

# Empowering Project Estimation, Planning and Control

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Keynote:

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# Estimation Purpose

- ★ Set and achieve organizational business goals by effective project management
- ★ Estimating and controlling sub processes management
- ★ Effectively estimates using metrics and reusable knowledge repositories like:
- ★ Estimation based on understanding process capability baselines
  - ★ Risks and Critical issues
  - ★ Estimation cases
  - ★ Defects – category wise
  - ★ Product Metrics
  - ★ Training Material
  - ★ Technology /LCM specific checklists
  - ★ Test cases



# Estimation Paradigm

## The Estimation Tussle:

- ★ Known and the unknown
- ★ Science and the Art
- ★ Theory and Practice
- ★ Chicken and egg : Metrics and estimate
- ★ Use of Experience or tools
- ★ Investments or Overheads
- ★ Guess-timates or Past-imates

## Decision areas:

- ★ What and How much to estimate for this type of project?
- ★ How to use an "early warning" Earned Value for Interim Milestones
- ★ Managing estimation process, people, technology and tools

## Life Cycles and Development Methodologies

- ★ Agile , XP, SCRUM, Crystal, Lean Development
- ★ Waterfall, iterative, spiral
- ★ Enhancements, maintenance or defect resolutions



# Measure only that helps estimate further!

## Schedule and Progress

- ★ Milestone Performance
- ★ Work Unit Progress
- ★ Incremental Capability

## Growth and Stability

- ★ Product Size and Stability
- ★ Functional Size and Stability

## Technical Adequacy

- ★ Technology Impacts/risks
- ★ Target Computer Resource Utilization

## Resources and Cost

- ★ Personnel
- ★ Financial Performance
- ★ Environment Availability

## Development Performance

- ★ Process Maturity/NC
- ★ Productivity

## Product Quality

- ★ Defects, Complexity
- ★ Rework



# Estimation and planning tips

- ★ Don't schedule people for more than 80% of their time
- ★ Build training time into the schedule-Respect the learning curve
- ★ Record estimates and how you derived them
- ★ Use estimation tools , as required
- ★ Plan Risk and contingency buffers
- ★ Enhance User Involvement, Executive support and Resources planning
- ★ Set Realistic Expectations (manage internal and external stakeholders)
- ★ Ensure Technology literacy
- ★ Incomplete/Changing requirements, not reflected in estimates
- ★ Effective communication among the Project Team
- ★ Recognizing if the Project is failing !!
- ★ Select right processes, rather than great (certified) processes.



