

Shoehorning CMMI Initiatives With People CMM

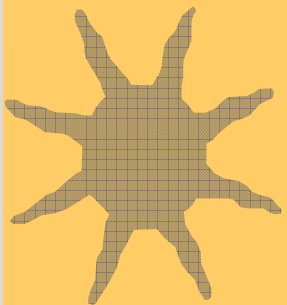
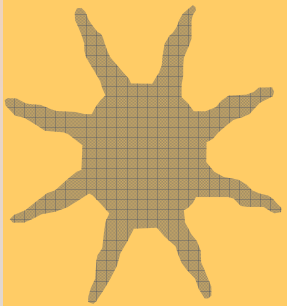
Raghav S Nandyal

Chief Executive Officer

raghav_nandyal@SITARATECH.com

AGENDA

- Establish the context
- Explore Common Themes in CMMI and People CMM
- Establish the business justifications
- How the shoehorning works
- Reasons why shoehorning works
- Reported benefits
- Conclusion



Establish the Context

If CMMI adoption is much higher than People CMM

- How can adopting People CMM practices positively effect organizational development?
 - ▶ Improve learning, minimize special and common cause variation
 - ▶ Ensure stability and permanence

Since People CMM advocates **professional empowerment** to individuals using a process,

- Can People CMM adoption improve significantly the capability of CMMI process areas?
- Workforce Capability is highly correlated with Process Capability

Establish the Context

If process maturity and process capability can be realized using the CMMI

- How important is 'stability of the surrounding context' to sustain process maturity and process capability?
- How is stability of the surrounding context ensured with the People CMM?
 - ▶ Example: Changes to the SEPG team causes instability. Use of succession planning for critical job functions can help minimize impact

Establish the Context

Notion of learning is highly pronounced in the People CMM

- Unit focus: Training & Development
- Organizational focus: Competency Development
- Primary objective: 'to improving the capability of workforce' through **knowledge retention**' and **'knowledge gain'**

Should high maturity practices consider honing their process abilities using the People CMM recommendations in order to grow conditions that **support stable performance and guarantee execution outcomes?**



Common Themes:

CMMI and People CMM share common Implementation Objectives

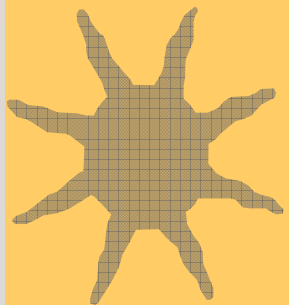
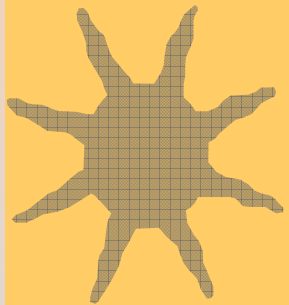
- Institutionalization through goals: best achieved when both models are executed in parallel
- Participatory culture: best promoted when all stakeholders of the improvement program are involved

Common Themes

Implementation objectives behind CMMI and People CMM share common themes

- Minimize variation on execution outcomes
 - ▶ By establishing a 'stable operating environment',
 - ▶ with an ability to arrest impact of variation

- Create a learning orientation among practitioners
 - ▶ By transferring out experience from project execution back into the organization

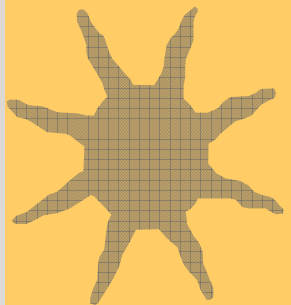
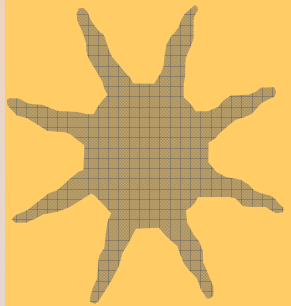


Common Themes

● Leverage

- ▶ From reuse and knowledge sharing
- ▶ Minimize rework – the hidden factory
- ▶ Focus improvement opportunities with a higher return on investment – ‘grow workforce competencies’

- Promote organizational development and professional empowerment by making ‘process definition’ the cornerstone to promote a ‘continuous process improvement’ culture



Business Justifications:

Project stability and process effectiveness is affected more by people issues and less by not having a defined process

People CMM is better able to address key issues concerning

- Attrition management
- Knowledge retention
- Competency development – particularly relevant under volatile conditions of technology change
- Professional development of Employees

Business Justifications

From postmortems & introspective sessions :
project stability is hurt due to ‘people’ issues

