



Research School for Operations  
Management and Logistics

**Anticipatory order picking**

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The main goal of this research is to develop data-driven optimization algorithms for operational decision support in warehouses. To achieve this goal, the following research objectives will be addressed: 1. Construct high performing optimization algorithms for dynamic warehouse operations planning. More specifically, we will focus initially on the order picking and the order batching problem. 2. Develop data analytics models to detect patterns in warehouse operations and predict future movements through forecasting of customer demand. This will be done both at individual product and order level. 3. Integrate predictions on future operations in the dynamic decision-support models to enable real-time and anticipatory order picking. 4. Extensive computational experiments during each stage of the research will allow us to provide managerial insights on the potential of anticipatory order picking for different warehouse settings and environments.