Urban water infrastructure asset management - a structured approach in four Portuguese water utilities

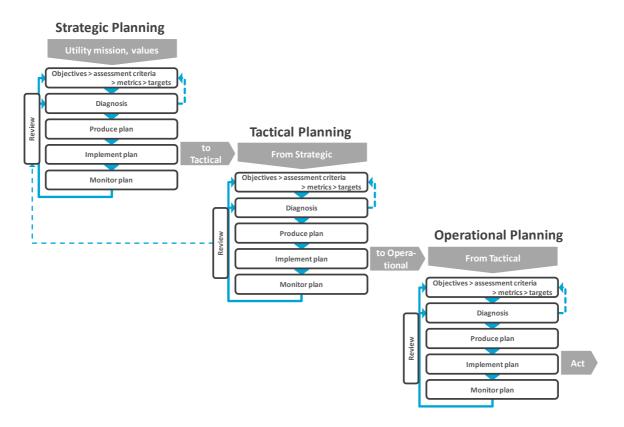
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Abstract

Water services are a strategic sector of large social and economic relevance, and must be managed rationally and efficiently. Advanced water supply and wastewater infrastructure asset management is key in achieving adequate levels of service in the future, particularly with regard to reliable and high quality drinking water supply, prevention of urban flooding, efficient use of natural resources and prevention of pollution. This paper presents an appraisal of the implementation in four utilities of a methodology for supporting the development of urban water infrastructure asset management (IAM), developed during the AWARE-P project. Both water supply systems and wastewater systems were tackled. Due to different operator contexts, the main concerns vary from case to case; some problems are related essentially to performance, others to risk. Cost is a deciding factor that is common to all utilities.

The early experience in the application of the AWARE-P IAM methodology by the project's four water services partners is summarised, focusing on the existing differences, drivers, constraints, major benefits and outcomes. The operators that took part in the test group represent a significant variety of institutional and organizational formats, priorities and drivers within the water industry, covering water supply and wastewater services. As a first overall conclusion, there is good evidence that the methodology provides a standardised and flexible IAM planning framework that can be successfully used to tackle such diversity.



Keywords: asset management, urban water infrastructure, rehabilitation plan