Optimisation of packaging waste management in HIDRIA (Slovenia)

Freight consolidation and transhipment; Innovative operational solutions; Monitoring and benchmarking of processes

Hidria is leading European and global provider of integral solutions for Climate technologies and Automotive technologies. Hidria focuses on research, production and sales of innovative technologies. The company operates 12 production locations in Europe (6 in Slovenia).

Hidria was faced with a problem of waste packaging (plastic, paper, cardboard and wooden packaging) left over from incoming materials and semi-manufactured goods. In order to improve the handling and removal of packaging waste and lower its costs and emissions deriving from waste transport, Hidria optimised the packaging waste logistics processes by introducing new technologies.

- The optimisation of packaging waste handling has led to reduction of quantities of transport of packaging waste of factor 3.3.
- Due to the optimisation, the company has reduced the emissions of CO₂ by 120 tonnes annually.
- Additional benefit has been the higher awareness of employees about the importance of waste separation that was transferred also to employees’ private life.

Before the implementation the packaging waste collection sites at all 7 production locations were disorganised and the waste was not balled. High volumes of packaging waste had negative impact on day-to-day operations at production sites due to high volumes demanding lots of storage space. Additionally transport for removal of the packaging waste was causing significant costs and resources.

- Careful planning based on detailed analysis of each production location.
- Implementation of coherent waste management system
- Implementation of specific individual solution at each production site while still being in line with implemented waste management
- Transfer of best practices between locations

Solution

The project of optimisation was led by joint procurement and HLS team (Hidria Leadership System) and was implemented in seven production locations. In the first step, the waste collection stations were newly defined for all seven locations. The collection stations were equipped with technology for compacting and balling of waste packaging. At the collection stations the waste packaging was sorted and separated, and then certain types of waste packaging materials were returned to production processes or sold to external clients. Packaging waste that could not be reused in production processes was compacted and balled at the collection stations thus reducing its volume significantly. Sorted waste packaging was then stored at the production site and transported to other production locations, external clients or landfills. Due to optimised volumes of balled packaging, waste was significantly lower and required less storage capacities. With lower volumes of packaging waste the demand for transport significantly decreased. The transport (removal) of packaging waste was also optimised for all seven production sites.
The optimisation of packaging waste handling in production companies/sites was to be structured in following logical steps:

- Review of the current situation
- Identification and definition of best suited solutions enabling individual adaptations for each location
- Definition, regulation and supervision of collection sites
- Baling of waste
- Clear definitions of optimal waste volumes at collection sites
- Collection sites orderliness
- Good practice transfer (from one collection site to another)
- Good communication between participants

Relevant transport modes and supply chain elements:
- Road / truck
- Packaging
- Storage

Main actors involved:
- Private approach
- Automotive industry; building climate solutions industry

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