


Chapter 5


Building Green Skills in the Workforce as an HR Role in the Circular Economy

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ABSTRACT

The chapter begins by clarifying the concept of green skills, understood as the knowledge, abilities, values, and attitudes necessary to support environmental sustainability in both specific occupations and across the labor market. These include both technical skills—such as waste reduction strategies, renewable energy technologies, and sustainable production methods—and transversal soft skills, including systems thinking, environmental awareness, and innovation. The global demand for such skills is rapidly increasing as businesses seek to meet climate targets and adopt circular models. Finally, the chapter reflects on the broader challenges of building green skills in a digital and often fragmented labor market. It considers the impact of automation, hybrid work, and evolving policy landscapes on HR's ability to foster green competencies. It concludes by proposing strategic recommendations for HR professionals, educators, and policymakers committed to building a workforce prepared for the circular economy.

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INTRODUCTION

Building Green Skills in the Workforce is associated with the transformation of the economy towards sustainable development, which results in, among other things, business models for enterprises in the spirit of the circular economy. The workforce is of key importance in every economy. Today, it determines the quality of use of other factors of production such as land or capital. The success of the transformation of economies with their various conditions towards the circular economy also depends on this force.

The transition to a circular economy—one that emphasizes sustainability, resource efficiency, and waste minimization—requires not only technological and business model innovations but also a fundamental shift in workforce competencies. Human Resource Management (HRM) is uniquely positioned to support this transition by equipping employees with the green skills needed to thrive in emerging circular economic systems. This chapter explores the strategic role of HRM in building green skills within the workforce and aligns this endeavor with the goals of the circular economy.

The aim of the chapter is to show and emphasize the importance of cultivating an organizational culture that supports circular economy values. HR's role in promoting green leadership, managing change, and fostering employee engagement around sustainability objectives is highlighted as a critical factor in long-term success. Finally, the chapter reflects on the broader challenges of building green skills in a digital and often fragmented labor market. It considers the impact of automation, hybrid work, and evolving policy landscapes on HR's ability to foster green competencies. It concludes by proposing strategic recommendations for HR professionals, educators, and policymakers committed to building a workforce prepared for the circular economy.

THE CONCEPT OF GREEN SKILLS IN THE CONTEXT OF SOCIAL SCIENCES

Green competences include “supporting sustainable development, implementing systems that reduce the carbon footprint and optimizing environmental processes. These competences increase the demand for employees who combine knowledge of IT, engineering and new technologies with competences related to environmental protection”. Data from the World Economic Forum report clearly indicate that competences related to environmental protection and sustainable development are among the fastest growing in the world. The number of employees acquiring these skills increased by 12% over the last year, and the number of job offers requiring

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