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# Transitioning to CMMI from Software CMM

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## AGENDA

- What should we consider doing FIRST?
- Where should the focus be?
- Can we continue using Software CMM in spite of CMMI?
- In what ways will CMMI help if CMM failed meeting our expectations?
- Discussions, Questions & Answers

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## WHAT SHOULD WE CONSIDER DOING FIRST? (1 OF 2)

- Appraise the merits of the CMMI Model – first hand
  - Obtain senior management attention by creating awareness
  - Have the SEPG trained on the Introduction to CMMI
  - Decide which representation best fits your needs
  - Establish a migration plan and now,
  - Re-establish contact with senior management and request sponsorship

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## WHAT SHOULD WE CONSIDER DOING FIRST? (2 OF 2)

- Decide what the migration strategy ought to be
  - Establish sponsorship and senior management commitment to CMMI
  - Conduct a mini-assessment of your process using the CMMI (Internally or by using external help)
  - Study recommendations and develop an action plan
  - Commit your best resources to the initiative

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## WHERE SHOULD THE FOCUS BE?

(1 OF 2)

- What is your current response to SPI ?
  - Provides an opportunity to transition ineffective people into SQA functions
  - Yet another corporate initiative
  - For the sake of proving a point to our customers and competitors
  - We have found value in adopting a systematic approach to change management
  - Process and Product QA is an organizational core competency
  - Those assigned Process and Product QA responsibilities are mentors and coaches to the organization – advisors to the CEO

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## WHERE SHOULD THE FOCUS BE?

(2 OF 2)

- Developing a Shared Vision (Possible Attitudes)

- **Commitment - Wants it. Will make it happen**
- **Enrollment - Wants it. Will do whatever can be done**
- **Genuine Compliance - See benefits. Does what is expected & more. Good soldiers.**
- **Formal Compliance - On the whole, see a vision. Does what's expected BUT NO MORE.**
- **Grudging Compliance - Does not see the benefits, BUT ALSO DOES NOT WANT TO LOSE THE JOB.**
- **Noncompliance - Does not even attempt to see benefits. "I won't do it, ... and you cant make me do it"**
- **Apathy - Neither for nor against vision. Retired on the job. No energy. "Why is eight hours so long?"**



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## CAN WE CONTINUE USING SW-CMM IN SPITE OF CMMI? (1 OF 10)

- To answer this question, we will need to know what are the major differences between SW-CMM and CMMI?
- Does our process infrastructure support most of what the SW-CMM advocates up to the Level 5?

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## SW-CMM In spite of CMMI ?

The SW-CMM Has 5 Levels of Maturity (2 OF 10)

**Level 1: INITIAL**

**Level 2: REPEATABLE (Project Level)**

Know what to do about things that have been done in the past

**Level 3: DEFINED (Organization Level)**

Choices well defined when process decisions have to be taken. Process is still only qualitative.

**Level 4: MANAGED (Project Level)**

Managing according to data. Choices driven by data.

**Level 5: OPTIMIZING**

Continuous Data Collection using better collection techniques

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## SW-CMM In spite of CMMI ?

Staged CMMI has 5 Levels of Maturity (3 OF 10)

**Level 1: INITIAL**

**Level 2: MANAGED (Project Level)**

Uses project management techniques to manage projects

**Level 3: DEFINED (Organization Level)**

Organizational process that is proactive to process management based on common definitions

