Integrating the Right-to-Repair into Circular Supply Chain Operations

Driven by the right to repair movement and quite recently through the directive on the Rightto-Repair (RtR) in the EU, companies are increasingly integrating repairability considerations into their product and supply chain design decisions. Providing repair options in case a product breaks down is intended to prevent waste and extend the useful life of products, thereby increasing the circularity in the system and improving its sustainability. However, Right-to-Repair also comes with a variety of novel and complex decision problems along the entire supply chain.

This thesis aims at identifying and classifying the arising decision problems under a Right-to-Repair regime accounting for related research areas they interact with. Using relevant literature, those should then be discussed with respect to their implications for both Supply Chain Management and sustainability/circularity improvements. Selecting one of the identified decision problems that has not yet been treated sufficiently in literature, an analytical model is to be developed and applied to analyze those in more detail, focusing either on coordination issues along the supply chain or arising interdependencies along the entire lifecycle of the product from design to repair/end-of-life. This should result in a detailed discussion of the policy's impact on the supply chain's behavior resulting from the incentives imposed by the RtR with respect to the research question as well as the identification of future research avenues.