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Sommario/riassunto

This open access book gathers original contributions focused on the transition of the European steel industry to Industry 4.0. It not only investigates how Industry 4.0 can enhance productivity, cost-saving, and sustainability in the steel industry but also helps to comprehend its broad consequences on employment, education and training, human resources, economic resilience and decarbonisation. The content engages with the international debate on Industry 4.0 through the lens of the steel industry from a multidisciplinary perspective. It encourages a scientifically grounded critical approach and includes contributions from humanities and technical disciplines, with a focus on the social dimensions of the phenomenon. This book draws strength from up-to-date international research projects and adopts a strong industry-based perspective, providing a thorough description and analysis of the state of the art of the European steel industry. It also analyzes the trends, outcomes, opportunities, and criticalities arising with the transition to the Industry 4.0 paradigm. The book is primarily based on the results of the European Steel Skills Agenda (ESSA) skills alliance project co-funded by the Erasmus+ programme of the European Union and supported by the European Steel Technology Platform (ESTEP). This is an open access book.