

Integration Opportunities of Plm and Lca: How Plm ss Changing According to Ecodesign Requirements.

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The research investigates how sustainability requirements, in terms of traceability and ecodesign, are changing production management and in particular the use of Product Lifecycle Management software. Digitalization can play a key role in sustainability in the way of tracking the journey of products, providing accessible and reliable data. Advanced technologies and digital solutions such as blockchain, allow information to travel across the value chain, thus contributing to data collecting for product life cycle management up to e-commerce. The purpose of this research is to highlight design and market opportunities laid in the data collection for a green market positioning of the company. The study aims to establish how PLM software houses are integrating environmental impact data, mandatory for: Life Cycle Assessment analysis, certifications or environmental labels. Furthermore, the emerged commercial advantages of the data integration have been validated through the case studies selection of brands and software providers. In conclusion, it highlights the strategic relevance for companies to adopt software that can integrate PLM with LCA data, in order to increase the brand value orienting business strategies on sustainable value, thought ecodesign and new collaboration for circular supply-chain, to finally obtain the trust of attentive customers.

Keywords: Product Lifecycle Management, Life Cycle Assessment, Ecodesign, Data analytics, E-commerce