9th Annual National Defense Industrial Association
CMMI Technology Conference and User Group
November 17, 2009
Denver, Colorado, USA

WINNER
Best Presentation
CMMI-SVC, Lean,
Small Settings Track

CREATIVELY APPLYING
CMMI-SVC
IN A VERY SMALL
CONSULTING FIRM

Bill Smith, CEO
Leading Edge Process Consultants LLC
www.CmmiTraining.com

Objective of This Presentation

To provide a glimpse into how one very small company is, little-by-little, adopting key principles from the CMMI for Services (CMMI-SVC) to dramatically improve its bottom line.

Agenda

- Background
- Making the Decision
- Improving Our *Marketing*
- Improving Our *Training Delivery*
- The Future
- In Conclusion

CmmiTraining.com

Who Are We, and Why Do You Care? (Or Not.)

Background

Who Are We?

- Leading Edge Process Consultants is a well-established, world-class provider of process improvement consulting, appraisal, and training services.

A slight exaggeration

Depends on the day, really

Eventually… *Dec. 2007!* *Some day…* *BINGO!*

Award-Winning CMMI Training

About "Public" Training...

To appreciate this presentation, you need to understand why we put so much time and energy into public training

(other than the fact that I personally love it)

HIGH RISK, HIGH REWARD

If you don't get it right…

…you could lose your shirt!

If you do get it right…

…you don't have to eat *this* every night

Net income from 1 public training class can be equivalent to 3 to 4 private classes. Alternatively, you may not break even.

CmmiTraining.com 6

Growth of Our CMMI Training Business

"Cinderella story… outta nowhere…" [Caddyshack, 1980]

	2007	2008	2009
Google rank - "cmmi training"	NA	Fell asleep before finding	**#3** (after 2 SEI pages)
# Intro to CMMI students taught	0	89	**234**
Average public class attendance	NA	11.3	**26.4***
Net income	Negative	x	**13x**
% of income from CMMI classes	NA	100% (CMMI-DEV)	100% (CMMI-DEV, -SVC)

* Includes three space-constrained "sell-outs"

But... How Are We Doing It?

Leading Edge PROCESS CONSULTANTS LLC

A BIT

"Just try harder"?
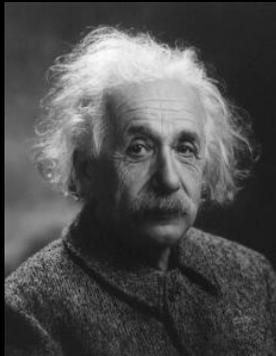
Insanity: doing the same thing over and over again and expecting different results.
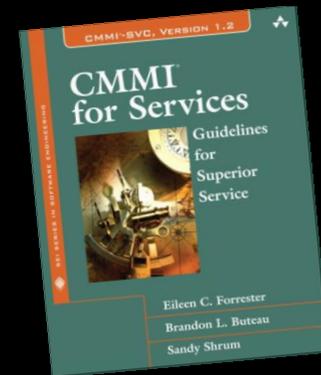- A. Einstein

