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.

“ICS STEAUA REDS” JSCO - CLOTHING MANUFACTURER

Company overview

Location: Chișinău
Key products: knitted and crochet clothes
No. of employees: 160
Main markets: Moldova
Founding year: 1998

“The Steaua Reds” was established in 1998, specialising in the production of knitted and crochet clothing for adults and children (jumpers and jackets, blouses and waistcoats, hats, scarves and gaiters, to name a few). The enterprise engages in both self-branded clothing production as well manufacturing for partner companies. Within the production process, it utilises various yarn types, including combinations of natural, artificial, and synthetic fibres. This allows for a production of a wide range of garments for both spring-summer and autumn-winter seasons. The final stages of production involve printing, machine embroidery, and hand embroidery. Motivated to optimise energy consumption, 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

1 RECP option focused on energy efficiency
Annual savings of 5,467 EUR
Short payback period (less than a year)
Reduction of 8.8 tonnes of CO₂-eq per year
The RECP assessment examined the production site and identified several RECP options, out of which the following was prioritised by the company. The suggested RECP recommendation requires a payback period of less than a year:

**RECP Option 1. Installing a heat recovery unit for the boiler flue gas:** This measure consists of installing a heat utiliser (economiser) to reduce heat loss into the environment. During its operation, the combustion products of natural gas (flue gases) in the steam boiler would serve as a heat carrier. The recovered heat would then be used to warm up water to a temperature of 80 °C, subsequently supplying it into the heating system for one of the floors within the manufacturing building.

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**SAVING ACHIEVEMENTS**

**Main RECP action**

**OPTION 1** Installing a heat recovery unit for the boiler flue gas

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**Economic key figures**

<table>
<thead>
<tr>
<th>RECP OPTIONS</th>
<th>INVESTMENT (EUR)</th>
<th>SAVINGS (EUR/YR)</th>
<th>PAYBACK PERIOD (YR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1</td>
<td>562</td>
<td>5,467</td>
<td>0.1</td>
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</tbody>
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**Resource savings**

<table>
<thead>
<tr>
<th>RECP OPTIONS</th>
<th>NATURAL GAS (M³/YR)/%</th>
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</thead>
<tbody>
<tr>
<td>Option 1</td>
<td>4,028/9</td>
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</tbody>
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**Total pollution reduction**

<table>
<thead>
<tr>
<th>RECP OPTIONS</th>
<th>TOTAL CO₂-EQ (TONNES/YR)</th>
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<tbody>
<tr>
<td>Total</td>
<td>8.8</td>
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The escalating prices for centrally supplied heating services have forced the management of our enterprise to consider new ways to reduce costs, which was a key motivation for our company to participate in this project. Thanks to the RECP Clubs programme, we understood that the problem of high heating costs could be solved by utilising the energy that is already available. As our company plans to invest in further developments to reduce the consumption of energy, the RECP project has inspired us to come up with new ideas and approaches regarding the implementation of RECP measures in the near future, said the executive director, Ms. Violeta Cojocaru.

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The introduction of RECP has been part of the EU-funded EU4Environment Action and executed by UNIDO. In this context, ICS Steaua Reds 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](http://www.eu4environment.org).

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