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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.

### "ART GRANIT" LTD - STONE PROCESSING

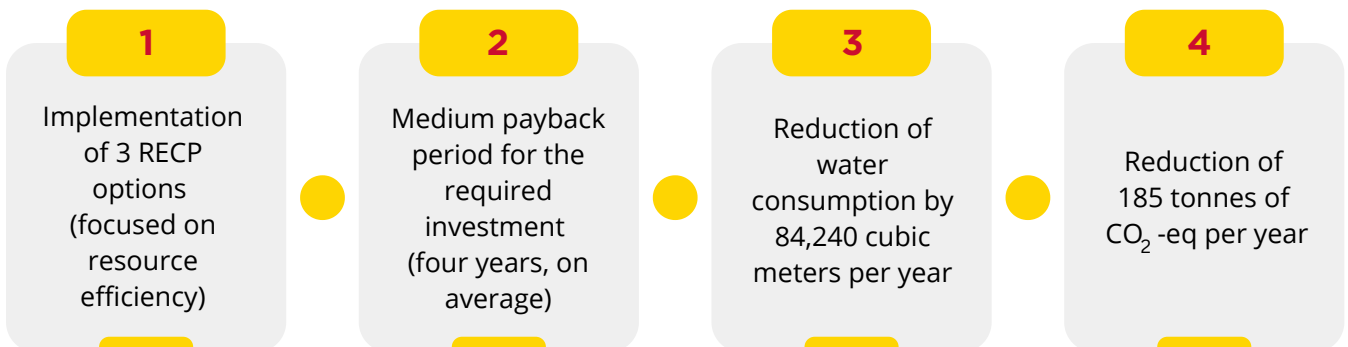


#### Company overview

- Location:** Chişinău
- Key products:** products based on natural stone
- No. of employees:** 112
- Main markets:** Moldova
- Founding year:** 2009
- Certifications:** ISO 9001 (in progress)

"Art Granit" is a company with more than 12 years of experience in processing natural stone. It consists of a warehouse, the production facilities, and two showrooms. Currently, the enterprise stocks over 50,000 square meters of around 100 variants of natural stone from all around the world. As a future plan, the company strives to become a leader for natural stone products on the Moldovan market. Motivated to improve its working conditions and the use of raw materials, 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 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 three were prioritised by the company.

**RECP Option 1. Installing a water treatment and recirculation plant:** This measure consists of installing a water treatment and recirculation plant to separate the solids from water in the water-intensive production process of cutting natural stone. This would significantly reduce water consumption and the level of contamination in the wastewater.

**RECP Option 2. Installing air-to-air heat pumps:** This measure refers to installing air-to-air heat pumps to improve the current heating system, which currently consists of six hot air generators. It would significantly reduce electricity consumption and heat loss.

**RECP Option 3. Heat recovery in the air handling system.**

## SAVING ACHIEVEMENTS

### Main RECP actions

<b>OPTION 1</b>	Installing a water treatment and recirculation plant
<b>OPTION 2</b>	Installing air-to-air heat pumps
<b>OPTION 3</b>	Heat recovery in the air handling system

### Economic key figures

RECP OPTIONS	INVESTMENT (MDL)	SAVINGS (MDL/YR)	PAYBACK PERIOD (YR)
Option 1:	13,081,097	1,380,600	0.8
Option 2:	1,582,810	236,988	2
Option 3:	-1,255,849	800,000	9.1

### Resource savings

RECP OPTIONS	ELECTRICITY (KWH/YR)/%	WATER (M <sup>3</sup> /YR)/%
Option 1:	-15,600/-100.7	84,240/0.8
Option 2:	28,433/88	/
Option 3:	1,549/99	/

### Total pollution reduction

RECP OPTIONS	TOTAL CO <sub>2</sub> -EQ (TONNES/YR)
Total:	185

“ Our company joined the project to boost working conditions, efficiency in terms raw materials use, and the identification of optimal solutions for the electricity and heat use. Thanks to the RECP Demonstration Project, we learned how to conduct detailed analysis within the company and identify measures that would improve overall comfort and performance. As we plan to continue to make our business greener, the RECP Project has inspired us to come up with new ideas and approaches regarding implementation of RECP measures in the future, said the production manager. ”

The introduction of RECP has been part of the EU-funded EU4Environment Action and executed by UNIDO. In this context, **Art Granit** 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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