# ★ Estimation Competencies



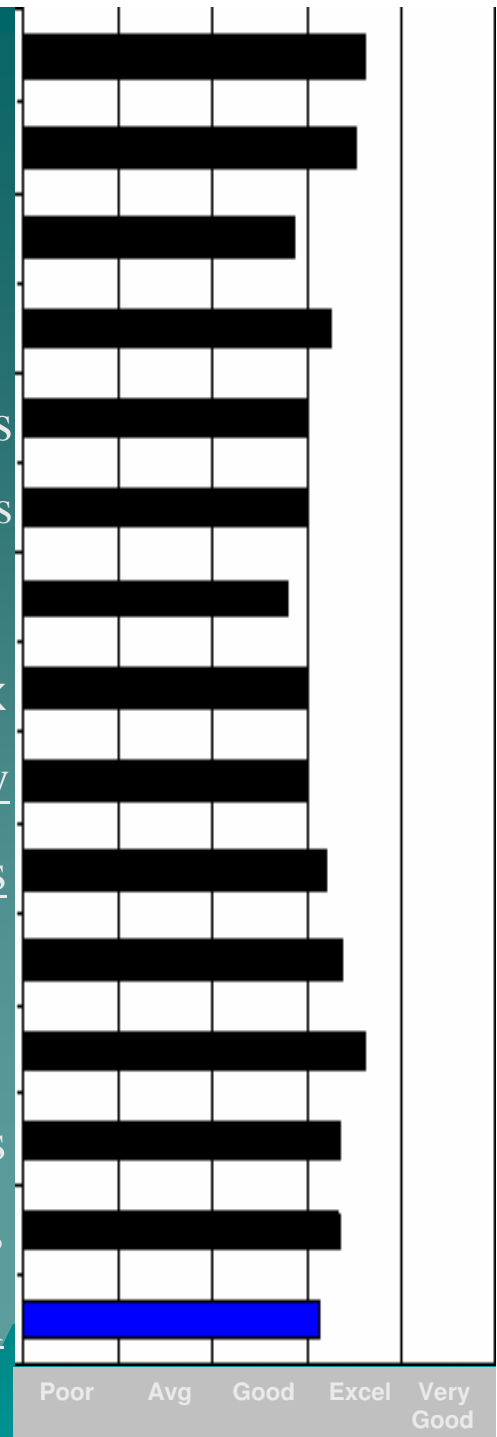
# ★ Enhanced Competencies of PM

- ★ Performance and Competence Management
- ★ PM Decision Drivers: Customer, Teams, Risk, Costs
- ★ Team Development, Charter, Leadership and Communications
- ★ Estimation as a Managed Process

- ★ 1 Establish an Organizational Policy
- ★ 2 Plan the Process
- ★ 3 Provide Resources
- ★ 4 Assign Responsibility
- ★ 5 Train People
- ★ 6 Manage Configurations
- ★ 7 Identify and Involve Relevant Stakeholders
- ★ 8 Monitor and Control the Process
- ★ 9 Objectively Evaluate Adherence
- ★ 10 Review Status with High-Level Management
- ★ 11 Establish a Defined Process
- ★ 12 Collect Improvement Information



Effectiveness/Adaptability in Teamwork (Global)  
Professional understanding in day-to-day activities  
Written/Oral communication level  
Flexibility to respond to your special work request/process  
Commitment to meet delivery dates / deadlines  
Pro-activeness towards handling situations  
Response towards meeting crisis  
Quality of work  
Meaningful Operational Transparency  
Process improvements/cost reduction initiatives  
Planning and re-planning effectiveness  
Document control  
Capability to learn, develop and implement new processes  
Competence in meeting Customer requirements  
Overall Comfort/satisfaction