- High churn resulting from no active retention policies
- Inability to ensure individuals are ‘productively employed’ with a competency focus
- Lack of recognition of individual competencies leading to a decay of unit level competitiveness
- Lack of guidance to make informed decisions using experienced individuals in the organization – such as ‘Mentors’ or ‘Coaches’
- Employees care enough about ‘professional development’ – seek opportunities where available

Business Justifications

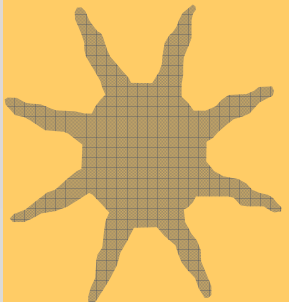
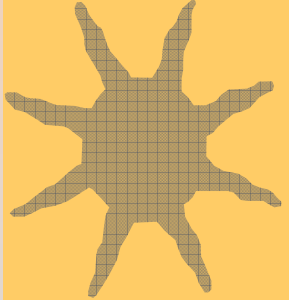
More People Issues:

- Breakdown of coordination among support functions such as HR & staffing functions and delivery functions resulting from 'just-in-time' staffing requirements of projects
- Lack of an appropriate compensation strategy to attract, retain and grow talent
- Employees like to work in 'caring' or 'less hostile' work environments
- The best of knowledge transfer and resulting documentation is no substitute to the 'eroded competency'
- Competency erosion has a cascading effect

Business Justifications

Lot to gain from commonality between CMMI and People CMM

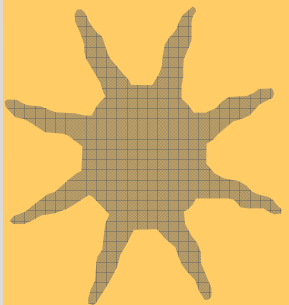
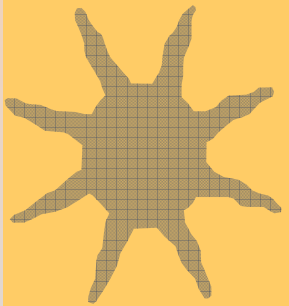
- Structure of the two frameworks: goals promote both institutionalization and implementation
- (Generic) Goals help to improve process capability
- Intent behind the process areas grow, both, process maturity & workforce capability using complementary practices
- Similar competencies required for individuals to execute the designs behind these frameworks
- Predictability of execution: possible only when 'both' process capability and workforce capability (competencies) are stable



How The Shoehorning Works:

Explore how CMMI and People CMM Process Areas interweave

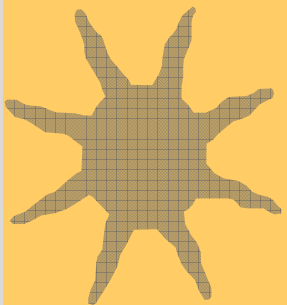
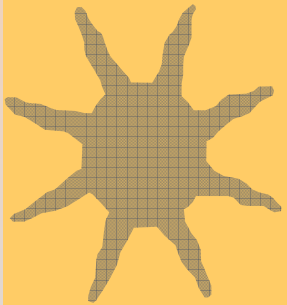
Explore how to best exploit the synergy due to such interweaving of practices



How The Shoehorning Works

Strong connections inherent in the two models

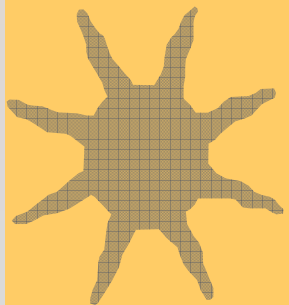
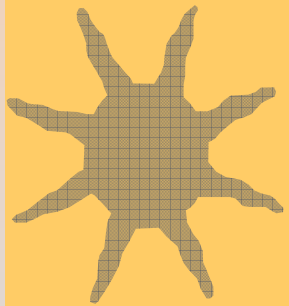
- **Staffing, Workforce Planning, Empowered Workgroups** positively impacts Project Management process areas of CMMI
 - ▶ Balance resources and commitments
 - ▶ Individuals participate in establishing commitments
 - ▶ Work Analysis to improve estimates
 - ▶ Selection and transition of individuals into and out of work assignments done in an orderly manner helps to manage project execution
 - ▶ Strategic hiring: can enable growing a complete competency or a line of business



How The Shoehorning Works

Strong connections ...

