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## Advancing resource efficient and cleaner production in Azerbaijan

### 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 is an effective means to 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.

### “GANJA TEXTILE” OJSC - TEXTILE PRODUCTION



#### Company Overview

**Location:** Ganja City

**No. of employees:** 110

**Main markets:** Azerbaijan

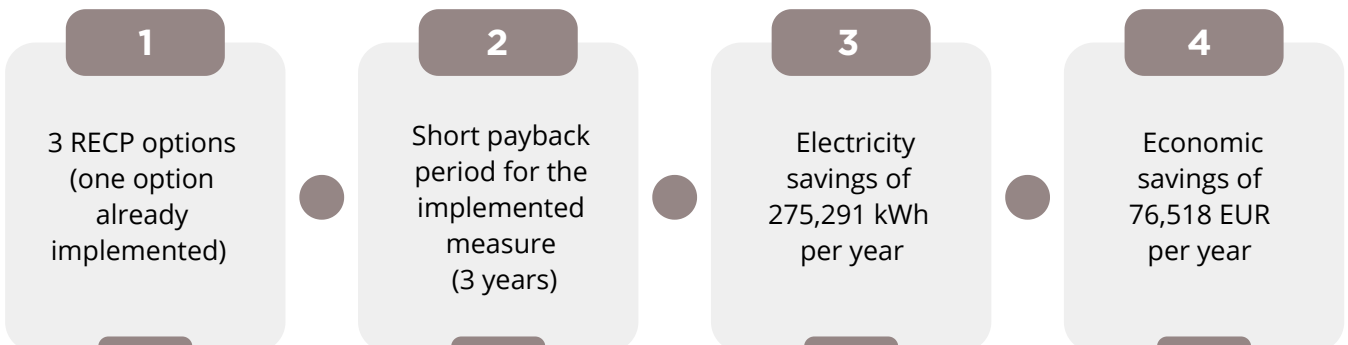
**Founding year:** 2004

**Key products:** Cheesecloth, cotton wool, medical masks



Founded in 2004, “**Ganja Textile**” OJSC experienced some challenging periods, but learned to manage them, and, in the past years, embarked on extensive landscaping and construction projects. Modern equipment was swiftly acquired from abroad, and was followed by the training of new, qualified personnel. Motivated to address production costs, the company participated in the RECP Clubs project under EU4Environment (2019-2024). This publication details the company's experience reported after the assessment exercise conducted in 2024.

### BENEFITS



Action implemented by:

# The project approach

The RECP assessment examined the production site and identified three RECP options, out of which the first one was prioritized and implemented by the company staff:

**RECP Option 1: Investing in pneumatic weaving machines:** This measure entailed replacing the old weaving machines with twenty-five new ones to significantly improve efficiency. After the plant's modernization, equipment was updated in five workshops. However, the weaving workshop still operated with outdated machines, which frequently broke down and required hard-to-source parts from Russia. The old weaving machines consumed 2.2 kW and produced 26 meters of gauze per hour, whereas the new pneumatic machines use only 1.2 kW and produce 75 meters per hour.

**RECP Option 2: Improving the use of materials:** This measure involved purchasing higher-quality cotton and keeping records of the dust emissions resulting from cleaning the cotton yarns. The mill cleans the cotton of dirt, dust, and other residues using a two-level process, and experimenting with different varieties of cotton was helpful in identifying means of improvement.

**RECP Option 3: Installing chlorine dispensers:** This measure involves acquiring chlorine dispensers to reduce chlorine waste, minimize acrid odors, and mitigate other harmful emissions. The mill uses boilers to bleach its cotton at 100°C with chlorine. However, higher bleaching speeds result in increased temperature, chemical usage, and wastewater pollution.

## SAVING ACHIEVEMENTS

### RECP measures

OPTION 1	Investing in pneumatic weaving machines
OPTION 2	Improving the use of materials
OPTION 3	Installing chlorine dispensers

### Economic key figures

RECP OPTIONS	INVESTMENT (EUR)	SAVINGS (EUR/YR)	PAYBACK PERIOD (YR)
Option 1:	240,000	76,518	3

### Resource savings

RECP OPTIONS	ELECTRICITY (KWH/YR)
Option 1:	275,291.2

The introduction of RECP has been part of the EU-funded EU4Environment Action and executed by UNIDO. In this context, "Ganja Textile" OJSC joined the RECP Clubs training and assistance 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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