



Research School for Operations  
Management and Logistics

**Data-driven logistics**

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The Vehicle Routing Problem (VRP) has already been widely studied in literature. The main focus is however on deterministic VRPs. Nevertheless, different forms of uncertainty can occur in real life, such as stochastic demands, customers, travel times and service times. Uncertainty in demand is the most common and will be the focus of this PhD. The research is in collaboration with a logistics service provider who serves different customers in Europe. Specified order quantities are often not correct when arriving at the customer. Furthermore, order specifications are not clearly defined, resulting in variety of specifications when receiving orders. This makes it challenging to make reliable routing plans. The aim is therefore to improve routing plans by looking at patterns in historic data and use these insights to set up a VRP with stochastic demands.