

# Spotlight on water quality

## Cloud-based system for groundwater monitoring

**wasserwerk**  
REINACH UND UMGEBUNG

“Wasserwerk Reinach und Umgebung” (a water plant serving the Swiss municipality of Reinach and surrounding areas) supplies high-quality drinking water to 56,500 people in six municipalities in Baselland and, if required, to neighboring facilities too. The water plant is increasingly reliant on digitalization to monitor drinking water quality.

“Good security of supply and quality is the essential requirement for a regional drinking water facility. This necessitates the prompt availability of quality and operating parameters, which is where the Netilion Smart System is a vital support to us.”

Peter Leuthardt  
Plant Manager at  
Wasserwerk Reinach und Umgebung  
(Switzerland)



Peter Leuthardt



Reservoir belonging to Wasserwerk Reinach und Umgebung

**“Wasserwerk Reinach und Umgebung” (water plant of Reinach and surrounding areas) is successfully using the Netilion Smart System to monitor river levels and key water quality parameters. The measured values can be monitored via smartphone and a distributed control system.**

**The challenge** In addition to the water level of the Birs River, measurement of the following raw water parameters is required at one of the groundwater pumping stations: conductivity, pH, turbidity, ORP, oxygen and temperature. These measured values must be routed to the distributed control system and transmitted to a data cloud for remote monitoring via smartphone.

**Solution** Thanks to the Netilion Smart System, the river level and the quality parameters of the transported raw water are continuously recorded in a groundwater pumping station. The operational safety engineer and his staff can access the measured data at

their PC workstation and on their smartphones via IIoT Netilion. The limit values configured for the measured variables are continuously monitored. The system also provides detailed information on the sensors and maintains the appropriate technical documentation.

### Benefits

- Visualization of recorded measured values in the Netilion ecosystem via web application
- Entry of up to four limit values per measured variable; alarm signaling via e-mail
- Fast access to technical documentation
- Compact analysis panel with flow monitoring

**Implementation** Endress+Hauser has installed intelligent sensors in one of the pumping stations. These measure pH, ORP, dissolved oxygen, conductivity and temperature. In addition, a radar device was installed under a bridge to measure the river level.

The measured values are routed to an existing substation of the distributed control system and, in parallel, are transmitted digitally to the Netilion cloud. This allows the staff at the waterworks to access all measured data via their smartphone or PC.

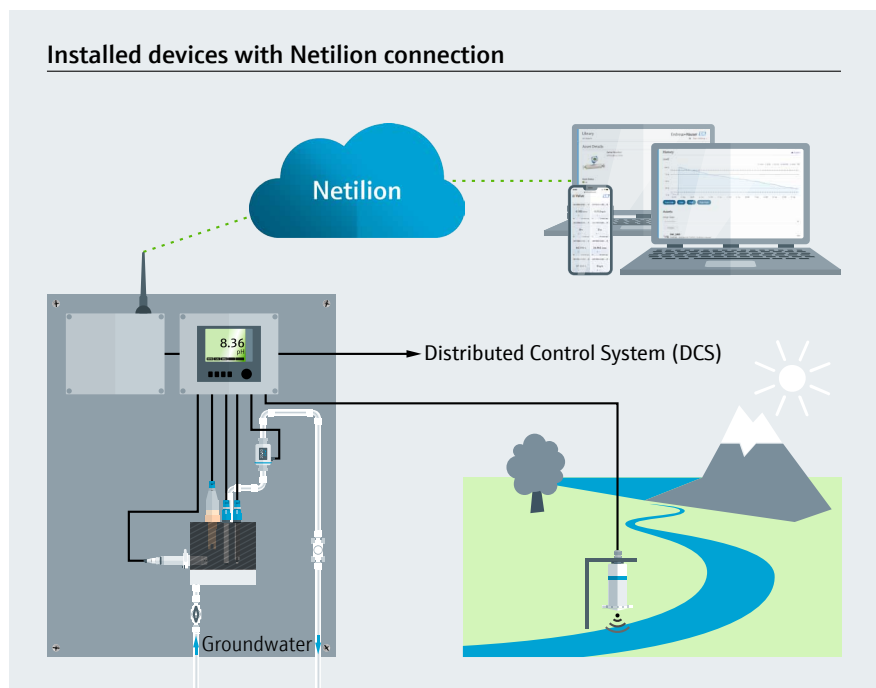
**Scope of supply** The Wasserwerk Reinach und Umgebung opted for Endress+Hauser's solution, which includes the following digital services and components in addition to the sensors:

- **Netilion Value** is a digital monitoring service that connects you to your measurements wherever you are.
- **Netilion Analytics** is a digital service that lets you manage all the devices in your plant.
- **Netilion Library** is a file management service designed to organize documents related to your plant's instrumentation.
- **Analysis panel** with transmitter Liquiline CM448, turbidity sensor Turbimax CUS52D, conductivity sensor Condumax CLS21D, oxygen sensor Memosens COS81D, combined pH/ORP sensor Memosens CPS16D, electromagnetic flowmeter Picomag.

- **Edge device** FieldEdge SGC400 transmits the measured values to the Netilion ecosystem.
- **Radar level measurement device** Micropilot FMR20 to measure the river level.
- **Service for commissioning** system components as well as analytical measurement technology.



Analysis panel for processing measured values



System overview for installation of Netilion at Wasserwerk Reinach und Umgebung

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