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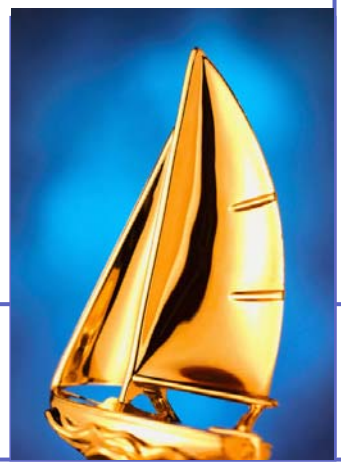

Sailing to Success: Building The Business Case for Running an Effective High-Maturity, High-Priority Improvement Project

Presentation #7213

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Topics

- Sailing analogy
- Four benefits
- Why this is hard
- Strengthening the business case
- Leveraging lean & agile principles
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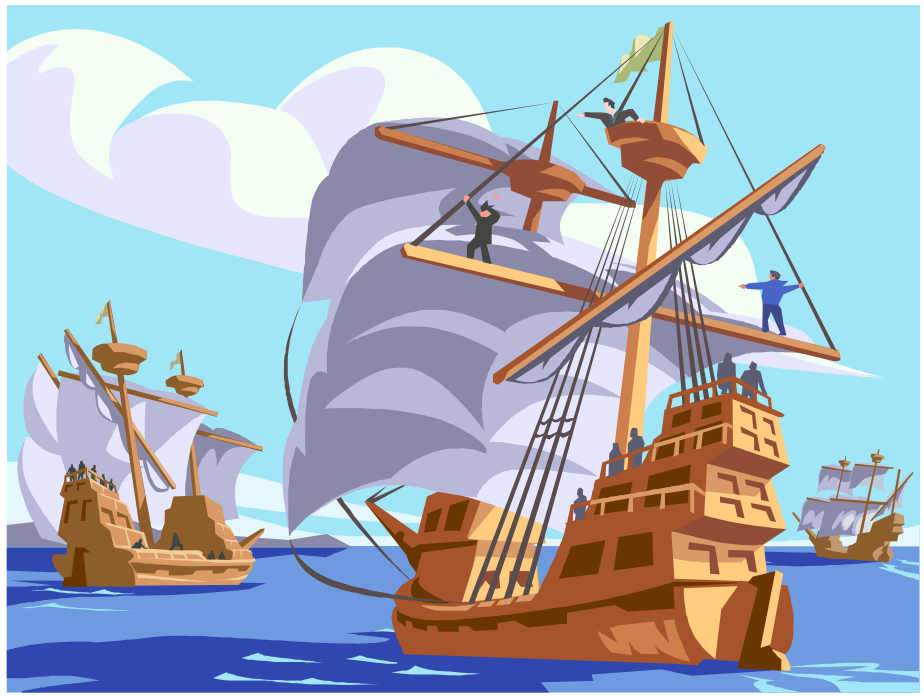
Sailing analogy – 1

Low maturity organizations have:

- dangerous undertows and currents
- sandbars and other submerged hazards

All project-boats in an organization navigate in the same waters



Your challenge is to keep your improvement project-boat on course!

Sailing analogy – 2

- Development projects in low-maturity organizations often:
  - hit sandbars, get stuck and damage their tillers
  - don't know how to tack, luff their sails, lose their wind, and stall
  - capsize when trying to avoid other sailboats
- Low-maturity organizations often have too many boats in the water at the same time
  - Sailboats without enough crew can't reach max speed
  - Schedule slippages delay their returns to the harbour
  - Avoiding collisions with delayed boats slows everyone

