

Voith Hydro partners with STRUCINSPECT to monitor hydropower civil structures

By **Elizabeth Ingram** - 3.14.2023



(photo courtesy Voith)

Voith Hydro announced it has partnered with Austrian start-up STRUCINSPECT to keep hydroelectric structures, pipelines and turbines in top condition.

STRUCINSPECT operates an Infrastructure Lifecycle Hub for digital infrastructure inspection and lifecycle management. The web-based platform combines technologies and functions to maintain bridges, tunnels and dams in a safe, sustainable and resource-saving manner. STRUCINSPECT supports customers in transforming their infrastructure inspection and management into a fully digitalized process. Configurable technology building blocks allow for individual business solutions, enabling effective maintenance decisions, according to a release.

The solution is already applied in the transportation infrastructure sector, and Voith Hydro said it sees great value in the offering for hydropower operators worldwide.

“The idea is simple and at the same time ingenious. While it has been very complicated to literally keep an eye on your infrastructure, the digital assessment and tracking of civil conditions is now not only made easier but also safer,” explains Voith Hydro Chief Technology Officer Dr. Norbert Riedel.

A joint pilot project was performed in Scotland for the inspection of SSE Renewables’ 72-year-old Clunie station. Previously, physical inspections were conducted of the civil infrastructure at Clunie.

Using this new approach, the initial data can be collected by drones, underwater devices or smartphones. This data is transferred to the Infrastructure Lifecycle Hub, where it is

analyzed by artificial intelligence (AI) and a 3D model is created. Technologies such as Building Information Modeling (BIM) integration or Augmented Reality (AR) can be used as well. In future, digital inspections will be performed in shorter intervals with less manual effort, Voith Hydro said. Even the smallest changes will be identified by the AI-assisted damage detection. This analysis serves as a base for engineers' maintenance decisions.

"We are excited about the new opportunities this technology brings and happy with the two companies we have on board for its implementation," says Stephen Crooks, renewables (civil) engineer at SSE. "With this approach, we have all data managed centrally and generate measurable business value out of it."

STRUCINSPECT was founded in 2019 and provides services and expertise for digital inspection of essential infrastructure. STRUCINSPECT is a joint venture of the PALFINGER AG, VCE Vienna Consulting Engineers ZT GmbH and ANGST Group.

Voith Group is a global technology company working in the energy, oil and gas, paper, raw materials and transport and automotive industries. [Voith Hydro is a partner](#) for the provision of equipment for hydroelectric power plants. Voith develops customized, long-term services and solutions for large and small hydropower plants, covering the entire cycle and all the main components of large and small complexes, ranging from generators, turbines, pumps and automation systems to spare parts, maintenance services, training, and digital solutions for smart hydroelectric power.

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