

# **Production Management Model Integrating Green and Lean Six Sigma**

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## **Abstract**

Research has shown that integration of Lean Six Sigma and Green makes a positive contribution towards the competitiveness of organisations. Many businesses around the globe have already started to implement the two approaches ensuring their development is economically and environmentally sustainable. However, evidence suggests that companies find their implementation challenging, and in many cases they are unsuccessful. This paper presents a management production model that systematically guides organisations through a four stages and sixteen steps process to effectively improve their sustainability performance. The paper also presents results from an application of the model in four organizations of different sizes operating in diverse range of industries. Such results confirm that the integration of Green and Lean Six Sigma can help organization to reduce their resources consumption by 31 % and has the potential to reduce the total cost of energy and mass flows by 17%.

## **Keywords**

Lean, Six Sigma, Green, Framework, Implementation

## **Biography**

**Cherrafi Anass** is a research scholar at the Department of Engineering Science, Faculty of Science and Technology, Cadi Ayyad University, Marrakech, Morocco. He is doing his PhD in the area of Green Lean Six Sigma. He has about 3 years of industry experience and teaching experience. His research interests include sustainability management, world class manufacturing, lean production, six sigma, integrated management systems and supply chain management. Cherrafi Anass is the corresponding author and can be contacted at: [anass.charrafi@ced.uca.ma](mailto:anass.charrafi@ced.uca.ma).

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