Agenda

» Getting Creative with Predictive Modeling
» Early in Life-Cycle
» Within the Single Life-Cycle Phase
» Important Business Issues
» Summary
» Q & A
Essence of CMMI Modeling

» **OPP SP1.5** - Establish and maintain the process-performance models for the organization’s set of standard processes.

» **Sub-practice 1** - Establish the process-performance models based on standard processes and the process-performance baselines

» Organization uses process-performance models for estimating, analyzing, and predicting the process performance associated with the **standard org processes**.
Essence of CMMI Modeling

» Project uses process-performance models for estimating, analyzing, and predicting the process performance for their defined processes.

» **QPM SP 1.2** - Select the sub-processes that compose the project’s defined process based on historical stability and capability data.

» **QPM SP 1.4** - Monitor the project to determine whether the project’s objectives for quality and process performance will be satisfied, and identify corrective action as appropriate.
Essence of CMMI Modeling

» Process-performance models are used to estimate progress toward achieving objectives that cannot be measured until a future phase in the project lifecycle.

» Identify something predictive so process-performance can be analyzed and changes can be proposed in “what-if” scenarios
Early in Life-Cycle

» Projects use process-performance models for selecting processes or subprocesses for use

» Changes early in life-cycle can impact later phases
Example: Early in Life-Cycle

Cost of Quality Example: How much rework is required and cost of that rework
Within Single Life-Cycle Phase

» Use a mini-cosm of full life-cycle
Example: Within Single Phase

» Testing Efficiency Example: Analyzed time to format and run tests vs. time saved on rework from pre-review

Before

Test Devt → Review → Execute → Clean Up

After

Test Devt → Pre Review → Review → Execute → Clean Up
Business Issue(s)

» Select based on important business issue for company
Example: Business Issue
How to Identify Models

» Focus on what’s important

» Look at biggest benefits. *Example*: meeting timeline to get product to market

» Review existing data collection – what’s important vs. what’s available

» Does evidence pass the sniff test?
Questions?

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