**Level 4: QUANTITATIVELY MANAGED (Project Level)**

Choices driven by data with a sense to contain special causes

**Level 5: OPTIMIZING**

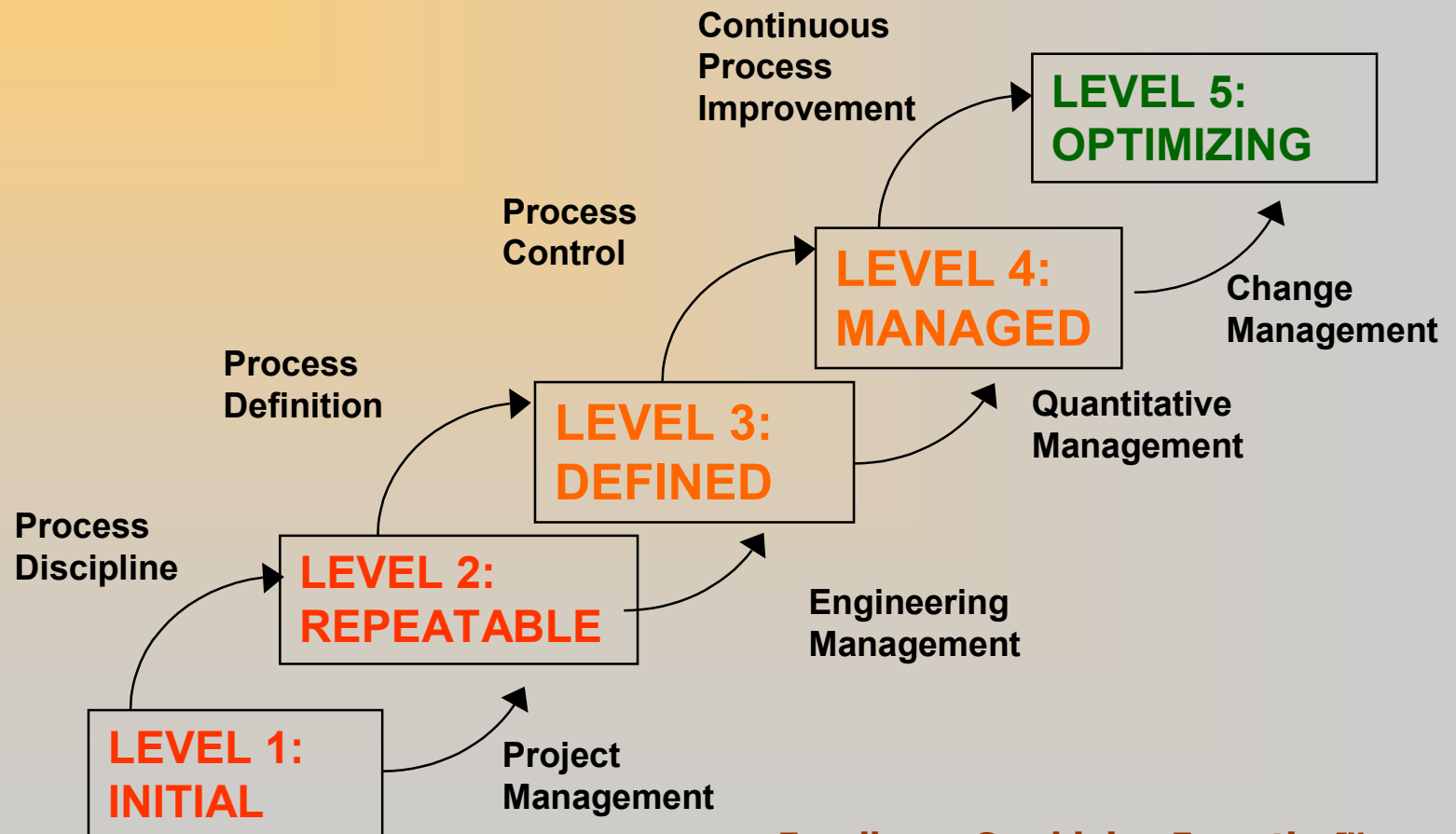
Focus on process improvement and to contain common causes of variation

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## SW-CMM In spite of CMMI ? Software CMM Maturity Framework

(4 OF 10)

