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Project Information Sheet

Water Pipe Condition Assessment based on Acoustic Resonance Technology (WaPiCA)

Programme area:	Water, Products and technologies
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Benefits:	Inline inspection of buried water pipelines enabling cost-effective rehabilitation and reduced leakage.
Keywords:	Condition assessment, efficient rehabilitation, reduced leakage
Sector:	Buildings and Construction
Type of solution	Technology.
Duration:	05/10/2012 – 04/10/2015
Budget:	€ 1.4M (EU contribution: 50%)
Contract number:	ECO/11/304204

Summary

The *PipeScanner* is an acoustic device that passes through water-filled pipelines and measures residual wall thickness and detects internal and external corrosion and leakage. Original prototypes were tested mainly on Norwegian networks. The *WaPiCA* project aims to exploit the technology more effectively by building two new units and deploying them elsewhere in Central Europe and the British Isles, whilst simultaneously establishing operational and marketing businesses under the umbrella of Breivoll inspection Technologies in these areas.

The technology enables utilities to clearly identify pipe sections in poor condition, enabling efficient rehabilitation and limiting leakage and its consequential direct and social costs. Equally, pipe sections in good condition can be left as they are, leading to significant cost savings and reduced environmental impacts.

The UK and France/Germany were identified as potential target markets and the project aims to fully assess their potential as well as the most appropriate organisational structure from an operational and marketing perspective.

Achieved results

- Two new inspection units have been built, together with fully-equipped inspection vehicles. The inspection units offer improved functionality including a larger diameter range capacity and leakage detection.
- The EU market potential has been evaluated and inspections have been performed in several new countries with more to come in the near future – most notably the UK.
- A business plan has been developed for operations outside Norway. This includes a UK British subsidiary.
- Approximately 30 km of pipes have been inspected in 2014 and 2015 either with the new inspection units or components retrofitted to the previous *PipeScanner* during the new build phase.