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## THE DMAIC CYCLE APPLIED TO PROJECT MANAGEMENT

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### ABSTRACT

Companies are trying their best to integrate Lean Six Sigma approaches in their operations. The proposed contribution will exposed a Lean Six Sigma approach supported by the DMAIC cycle, to improve project management process from a telecommunication company, using adapted tools, given the nature of the involved processes, data availability and objectives.

**Keywords:** lean six sigma, project management, DMAIC cycle.

### INTRODUCTION

It's noticeable that the trend in the company management, is to integrate Lean Six Sigma, in which the Lean focus on the waste elimination, defining it as everything that is unnecessary to the production of a product or providing a service, and the Six Sigma focusing on the reduction of the processes variability, usually using tools and statistical techniques for this purpose.

In an information and telecommunication production system more precisely in project management processes, based in Project Management Institute (PMI) standards, to support project solution implementation, it is proposed a systematic Lean Six Sigma approach, supported by the DMAIC cycle, developed in a real company context, introducing an enlarged set of statistical tools, given the nature of the data and involved processes to control and improve de variability of project timely deliverable.

The Define phase is the beginning of the Lean Six Sigma project, which defines the main problem and will be deeply explain and expose.

### RESULTS AND CONCLUSIONS

Main causes of the identified problem of project implementation delays were identified and solutions to improve were proposed, including suggested control and monitoring tools to keep, in the long run, the proposed improvement solutions in the associated management processes. The main results from the first phase of the DMAIC cycle are shown in Fig. 1. The definition of the problem and the target of the Lean Six Sigma project, as well as the critical to quality factors can be found. The SIPOC diagram and the Project Charter are two essential outputs in the first phase of DMAIC cycle, which will be also be explained and exposed.

### ACKNOWLEDGMENTS

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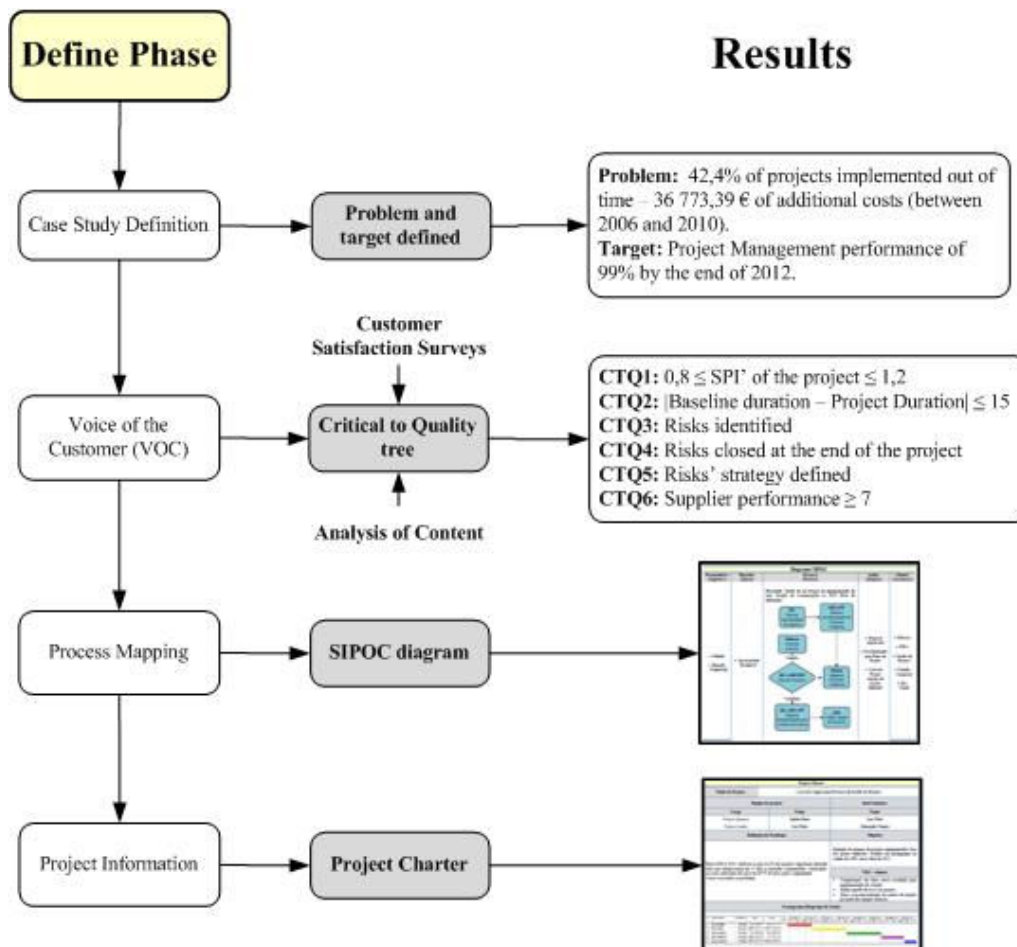


Fig. 1 - Define phase main results

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