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## Sustainable and digitalized water management in rural environments in the SUDOE area (GestEAUr project)

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The rural areas of the SUDOE present many common challenges related to the integrated water cycle: the scarcity of water resources (aggravated by climate change), the impact of agricultural and livestock activities on water quality (and the consequent difficulty of reconciling compliance with the European directive, the continuity of economic activity and the availability of water) and the lack of efficiency and profitability in management (with obsolete facilities and few human resources).

It is essential to strengthen collaboration networks between the many stakeholders involved in water resources management in order to implement efficient, sustainable and cost-effective techniques for water purification, reuse and treatment. To this end, it is necessary to create a new governance system based on territorial cooperation. Water is a common good and, as such, it does not understand borders.

The project will develop a strategy to improve water efficiency and quality in rural SUDOE areas in a context of climate change, 5 action plans for 4 organizations to improve water supply and treatment services, 3 pilot tests of cost-effective and sustainable solutions for water purification, purification and reuse, and a digital tool for 2 organizations to improve water management. In addition, it will improve the capacities of public authorities in 3 countries and the knowledge of water purification, treatment and reuse techniques like water treatment, reuse and purification techniques of 3 scientific institutions.

GestEAUr will adopt an innovative approach, addressing the integrated water cycle holistically (taking into account all its stages) and will go beyond existing practice, which tends to apply the same solutions whatever the characteristics of the territory where they are implemented.

Consequently, it will analyze and test cost-effective, cutting-edge and nature-based techniques (and combinations of techniques) (SBN) specific to the needs of rural areas in the SUDOE. It will also provide digital tools to optimize and facilitate their management and planning.