

Publishing Information

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Authors: Viktoria BASHKITE, Vadim MOSEICHUK, Tatyana KARAULOVA

Title: **COMBINATION OF END-OF-LIFE STRATEGIES FOR EXTENSION OF INDUSTRIAL EQUIPMENT LIFE CYCLE**

The following quotes is supplemented by the apostrophe character(“”).

“Without a fundamental rethinking of the structure and the reward system of commerce, narrowly focused eco-efficiency could be a disaster for the environment by overwhelming resource savings with even larger growth in production of the wrong materials, in the wrong place, at the wrong scale, and delivered using the wrong business models” [2].

“the manufacturing of environmentally friendly products is crucial in order to minimize the use of virgin resources. This can be achieved by studying the life cycle of the product from its design stage to its retirement stage and incorporating this information into engineering design and production” [3].

“Life cycle Engineering (LCE) is a process to develop specifications in order to meet a set of performance, cost, and environmental requirements and goals that span the product, system, process, or facility life cycle” [5].

“By understanding the whole life cycle, the engineering team can often identify and realize additional benefits upstream in the supply chain and downstream in customer organizations or during end-of-life management. Many times these situations are positive both within the decision-making organization and outside of it. Many practitioners of LCE find that environmental impact reduction and cost savings are not mutually exclusive. Even when the benefits occur in supplier or customer organizations, it is possible to negotiate shared savings in the form of price reductions for raw materials or waste handling, as an example. In order to do this, it may be necessary to catalogue the external benefits using measures other than monetary indicators” [6].

“The life cycle of product refers to the sequence of interrelated steps of a product from the acquisition of raw materials for manufacturing to the disposal of the used product, i.e. its end-of-life (here and further – EOL)” [7].

“A research finding has reported that companies that make use of remanufacturing and take-back in the product recovery are estimated to save 40–60% of the costs compared to manufacturing a completely new product while requiring only 20% of the effort” [8].

References are also corrected.

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