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### **IoT-Enabled Dynamic Planning in Smart Logistics**

The dynamic and stochastic nature of today's complex logistics networks demands for more data-driven (re-)optimization approaches. Luckily, logistics operators can track their fleet performances in (near) real-time already, as modern-day fleets are well equipped with wireless sensing, processing, and communication devices. However, the centralized track-and-trace information is rarely used for autonomous rescheduling once a dynamic event alters the network's conditions, which raises the question how logistics operators should incorporate real-time sensor data into their dynamic planning activities? This research is devoted to improve logistics decision making by exploiting the real-time insights originating from the Internet of Things (IoT) in combination with data-driven optimization techniques. The main aim is to develop a resilient planning framework that enables logistics planners to better anticipate on disturbances by combining both human experiences, operations research techniques, and pattern recognition mechanisms (e.g., machine learning, data mining, etc.). In this presentation, four research deliverables are discussed to pursue this vision: (1) an objective overview of state-of-the-art IoT developments to enhance logistics resilience and efficiency; (2) the development of dynamic optimization algorithms by relying on real-time data; (3) the construction of data-driven algorithms to identify, assess and resolve the presence of logistical disturbances and; (4) the validation of the resulting resilient planning framework.