SOME

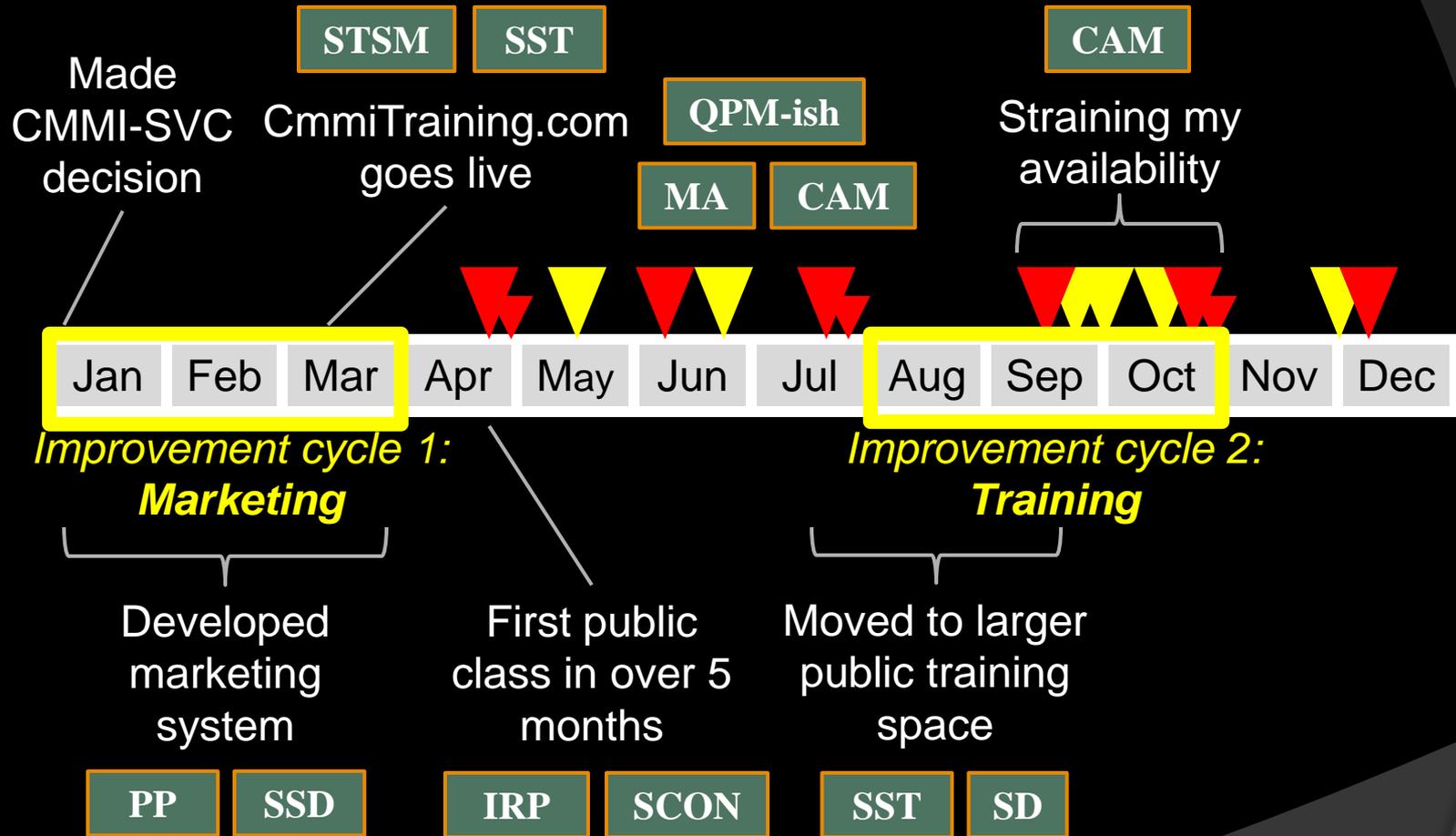**Natural business growth?**

In *this* economy?

YES!

Get better?

CMMI for Services: Guidelines for Superior Service

Using the CMMI for Services as a guide.

2009: The Year in Review

STSM	SST			CAM

Made CMMI-SVC decision

CmmiTraining.com goes live

QPM-ish

Straining my availability

MA	CAM

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Improvement cycle 1:
Marketing

Improvement cycle 2:
Training

Developed marketing system

First public class in over 5 months

Moved to larger public training space

PP	SSD		IRP	SCON		SST	SD

CMMI-SVC Process Areas appearing on this slide are representative samples; elements of other PAs have also been addressed

