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**Title of the presentation /Tutorial**

**Optimizing the software development process by integrating Agile methods with CMMI model**

**Speaker(s)**

Tsvetelina Kovacheva

**Category**

- Getting Started       Intermediate       High Maturity  
 Presentation       Tutorial

**Target Audience**

- Senior Management       IT Managers  
 Project Leaders       SEPG Leaders  
 Practitioners       Others:

**Key Words**

CMMI, Agile, Process improvement, Software engineering

**Abstract (maximum 250 Words)**

The global economic challenges and the dynamics in the IT field do not decrease the requirements for high quality in project management and process development, but even strengthen such requirements: execution flexibility, adaptability to customer's requirements and environment's characteristics, speed and low cost of performance combined with high quality of the final product.

For companies the elevated cost of quality management, the economic crisis, leading to the collapse of the IT market and its volatility, determine the need for thorough accelerated research and construction of a methodology for integrating different in nature processes for software development. Presentation's objective is to expound such approach.

Nowadays, software projects become more and more complex, characterized by dynamics in requirements and scope, which means they are difficult to manage by traditional plan-driven methods. Companies should be able to successfully develop software products, suitable for clients and markets, by applying agile processes' models as well as by following the formalized model of CMMI.

This paper presents a case study of a successful implementation of CMMI model together with several Agile practices and also describes the methodology, step by step, for integration of both process models. It promotes that CMMI and Agile form a synergy and it is strongly recommended to combine them in the software process improvement initiatives.

**CV (200 words)**

Tsvetelina Kovacheva has more than 12 years experience in the IT

**Photo**

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area, 9 of which are in Quality Assurance. Currently she is Director Quality and Efficiency at Musala Soft (leading software services and engineering company in Bulgaria). Kovacheva is responsible for controlling all QA and QC activities in the software development process and is a leader of the company's SPI group. Some of the successful projects managed by her are ISO 9001:2008 certification, IT Mark, CMMI Level 2 and Level 3 certification. Among her professional certifications and trainings are: ISTQB Certified Tester Foundation Level; Certified ISO9001:2000 Lead Auditor, IT Project Management based on IPMA; Introduction to Six Sigma; Introduction to CMMI Staged and Continuous by European Software Institute (ESI). Ts. Kovacheva has Master degree in Computer Science and is currently working on her PhD in "Agile methods for software development with the CMMI model" at Bulgarian Academy of Sciences.

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