

# **Transition to a Circular Economy in Apulia Region: technological aspects, public policy and private initiatives. A case study on the value chain of the Automotive industry.**

**Angela Stefania Bergantino, Ada Spiru**

Several authors agree that companies could heavily contribute to accelerate the transition towards Circular Economy (CE), especially redesigning their organizations and stakeholder networks (Kalmykova et al., 2018; Manninen et al., 2018). Essential for an effective adoption of CE strategy are systemic changes that overcome the individual firm and involve effectively all actors contributing to adding value to a product and/or a service, such as networks of companies operating at different points in the Supply Chain (SC) (Park et al., 2010; Preston, 2012).

Supporting diffusion of CE requires also a more integrated approach between all actors, involving the whole company's supply chain. While much work has been done on sustainable SCs, some authors claim that the relationship between CE and SC still needs to be explored (Batista et al., 2018a; De Angelis et al., 2018; Geissdoerfer et al., 2018).

Thus, the objective of this work is to investigate, through a field study analysis, the potential relationship between company SC and CE adoption in industrial companies through a field analysis. This question will be investigated from a regional viewpoint in a specific sector, which for different reasons is going to face more challenges than others, represented by the supply chain of the automotive sector in Apulia.

Moreover, studies show that applied to steel consumption in the automotive, mechanical engineering and transport sectors, a circular transformation would result in a net global saving of 110 to 170 million tonnes of iron ore per year in 2025, which could also reduce the volatility of demand in these sectors.

The desired transition to Circular Supply Chains requires an analysis about the relationship between CE and SC management models, starting from the strategic level to a more operational one, but also designing public policies at regional level to foster the transition. Technological aspects also could be critical for less developed regions as Apulia, thus supporting those practices may increase the potential for innovation of the overall region driving other sectors to more circular economy activities supported, on the other hand, by public-private cooperation.