



TOGETHER
for a sustainable future

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RECP Experiences at Moravia Lacto, a. s.

Achievements at a Glance

Moravia Lacto is a leading Czech dairy which was one of the pioneering companies in implementation of new methodology developed by the Czech NCPC EMPRESS – Initial Review for RECP and SCP. This complex initial assessment enables in an effective way to identify potentials for improvement within the whole enterprise management pyramid and to propose a set of optimal need driven innovations for exploration of these potentials. Methodology can be utilised also by companies advanced in area of RECP with limited or no external technical assistance which is in agreement with NCPC strategy for promotion of RECP.

Overview

The company is located in the Czech Republic in Jihlava. Moravia Lacto produces fresh milk products, cheeses, powdered milk, butter, semi-hard and hard cheeses and whey. The company employs almost 200 employees.

Enterprise had already in place best available techniques and did not have any problem with environmental legislation. Its goal was to explore opportunities for further improvements in area of RECP.

Benefits

Identification of potentials for RECP within the whole management pyramid and

- a) integration of resource efficiency into enterprise values and strategy at its control level
- b) installation of management system for resource efficiency for energy (natural gas and electricity) and water at its information level
- c) increase of resource efficiency and reduction of produced pollution (decreased CO₂ emissions, amount of waste water and production of sludge) at physical level of the enterprise.



Facility of Moravia Lacto in Jihlava

Success Areas

Cleaner production

The implementation of cleaner production principles brings more effective environmental friendly company operation. In this case it brought reduction of produced sludge, improvement of water efficiency and reduction of CO₂ emissions. Efficiency of milk processing was found being already beyond best available techniques benchmarks. There were identified opportunities also for further reduction of use of cleaning chemicals.

Energy management

As most effective innovation in area of RECP was identified introduction of monitoring and targeting which is one of the tools of energy management. Its base is systematic monitoring of energy efficiency and implementation of improvement measures. Implementation of energy management into the production process of the company enables setting up energy efficiency baseline at the level of particular cost centres and to get control over the continuous improvement of energy and water efficiency.

Resource Efficient and Cleaner Production (RECP)

Resource Efficient and Cleaner Production (RECP) entails the continuous application of preventive environmental strategies to processes, products and services to increase efficiency and reduce risks to humans and the environment.

RECP addresses three sustainability dimensions individually and synergistically:

- *Production efficiency*

> Through improved productive use of natural resources by enterprises

- *Environmental management*

> Through minimization of the impact on nature by enterprises

Human development

> Through reduction of risks to people and communities from enterprises and supporting their development



Table: Major implemented measures

Principal Measures Implemented	Benefits			
	Economic		Resource Use	Pollution generated
	Investment [USD]	Cost Saving [USD/yr]	Reductions in energy use, water use and/or materials use	Reductions in waste water, air emissions and/or waste generation
Introduction of flow management system based on monitoring and targeting led among others to:	80,000	110,000	Reduction of energy use	Reduction of CO ₂ emissions
Optimisation of use of compressors	Non investment measures	35,000	Reduction of energy use	Reduction of CO ₂ emissions
Optimisation of heating system				
Replacement of oil utilised for heating of machine for drying milk and heat recuperation	60,000	75,000	Reduction of energy use within milk drying	Reduction of CO ₂ emissions
Systematic water management	Non investment measures	7,000	Reduction in water consumption	Reduction of waste water, reduction of production of sludge

Approach taken

The above mentioned results were achieved with a very limited technical assistance implemented within Initial Review of Innovation Opportunities for Resource Efficiency and Sustainable Consumption and Production (IR) – new methodology developed by the Czech NCPC EMPRESS for promotion and for an integrated implementation of RECP in industry. IR is suitable also for enterprise which are already advanced in their RECP activities. As a major result enterprise implemented management system for flows.

Within IR all levels of an enterprise's management pyramid are assessed in a systematic way from the perspective of possible RECP and Sustainable Consumption and Production (SCP) opportunities for improvements which could enhance enterprise's value. IR is implemented at four basic levels: products, processes, systems and stakeholders, proposing the most effective RECP/SCP innovations and projects for the given company to be further evaluated within development of innovation projects which are also part of IR. The main benefit of this new methodology is the holistic approach. If comparing IR with other methodologies for a complex diagnosis in the field of sustainability of industrial enterprises:

- IR provides a complex review thus not omitting any significant opportunity for improvement
 - IR is based also quantitative analysis thus pointing out the most effective priorities
 - instead of comparing assessed enterprises with an ideal site assuming that all RECP/SCP tools should be utilized (as other similar tools do), IR focuses on opportunities for improvements and innovations within the given enterprise
- IR focuses on opportunities for improvement first; suitable instruments for improvements and innovations are assigned to these opportunities only after completion of this initial analysis (thus ensuring need driven approach).

Major challenge in implementing IR is need for proactive involvement of enterprise members in its implementation.



Scheme of an assessment procedure throughout the company's management pyramid within IR: The arrow symbolizes a systematic diagnosis focusing on opportunities for effective RECP/SCP innovations first. Appropriate instruments are allocated to the identified opportunities within the second step only. The management pyramid is situated in the middle with its basic system levels indicated on the left. Examples of RECP/SCP instruments are given on the right side of the scheme.



RECP Experiences



Business case

Company CEO summarised experience from IR as follows: “RECP approach become part of company values and it enables to secure its long-term performance. Implemented system for management of flows is utilised for further increase of energy and water efficiency.”

Testimony Box
The Czech National Cleaner Production Centre (NCPC) EMPRESS
<p>The Czech NCPC was established in 1994 as a NGO promoting interests of industry, government and other stakeholders in area of RECP in the Czech Republic. It succeeded to build RECP capacities in the Czech Republic and to export its new know-how within international projects.</p> <p>The Centre develops and disseminates knowledge and tools for RECP and SCP. Among the most important are ‘No cure, no pay’ arrangements for RECP, integrated implementation of RECP tools and Initial Reviews for RECP/SCP.</p>
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ABOUT RECP EXPERIENCES

Through the joint Resource Efficient and Cleaner Production (RECP) Programme, the United Nations Industrial Development Organization (UNIDO) and the United Nations Environment Programme (UNEP) cooperate to improve the resource productivity and environmental performance of businesses and other organizations in developing and transition countries. The Programme is implemented in partnership with the Global Network for Resource Efficient and Cleaner Production (RECPnet). This series of enterprise success stories documents the resource productivity, environmental and other benefits achieved by enterprises in developing and transition countries through the implementation of RECP methods and practices.

These successes were achieved with the assistance of the National Cleaner Production Centres, which are part of RECPnet established with support of the UNIDO and UNEP.
