

Toward a Circular Supply Chain: The Case of Fercam Echo Labs

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EXECUTIVE SUMMARY

How circular economy systems truly work for firms around the world is at the beginning of knowledge development. As such, this chapter aims to provide an analysis of how to concretely implement and manage innovative projects to shift from a linear to circular supply chain management. The chapter analyses the case of sustainable wooden packaging logistics implemented by Fercam Echo Labs, moving from recycling approaches to upcycling solutions for pallets and crates. The development of circular supply chain management inside the circular economy can properly guide research and practitioners' efforts in the innovative logistics packaging management arena.

INTRODUCTION

The European Commission adopted the new “*Circular Economy Action Plan*”-CEAP (March 2020) as one of the main building blocks of the European Green Deal for the new European agenda for sustainable growth. The CEAP provides a future-oriented agenda for achieving a cleaner and more competitive

Europe in co-creation with economic actors, consumers, citizens and civil society organizations. In the document “*Circular economy action plan. For a cleaner and more competitive Europe*”, packaging is placed among the “key product value chains”, “where the potential for circularity is high”, together with others: “electronics and Information and Communication Technologies”; “batteries and vehicles”; “plastics”; “textiles”; “construction and buildings”; “food, water and nutrients”¹. The sustainability challenge especially posed by packaging value chains requires urgent, comprehensive and coordinated actions, which form an integral part of the European sustainable product policy framework and industrial strategy and contribute to the response to the climate emergency².

The presence of packaging along the supply chains in fact is pervasive, both as a product itself and as a combination of product-packaging (Silva and Pålsson, 2022; Massaroni and Cozzolino, 2021; Cozzolino, 2021a). Due to its pervasiveness along supply chains, packaging carries great importance in achieving sustainable goals and targets (Fitzpatrick et al., 2012), supported through the development of guidelines, standards, and scorecards that should be applied over the entire packaging life cycle – from production, through to distribution and transport, to use and disposal (Kozik, 2020). It is precisely the packaging “logistics” processes that make product packaging possible, flowing through the entire supply chain and defining interaction with the physical environment and the socio-economic context (Cozzolino, 2021a; Vernuccio *et al.*, 2010). Thus, the idea of “sustainable” packaging logistics has been growing in academia and professional contexts (Cozzolino, 2022; Massaroni and Cozzolino, 2021; Cozzolino, 2021a). The concept of sustainable packaging logistics is connected with a strategic, systemic and holistic view, going beyond a formal system (i.e., accounting, social and environmental responsibility), imposed by rules and regulations, to a sustainability that works “toward a triple helix for value creation, a genetic code for tomorrow’s capitalism, spurring the regeneration of our economies, societies, and biosphere” (Elkington, 2018), inside the circular economy perspective.

The circular economy perspective, promoted by the Ellen MacArthur Foundation³ is a “systems solution framework” that tackles global challenges, such as climate change, biodiversity loss, waste, and pollution, aimed at retaining as much value as possible of products, parts and materials. It is increasingly recognized as a better alternative to the dominant linear economic model (focused on take, make, and dispose) promoting products and services traded in loops or cycles (Ghisellini et al., 2016; Elia et al., 2017; Geissdoerfer et al., 2017; Kirchherr et al., 2017). Companies are showing an

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