

Case Study – Bridge Monitoring

Danube Bridge

Lower Austria 

Background

The Danube Bridge in Lower Austria, connecting Krems/Stein and Mautern, is a historic steel bridge requiring rehabilitation and maintenance works. The heritage-listed bridge is being restored through an elaborate process. Safe operation of the bridge must be ensured even during the maintenance works; to this end, traffic is only temporarily reduced to single-lane operation.



Requirements

The monitoring system must reliably and permanently measure movement data and positional changes to ensure the bridge can be operated at all times.

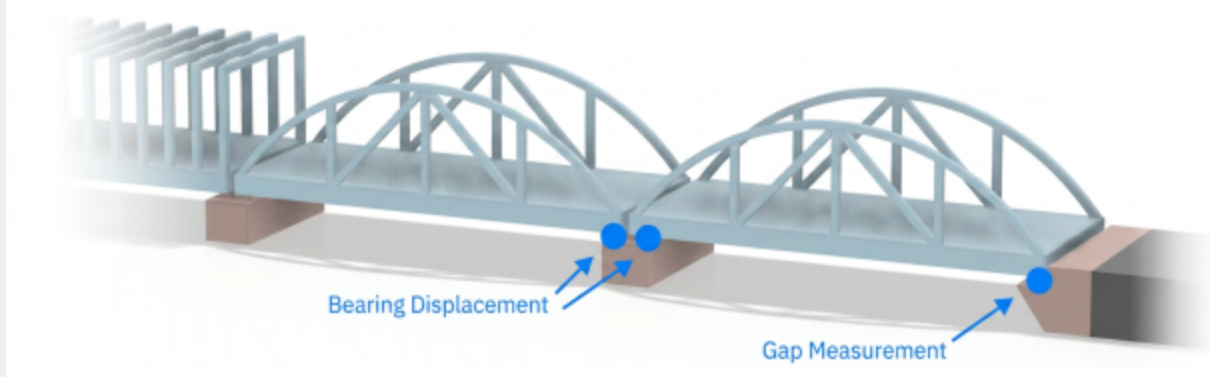
The bridge operator should receive current and historical data at any time, enabling them to adjust ongoing on-site inspections accordingly.

The bridge must be monitored cost-effectively and safely. Historical data serves to improve the condition assessment of the infrastructure.

Solution

A specially developed monitoring solution consisting of SuessCo 6D-Sensors installed at the bridge bearings and abutments, supplemented by temperature sensors, is deployed to continuously monitor structural movements, bridge temperatures, and environmental conditions.

SuessCo 6D Sensors for Bearing Displacement and Gap Measurements



Result

- Cost reduction through less effort for on-site inspections
- Increased safety through continuous monitoring
- Digital data meets documentation requirements
- Improved planning basis for project management
- Comprehensive documentation of bridge movement data for better assessment of safety and maintenance

