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Quantitative methods in process improvement — Six Sigma — Competencies for key personnel and their organizations in relation to Six Sigma and Lean implementation

Méthodes quantitatives pour l'amélioration des processus — Six Sigma — Compétences pour le personnel clé et leur organisation en relation avec la mise en œuvre du Six Sigma et du Lean

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Foreword

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 69, *Applications of statistical methods*, Subcommittee SC 7, *Applications of statistical and related techniques for the implementation of Six Sigma.*

Introduction

This International Standard sets out to clarify the required competencies for personnel and organizations in Six Sigma[1)], Lean and "Lean & Six Sigma". Because of the ambiguity of the many combinations of Lean and Six Sigma, currently termed "Lean Six Sigma", this International Standard will use the term "Lean & Six Sigma". Before this, there had been no universal standard on what constitutes a Black Belt or what is required in an organization which deploys these approaches.

For example, if an organization advertises for a Six Sigma Black Belt, how can they be sure of the level of ability of a "Black Belt"? If a supplier says it is deploying Six Sigma or perhaps Lean, how can a customer be sure of their real abilities? A fundamental purpose of this International Standard is to assist in the answer of such questions.

Much debate has been had on the nature of Six Sigma and Lean, their commonality and their differences. Protagonists have argued over the content, overlap, application, supremacy and purpose of the two approaches. Various combinations of the two approaches exist, many under the umbrella title of "Lean Six Sigma". Six Sigma and Lean have a commonality of field of application, i.e. process improvement. Lean focuses on reducing 'chronic' waste and Six Sigma focuses on reducing the variation and thereby its adverse effects.

This International Standard therefore sets out the separate competency requirements for Six Sigma and Lean implementation; it also sets out a combined competency framework for "Lean & Six Sigma". In so doing, it focuses on the competencies (skills and abilities) to deliver benefits to an organization rather than defining the specific educational level required for each role.

Candidates will be expected to demonstrate that they have an adequate level of competence, an amalgamation of education, training, skills and experience necessary to fulfil their roles.

In its preparation, it has been seen to be helpful to prepare this International Standard by focusing on Six Sigma, Lean implementation and "Lean & Six Sigma" separately and the user will come across different tables dealing with these subjects.

1) Six Sigma is a trade mark of Motorola, Inc.

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