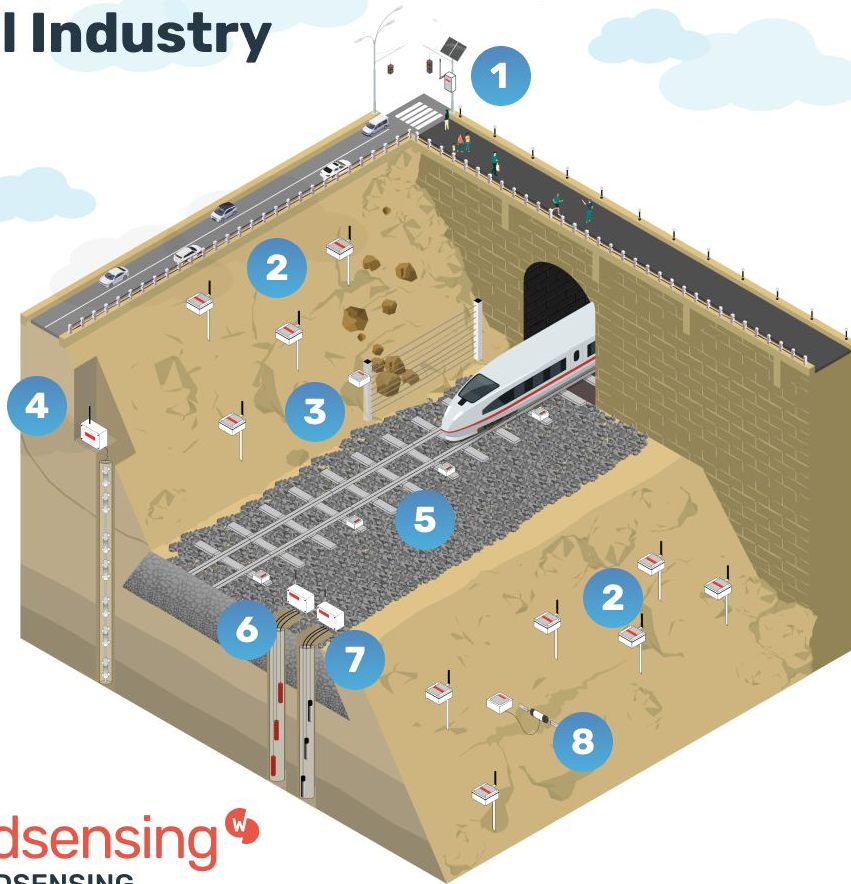


IoT Wireless Monitoring in the Rail Industry



- 1 Gateway powered by a solar kit, wind power or other means, with its data retrievable 24/7, manually or automatically via FTP, API Calls or Modbus protocols
- 2 Wireless Tiltmeters mounted on a pole and installed on a slope to monitor lateral displacement due to slope instability.
- 3 Rock fall detection system connected to a Piconode
- 4 A string of in-place inclinometers connected to a Digital node used to monitor in-depth lateral displacements of the subsoil due to instability and/or presence of discontinuities.
- 5 Wireless Tiltmeters with an internal antenna used to measure railway tracks condition (cant, twist and height variation).
- 6 Vibrating wire multipoint piezometers connected to a Vibrating wire 5-channel node used to measure pore water pressure and water level variations associated with vertical displacement and bearing capacity of the soil.
- 7 A multiple point borehole extensometer (MPBX) connected to a Vibrating wire 5-channel node used to measure vertical displacements linked to soil settlement.
- 8 Crack meter connected to a Piconode used to measure soil cracks that can lead to soil failure.