

CASE STUDY OF A SUCCESSFUL NATIONAL INDUSTRIAL DEVELOPMENT PROGRAMME/STRATEGY (1)

1. The problem or issue addressed:

Sustainable industrial development

2. Name of the programme:

Cleaner Production (CP) Financing and Implementation in Lithuania

3. Timeframe: **Unlimited**

Year started: **1998**

4. Status: ☒ Ongoing ☐ Completed in year

5. Main objectives:

- The main objective of the programme is to identify and finance on favourable terms implementation of high-priority CP innovations with rapid payback that yield environmental and economical benefits (“win-win projects”). The innovations should be commercially viable with an identifiable and secure stream of earnings to be used to repay the loan. The basis for providing a loan is a cash flow of CP investment and ability of the enterprise to repay the loan over agreed period.
- Technical appraisal of the project is focussed on:
 - inter-alia, ensuring that the project is technically feasible, technical solution is cost effective, and that no experimental technologies are being applied;
 - confirming that the environmental and economic benefits are achievable;
 - establishing that the time scales are reasonable; and confirming that the procurement approach is acceptable and that the price estimates are realistic.

6. Lead institution: The Institute of Environmental Engineering (APINI) and Nordic Environment Finance Corporation (NEFCO)

7. Other implementation arrangements and stakeholders involved (public, private, NGOs, CBOs, international support, etc.):

- 35 Lithuanian industrial companies
- Lithuanian Confederation of Industrialists

8. The results achieved (if possible, please address the social, economic and environmental impacts of the programme):

<u>Number of companies:</u>	<u>35</u>
<u>Number of implemented CP innovations provided with NEFCO loan</u>	<u>42</u>
<u>Environmental savings (yearly):</u>	
<u>El. Energy consumption reduced</u>	<u>5490664 kWh</u>
<u>Heat Energy consumption reduced</u>	<u>12046210 kWh</u>
<u>Waste amount reduced</u>	<u>17260 t</u>
<u>Chemicals consumption reduced</u>	<u>168 t</u>
<u>Air emission reduced</u>	<u>15824 t</u>
<u>Potable water consumption reduced</u>	<u>59214 m³</u>

Diesel consumption reduced	76970 l
Natural gas consumption reduced	1171036 m ³
Fuel consumption reduced	130736 t
Wastewater amount reduced	123922 m ³
Wastewater pollution load reduced	88.5 t
Industrial water consumption reduced	93320 m ³
Oil consumption reduced	18 t
Raw material consumption reduced	345 t

Economical profit:

Total investment in CP innovations	3 289 922 €
Yearly savings from CP innovations	1 911 920 €

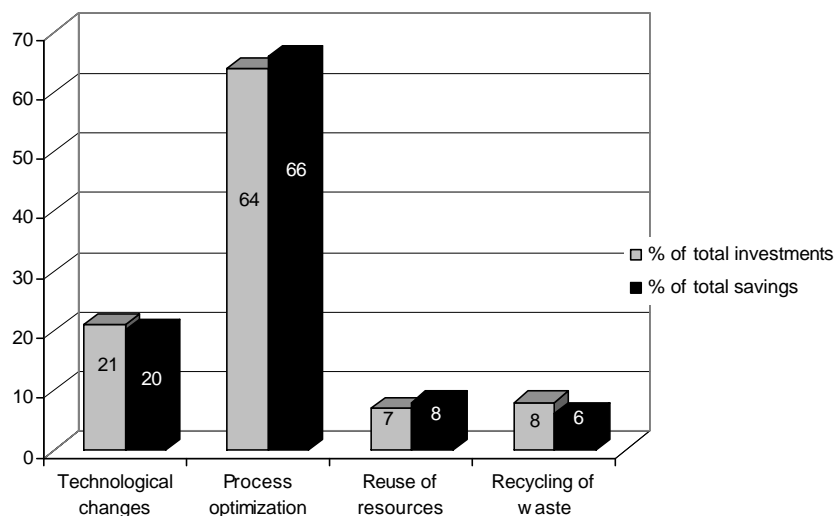


Fig. Analysis of economic results of CP investment projects implemented with NEFCO loans

CP investment project developed and implemented according the methodology developed by APINI:

- increases profitability, lowers production costs;
- provides a rapid return on any capital or operating investments required;
- leads to the more efficient use of energy, natural resources and raw materials;
- increases staff motivation through reduced worker risks;
- reduces the risk of environmental accidents;
- significantly reduces / avoids regulatory compliance costs.

The results of the programme were basis for:

- 2 PhD theses,
- separate chapters of 2 monographs,
- 10 of scientific papers.

9. The relationship of the programme to internationally agreed goals and targets:

The Programme has considerable catalytic effects in Lithuania by demonstrating to other financiers and enterprises that financing of priority cleaner production investments yield environmental and economical benefits.

In the framework of UNEP and UNIDO projects, Lithuanian experience was transferred to several countries in South East Africa, Central America, Asia and Russia and demonstrated how to initiate and facilitate the financing of cleaner production investments by developing financing instruments for them, and by persuading public and private financial institutions and the industrial community to adopt these instruments. The results obtained and lessons learned in the demonstration countries were used at the global level to motivate key decision-makers in the financial sector to pursue cleaner production investments in developing countries.

More specifically, the programme:

- showed financial institutions and industrial authorities how to assess the merits of cleaner production investment proposals;
- persuaded financial institutions to introduce financing facilities customized to cleaner production investments;
- induced new initiatives such as credit lines, trust funds, policy changes and training;
- taught cleaner production assessors how to make creditworthy loan applications; and
- improved the general environment for investment in cleaner production.