Poor Avg Good Excel Very Good



# Poor Estimate

Estimator Skills

Estimator Knowledge

Estimator Method

Poor Training

Skill Mismatch

Lack of Experience

Process Immaturity

Poor Mentoring

No Metrics

No History

No Benchmarking

HRM

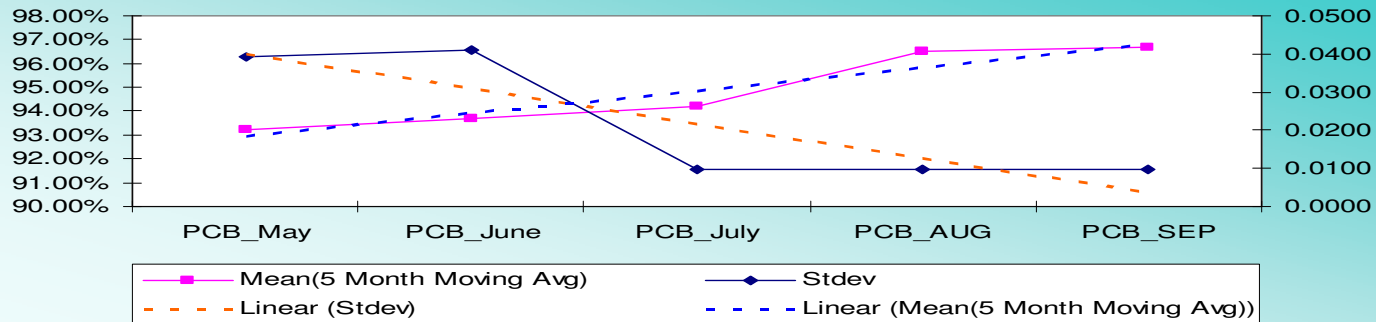
Poor Learning Habits

Fear

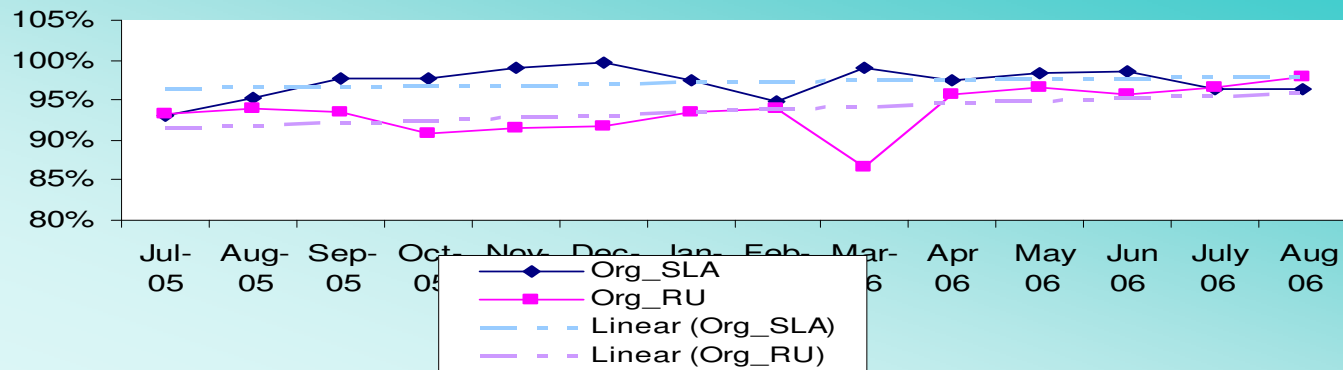
Management issues

# PCB and Correlations

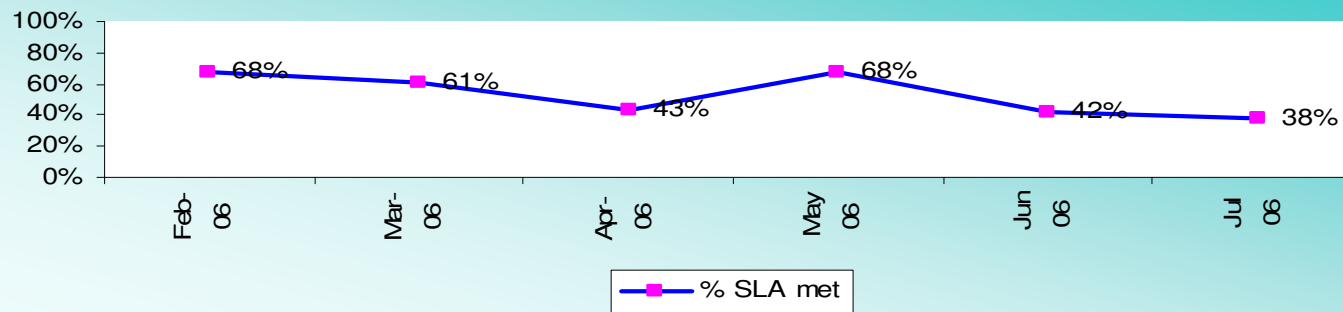
## RU Trend for Moving Avg Mean & Std-Dev



