



Research School for Operations
Management and Logistics

Capitalizing on collaboration in sustainable logistics in food and flower chains

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This project aims to develop horizontal and vertical collaboration models in logistics (fresh) chains with the aim to improve costs, quality, service and sustainability. Building upon the findings of case studies in which we pilot (i.e. implement and evaluate) one (or if possible more) specific collaboration models with our business partners, we aim to determine and quantify the added value of chain collaboration (i.e. better logistics performances; inventory reduction, less handling, higher shelf life, less food waste, etc.) and build a toolbox that helps to create awareness with potential partners to the advantages of collaborating in a sustainable logistics network. We will develop quantitative benchmarking and decision support models that can illustrate the tradeoffs between performance indicators (on actor and network level) for alternative collaboration scenarios.

Multiple quantitative methods will be used in this project to evaluate current situations and improve them. I already spoke about a simulation-optimization framework, but I will also use (discrete-event) simulation and optimization methods individually. Additionally, System Dynamics will be applied to evaluate the systems (supply chains) behavior and to align performance measurement and improvement over the supply chain.