

# THE LOGISTICS OF HUNGARIAN WASTE MANAGEMENT SYSTEMS AFTER THE CHANGE OF REGIME

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## Abstract

The environmental situation in Hungary was falling behind the developed Western European countries by decades during the communist period. There was a significant lag, particularly in waste management. The change of the regime opened the opportunity for a significant change in the environmental protection and waste management in Hungary. The most visible changes were experienced in the logistics of waste management. Of course, this would not have happened without the financial support of the EU. The first two regional waste management projects of the ISPA program were launched in the regions of Szeged and Debrecen in the early 2000s. The EU-supported projects included significant logistics developments.

In the case of municipal solid waste, the role of logistics is significant in the collection, transport, temporary storage and certain pre-treatment operations. The purpose of waste transport logistics is, on one hand, to ensure the environmentally sensitive treatment of the waste, on the other hand, to transport the waste from the place of origin to the treatment site in the most efficient way. To reach these goals, similarly to the methods used by the developed Western European countries, waste logistics developments in Hungary were launched when the political-economic regime changed. In line with the EU objectives, the strategic aim of the development was to increase the rate of waste utilization significantly and to ensure the necessary logistical conditions. To reduce transportation costs, to reduce the volume of loose municipal solid waste and the recovered secondary raw materials by compression, to optimize the collecting routes and to reduce the distances were decided as well.

In the framework of the development of the collection infrastructure, standard collecting bins, tanks, and containers appeared, which were compatible with the special waste transport vehicles. Especially in larger cities the first selective waste collection networks and the modern compressing containers also appeared in the recyclable waste collection. Since the beginning of 1995, the replacement of obsolete transport vehicles has been begun, with the acquisition of modern, high capacity, more efficient compressing vehicles. To reduce waste transportation and treatment costs and to create the right conditions for recovery, sorting plants and trans-shipment stations were built. Route planning software for designing the collection networks, GPS tracking systems and inbuilt identifying chips in the collection containers are widely used. Due to the developments of the last 20 years, the logistics of Hungarian waste management has reached the level of the most developed countries.

*Key words: logistics, transport, waste management*

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