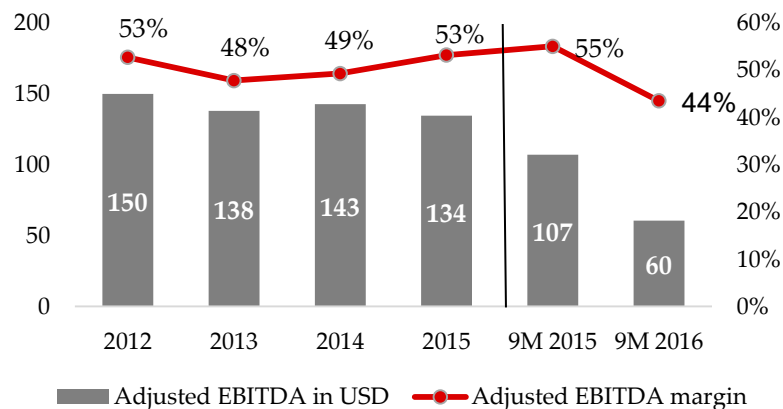
## **General Information:**

- Total Length of Railway Lines: 2083.99 km.
- of which under exploitation – 1145.53 km.
- Length of Single track sections – 850 km.
- Length of double track sections – 294.84 km.
- Total length of Electrified railway lines – 1125 km.

# GEORGIAN RAIWAY TODAY

## A Rail Monopoly with Deregulated Tariffs

- 100% owned by Partnership Fund (fully owned by the Government of Georgia);
- Sole railway operator in Georgia;
- Integrated railroad company - owns and operates the tracks, terminals, other infrastructure and rolling stocks;
- Uniquely positioned to capitalise on increasing trade flows between Europe, the Caspian Region and Central Asia;
- Combination of rail monopoly and deregulated freight tariff policy;
- Revenue of USD 139.0m and Adjusted EBITDA of USD 60.4m (43.5% margin) in 9M 2016.



Proven Track Record of Profitable Growth (USDm)

**Project  
Description**

**Georgian Railway  
Modernization Project**



JSC “Georgian Railway” has started the implementation of the Railway Modernization Project **(according to the rules and regulations of The Yellow book of International Federation of Consulting Engineers)** in September 20, 2011.

The main purpose of the project is to undergo a clear and defined maintenance programme for the main railway line starting from Tbilisi - to Makhinjauri Station.

The project is fully self-financed with the aim of improving and optimizing the service provided to freight and passenger traffic.

### **Key Features:**

- Contractor company: **China Railway 23<sup>rd</sup> Bureau**
- Technical Supervision: consortium of **ILF consulting engineers** and **DB International**
- Cost of the project: **260 126 000 CHF**
- Date of the completion: **End of 2019**



**Mobility  
Networks  
Logistics**



## Purpose of the project:

### Project objectives:

- Increased railway line capacity;
- Reduction of travel time;
- Minimization of maintenance costs;
- Increased operational safety;
- Reduction of the negative impact to the environment;

### Technical Key features

#### Designed speed:

Freight transportation - 80 km/h

Passenger Transportation – 120 km/h

- Maximum gradient: 17,5 ‰ instead of existing 29 ‰
- The minimum radius of the curves - 400 meters, instead of the existing 200 meters.

**In order to achieve the above mentioned objectives the Project includes the construction of:**

- Five double track Tunnels (#7; #8; #10; #11; #12)
- Two single track (twin) tunnels #9 with the total length of 17 km.
- Bridges
- Retaining Walls
- Culverts
- Stations and Sub/station
- New Signalling & Communication systems

**The Project is limited to the specific Geographical area called “Gorges Section” and is divided in 2 main sections:**

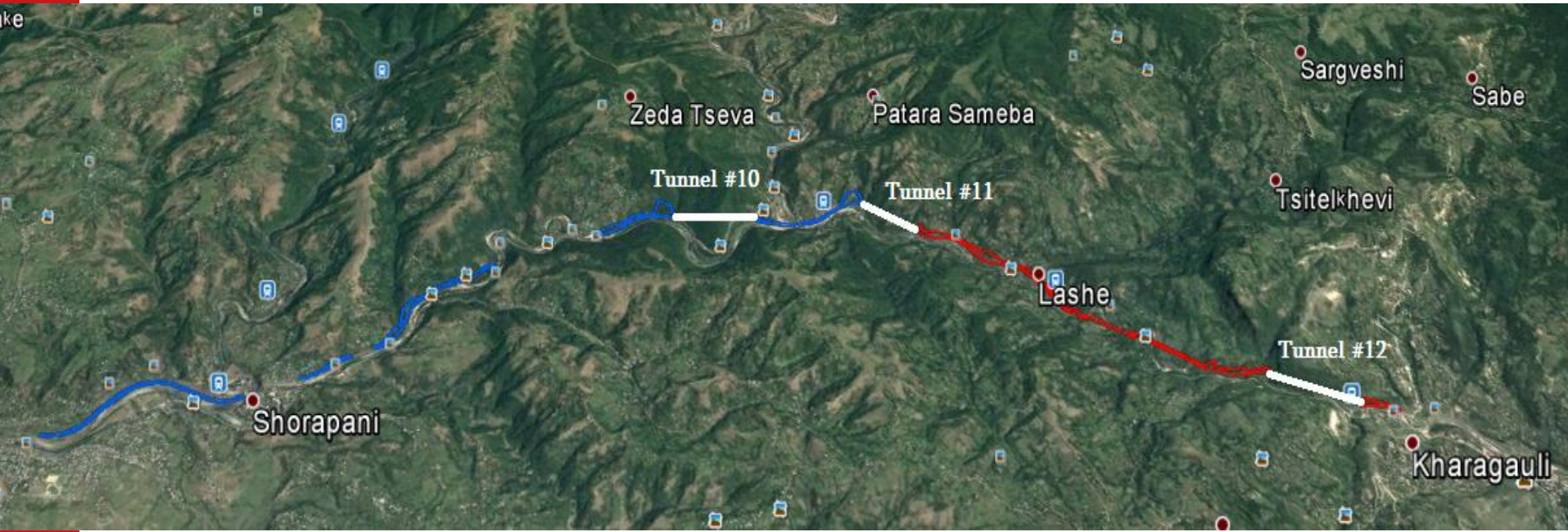
**Reconstruction of ZESTAPHONI – KHARAGAULI railway Line (23 km)**

