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## Advancing resource efficient and cleaner production in Moldova

### The RECP methodology

**Resource Efficient and Cleaner Production (RECP)** is the integrated and continuous application of preventive environmental strategies to **processes, products, and services** to increase efficiency and reduce risks to humans and the environment. RECP is all about producing with fewer resources while minimizing environmental impacts and increasing overall productivity. For **Small and Medium-Sized Enterprises (SMEs)**, the RECP methodology can effectively lower production costs whilst improving the SMEs' competitive advantage and applying environmentally friendly practices. RECP is also an effective tool to introduce and promote Circular Economy principles among SMEs.

### “APĂ-CANAL CANTEMIR” PE - SUPPLIER OF DRINKING WATER



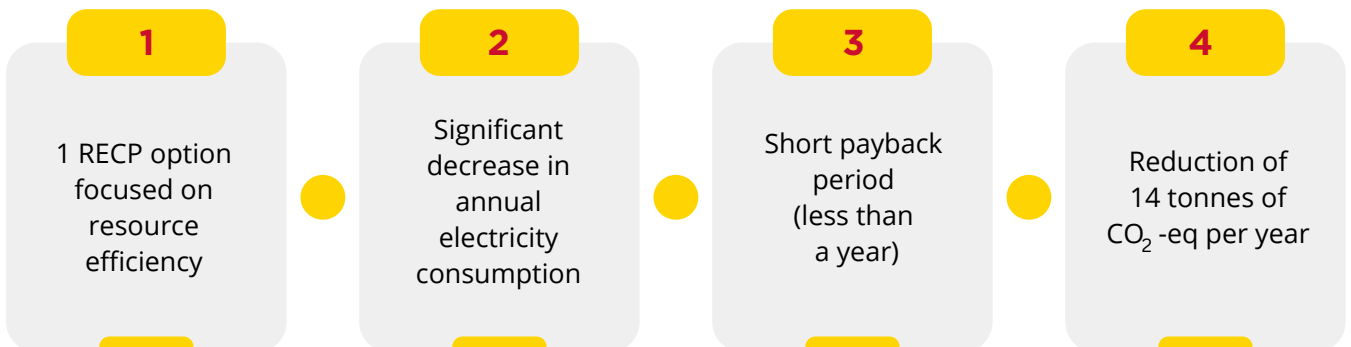
#### Company overview

**Location:** Cantemir  
**Key service:** municipal drinking water  
**No. of employees:** 47  
**Main markets:** Moldova  
**Founding year:** 1972



“Apă-Canal Cantemir” is a water treatment facility that supplies drinking water to the residents and enterprises of Cantemir city. For water treatment, the facility relies on two essential compounds, hypochlorite and aluminium sulphate. The main problem of the treatment process is the low reactivity of aluminium sulphate, especially at low water temperatures during the cold season. This leads to prolonged water treatment times and to an incomplete process that results in delivering partially-processed water to consumers. Motivated to increase the reactivity of the flocculant, the company participated in the RECP Clubs programme under EU4Environment (2019-2024). This publication shows the company's experience reported after the monitoring exercise conducted in 2021-2023.

### BENEFITS FROM IMPLEMENTING RECP OPTIONS



Action implemented by:



# The project's approach

The RECP assessment examined the production site and identified several RECP options, out of which the following was prioritised by the company. The suggested RECP recommendation requires a payback period of less than a year:

**RECP Option 1. Using aluminium hydroxochloride:** This measure involves using aluminium hydroxochloride as a flocculant, instead of aluminium sulphate. The implementation of this measure would enable water treatment at temperatures as low as 3°C, without compromising process efficiency. It would also reduce the amount of reagent used (up to 2.5 times compared to aluminium sulphate), reduce the corrosive impact on water, and increase the treatment speed due to an increased polymerisation activity, all without changing the alkalinity of water. In addition, it would also reduce the dose of primary chlorination.

## SAVING ACHIEVEMENTS

### Main RECP action

#### OPTION 1

Using aluminium hydroxochloride

### Economic key figures

RECP OPTIONS	INVESTMENT (EUR)	SAVINGS (EUR/YR)	PAYBACK PERIOD (YR)
Option 1:	/	5,250	0.3

### Resource savings

RECP OPTIONS	ELECTRICITY (KWH/YR)/%	MATERIALS (TONNES/YR)/%
Option 1:	32,830/15	7.5/50

### Total pollution reduction

RECP OPTIONS	TOTAL CO <sub>2</sub> -EQ (TONNES/YR)
Total:	14

“ The company joined the RECP Clubs programme to improve water treatment, particularly in the final stage and during wintertime when the temperature of the treated water ranges between 4 - 5°C. Thanks to the programme, we learned how to analyse resource efficiency in the treatment of drinking water and what technological measures can be used to improve it. As the company plans to further optimise resource consumption, improve labour conditions, the environmental performance of treated water, and enhance overall enterprise operations, the RECP project has inspired us to come up with new ideas and approaches regarding the implementation of RECP measures in the future, said the director, Mr. Valeriu Cepeleagă. ”

The introduction of RECP has been part of the EU-funded EU4Environment Action and executed by UNIDO. In this context, **Apă-Canal Cantemir** joined the RECP Clubs programme to be monitored under EU4Environment. Follow-up visits have also been conducted to check on the implementation of the recommended RECP options. EU4Environment helps the EU's Eastern Partnership countries preserve their natural capital and increase people's environmental well-being by supporting environment-related action, demonstrating and unlocking opportunities for greener growth, and setting mechanisms to better manage environmental risks and impacts. For more details, visit: [www.eu4environment.org](http://www.eu4environment.org)

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