

SWOT analysis for the development of circular economy in existing industrial areas: A case study from Cyprus

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Abstract

In the present era, the significant advancement of the manufacturing industry has led to the generation of substantial amounts of waste, the depletion of natural resources, and a surge in CO₂ emissions. These factors have diverse impacts on both the environment and human beings. However, it is crucial to acknowledge that the growth of the industrial sector plays a vital role in the long-term economic progress of a nation. Thus, it becomes imperative to seek solutions that can effectively minimize the environmental impact associated with these industries. In this regard, the implementation of industrial symbiosis and circular economy models emerges as catalysts for promoting sustainable development while ensuring the viability of all participating units simultaneously

In the present study, an industrial and a craft industrial area were investigated in relation to (i) the number and type of units operating in the areas, (ii) raw materials needs, (iii) and also the type and volumes of waste produced. The results were obtained through a questionnaire survey. SWOT analysis was applied in order to identify internal factors (strengths and weaknesses) and external factors (opportunities and threats) that might affect the application of circular economy and industrial symbiosis practices. Finally, possible future synergies for the implementation of industrial symbiosis were planned and calculated for the two areas.

References

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