**Construction of new railway line from KHASHURI to MOLITI**

## Reconstruction of Existing Railway Line from Zestaponi to Kharagauli:

Reconstruction of the existing railway line starting from Zestaponi to Kharagauli includes the construction of 3 tunnels starting from: Tunnel #10 – 1100 meters (completed) Tunnel #11 (already completed excavation of -- meters from West Portal) and Tunnel #12 with the length of – 980 meters (completed). As well as the **railway subgrade** construction with:

- Railway Bridges;
- Retaining Walls;
- Culverts;





## Construction of a new Railway Line from Moliti to Kvishkheti:

Establishment of a new railway line starting from Molity to Kvishkheti includes the the construction of 3 tunnels starting from: 8.35 km long double tube Tunnel #9 which streches from Kvishkheti to Zvare (completed excavation of -- meters from East Portal and -- meters on The west Portal) Tunnel #8 completed (1130 meters) and Tunnel #7 with the length of 2125 meters (completed excavation of -- meters from West Portal)

as the **railway subgrade** construction with:

- Railway Bridges;
- Retaining Walls;
- Culverts;



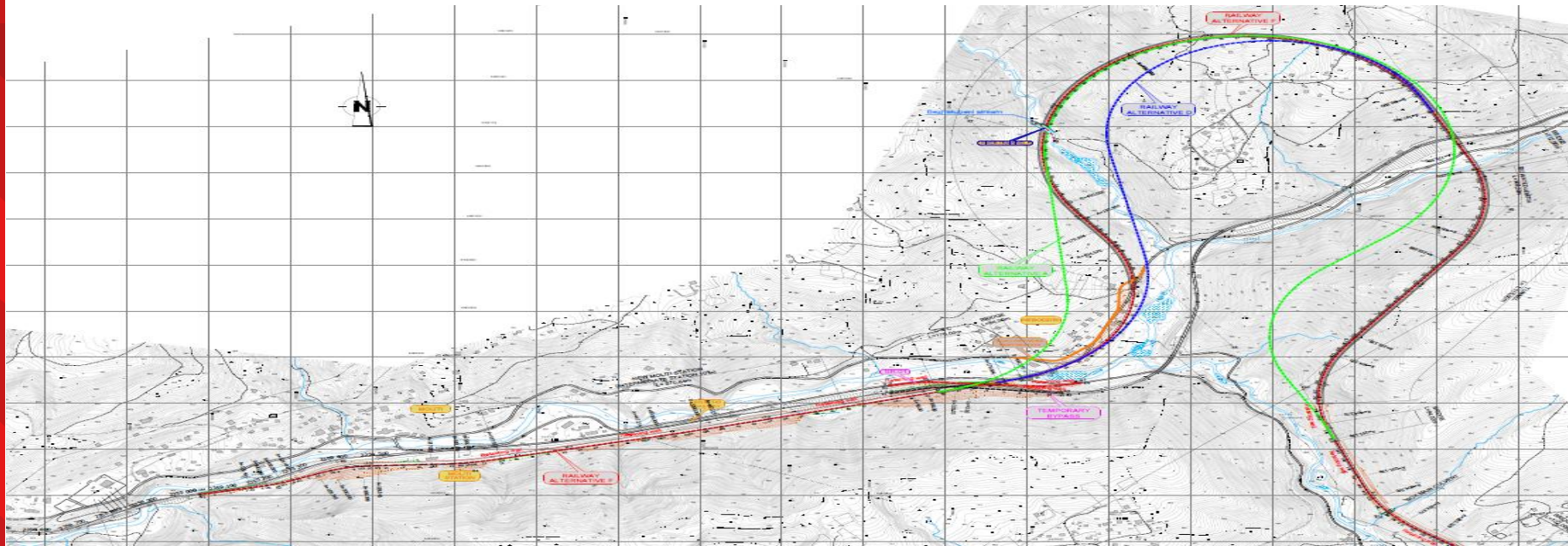
**Big Variation**



Based on the tendering documents and the Initial design Tunnel #9 was design as single track tunnel but, after detailed investigation of the railway line capacity, the necessity of the variation was stipulated. namely, the solution was found to build second parallel operational tunnel #9 (8350m) and lengthen tunnels #7 and #8 instead of Moliti – Kharagauli section (15 km section).

After the completion of the Modernization project the thought capacity of the main railway line will increase threefold and the costs of operations will be considerably decreased.

**The project is scheduled to be completed in the end of year 2019.**



**Thanks for  
attention!**