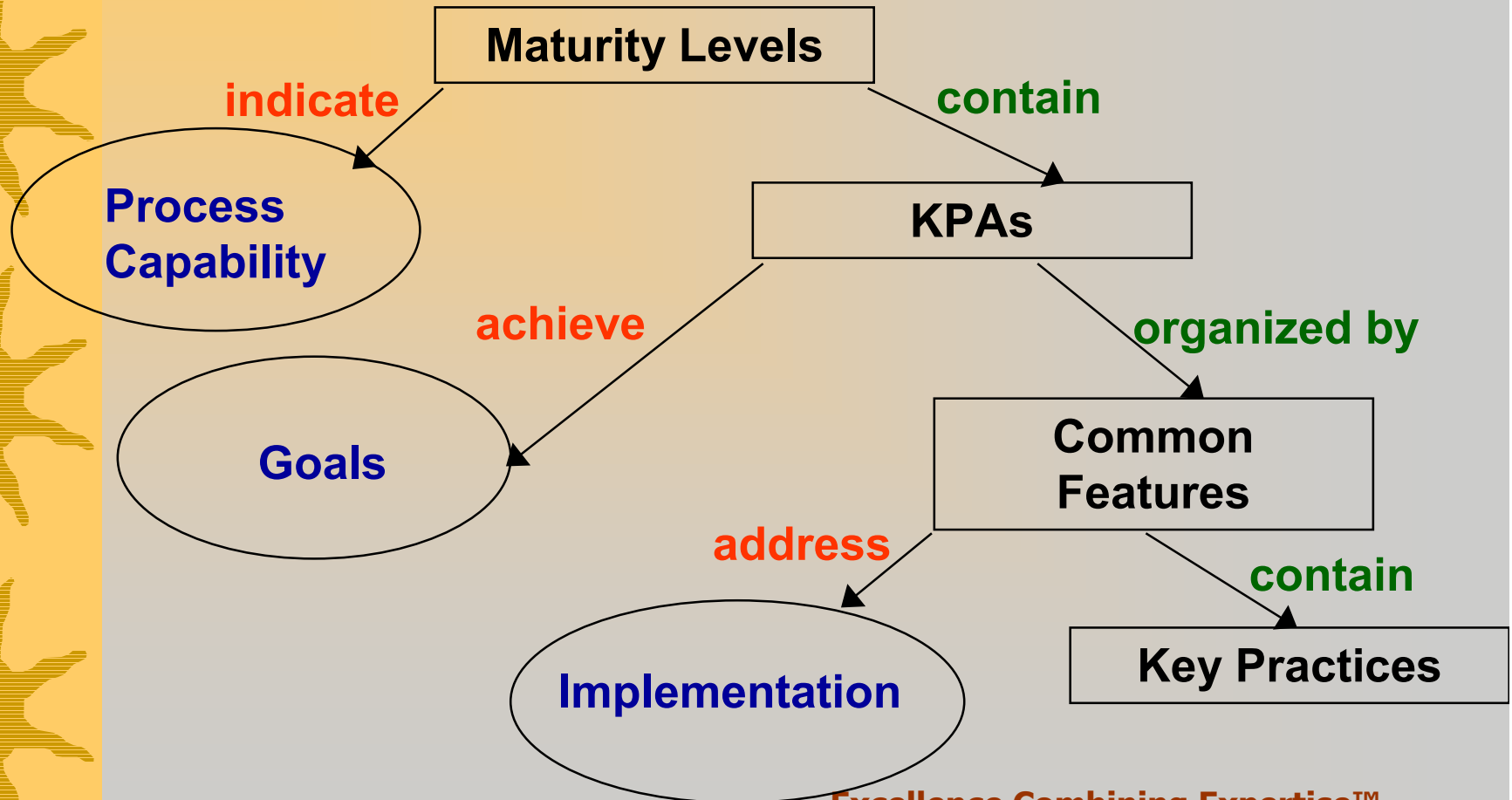


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## SW-CMM In spite of CMMI ? Structure of the Software CMM

(5 OF 10)

