

SBB Viaduct Seehalde (Switzerland)



Project description

The 110 m long bridge carries a double track railway for the Swiss Railways and is part of the connection between Zürich and Uetikon. The bridge was constructed between 1962 and 1963.

Recent refurbishment work included minor repairs on the bearing system and in order to study the bridge's movement behavior the structure has been equipped with latest LoRa (Long Range) Structural Health Monitoring technologies.

mageba scope

The LoRa system installed by mageba enables a low-power wireless network to connect the sensors with the gateway – an IoT (Internet of Things) application. A series of displacement sensors measure the long-term behavior of the viaduct in order to assess longitudinal and transverse movements of the structure. Acquired data are transmitted via mobile network to the cloud and graphically displayed on a web user interface.

The owner of the infrastructure can now rely on a system that provides real-time information and valuable data records of the structure's behavior for any refurbishment works in the future.

Highlights & Facts

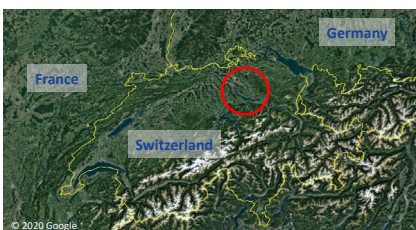
mageba Products:

Type: ROBO®SMART IoT for bearings
Installation: 2020

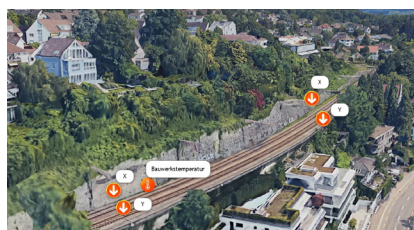
Structure:

City: Herrliberg
Country: Switzerland
Type: Railway bridge
Length: 110 m
Completion: 1963
Owner: Swiss Railways (SBB)
Engineer: BG Consulting Engineers

The bridge is located in Herrliberg, in Canton Zurich



Sensors overview



Measuring equipment on the abutment