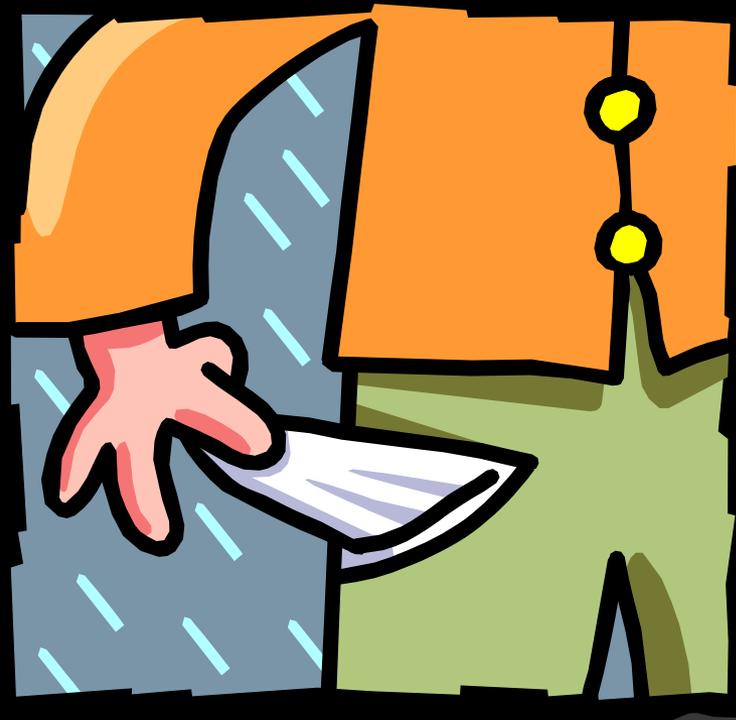▼ Private Intro to CMMI
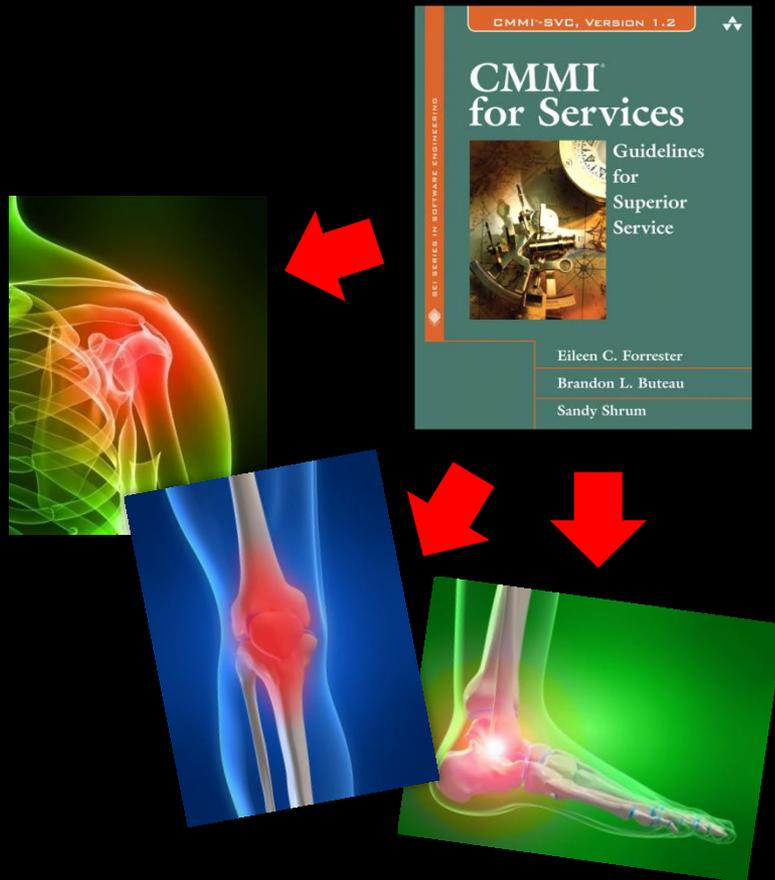▼ Public Intro to CMMI
▼ Public SVC Supplement

Making the Business Decision (1)

- Shouldn't we practice what we preach – the CMMI?

- But… we need to focus on *making money right now*

- Time/resources available to dedicate to long-term improvement: *zip, zilch, nada, none*

Our process improvement budget.

Making the Business Decision (2)

CMMI-SVC, VERSION 1.2

CMMI for Services

Guidelines for Superior Service

Eileen C. Forrester
Brandon L. Buteau
Sandy Shrum

"Tell me where it hurts…"

- ◉ No money, no problem!
  1. Pick an organizational pain point
  2. Address the pain, using guidance from CMMI-SVC as appropriate
  3. Repeat steps 1 and 2 as needed
- ◉ Focus on near-term tasks for *just-in-time process improvement*
- ◉ If it ever looks like CMMI-SVC = wrong business decision, then simply *STOP*

MINIMAL RISK

Making the Business Decision (3)

CMMI for Services Diary

"We're adopting the CMMI for Services to become more efficient and more effective... so we can do things better, cheaper, or faster... for competitive advantage.

"Another way of saying this -- and let this sink in -- is that we're doing it for legitimate improvement, **not** for a 'level rating'."

[Jan. 16, 2009]

From our blog (www.CmmiForServicesDiary.com)

Desired location of competition *(Dec 2009)*   Actual location of competition *(Jan 2009)*

Pinpointing Our Pain (1)

Training?

NO PAIN

High levels of student satisfaction

Marketing?

PAIN!

