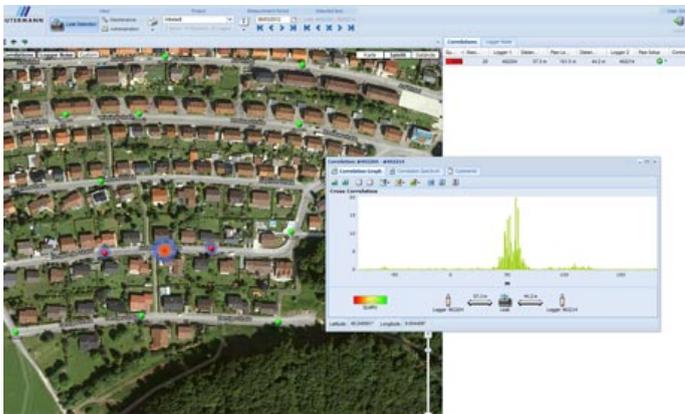


Albstadtwerke: stopping leaks the smart way

The Zonescan Alpha system, an intelligent network monitoring system, aims to revolutionise the leak detection process

Simon Beavis for the Guardian Professional Network
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The Zonescan Alpha system is being tested out in the southern German city of Albstadt. Photograph: Albstadtwerke

An estimated 30bn cubic metres of water leaks from the world's urban water supply systems every year, as water companies struggle to find efficient ways to monitor and mend old and broken pipes.

Now Albstadtwerke, the energy and water utility serving Albstadt in southern Germany, has pioneered a new, highly intelligent network monitoring system that pinpoints leaks to a matter of centimetres, so repair teams can be quickly and accurately deployed.

The Zonescan Alpha system has been under development for nearly 10 years by the leak detection company, Gutermann, but Albstadt is the first city to test and roll it out.

Intelligent sensors, permanently positioned every few hundred metres along the network, scan for leak noises that are relayed by radio, ethernet and GPRS technology back to the control room for mapping and analysis.

Scans are run at night when usage is low and water pressure is high, and any leaks automatically trigger an alarm so that repair teams can be quickly mobilised.

The technology fits with a new generation of "smart city" systems now under development. At a time when many water companies are still relying on inaccurate reactive checks – or serious incidents – to find leaks, the technology has huge potential to save water and cut costs.

Simon Beavis is part of the wordworks network

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