

VORTRAG

Mo., 10. 12. 2007, 15:00 Uhr
HS 4 / BWZ

**A survey of models and methods for the design, planning and optimization
of reverse logistic networks :
illustration with facility location and vehicle routing models**

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Abstract:

Reverse logistics is concerned with the return flows of products or equipment back from the consumer to the logistics network for reuse, recovery or recycling for environmental, economic or customer service reasons. In this paper, we review applications, models and techniques proposed for the design, planning and optimization of reverse logistics systems. We consider both cases of separate and integrated handling of original products and return flows throughout the logistics network. According to the hierarchical planning framework for logistics systems, the works are described in relation to their contribution to strategic, tactical or operational planning. We illustrate by presenting models from our own research for the location of facilities and for vehicle routing in the reverse logistics context.