



# Academic

## INTERNATIONAL WORKSHOP ADVANCES IN CLEANER PRODUCTION

“TEN YEARS WORKING TOGETHER FOR A SUSTAINABLE FUTURE”

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## Industrial Symbiosis Expanded for Building a Sustainable Society

SILVA, L. F. <sup>a,b\*</sup>, OLIVEIRA, P. S. G.<sup>c</sup>, GUEVARA, A. J. H. <sup>b</sup>, FERNANDES, K. R. <sup>a,d</sup>

*a. Universidade Nove de Julho - UNINOVE, São Paulo.*

*b. Pontifícia Universidade Católica – PUC-SP, São Paulo.*

*c. Universidade Anhembi Morumbi, São Paulo.*

*d. Faculdade Getúlio Vargas, São Paulo.*

*\*Corresponding author: Luciano Ferreira da Silva, lf\_silvabr@yahoo.com.br*

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### Abstract

The purpose of this theoretical conceptual article is to present a framework for a conceptual model of Industrial Symbiosis Expanded, to build such model the consumer was inserted in your role such as *prosumer*. The reason for the relevance of this proposition is that most of the time the concept of Industrial Symbiosis is related only to interorganizational relationships (Ammenberg et al., 2015, Martin, 2015, Trokanas, Cafelja and Raafat, 2015). Consumers in turn are treated as inert parts in the industrial chain. In this way, by inserting consumers into the industrial system, adopting a perspective under the concept of *prosumer* (Ritzer, Dean, Jurgenson, 2012, Seran, Izvercian, 2014), It is possible to promote synergistic activities in which the individual can generate benefits not only to himself but to other agents. This situation can be evidenced in the studies of Nazari et al. (2014) and Rathnayaka et al. (2014) on the production and consumption of energy and the gains in establishing synergistic relationships between companies and consumers, the latter also producing and re-feeding the electric system. The proposition of the presented conceptual model followed a three-dimensional perspective aligned with the dimensions of the Triple Bottom line (Elkington, 1998), demonstrating the symbiotic interaction and cooperation between the three synergetic systems - natural, industrial and *prosumer*.

**Keywords:** *Industrial Symbiosis; Sustainability; Sustainable Production; Industrial Ecology; Prosumer.*

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