Inadequate number of students to cover costs of public classes

BTW, a trip through the CMMI glossary (service, product, end user, etc.) confirms that marketing may indeed be considered a "service."

Pinpointing Our Pain (2)

- Key marketing issues:
  - Ad hoc, reactive
  - **$25,541** on Google Ads in 2008:
    money pit?
  - Web site not sufficiently…
    compelling
  - Personally, still a relative "unknown"
  - *I could go on…*

Creating a *Marketing* Service System

- Researched marketing practices
- Identified components and subcomponents of my target service system
- Identified current and desired states of each
- Estimated development effort
- Drafted implementation schedule
- Began developing components

SERVICE SYSTEM DEVELOPMENT (SSD)

PROJECT PLANNING (PP)

Top Level Components
1. Me
2. My Websites
3. My Blogs
4. Social Networking
5. E-Mail Marketing
6. Press Releases
7. Videocasts
8. Publications
9. Speaking/Networking
10. Directories
11. Search Advertising
12. Search Engine Optimization
13. Viral Marketing
14. Link Campaigning

Developing CmmiTraining.com (1)

(Marketing Service System Component 2.2)

The goal: "Increase my conversion rate
(ratio of website visitors to registered students)"
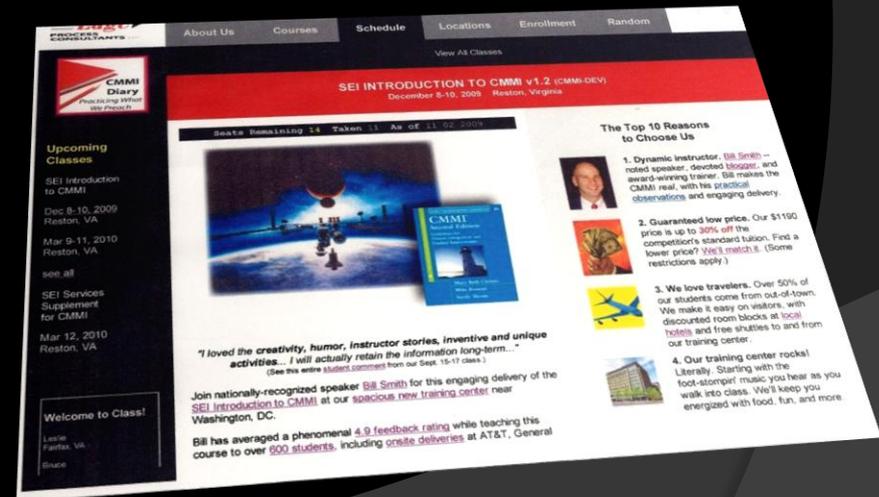[from *Student Attraction Strategy 2009*, 1/5/2009]

Key features:
- Course catalog and schedule*
- Online student registration**
- Secure credit card transactions**
- Differentiators (why us?)*
- Search engine optimized*
- Google ad-optimized*

* new or improved versus prior website
** by Amplify Software, www.amplifyllc.com

Developing CmmiTraining.com (2)

Old, money-sucking website

Spiffy new money-making website

Classroom of eager CMMI students

Feb	Mar	Apr

2/7/09   3/9/09   4/23-4/25/09

30-day web development "sprint"   6 weeks promo time

Developing CmmiTraining.com (3)

PROJECT PLANNING

SP 1.2 Establish Estimates of Work Product and Task Attributes

SP 1.3 Define Project Lifecycle

SP 3.2 Reconcile Work and Resource Levels

Critical Success Factors

- ◉ Stop "working" so much!
  - Suspended class deliveries to focus on this
- ◉ Agile development methodology
- ◉ Accurate effort estimate, based on
  - Size (# web pages)
  - Complexity (of each page)
  - Reuse (existing website)
- ◉ A Validation Team!
  - 3 former students, 2 business associates

