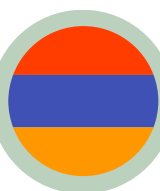




Funded by the European Union



## Advancing resource efficient and cleaner production in Armenia

### 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.

### "BNAKAT" LLC - DAIRY PRODUCTS



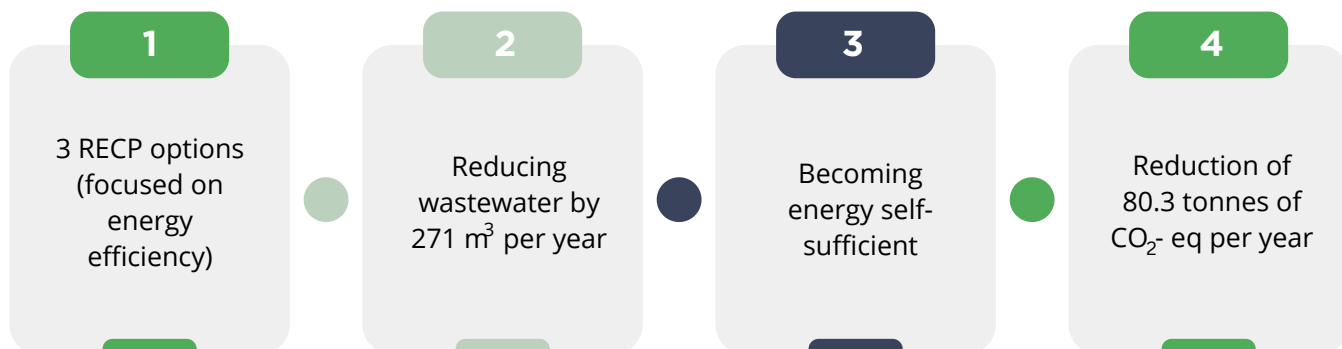
#### Company overview

**Location:** Yerevan  
**No. of employees:** 6  
**Key products:** dairy goods  
**Main markets:** Armenia  
**Founding year:** 2011



"Bnakat" is a dairy producer from Yerevan. Established in 2011, the enterprise started its operation with the production of the Lori Mozzarella cheese, and gradually expanded the production line throughout the years. The company's facilities are separated in two sections: the first, consisting of the paving production line, and the latter, which comprises the administration staff. Once the planned renovation is complete, the production line will benefit from new pieces of equipment. Motivated to improve energy efficiency and its overall performance, the company participated in the RECP Demonstration Project under EU4Environment (2019-2024). This publication shows the company's experience reported after the monitoring exercise conducted in 2022-2023.

### BENEFITS



Action implemented by:



# The project's approach

The RECP assessment examined the production site and identified several RECP options, out of which the following three were prioritised by the company. These measure are medium to high-cost recommendations:

**RECP Option 1. The treatment and reuse of cheese production residuals:** This measure consists of repurposing and selling whey to beer producers as raw material (instead of discharging it as wastewater directly to the municipal sewage system). This would increase turnover by EUR 180,000 per year and simultaneously reduce waste generation.

**RECP Option 2. Installing a photovoltaic (PV) solar system:** This measure consists of installing a 120 kW PV solar system to cover the energy needs of the company, helping it gain energy independence.

**RECP Option 3. Replacing the old, inefficient cooling equipment:** This measure consists of replacing the old, energy-inefficient cooling equipment with new, energy-efficient devices with a coefficient of performance (COP) higher than 2.5.

## SAVING ACHIEVEMENTS

### Main implemented actions

<b>OPTION 1</b>	The treatment and reuse of cheese production residuals
<b>OPTION 2</b>	Installing a PV solar system
<b>OPTION 3</b>	Replacing the old, inefficient cooling equipment

### Economic key figures

RECP OPTIONS	INVESTMENT (EUR)	SAVINGS (EUR/YR)	PAYBACK PERIOD (YR)
Option 1:	100,000	180,000	0.5
Option 2:	65,000	17,200	4
Option 3:	8,000	1,200	7

### Resource savings

RECP OPTIONS	MATERIALS (TONNES/YR)/%	ELECTRICITY (KWH/YR)
Option 1:	271	/
Option 2:	/	186,000
Option 3:	/	12,900

### Total pollution reduction

RECP OPTIONS	TOTAL CO <sub>2</sub> -EQ (TONNES/YR)	WASTEWATER (M <sup>3</sup> /YR)
Total:	80.3	271

“ Our company was struggling to manage the excess wastewater generated from the production processes, as well as the high energy costs, due to the inefficient use of resources and equipment. Thanks to the RECP Demonstration Project, we learned how to rationally use resources during and after the production process and, as a result, increase resource efficiency. As we plan on introducing a new production line in the future, the RECP project has inspired us to come up with new ideas regarding the future implementation of RECP measures, said the CEO, Mr. Taron Azizyan. ”

The introduction of RECP has been part of the EU-funded EU4Environment Action and executed by UNIDO. In this context, **Bnakat** joined the RECP Demonstration Project 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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