

Executive Summary

Leakage Management Report

THE BACKGROUND OF THE LEAKAGE MANAGEMENT REPORT

As stated in the WssTP Updated SRA, “approximately 50% of the population of the European Union lives within urban areas. These range in size from larger towns with perhaps 50,000 inhabitants to the major conurbations which may be home to many millions.” In urban areas, water management suffers from problems of aging infrastructure because of its early urban development: leakage and quality issues related to the water supply network. To face this challenge, the International Water Association (IWA) suggests an annual pipeline replacement rate of at least 1.5% in order to stabilise the leakage level in a water distribution system and to containing the loss of “non-revenue water”. The World Business Council for Sustainable Development estimates that the total costs of replacing aging water supply and sanitation infrastructure in industrial countries may be as high as \$200 billion per year.” In this context, one of the technical solutions identified by the Working Group “Urban Areas” is the need for more extensive research and development on the topic of leakage management.



MAIN PURPOSE OF THIS REPORT

The objectives of this report is to identify R&D needs and priorities in four main areas:ded in four categories:

- Leakage monitoring, analysis and reporting
- Technology for measurement, detection and location of leakage including technology for leakage repair
- Investing for leakage reduction, including pressure management
- Leakage economics and target setting

Within these four main areas, the aim of this report is to identify, for each specific topic:

- Gaps to be filled in the application of current methodologies
- Gaps in the technology that would make leakage management more effective
- Project proposals aimed at filling the gaps identified

A Common Vision for Water Research and Innovation

RESEARCH GAPS FOUND

In this section it is described the research calls that have been identified, in descending order of priority, as follows:

1. Improved leakage monitoring, analysis and reporting
2. Development of integrated pipe and leak detection technologies
3. Design and operation of new and existing networks to minimise water loss
4. Fundamental issues in leakage of water from pipe networks
5. Leakage economics and leakage target setting
6. Development of low-cost, minimal excavation or in-pipe repair technologies

	Leakage monitoring, analysis and reporting	Technology for measurement, detection and location of leakage including technology for leakage repair	Investing for leakage reduction, including pressure management	Leakage economics and target setting
1. Improved leakage monitoring, analysis and	√		√	√
2. Development of integrated pipe and leak		√	√	
3. Design and operation of new and existing networks to minimise water loss	√		√	√
4. Fundamental issues in leakage of water from pipe	√	√	√	
5. Leakage economics and leakage target setting	√			√
6. Development of low-cost, minimal excavation or in-pipe repair technologies		√	√	√

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Report Credits:

This report was published in October 2011

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