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Nota di contenuto	Chapter 1 A Decision-making approaches for deconstruction operations optimization: a literature review -- Chapter 2 A Novel Optimization Model for Sustainable Life Cycle Design: Circular Economy Case Study in the Automotive Industry -- Chapter 3 Exploring Options for Designing an Optimal Circular Spent Coffee Grounds Reverse Logistics Network: An Optimization-based Approach -- Chapter 4 Optimizing Circular Economy: Simulation and optimisation in stochastic inventory control of perishable dairy products -- Chapter 5 Sustainability with 4R principle on multi-objective waste management under Fermatean fuzzy environment -- Chapter 6 Optimizing the MunicipalWaste Management to Support Circular Economy Program at Regency Level in Indonesia: Case Study in Banyumas Regency -- Chapter 7 The price and attitude to recycling: manufacturers and consumers points of view -- Chapter 8 Transition Pathway from Linear to Circular Economy in Waste Management in Indonesia: A study of two

cities -- Chapter 9 Multicriteria Sustainability Index (MSI) in the Chico Mendes Extractive Reserve, in the state of Acre, Brazil -- Chapter 10 Plastics recycling dilemma: A value chain perspective on integrating mechanical and chemical recycling for closing the plastic loop -- Chapter 11 BCpbP - Blue Circular PostBranding Project, a local Portuguese case study for a Blue Circular Economy.

Sommario/riassunto

In today’s world, the concept of a circular economy has emerged as a vital solution to address pressing environmental concerns and foster sustainable development. At its core, the circular economy aims to minimize waste generation by keeping resources in use for as long as possible, thereby reducing the strain on natural ecosystems and promoting resource efficiency. Operations research and data science play a crucial role in implementing circular economy principles by bridging the gap between data generated from new technologies and decision-making processes. This book serves as a comprehensive guide, illustrating how operations research and data science techniques can function as a decision support system, facilitating the optimal implementation of circular economy principles. With a particular focus on waste management, the book delves into various aspects such as recycling, reusing, and refurbishing, providing practical real-world applications and examples. By blending theoretical frameworks with practical insights, the book empowers both professionals and researchers with the essential tools and knowledge to navigate the intricacies of sustainable waste management. It underscores the significance of operations research and data science in facilitating the optimal implementation of circular economy principles. Offering comprehensive insights and actionable examples, readers acquire valuable guidance for implementing positive changes in waste management practices.