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EU4Environment
Green Economy in Eastern Partner Countries

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.

"CUNAC" JSC - CLOTHING MANUFACTURER

Company overview

Location: Chișinău
Key products: personal protective equipment, workwear, branded, and corporate clothing
No. of employees: 24
Main markets: Moldova, Romania
Founding year: 1995
Certifications: ISO 9001

URSU UNIFORME

"**Cunac**" is specialised in the production and sale of protective clothing, workwear, and equipment. As a result of the high demand for its products, the company moved to more spacious premises that spread across 1,700 square meters and is planning to expand the team in the near future. The biggest problem the enterprise is currently facing is that the employees manually cut all fabrics during the production process. This obsolete technique generates excess waste and is time-consuming, affecting overall efficiency. Motivated to optimise waste generation, be more efficient, and rationally use its raw materials, the company participated in the RECP Demonstration Project under EU4Environment (2019-2024). This publication shows its experience reported after the monitoring exercise conducted in 2022-2023.

BENEFITS FROM IMPLEMENTING RECP OPTIONS

1. Implementation of 3 RECP options (focused on resource efficiency and energy consumption)
2. Reduction of waste by 51 tonnes per year
3. Becoming energy self-sufficient
4. Reduction of 36.98 tonnes of CO_2 -eq per year

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. Streamlining the cutting process: This measure consists of rationalising the cutting process, overall, and identify stages where waste generation could be reduced to a minimum by reusing the larger parts of spare materials. Moreover, new semi-automated machines could be introduced into the tailoring process, reducing even more the generation of waste.

RECP Option 2. Installing photovoltaic (PV) solar panels: This measure consists of installing PV panels with the nominal power of 15kW to cover the energy needs of the company, simultaneously becoming less energy-dependent and significantly reducing electricity costs.

RECP Option 3. Producing own thermal energy: This measure consists of installing a new heating system based on heat pumps, and powered by electricity from the PV panels in order to lower energy costs (the initial plan was to use natural gas-powered boiler for heating the facilities).

SAVING ACHIEVEMENTS

Main RECP actions

OPTION 1	Streamlining the cutting process
OPTION 2	Installing PV solar panels
OPTION 3	Producing own thermal energy

Economic key figures

RECP OPTIONS	INVESTMENT (MDL)	SAVINGS (MDL/YR)	PAYBACK PERIOD (YR)
Option 1:	51,250	17,348	9.3
Option 2:	669,735	117,612	7
Option 3:	2,272,219	206,048	7.2

Resource savings

RECP OPTIONS	ELECTRICITY (KWH/YR)/%	NATURAL GAS (M^3/YR)/%	MATERIALS (C.C/YR)
Option 1:	-2,080/-9.40	/	51/0.14
Option 2:	37,125/167.83	/	/
Option 3:	-77,010/-348.15	18,600/100	/

Total pollution reduction

RECP OPTIONS	TOTAL CO_2-EQ (TONNES/YR)	WASTE (UNITS/YR)
Total:	460	51

“Our company wanted to identify solutions to optimise energy production and consumption within the new premises. Thanks to the RECP Demonstration Project, we learned that existing technological systems must be in continuous development, through a comprehensive and systematic analysis of our processes and the implementation of modern technologies. As we plan to increase our competitiveness on the market, especially through the ODA grants recommended by the RECP experts, the RECP Project has inspired us to come up with new ideas regarding implementation of RECP measures in the future, said the owner, Ms. Rodica Ursu.”

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

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