

Optimization of a Production Concept Through Value Stream Design

Recommendation for an Execution Plan

Graduate



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Definition of Task: Sonova Holding AG is pursuing a world in which there is a solution for every hearing loss and in which all people can equally experience the joy of hearing. By further developing its production setup for future products, Sonova Holding AG is continuing to pursue this vision. Therefore, the production environment shall be extended to manufacture not only medical hearing aids but also non-medical consumer products. This poses several new challenges for the Sonova Operation Centre Switzerland. The objective of this thesis is to optimise the production environment so that the production can cover the customer's demand in a cost-efficient way. Layout options, work plans and supply concepts are to be developed for this purpose.

Approach: In the first step, the product to be manufactured, its composition and the required manufacturing processes were examined. This was followed by an examination of the planned production concept. For this purpose, the value stream was visualised through a value stream analysis and its performance was evaluated. Subsequently, the analysed value stream was examined for waste. Through a subsequent value stream design, an optimised target value stream was designed through design guidelines and the application of Lean principles. To achieve this, a corresponding implementation plan was made through five milestones. Each milestone contains work packages with concrete improvement measures that serve to achieve the target state of the value stream. Finally, the findings of this procedure were summarised in a guideline that will help Sonova Holding AG in the future design of new value streams and the continuous improvement of existing value streams.

Result: Through the value stream analysis and the subsequent value stream design, an optimised value stream for the production of non-medical consumer devices could be developed. In addition, the corresponding implementation planning could be made and elements of it could already be implemented. The findings from the thesis were combined in a proposal for the implementation of a value stream management that is suitable for Sonova Holding AG. It is recommended to further implement the designed target value stream by elaborating the milestones. This will enable a cost-efficient production concept for the non-medical consumer devices to be achieved at the Sonova Operation Centre Switzerland. Further it is recommended that the proposal for the introduction of a value stream management be examined and implemented in the environment of Sonova Holding AG. This will guarantee that existing value streams can be continuously improved and that new value streams to be implemented can be developed without waste.

Advisor

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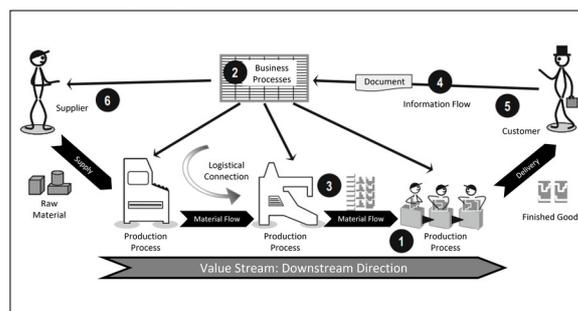
Subject Area

Innovation in Products, Processes and Materials - Business Engineering and Productions

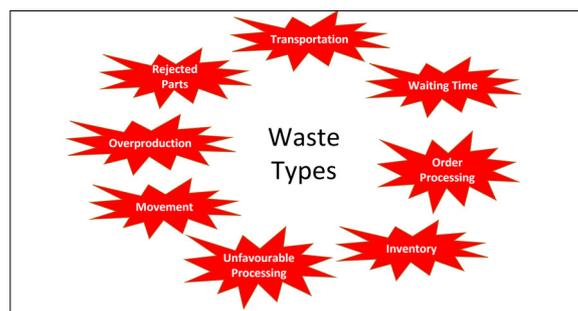
Project Partner

Sonova Holding AG, Stäfa, Zurich

Value Stream Analysis (Erlach (2020, p. 33))



Waste Types in Production (Own presentation based on Erlach (2020, pp. 125-129))



Support Function - Value Stream Management (Own presentation)

