CMMI Impact: What we know; What we need to know

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My perspective

- Empirical research in software engineering
- Standards development
- Consultancy / support
  - Primarily small business
  - Multiple process models

What we know

- A lot of information is available about the benefits of process improvement;
- Much of it is highly credible;
- I have yet to see a small business that undertook process improvement because of this material.
  - It may have helped them to justify the decision

What are the problems?

- Information is lacking on:
  - The level of investment needed to obtain a return;
  - The entry costs for model-based (and particularly CMMI-based) process improvement;
  - The scaleability of the ROI data
    - If Company A gets a 7:1 ROI from an annual investment of $1M, what will my $10K return?

Issues to consider - 1

- We often hear that the key issue is the bottom line;
  - For many small businesses, this is not the case – the key issue is survival.
  - An investment will be made if it can be shown to relate to survival.
  - Thus, risk issues become very important.

Issues to consider - 2

- For many small businesses, the nature of costs and returns are very difficult to quantify.
- In many cases they are based to a much greater extent on lifestyle issues.
- Again, the real focus in deciding on improvement is RISK.

Some conclusions

- Less focus on direct dollars and cents, and more on the key factors driving impact, would be of benefit.
- Benchmarks need to be made more meaningful for the small business.
- We should explore risk issues to a greater extent.