Sailing analogy – 3

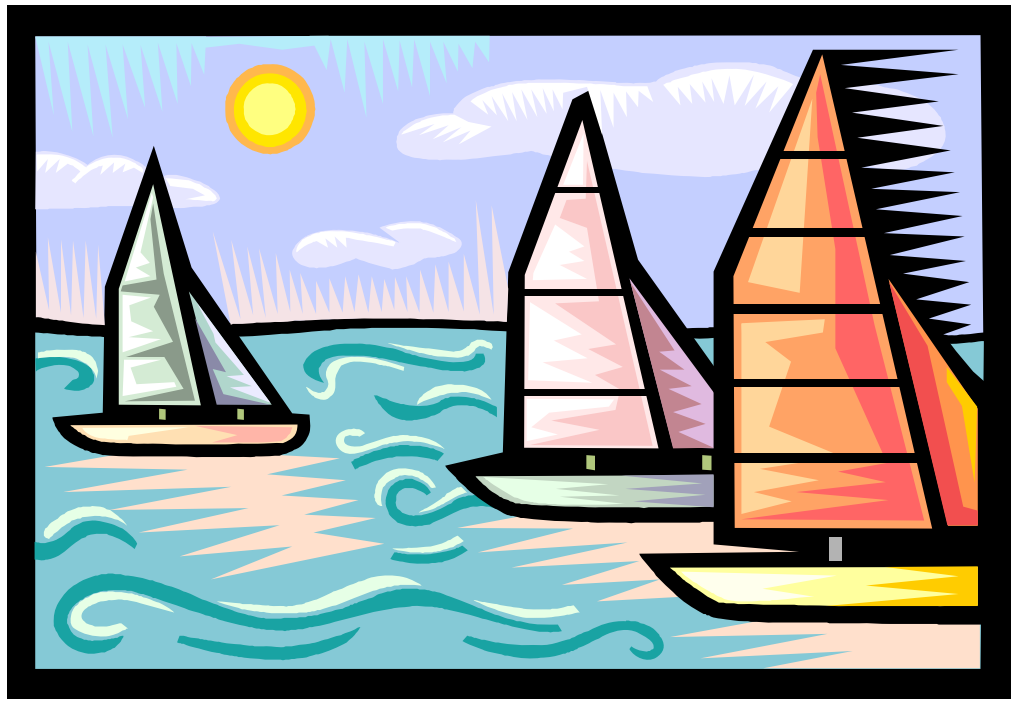
- An often-recommended practice is to execute the activities of implementing CMMI-based improvements as a ‘model project’.
  - Not running the improvement project the ‘usual way’ will increase your chances of success!
- An improvement initiative’s captain must find ways to navigate lower-maturity waters without capsizing
  - Identify and maneuver around dangerous undertows, currents, sandbars, and other submerged hazards
  - Avoid collisions with out of control project-boats cruising in the same organizational waters

“You must first be the change you wish to see in the world.”

Four benefits of this approach

Why is running the improvement initiative as a high(er) maturity project important?

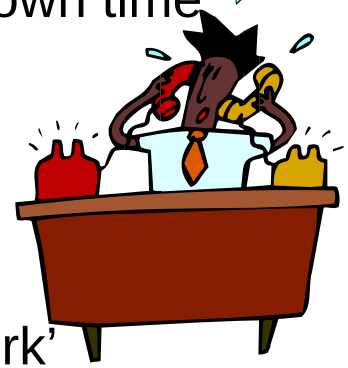
- Reality check
- Good example
- Credibility
- Success



Why this approach is hard

Planning and doing the improvement work requires money, time, and people.

- Funding – business case is hard to make:
  - ROI on long-term investment
  - Missing-in-action measures
  - ‘Technical debt’ is often invisible
- Time
  - Schedule pressure likely already exists
  - Don’t expect people to do improvement work ‘on their own time’
- People
  - Possible sources of labor for improvement work:
    - Existing personnel
    - New hires
  - Usually not enough crew members already for ‘real work’
  - Usually hard to hire ‘for improvement work’ when development crews are understaffed



Safer, faster, more enjoyable sailing

Let's discuss ways for improvement initiatives to:

- avoid submerged hazards
  - install and use channel markers
  - create and use charts
- find lighthouses to guide you at night
- keep your sails full
  - handle sheets and lines
- teach development captains and crews how to do it too

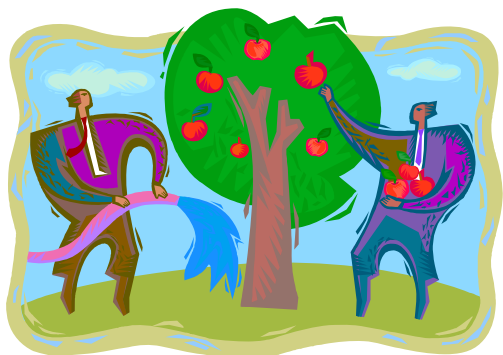
Breaking the Catch-22 cycle: Two Tactics

1) Strengthen the business case for the improvement project

2) Leverage lean and agile principles in executing the improvement project

Note:

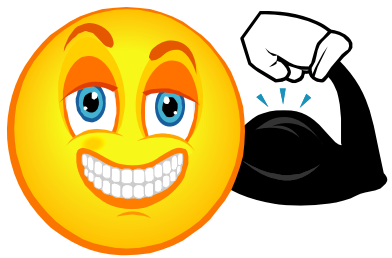
Try using lean/six sigma techniques to choose improvement targets (find low-hanging fruit)



Strengthening the business case

Handle the improvement project like a risk mitigation strategy for your business:

- **Identify risks** to the improvement project, and translate them into bottom-line development risks
- **Estimate and quantify** probability and impact of the bottom-line risks (bonus: defining business measures)
- **Show** how the improvement project will:
  - reduce probability of bottom-line risks
  - reduce impact of bottom-line risks



Activities which solve REAL development problems are easier for management to fund and support!

