5th Bi-Annual PMI
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Mapping the mould production process – A work tool for improvement

TÉCNICO LISBOA

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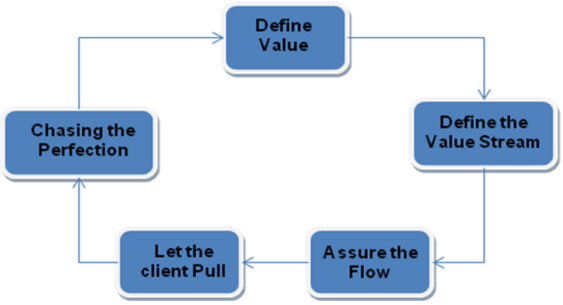
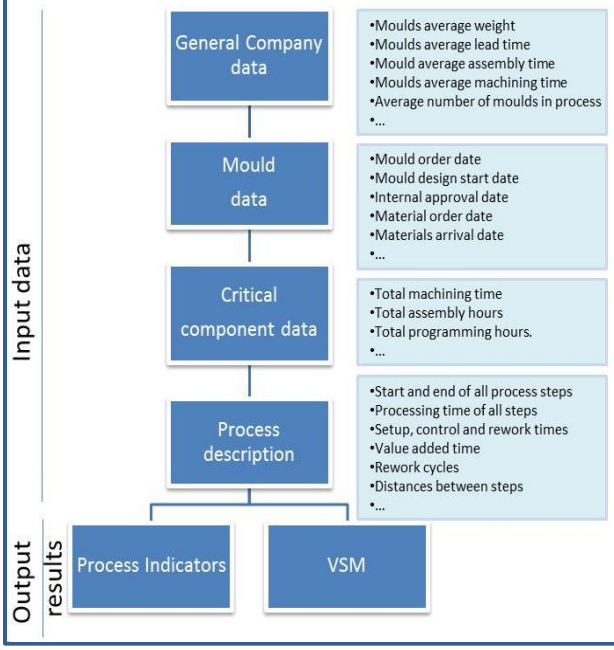
Abstract: The production process of injection moulds has to deal with the uniqueness of each mould and the simultaneous production of a myriad of components from several moulds. This results in very unstable and dynamic process flows. As such, waste in the mould production chain is difficult to identify and assess. However, these difficulties should not inhibit the ability to represent and model the manufacture process of a mould. Even if it is necessary to adjust and simplify the typical value chain mapping techniques, such representation will allow the process global view and the identification and quantification of potential waste, creating a common basis for the improvement team. This paper presents the results of a project aiming to understand the applicability of value stream mapping (VSM) to the mould making industry. The underlying principle is the replacement of the traditional focus on local analysis and insular improvement, often with harmful global effects, for a continuous improvement guided towards the efficiency of the global process. The objective is to make available a tailored and simple way to, periodically and systematically, map the process of a mould.

VSM definition

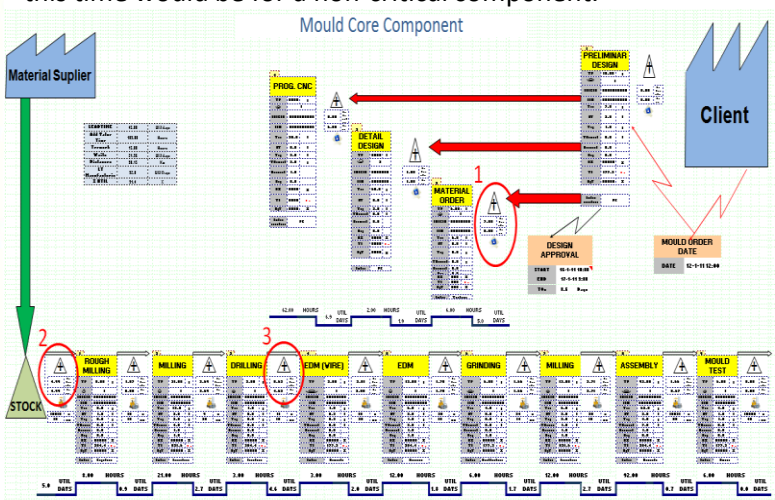


A tool to provide automatic calculation of relevant indicators and generation of the value stream map of each mould process under analysis.