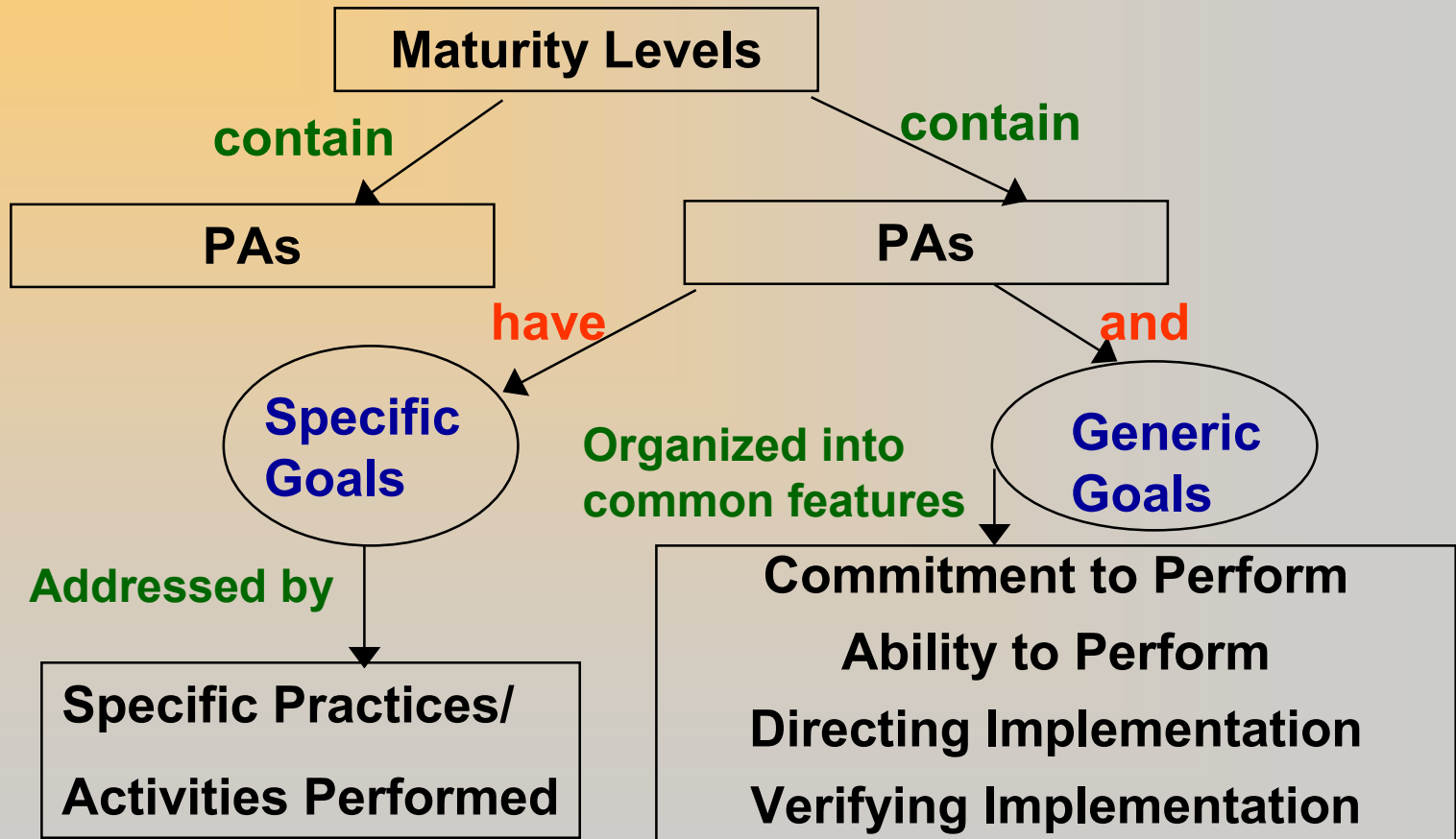


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## SW-CMM In spite of CMMI ? Structure of the **Staged** CMMI

(6 OF 10)



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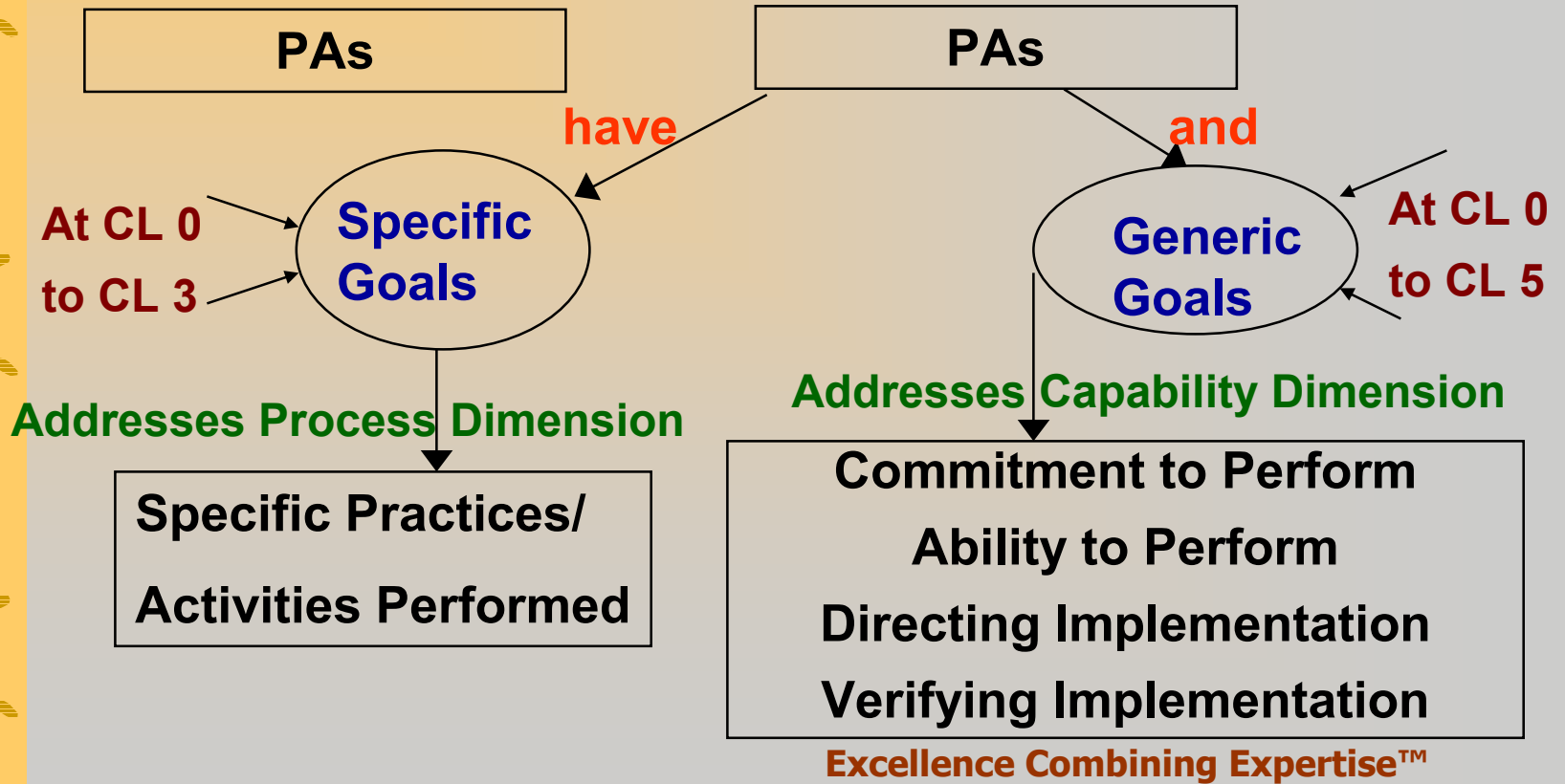


