

Past and Present Research Systems of Green Chemistry

August 25-27, 2014 Hilton Philadelphia Airport, USA

Critical reflections on the chemical leasing concept

Rodrigo Lozano^{1,2}, Angela Carpenter^{2,3} and Francisco J Lozano⁴

¹Utrecht University, The Netherlands

²Organisational Sustainability, Ltd., UK

³University of Leeds, UK

⁴Tecnológico de Monterrey, Mexico

Chemical Leasing has been developed as a collaborative business model to complement the two main approaches (policy initiatives and scientific/technological) used to foster green chemistry and sustainable chemistry. Chemical Leasing is based on using chemicals more efficiently, reducing waste, and closing the feedback loop more effectively. This is done by shifting the focus away from profit generation, through increased sales, towards a value-added approach by providing a service. Most of the available Chemical Leasing studies have been empirical and descriptive, and generally identify only short-term benefits from process change. This presentation provides critical reflections on the Chemical Leasing model based on types of chemicals, green and sustainable chemistry, business models, collaboration, and the chemical leasing cases available. Chemical Leasing offers a more efficient business model alternative to traditional industry practice, bringing economic and environmental benefits to both suppliers and users; however, its use is restricted to some specific types of chemicals (such as solvents and catalysts). The paper proposes a clearer and more precise definition of chemical leasing and argues that chemical leasing needs to be part of a holistic approach, so that the economic, environmental, social, and time dimensions of sustainability are fully addressed.

Biography

Rodrigo Lozano is an Assistant Professor at the Copernicus Institute of Sustainable Development, Utrecht University and Associate Editor for the *Journal of Cleaner Production* (impact factor for 2012: 3.398). He holds a BSc in Chemical Engineering from Monterrey Tec, Mexico; a MSc in Environmental Management and Policy, from Lund University, Sweden; and a PhD on organizational change management for Corporate Sustainability at Cardiff University, Cardiff, UK. He is also the Managing Director of Organizational Sustainability Ltd.

r.lozano@uu.nl