

Research School for Operations Management and Logistics

Smart data-driven maintenance and service logistics

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Our research is part of the PrimaVera project, which aims to improve predictive maintenance holistically, i.e., from decisions on which sensors to install, through data collection, data analysis, and remaining useful life predictions up to optimization of maintenance and service logistics, and its implementation in companies. The aim of our research is to develop accurate, efficient, effective, and robust methods for large-scale maintenance optimization and simultaneous service logistics control, using as inputs remaining useful life predictions and other information that comes in regularly or even continuously. The novelty of the research lies in incorporating the primary process of the user in the decisions made, and in combining various topics, such as maintenance optimization and service logistics control or maintenance optimization and capacitated resources. We further aim to develop managerial insights into the influence of the quality of the inputs and the horizon of the prognostics on the quality of the solutions that the algorithms give. Finally, we aim to implement our results in two or three different companies that are part of the PrimaVera consortium.