## Correlation\_SLARU

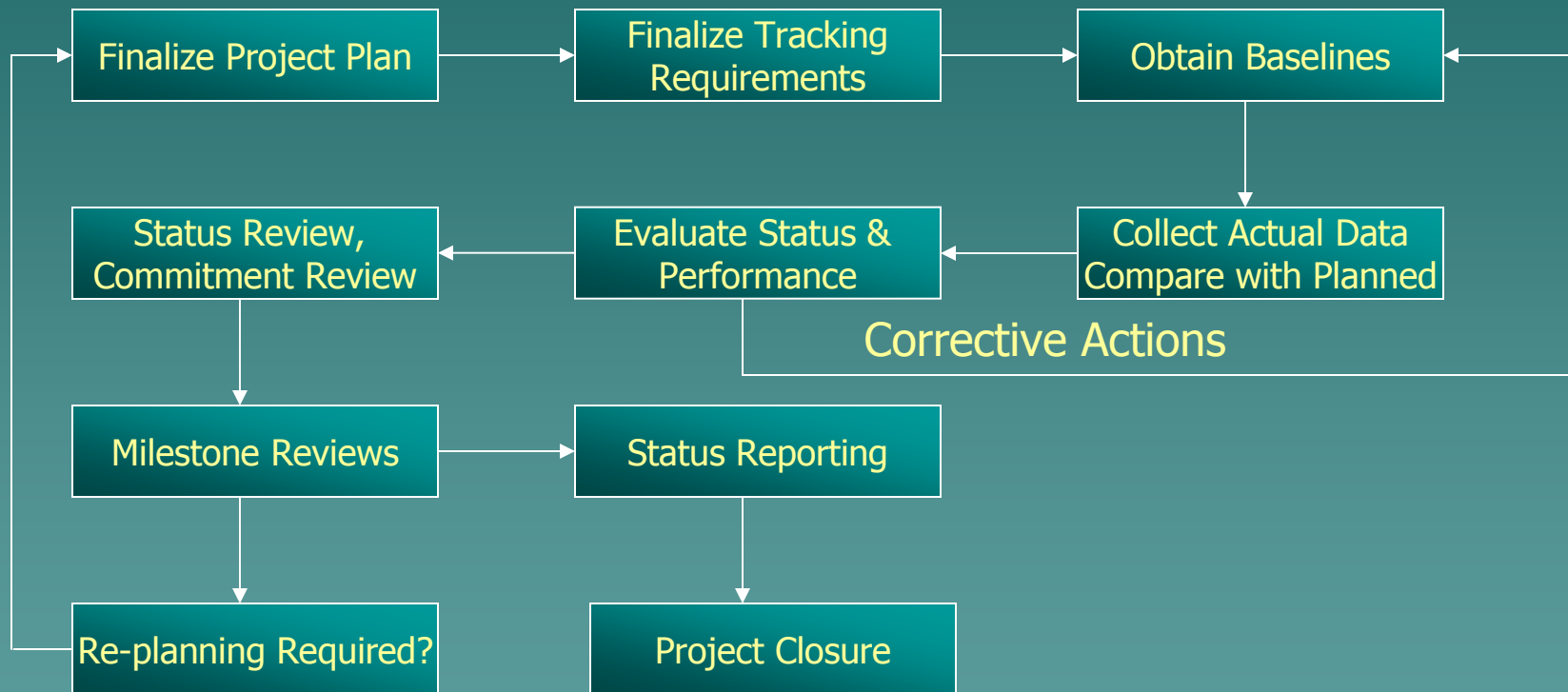


## HR\_Recruitment\_Cycle\_Time





# Project Tracking Process

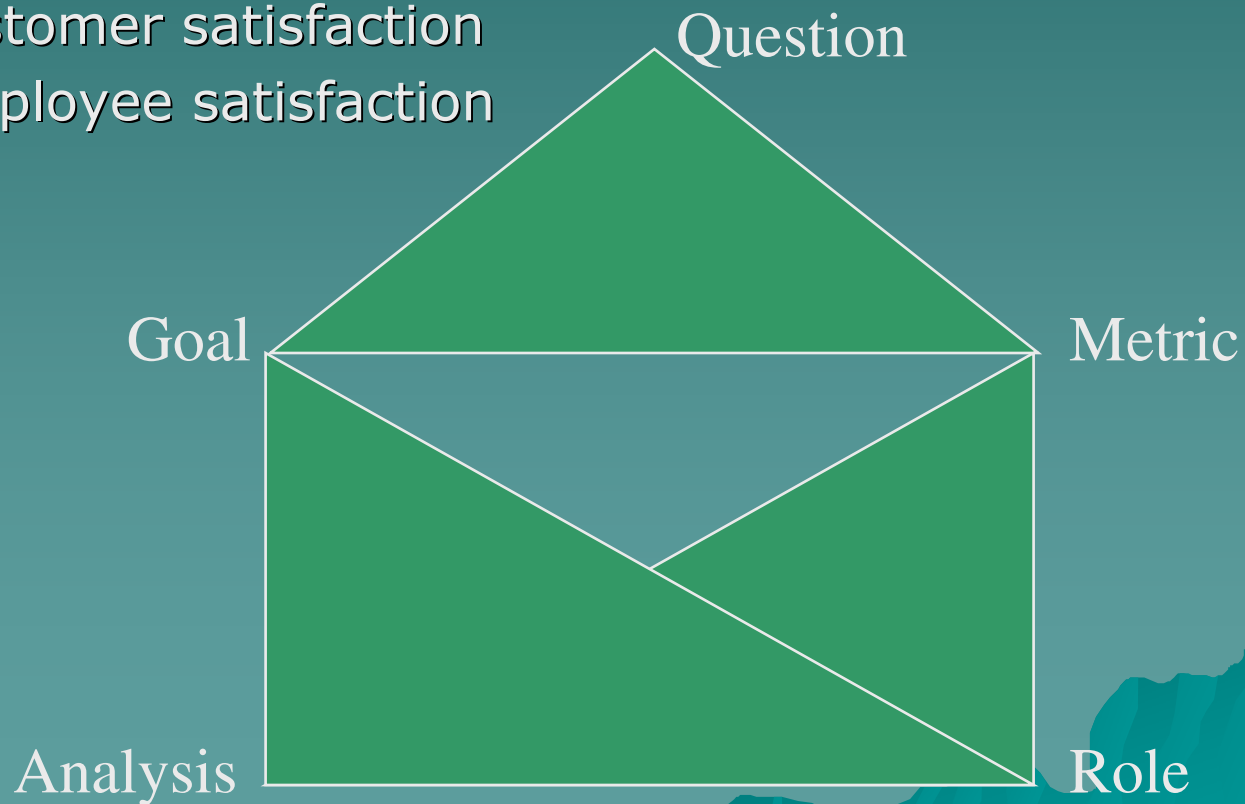




# Open Envelope Model

## Goal:

- ◆ Reduce cost of poor quality
- ◆ Improve productivity
