




# Future of Water in Europe

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global best practice

BOOK OF ABSTRACTS

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## Technical solutions for water reuse in a social and cultural center

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### ABSTRACT

This study evaluated the potential of water reuse in a social and cultural center, proposing solutions for the reduction of potable water consumption and testing the technical feasibility of four water reuse solutions. One of the solutions only suggests the replacement and/or the modification of the equipment, whilst the remaining solutions point out for the use of rainwater for supplying the cleaning water cisterns with variation of the volume.

Any of the solutions can be implemented and would lead to a considerable reduction of the water consumption and the water service cost. However, the use of rainwater to supply flushing cisterns entails very high investment costs compared to the savings achieved, making it unviable for regions of the country with lower water prices.

In a short time period, the solution with the fastest return investment is also the one with the lowest investment costs. However, in a long time period the greatest savings are achieved by combining rainwater harvesting with the installation of more efficient equipment for water consumption.

Therefore, in areas with lower water billing prices, the most viable investment it seems to be the adoption of high water efficiency equipment's. In areas where the billing reaches higher values, it is economically feasible to invest in a rainwater supply system, preferably in conjunction with the use of equipment with good water efficiency.

*Keywords: Water reuse, Building water systems, Reduction of water consumption, Technical and economic feasibility*

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