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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.

“DINOMAX GROUP” (IGNIS CERAMICS) LTD - PORCELAIN AND CERAMICS PRODUCTION -



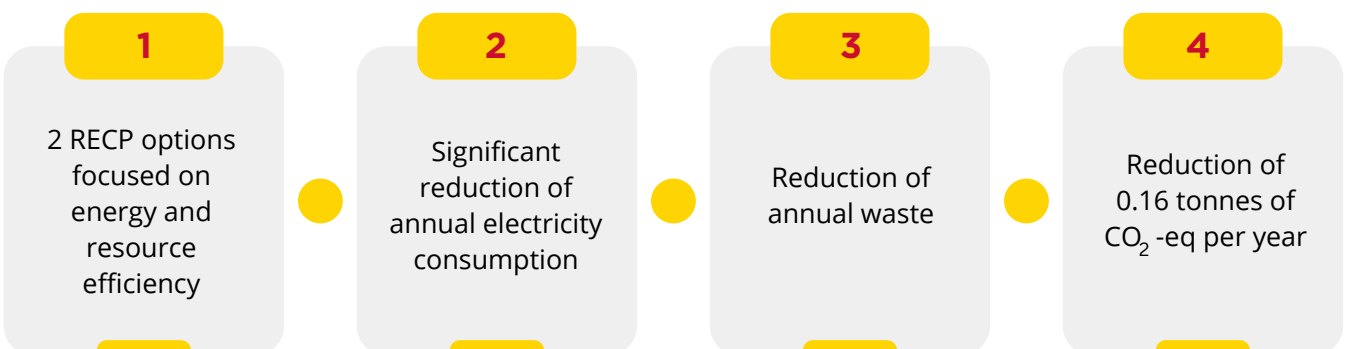
Company overview

Location: Durlleşti
Key products: ceramic tiles
No. of employees: 2
Main markets: Moldova
Founding year: 2021



“Dinomax Group” is a manufacturer of ceramic tiles using white clay, with a production model centred around tailor-made (customised) orders instead of mass production. Customers have the flexibility to select the size, colour, and pattern of their tiles. Once the thermal processing of the white clay is complete, the tiles are coated with a basic background paint before the chosen design is applied. An artist then uses special paints to draw on the tiles. When finished, the tiles are coated with a layer of glaze. Motivated to improve energy and resource efficiency, 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 2021-2024. .

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 two were prioritised by the company. The suggested RECP recommendations require a long payback period:

RECP Option 1. Using an extruder to recycle waste: This measure involves using an extruder (clay grinder) to crush clay waste and reintegrate it into the production process. This would significantly reduce both the generated waste and the use of raw materials (based on an estimated loss of raw materials of 30%).

RECP Option 2. Replacing the existing furnace with a new, soft lining one: This measure consists of replacing the existing refractory brick-lined furnace with a soft ceramic fibre-lined one. This would significantly reduce electricity consumption (around 32%) as well as the heating times for the furnace, and decrease heat loss.

SAVING ACHIEVEMENTS

Main RECP actions

OPTION 1

Using an extruder to recycle waste

OPTION 2

Replacing the existing furnace with a new, soft lining one

Economic key figures

RECP OPTIONS	INVESTMENT (EUR)	SAVINGS (EUR/YR)	PAYBACK PERIOD (YR)
Option 1:	4,000	305	13
Option 2:	9,900	76	>10

Resource savings

RECP OPTIONS	ELECTRICITY (KWH/YR)/%	MATERIALS (TONNES/YR)/%
Option 1:	/	0.2/30
Option 2:	371/31.7	/

Total pollution reduction

RECP OPTIONS	TOTAL CO ₂ -EQ (TONNES/YR)
Total:	0.16

“ Our company joined the project to address challenges related to the excessive disposal of raw materials and escalating electricity consumption. Thanks to the RECP Clubs programme, we learned that recycling waste can reduce the amount of raw materials and have a positive impact on the economic performance of our operations. As our company plans to increase the production volume and further develop, 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, Ms. Ana Plămădeală. ”

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

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