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The Multi-Compartment Vehicle Routing Problem with Flexible Compartment Sizes.

This page contains material of the following publication:

Abstract: In this paper, a capacitated vehicle routing problem is discussed which occurs in the context of glass waste collection. Supplies of several different product types (glass of different colors) are available at customer locations. The supplies have to be picked up at their locations and moved to a central depot at minimum cost. Different product types may be transported on the same vehicle, however, while being transported they must not be mixed. Technically this is enabled by a specific device, which allows for separating the capacity of each vehicle individually into a limited number of compartments where each compartment c accommodate one or several supplies of the same product type. For this problem, a model formulation and a variable neighborhood search algorithm for its solution are presented. The performance of the proposed heuristic is evaluated by means extensive numerical experiments. Furthermore, the economic benefits of introducing compartments on the vehicles are investigated.

Typ	› Titel	Content
	› Data files	This file contains all data files and a format description. (Update 17-08-2022: Small conversion mistakes have been corrected.)

Materials