SERVICE SYSTEM DEVELOPMENT

SP 1.1 Develop Stakeholder Requirements
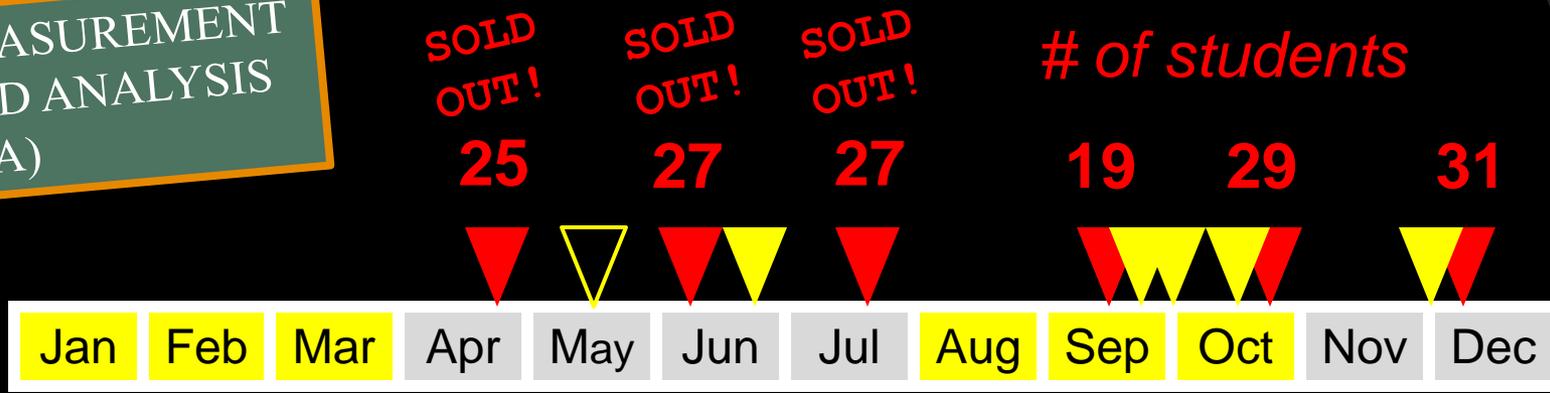
SP 2.2 Develop the Design

SP 3.4 Validate the Service System

They rocked!

Measuring Our Marketing Results

MEASUREMENT AND ANALYSIS (MA)

SOLD OUT! **25**
SOLD OUT! **27**
SOLD OUT! **27**

# of students
19 **29** **31**

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

2009 vs. 2008

|	
Google Ad Dollars	-26%
Click-thru Rate	+260%
Avg Time on Website	+44%
Public Class Size	+61%

Given our corporate vision, this may have been the difference between staying in business… and not.

Comparison of 4 weeks prior to 10/27-10/29/09 and 11/11-11/13/08 classes. Unable to compare all of 2008 vs. all of 2009 because not all of this data was captured in 2008.

Sorry, percentages only! The actual data is proprietary.

Private Intro to CMMI, 2009 Mktg
Public Intro to CMMI
Other Private Intro to CMMI

Moving Toward Quantitative Management

of Students in Our 2009 Public Intro to CMMI Classes
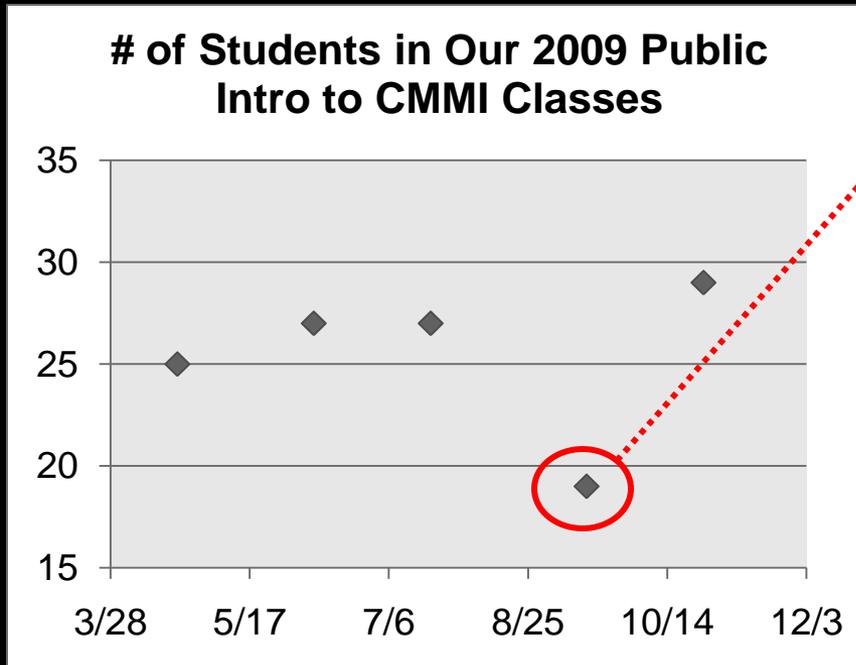

- Random variation, or "special cause"?
- If special cause, eliminating it could be worth tens of thousands of dollars
- I have a hunch, but lack the correct data to verify
- Collecting that data now, but may not know for another year!