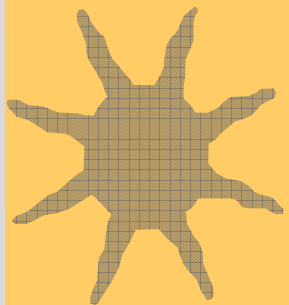
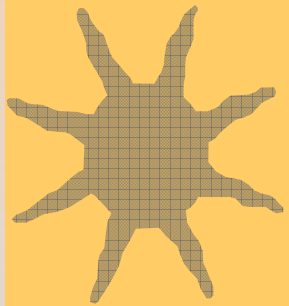
- **Communication & Coordination, Participatory Culture, Mentoring, Competency Integration** positively impacts IPPD aspects of CMMI and Decision Analysis and Resolution
 - ▶ Communication: down & across, up and among stakeholders helps to build participatory culture
 - ▶ Establishing formal learning relationships with mentoring promotes team or workgroup development
 - ▶ Competency Integration promotes Integrated Teaming and Organizational Environment for Integration (interweaving of competencies)



How The Shoehorning Works

Strong connections ...

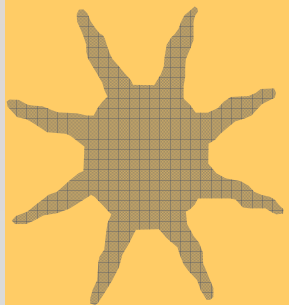
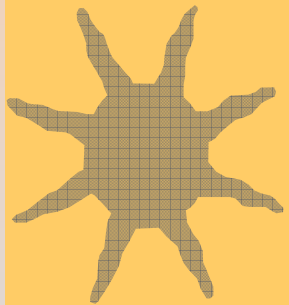
- **Work Environment** positively impacts the ‘ability to perform institutionalization practices’ of the CMMI
 - ▶ Physical working conditions and resources are provided to perform individual and team tasks effectively without distractions (GP 2.3)
 - ▶ When distractions that degrade performance are minimized, it is possible to improve individual and team’s ‘Ability to Perform’



How The Shoehorning Works

Strong connections ...

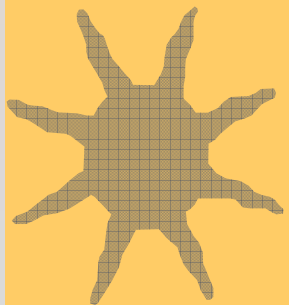
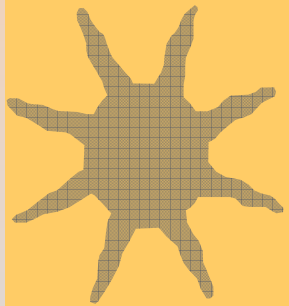
- **Training & Development, Competency Development, Competency Analysis, Workgroup Development** positively impacts organizational learning embedded in several process areas, most noticeably in ‘Organizational Training’ and ‘Organizational Process Focus’ of the CMMI
 - ▶ **Consideration for both strategic and tactical needs**
 - ▶ **Focus is on ‘competency’:**
 - Emphasis of training in PCMM is on knowledge, skills and process abilities required to perform business functions
 - Impact on workforce practices is also considered



How The Shoehorning Works

Strong connections ...

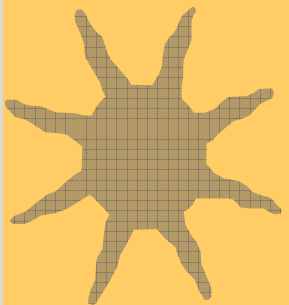
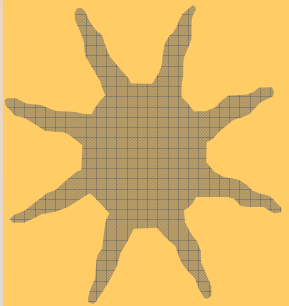
- **Competency Integration** positively impacts Integrated Teaming and integration aspects of systems engineering and, software engineering embodied in the CMMI
 - ▶ Improve efficiency and agility of interdependent or multidisciplinary work
 - ▶ Helps in developing ‘integrated teams’
 - ▶ Develop competency assets which help to further grow the capability of ‘organizational process definitions’



How The Shoehorning Works

Strong connections ...

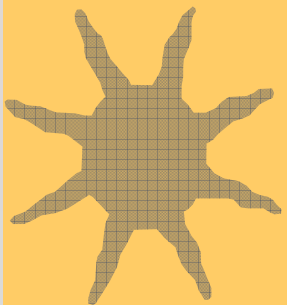
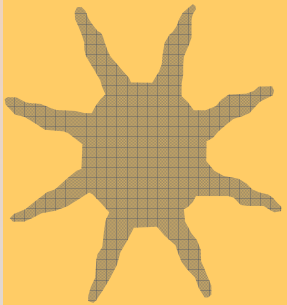
- **Competency Based Assets** positively impacts 'Organizational Process Definition' of the CMMI
 - ▶ Knowledge capture focuses on experience-hiving,
 - ▶ to enhance competency and improve performance



How The Shoehorning Works

Strong connections ...