Results Obtained



Only in 29% of the production lead time value is effectively being added to the core component.
And this is the critical component so we can imagine how low this time would be for a non-critical component.



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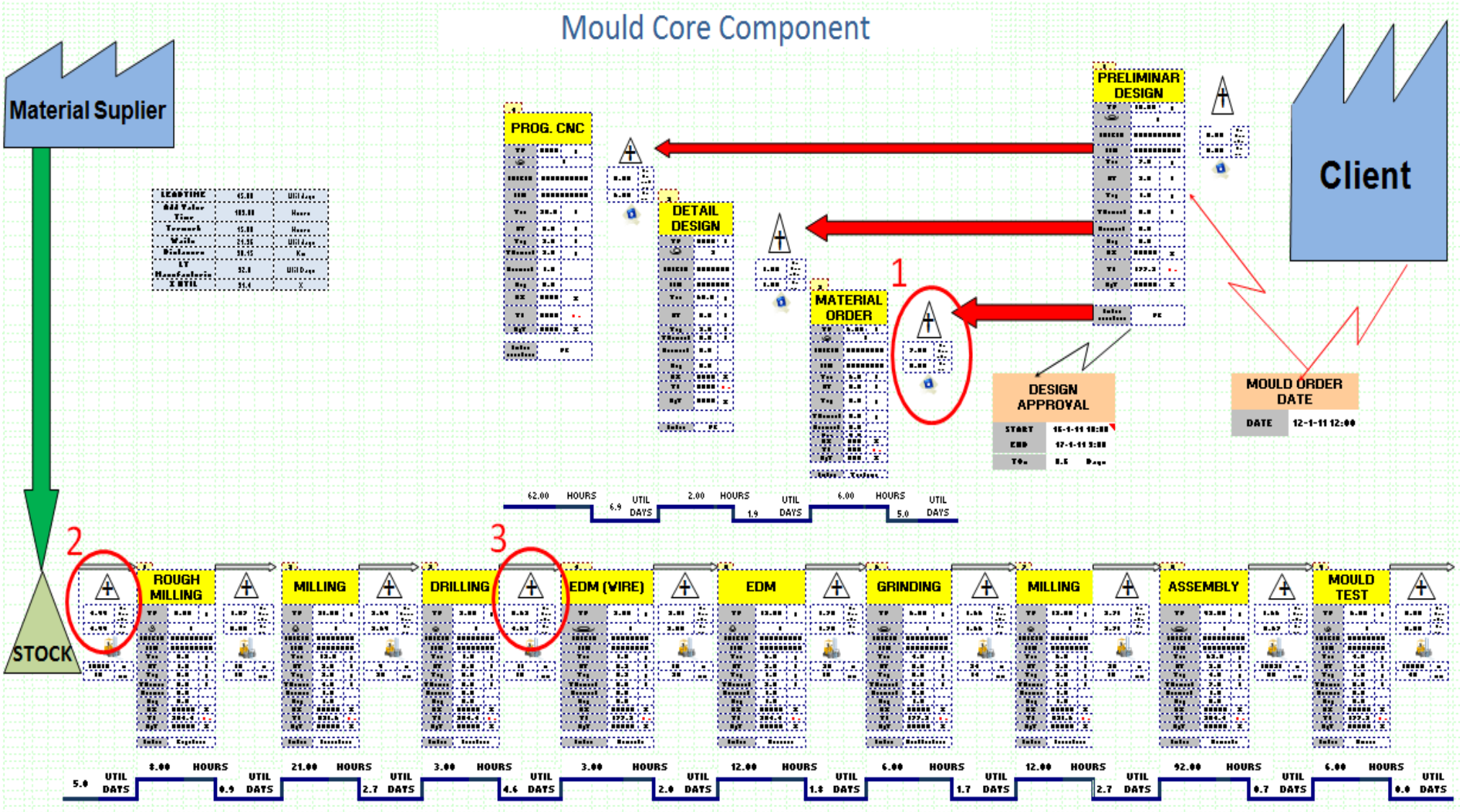

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