PRESOURCE
PROMOTION OF RESOURCE EFFICIENCY IN SMES IN CENTRAL EUROPE

Advanced Cost Benefit Analysis
Information and Background

One of the core outputs of the EU-project PRESOURCE is a transnational tool to promote and implement an Advanced Cost Benefit Analysis. It was developed to foster investment decisions in the field of eco-innovation and resource efficiency. Small and meidum sized enterprises (SMEs) receive a comprehensive tool that helps them address their investment proposals to capital providers. This is expected to result in a quality increase in the eco-innovation funding process and to foster the exploitation of eco-innovation gains.

PRESOURCE is implemented through the CENTRAL EUROPE Programme co-financed by the ERDF and aims to increase resource efficiency, especially in SMEs in the Central European countries, by identifying opportunities for improving and financing investment in eco-innovation.

Resource efficiency is understood as "reducing the use and the costs of energy, material and water in the production process and product life cycle". However, in the context of the Advanced Cost Benefit Analysis the focus was broadened to eco-innovation as a whole. According to the European Commission, eco-innovation is "any form of innovation aiming at significant and demonstrable progress towards the goal of sustainable development [...] either by reducing the environmental impact or achieving a more efficient and responsible use of resources".

Measures for eco-innovation and resource efficiency face a high level of uncertainty regarding economic feasibility. This was confirmed by over 100 transnational interviews with experts from public financial institutions, private banks, venture capitalists and innovative capital providers active in the field of eco-innovation and resource efficiency in the PRESOURCE partner countries (Austria, Czech Republic, Germany, Hungary, Italy and Poland). Furthermore, conventional cost benefit approaches are not suitable for adequately assessing environmental benefits and translating them into monetary values. Thus, important potentials for economic growth are lost due to imperfect market conditions. The Advanced Cost Benefit Analysis helps close these informational gaps through signalling economic reliability.

With regard to the lack of specific evaluation criteria, the Advanced Cost Benefit Analysis shall complement conventional financial valuation methods through managerial, economic and environmental indicators. It will provide an easy-to-use indicator system as well as a good practice calculation scheme for the better transfer of technological knowledge and environmental impact into economic terms. The Analysis is a useful tool for actors in the financial sector (public financing institutions, private investors and banks), policy makers and bodies responsible for development of public funding sources, multipliers such as engineering and business associations and SMEs.

Scenario and Investment Analysis Tool for Eco-Innovations

	Status Quo	Scenario 1 Energy, water and process optimisation	Scenario 2 Improved energy, water and process optimisation
Energy			
Amount of energy consumption (kWh / year)	500,000	400,000	380,000
Total value of energy costs (€ / year)	93,950	75,160	71,402
Optimisation potential (%)		25.00	31.58
Costs of related maintenance (€ / year)		2,000	2,000
Total cost saving potential		16,790	20,548
Water			
Amount of water consumption (m^3 / year)	50,000	40,000	40,000
Total value of water costs (€ / year)	83,500	66,800	66,800
Optimisation potential (%)		25.00	25.00
Costs of related maintenance (€ / year)		3,000	3,000
Total cost saving potential (€ / year)		13,700	13,700
Material			
Value of total material input (year)	500,000	470,000	450,000
Optimisation potential (%)		6.38	11.11
Costs of related maintenance (€ / year)		3,500	4,500
Total cost saving potential (€ / year)		26,500	45,500
Additional net profits			
Through production optimisation (€ / year)		10,000	15,000
Through process optimisation (€ / year)		5,000	10,000
Through recycling/reuse measures (€ / year)		0	0
Other cost savings (e.g. cost of emissions, pollution, waste management etc.) (€ / year)		0	0
Investment Summary			
Investment costs (€)		200,000	350,000
Useful economic life (years)		5	7
Net present value (NPV) (€)		111,679	256,111
Pay Back Period (PBP) (years)		2.78	3.34
Internal Rate of Return (IRR) (%)		17.55	16.99
Return On Investment (ROI) (%)		55.8	73.2

For the full version of the Advanced Cost Benefit Analysis and for further information please visit our Competence Platform

www.resourceefficiencyatlas.eu

www.presource.eu

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