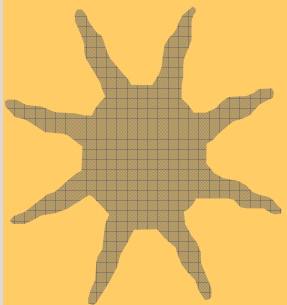
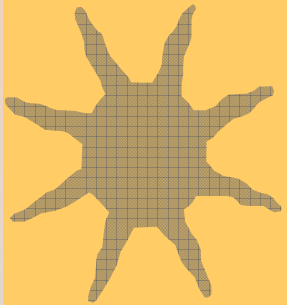
- **Competency Based Practices** positively impacts Engineering process areas of CMMI
 - ▶ Developing workforce competencies positively impacts 'engineering competencies'
- **Continuous Capability Improvement, Continuous Workforce Innovation, Organizational Performance Alignment** positively impacts 'Organizational Innovation and Deployment' of the CMMI
 - ▶ Both opportunistic and proactive improvements are pursued together with their alignment



How The Shoehorning Works

Strong connections ...

- **Quantitative Performance Management** positively impacts Measurement & Analysis and Quantitative Project Management process area of CMMI
- **Organizational Capability Management** positively impacts Organizational Process Performance process area of CMMI
- **Performance Management, Compensation, Career Development** are the much needed 'soft factors' which are not adequately addressed within the CMMI



Reasons Why Shoehorning Works:

Sponsorship perspectives for any process improvement initiative are –

- To ensure that they help to minimize variation in ‘execution’,
- by bringing in consistency

Assure customers of highest quality, predictable result while reassuring ‘internal stakeholders’

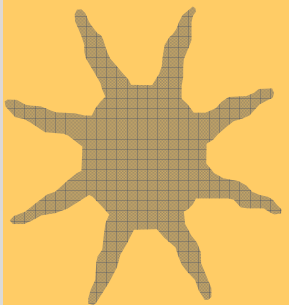
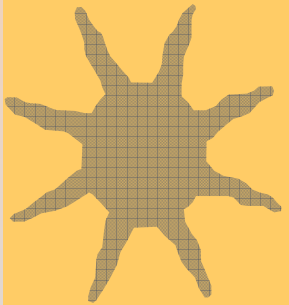
- Possible only when process stakeholders collaborate with ‘**competency stakeholders**’ (operational management)

Reasons Why Shoehorning Works

Sponsorship perspectives

- People CMM practices are organized into process areas which deal with
 - ▶ Developing individual capability
 - ▶ Building workgroups and culture
 - ▶ Motivating and managing performance, and
 - ▶ Shaping the workforce

- People CMM therefore prepares a fertile ground on which to grow process capability with the CMMI practices

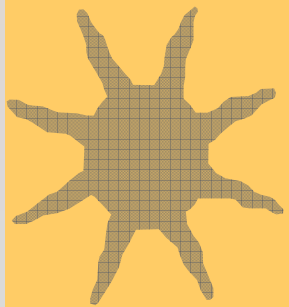
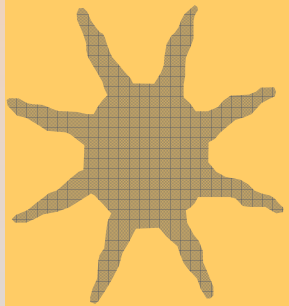


Reasons Why Shoehorning Works

Sponsorship perspectives

- Organizations adopt the CMMI
 - ▶ To bring in consistency in execution across projects,
 - ▶ with a process focus,
 - ▶ by defining a 'process architecture'

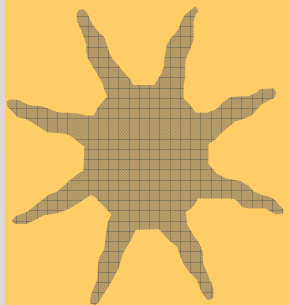
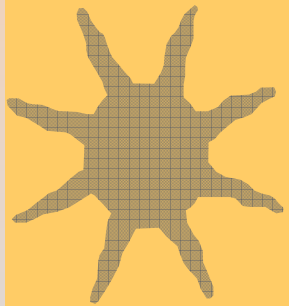
- Whereas, People CMM is better able
 - ▶ To establish consistency in execution,
 - ▶ by recognizing impact of both process and the workforce capabilities on execution outcomes,
 - ▶ by defining a 'competency architecture'



