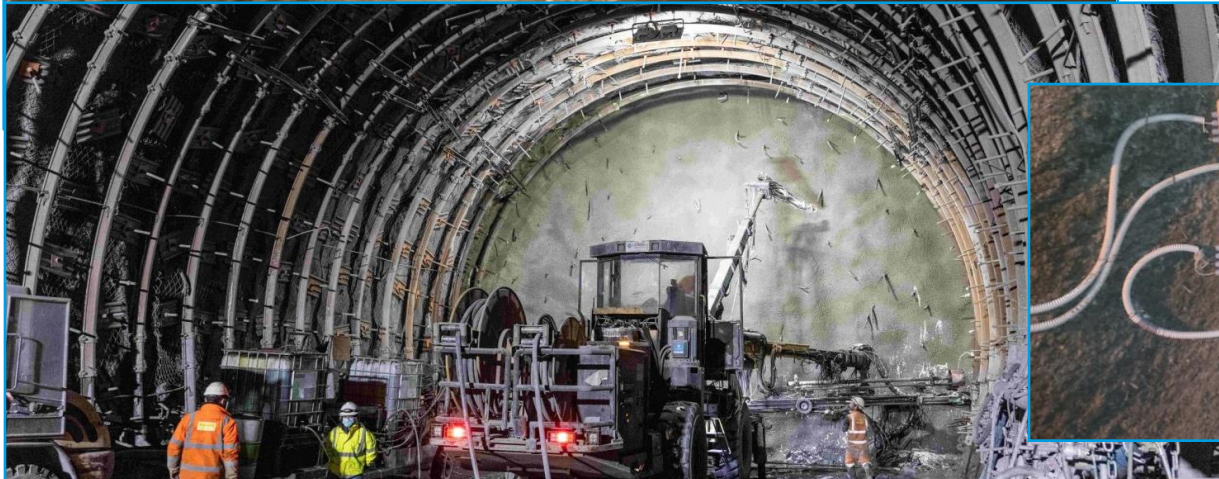


# Tunnels Monitoring

## Tunnel Lyon-Turin railway tunnel



### Background

TELT - Tunnel Euralpin Lyon Turin is the dual-national developer, 50% owned by the French government and 50% by the Italian government through the state railway network, Ferrovie dello Stato Italiane, responsible for implementing and managing the future cross-border Lyon-Turin railway line. The base tunnel is an essential element for the future rail connection and is located between Susa in Piedmont and Saint-Jean-de-Maurienne in Savoie.

### The solution

Capetti Elettronica wireless instrumentation was chosen to measure strain and deformations generated by tunnel excavations. The WineCap™ dataloggers capture data coming from multipoint borehole extensometers and load cells positioned at the base of the ribs.

### The result

The customer can continually monitor the development of phenomena caused by the penetration of excavations, accurately measuring what can become significant displacements in the structure, especially in the tunnel section, in addition to loads in the most critical areas.

WSD12T-EXx



### The winning choice

- ✓ WSD12T-DD (cracks extension and temperature)
- ✓ WSD12-4D (displacement measure)
- ✓ WSD12T-EXx (strain gauge data loggers / for load cells and temperature)