

STRUCINSPECT: The Dam in View

Hydroelectric power plants account for 16% of electricity generation worldwide. For centuries they have been among the most reliable energy producers in the form of storage and run-of-river power plants. In order to optimize their potential and maximize their service life, it is important to keep the structures, pipelines and turbines in top condition.

This is exactly the challenge that STRUCINSPECT and one of the world's largest supplier of hydropower equipment, Voith Hydro, are facing together. In a pilot project in 2022, the Scottish power plant Clunie was put through its paces.



“Clunie is 72 years old and, in terms of capacity and size, the heart of a chain of power plants between Dalwhinnie, Rannoch and Pitlochry,” explained Andrea Venora, head of Project Sense at Voith Hydro. “This is a gravity dam where the forces of the horizontal water pressure, the brine pressure and the mass of the structure meet.

So far, the inspections in Clunie are carried out twice a year in the form of walk-throughs of the structure. A severe problem could arise if not all the damage were detected in time. This is where the advantages of digital inspection technology come into their own.

The Viennese start-up, founded in 2019 as a joint venture between PALFINGER AG, VCE and the ANGST Group, uses data collected by drones to develop individual business solutions in order to capture and precisely record inspection data, process it efficiently and use it for effective maintenance decisions.

There are thousands of dams with an average age of 50 years worldwide and many other assets like penstocks, power houses and tunnels that this technology can be used at.

Source: [PALFINGER Structural Inspection GmbH](#)