

A method to lean product development planning

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Abstract: This paper describes a systematic method for the creation of the product development project activity network, which provides at the same time value creation and waste reduction as it was advocated by the lean philosophy. The proposal of a new method is justified due to the low performance of the traditional project management when applied to the development of complex products. The proposed method is composed of four processes: value determination, set-based concurrent engineering (SBCE) prioritization, pull event determination, and value creation activity sequencing. A possible implementation of the method is also introduced using a technique called value function deployment (VFD). The VFD relates the value items (what) to the teams (who) and the pull events (when). The pull events themselves pull the activities (how) that will be performed by the development teams. To illustrate the use of the method and show the application of the VFD, an example of product development planning is given. Conclusions are that the developed method: 1) fits the product development environment; 2) adheres to the lean principles; 3) avoids the traditional planning deficiencies; and 4) is feasible and produces good results.

Keywords: project management planning, product development, lean philosophy, lean product development.

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