



10th
INTERNATIONAL WORKSHOP
ADVANCES IN CLEANER PRODUCTION
Academic

“TEN YEARS WORKING TOGETHER FOR A SUSTAINABLE FUTURE”

The principles of Industry 4.0 and the sustainability impacts of the enterprise value chain

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Abstract

The growing interest for sustainability has led companies to adjust their strategies to include initiatives for the advancement of the three pillars of business sustainability in environmental, economic and social dimensions. These initiatives often are restricted to the internal actions in enterprises, and the results normally do not expand across the entire company business value chain. Some restrictions are still blocking the advance of sustainability at all levels, since finding solutions requires integration efforts and major changes in products, processes and behavior of people operating in highly complex networks. With the advance of new technologies, especially those from the Industry 4.0 (I.4.0), a high level of connectivity between the processes benefits the expansion of customized products and other elements that suggest deep changes in organizational environments and in society, contributing to the sustainability dimensions. In this scenario, this study intends to evaluate the relationship between sustainability and Industry 4.0 principles, which may impact in advancing the strategies within the company business value chain.

Keywords: *Industry 4.0, sustainability, value chain, environment.*

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São Paulo – Brazil – May 24th to 26th - 2017