Bonuses for the improvement project: clearer ROI, reduced risks, and increased chance of succeeding.

Leveraging lean and agile principles – 1

XP: "do the simplest thing that could possibly work"

- Keep your boats:
  - As light as possible, to be able to maneuver efficiently;
  - Just heavy enough to be stable
- Adding extra or heavier-than-necessary steps or layers to fill gaps puts **ballast**, **not cargo**, on your project boats
- Consciously seek out 'less is more' alternative practice solutions, and refactor when needed
- Focus on the (PA) goal, not practices; consider creativity techniques for resolving contradictions (eg TRIZ or GTI)

Example: Goal – to allow a sailboat to go under a bridge

- *Raise the bridge, lower the water, drop sails and fold the mast, … ?*

Leveraging lean and agile principles – 2

Avoid automating too soon

- "Doing the wrong thing faster" is not the answer
  - Make the workflow lean before you automate it
  - Example: Analyze and refine your V&V strategy before you automate system-level tests
    - Eliminate those which never find real bugs
    - Identify defects that could have been caught more efficiently earlier in the lifecycle

V&V = Verification and Validation

ABB

Leveraging lean and agile principles – 3

Resist temptations to rely on tools

- Engineers tend to like engineering solutions, but better tools are usually not the answer

  Analogy: a spinnaker is beautiful and powerful, but can be:

  - **Useless:** if handled by a too-small crew that isn't yet trained, or isn't proficient with normal sails, it won't catch more wind
  - **Dangerous**: if collapsed & water-filled, it can sink you

Leveraging lean and agile principles – 4

Plan & manage the improvement project with Scrum

- Establish and prioritize a ‘backlog’ with your ‘gold owners’ and ‘goal donors’
- Work in time-boxed ‘sprints’
- Try daily ‘scrum’ stand-up meetings
  - set the heartbeat of the initiative
  - keep the improvement team in sync and unblocked
  - raise visibility and awareness

- Other PMs can learn by being ‘chickens’

See: “Agile Project Management With Scrum”, Ken Schwaber (http://www.controlchaos.com/)

Leveraging lean and agile principles – 5

Execute the project with agile techniques

- Example: ‘pairing’ change agents
  - Hire technically competent people with development credibility and skills, and CPI mindset
  - Pay for them under the improvement project
  - Plan sprints to harvest the low-hanging-fruit
  - Team them up on sprints with people who are busy fighting fires, to pilot the LHF improvements
  - Periodically rotate them to other pilots
  - Transition into development after several successes
- Major benefits of pairing:
  - Increases buy-in and validation for pilots (avoids NIH)
  - Provides JIT, just-enough ‘training’ on CMMI for implementers
  - Builds product domain knowledge & credibility for change agents
  - Gradually seeds the organization with advocates

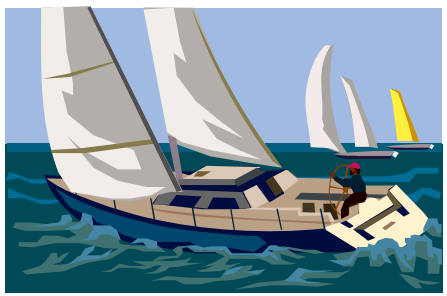
Summary

If your organization is maturity level 1, allowing the improvement project to be executed the same way as all the others can doom it from the start.

Definition of insanity:

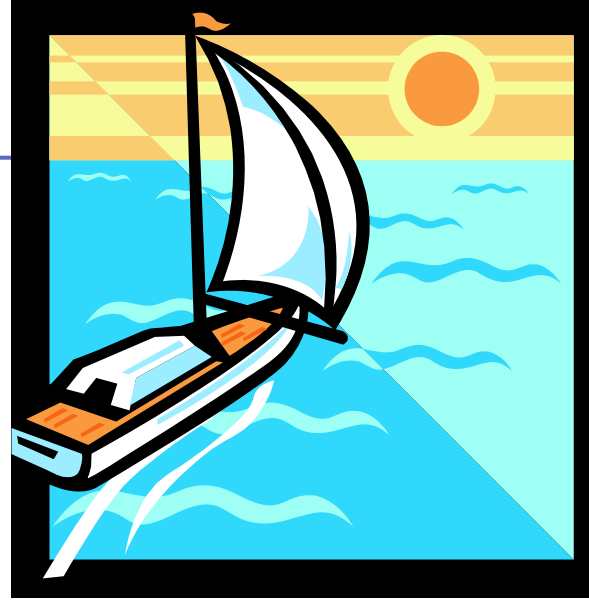
"doing the same thing over and over and expecting different results"

Solution: to break the cycle, do something different



- Model, in executing the improvement project, the change(s) you wish to see in the organization!
- *'Walk the talk', don't walk the plank!*

Questions?



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