

## TERZO VALICO - GENOA JUNCTION SINGLE PROJECT: NEW FACCHINI TUNNEL 1 AT FEGINO JUNCTION ACTIVATED

- rebuilt with an innovative construction system
- it will allow freight trains to transit according to European standards

Genoa, 11 August 2023

**The new Facchini 1 tunnel was activated today;** it is included in the route of the Terzo Valico dei Giovi - Genoa Junction Single Project and constructed by the General Contractor led by **Webuild** on behalf of **Rete Ferroviaria Italiana**, with the support of the engineering company **Italferr**, both companies of the Infrastructure Cluster of the FS Italiane Group.

The work is located in the section of the railway line between the Fegino and Polcevera junctions of the Genoa junction, specifically in the last mile accessing the Ports of Genoa.

The renovation of the tunnel included the complete demolition of the historical tunnel and the reconstruction of the new one using an innovative construction system, applied for the first time in the railway sector. The widening works were preceded by a remote-controlled consolidation of the entire line using HDD (*Horizontal Directional Drilling*) technology, which created a sort of protective cap for the excavations. A number of holes were also drilled at the top of the tunnel, from which special mixtures were injected to increase the stability of the ground. The tunnel widening works were carried out using modern semi-automatic centring, which considerably reduced the risks of the underground work.



Another technical peculiarity - consisting in the installation of an avant-garde metal protection shell at the south side entrance of the tunnel, from the top of which all consolidation activities were carried out - made it possible to progress with the work in the initial phase while guaranteeing the simultaneous movement of trains.

In the second phase, i.e. the last 8 months, traffic had to be suspended so that construction activities could continue non-stop with 24-hour shifts.

The new tunnel is 137 metres long and its profile has been widened and adapted to the transit of European standard goods trains (PC80/PMO3 gauge), in line with the development programmes of the national railway infrastructure and the future connection with the Terzo Valico dei Giovi

The reopening of the Facchini Tunnel 1 also allows the re-establishment of freight train routes, which will return to using the previous connection, freeing up the alternative route from Genoa via Ovada.