- ◆ Improve software project planning
- ◆ Improve customer satisfaction
- ◆ Improve employee satisfaction

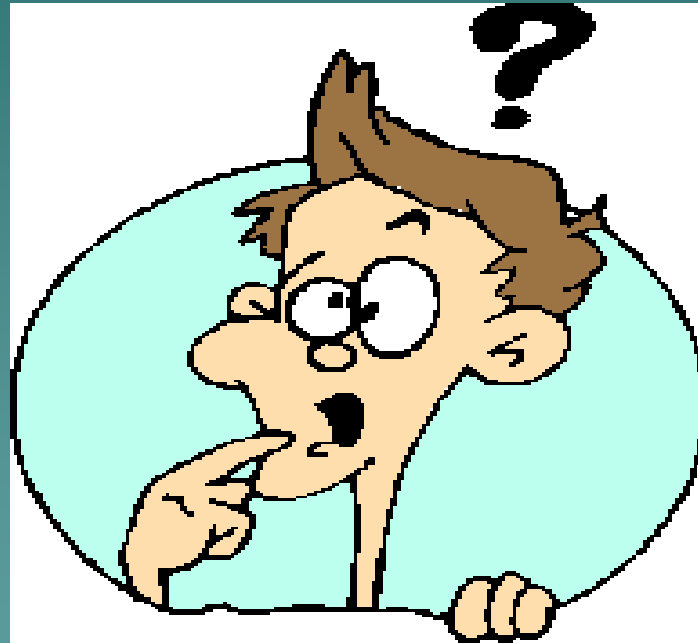




At the end : I choose to

Run a **Burning Train** or

Win with **Turning Brains** ?



**Thank You**