



Funded by the European Union



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.

"HÎNCEȘTI WINERY" - WINE PRODUCTION



Company overview

Location: Hîncești

Key products: dry, semi-dry, and sparkling wine

No. of employees: 60

Main markets: Europe

Exportation quota (%): 99

Founding year: 1816

Certifications: ISO 22000



Located in the heart of Moldova, the winery holds a significant place in the country's history in winemaking. "**Hîncești Winery**" was founded by the boyar Manuc Bey in the 19th century. After the Second World War, the first state-owned vineyard processing enterprise was established. The region, which holds the same name as the winery, is characterised by excellent climatic conditions for the production of wines, especially of white, dry, and sparkling ones. The winery itself has a processing capacity of 7,000 tonnes of grapes per season and the storage capacity of 75,000 decaliters. The whole enterprise spreads across an area of 4.96 hectares. Motivated to reduce production costs and the generated waste, the company participated in the RECP Demonstration Project under EU4Environment (2019-2024). This publication shows the company's experience reported after the monitoring exercise completed in 2022-2023.

BENEFITS FROM IMPLEMENTING RECP OPTIONS

1

Implementation of 3 RECP options (focused on resource efficiency)

2

Reduction of waste by 100 tonnes per year

3

Reduction of annual energy costs

4

Reduction of 12.94 tonnes of CO₂-eq per year

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. Installation of a wastewater treatment plant: This measure consists of implementing a wastewater treatment system in order to reduce the toxicity and organic pollution of the wastewater that is directly discharged to the municipal sewage system without any pre-treatment; this would also help reduce the negative impact on the environment.

RECP Option 2. Replacing the refrigeration system: This measure consists of replacing the old, inefficient refrigerator with a new one. It would significantly reduce the electricity consumption and lower energy costs.

RECP Option 3. Capitalising the grape marc: This measure consists of selling the marc to local farmers as a fertiliser or as a supplement in animal food production, instead of disposing it as a waste. The marc would need to be dried beforehand, packed, and later transported, for which additional agreements with other companies should be made. The measure would significantly increase the annual earnings of the company.

SAVING ACHIEVEMENTS

Main implemented actions

OPTION 1	Installation of a wastewater treatment plant
OPTION 2	Replacing the refrigeration system
OPTION 3	Capitalising the grape marc

Economic key figures

RECP OPTIONS	INVESTMENT (MDL)	SAVINGS (MDL/YR)	PAYBACK PERIOD (YR)
Option 1:	4,700,800	14,290	/
Option 2:	1,264,120	293,422	6.2
Option 3:	7,584,000	2,456,219	5.1

Resource savings

RECP OPTIONS	ELECTRICITY (KWH/YR)/%
Option 1:	-5,280/-8.58
Option 2:	61,514/100
Option 3:	-9,178/-14.92

Total pollution reduction

RECP OPTIONS	TOTAL CO ₂ -EQ (TONNES/YR)	WASTE (TONNES/YR)
Total:	12.94	100

“ The company joined the project to reduce production costs. Thanks to the RECP Demonstration Project, we learned that even when we are well-organised and use the latest available technology, production processes still need continuous improvement, since the market and technology are constantly developing. As we plan to continue to further develop our waste recovery strategy and the utilise of by-products, the RECP Project has inspired us to come up with new ideas and approaches regarding implementation of RECP measures in the near future, said the production director, Mr. Oleg Mititelu. ”

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

This publication has been produced with the assistance of the European Union. Its contents are the sole responsibility of UNIDO and do not necessarily reflect the views of the European Union.

© – 2023 – UNIDO. All rights reserved. Licensed to the European Union under conditions.



United Nations Industrial Development Organization
Ms. Tatiana Chernyavskaya
EU4Environment Project Manager
Tel: +43 1 26 0 26 5520
E-mail: t.chernyavskaya@unido.org



Organisation for Entrepreneurship Development
Bulevardul Ștefan cel Mare și Sfânt 134
Chișinău, Republica Moldova
Tel: +373 22 295 741
E-mail: info@oda.md