Reasons Why Shoehorning Works

Sponsorship perspectives

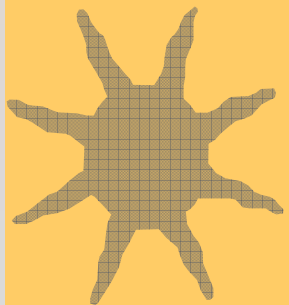
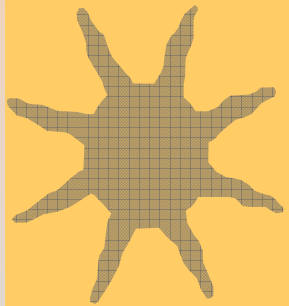
- Implementation objectives behind CMMI –
 - ▶ To establish a process framework which is used by practitioners
 - ▶ To continuously evolve the state of practice and reinforce confidence while delivering on expectations,
 - ▶ by consciously minimizing impact of variation ...
 - ▶ Through process definition



Reasons Why Shoehorning Works

Sponsorship perspectives

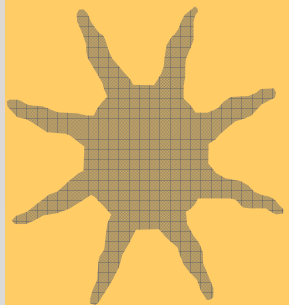
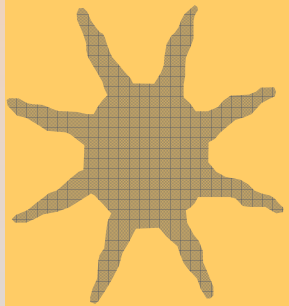
- Implementation objectives behind People CMM—
 - ▶ To establish a competency framework
 - ▶ To nurture a competency orientation among practitioners by evolving and growing their knowledge, skills and process abilities,
 - ▶ by consciously improving organizational memory through learning and competency development ...
 - ▶ Through process definition



Reasons Why Shoehorning Works

Sponsorship perspectives

- Common processes for both CMMI and People CMM can be
 - ▶ Deployed using the same organizational infrastructure (such as OSSP on an Intranet)
 - ▶ Improved within a common process improvement program
 - ▶ Improvements effected on practices on one framework positively impacts the other
 - ▶ More bang for the buck



Reported Benefits:

Process improvement itself can become an organizational competency – done in both, good times and in bad times

Structure of the CMMI promotes effecting holistic improvements with People CMM practices, to ensure that process improvements have a competency focus

Reported Benefits from Shoehorning

CMMI addresses the **requirements of projects from an execution stand-point** by identifying practices in the 4 major categories of engineering, project management, process management and support

People CMM addresses the more holistic organizational **requirements of ensuring execution outcomes repeatable and permanent**, by growing a competency organization – with competency communities

Reported Benefits from Shoehorning

CMMI initiatives tend to be oriented towards the practitioners of engineering methods; whereas the **People CMM is more inclusive of other support groups and functions as well**, such as human resources, administration, facilities, network and support and finance.

People CMM adoption has a much higher probability of bonding all of the organizational constituencies into an integrated team

Reported Benefits from Shoehorning

Strong People CMM practices help to ensure much better execution of projects and facilitates the adoption of CMMI practices

- Individuals feel more secure when the strategic intent is known in terms of ‘career development’

Common process deployment vehicle, such as a corporate intranet, leads to improvements to both ‘process’ and ‘competency’ improvement

- Process improvements without ‘competency’ focus is impossible; impacts process maturity

And, there are strong connections inherent in the two models ... CMMI and People CMM

Conclusion

Even among the high process maturity work cultures, postmortems and introspective sessions of projects reveal that stability is hurt due to ‘people issues’ that strongly affects stability

Organizations which shoehorn People CMM with CMMI practices have a much better way to control the impact resulting from people issues on the stability and for sustaining gains made while establishing organizational process maturity

It is only when competent people use a capable process can you assure predictable performance

Thank You!

DISCUSSIONS, Q&A

Raghav S. Nandyal
Chief Executive Officer

SITARA Technologies Pvt. Ltd.

#54, Sri Hari Krupa

6th Main Road

Malleswaram

Bangalore KA 560 003

Telephone: +(91-80) 2334-3222

Mobile: + 984-523-3222

Email: raghav_nandyal@SITARATECH.com

URL: <http://www.SITARATECH.com>