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## SW-CMM In spite of CMMI ?

### Structure of the **Continuous** CMMI

(7 OF 10)





SW-CMM In spite of CMMI ?

Structure of the **Continuous** CMMI

(8 OF 10)

## The Capability Levels of the

**5 Optimizing**

**4 Quantitatively Managed**

**3 Defined**

**2 Managed**

**1 Performed**

**0 Incomplete**

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## SW-CMM In spite of CMMI ? Where in hangs a Tale!

(9 OF 10)

- There is an explicit distinction between what you do (activities performed) and how well you do (as institutionalized process)
- Process Area gets assessed for applicability based on whether or not Specific Goals are fulfilled
  - No longer an arbitrary decision
  - Best rule, don't rule not applicability until validated by business needs
  - **SPONSORS BEWARE**: When you rule not applicability of a PA, it might be interpreted as **NOT RATED**

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## SW-CMM In spite of CMMI ? Where in hangs a Tale!

(10 OF 10)

- Degree of detail and process richness can be decided by organizational sponsor
  - **Generic Goal 1 – Achieve Specific Goals**
  - **Generic Goal 2 – Institutionalize a Managed Process**
  - **Generic Goal 3 – Institutionalize a Defined Process**
  - **Generic Goal 4 – Institutionalize a Quantitatively Managed Process**
  - **Generic Goal 5 – Institutionalize an Optimizing Process**

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## IN WHAT WAYS WILL CMMI HELP IF SW-CMM FAILED MEETING EXPECTATIONS?

- May be, it will
  - Help to establish a criteria for “reasonableness” for what constitutes richness of a process
  - Help you to decide which PA needs to be addressed first and how well should we do it
  - Help you to identify which category holds the maximum RoI opportunities and go after it
  - Better integrate your operational teams by giving dedicated focus to Process Management, Project Management, Engineering and Support

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## DISCUSSIONS, Q & A

( 1 OF 2 )

- Whatever your process is capable of doing now, it was at one time an effective and successful response to the environment surrounding it
- A blend of strong technical and process skills is needed to succeed with CMMI

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## DISCUSSIONS, Q & A

(2 OF 2)

- In order to be effective with process change management, we may have to change relationship styles and model the right behavior through Shared Vision
- I hope today's session has expanded your awareness on CMMI and provided a range of choices to make

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## SOURCES OF INFORMATION

- Software Engineering Institute, Carnegie Mellon University, Pittsburgh PA
  - Customer Relations (412) 268-5800
  - <http://www.sei.cmu.edu>
- Local SPIN Chapters
- SITARA Technologies
  - Raghav Nandyal ([raghav\\_nandyal@SITARATECH.com](mailto:raghav_nandyal@SITARATECH.com))
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**THANK YOU!**

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