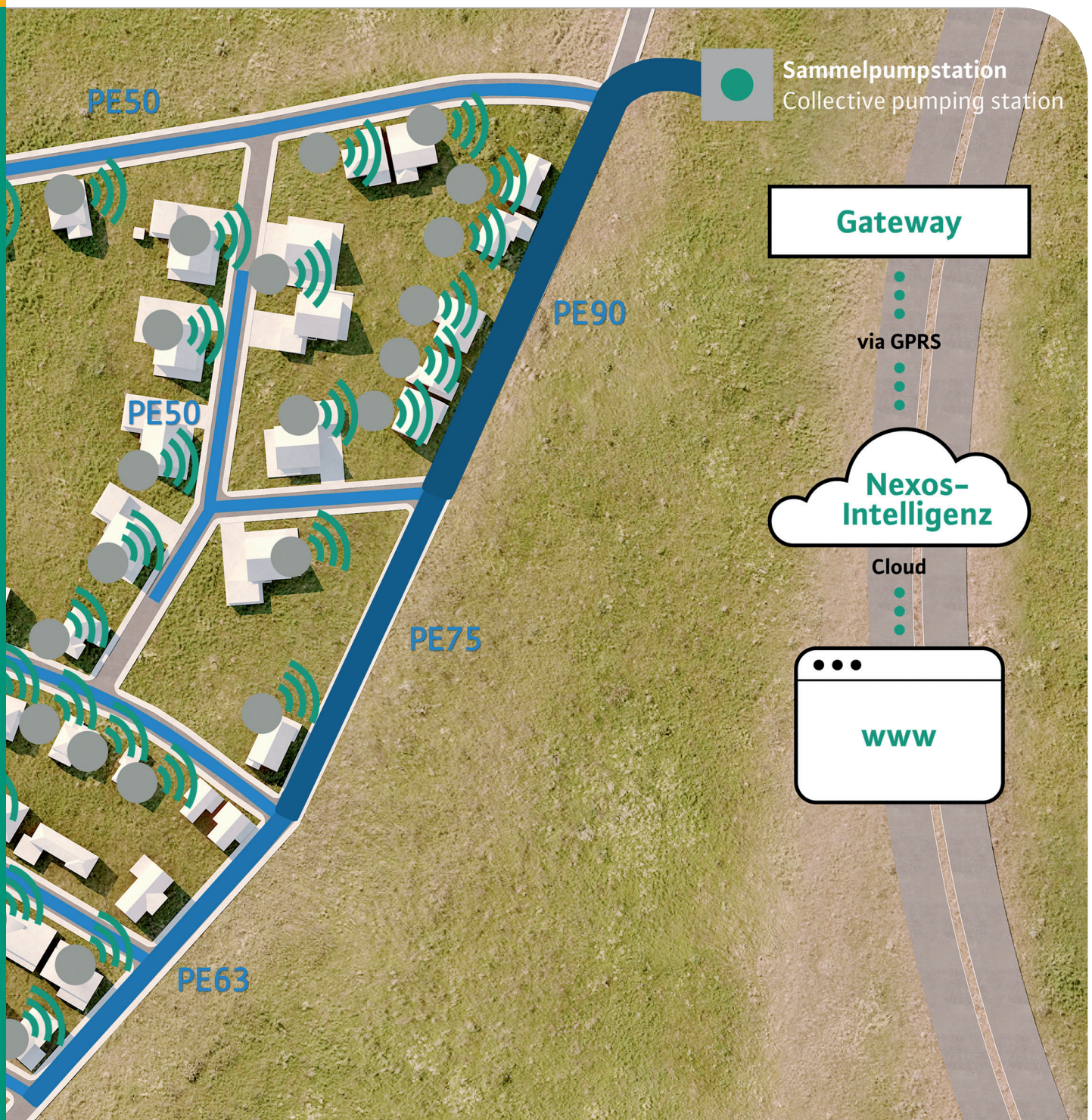


*Pressure drainage systems with Nexos Intelligence*

## Smart networking for the Polish community of Tczów.



**Using digital technologies efficiently**

The consistent use of the latest digital technologies and the comprehensive networking of the supply and disposal systems are the key to greater sustainability and efficiency. At the same time, the challenges facing our water systems are increasing: Pumping stations that are in daily use are subject to high loads. High solids content, abrasive or fibrous materials in the water can cause clogging. The intelligent networking of pumps and pump systems is becoming ever more relevant.

**More efficiency and reliability through Nexos Intelligence**

This is also highlighted by the small community of Tczów in Poland. Wilo installed a pressure drainage system here ten years ago. Only once it was in use did it become obvious that one pipe was particularly susceptible to the build-up of deposits or even clogging due to irregular flow rates – which the operator had to rectify at high cost. For this reason, Tczów became the first community to test the pressure drainage system with Nexos Intelligence. Using a piece of software, 185 of the 750 local pumping stations have been digitally connected in an intelligent network. The use of this new control system facilitates a distribution of the peak inflows on days when the system is under heavy load, such as on public holidays. At times when the system is not subject to

such heavy loading, the pressure drainage system with Nexos Intelligence ensures that the minimum flow rate of 0.7 m/s is also achieved in the collector pipes to avoid the risk of clogging due to the build-up of deposits. Faults that occur can be detected automatically using the fault patterns and thus the reason for the problem can be identified. This process reduces the response time of the community’s maintenance personnel and, as a result, lowers maintenance costs. Smart networking also delivers benefits such as an energy saving of up to 30 % and means that the system can provide daily, monthly or annual statistics for the whole system.

Our solution in numbers	
Population	4,500
Area	72 km <sup>2</sup>
Population density	68 people/km <sup>2</sup>
Pumping stations	750
Networked pumping stations	185
Energy saving	30 %

The mayor of Tczów, Andrzej Wolszczak, is thoroughly happy with the pressure drainage system with Nexos Intelligence:

“We haven’t had a single breakdown since we’ve started using the new solution from Wilo. That is excellent proof of efficiency and reliability for me.”