QUANTITATIVE PROJECT MANAGEMENT (ish)

We Now Have Flying Monkeys… and More!

Improving Our Training Delivery

Documented Procedures Help Us to Grow (1)
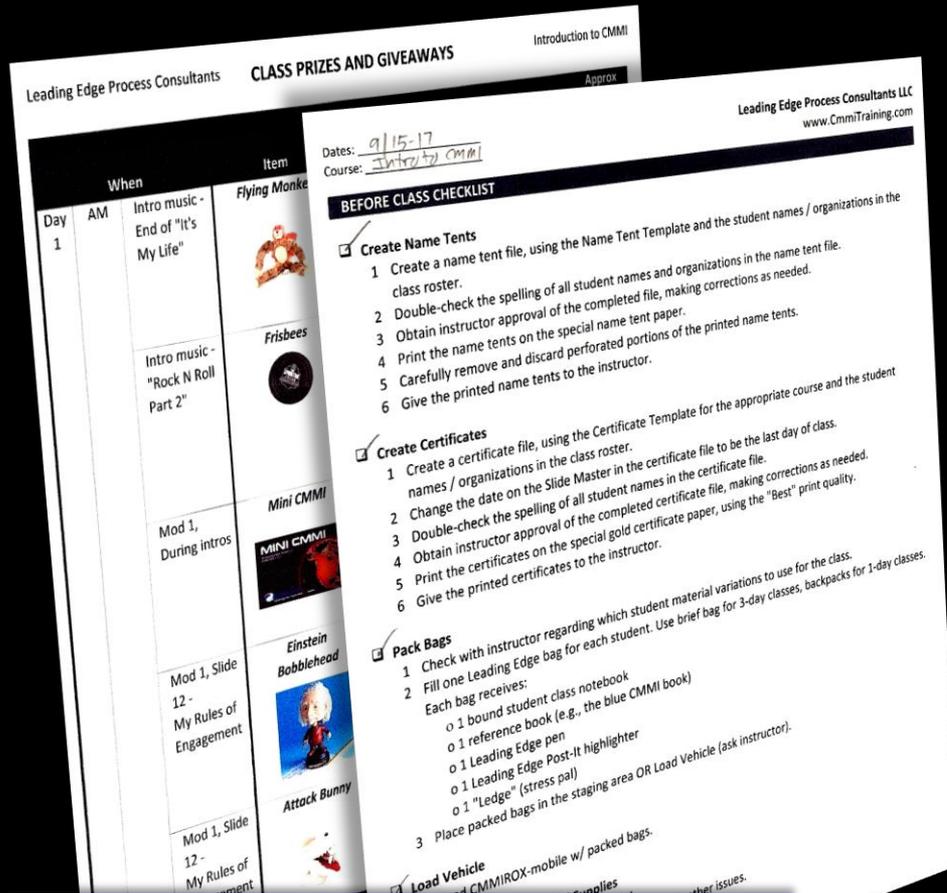
- ◎ August, 2009. A frighteningly busy Sept/Oct was looming:
  - 5 Intro to CMMI classes in a 7-week period
  - 2 of these public, requiring *tons* of work; the other 3 out-of-town
- ◎ How to stay organized?
  - Created procedures and checklists *just-in-time*, because I *really needed them*
  - Better solution than constantly re-creating to-do lists!

Why "just-in-time"?
I rarely say to myself "I'm looking for something to do right now, so I think I'll write a procedure." Just-in-time works for me.

Documented Procedures Help Us to Grow (2)

- ◉ Thanks to procedures, checklists, & mentoring, somebody else now:
  - Creates/prints certificates
  - Creates/prints name tents
  - Enters data from SEI evaluations into spreadsheets
  - Assembles handout packets
  - Packs student bags (CMMI, student notebook, freebies)
  - Restocks inventory
- ◉ He's 12
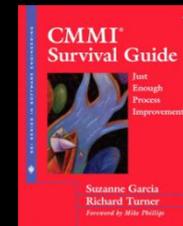
SERVICE DELIVERY
GP 3.1 Establish a Defined Process

Connor Smith
Manager, Special Projects
Leading Edge Process Consultants

Getting Better, Constantly (1)

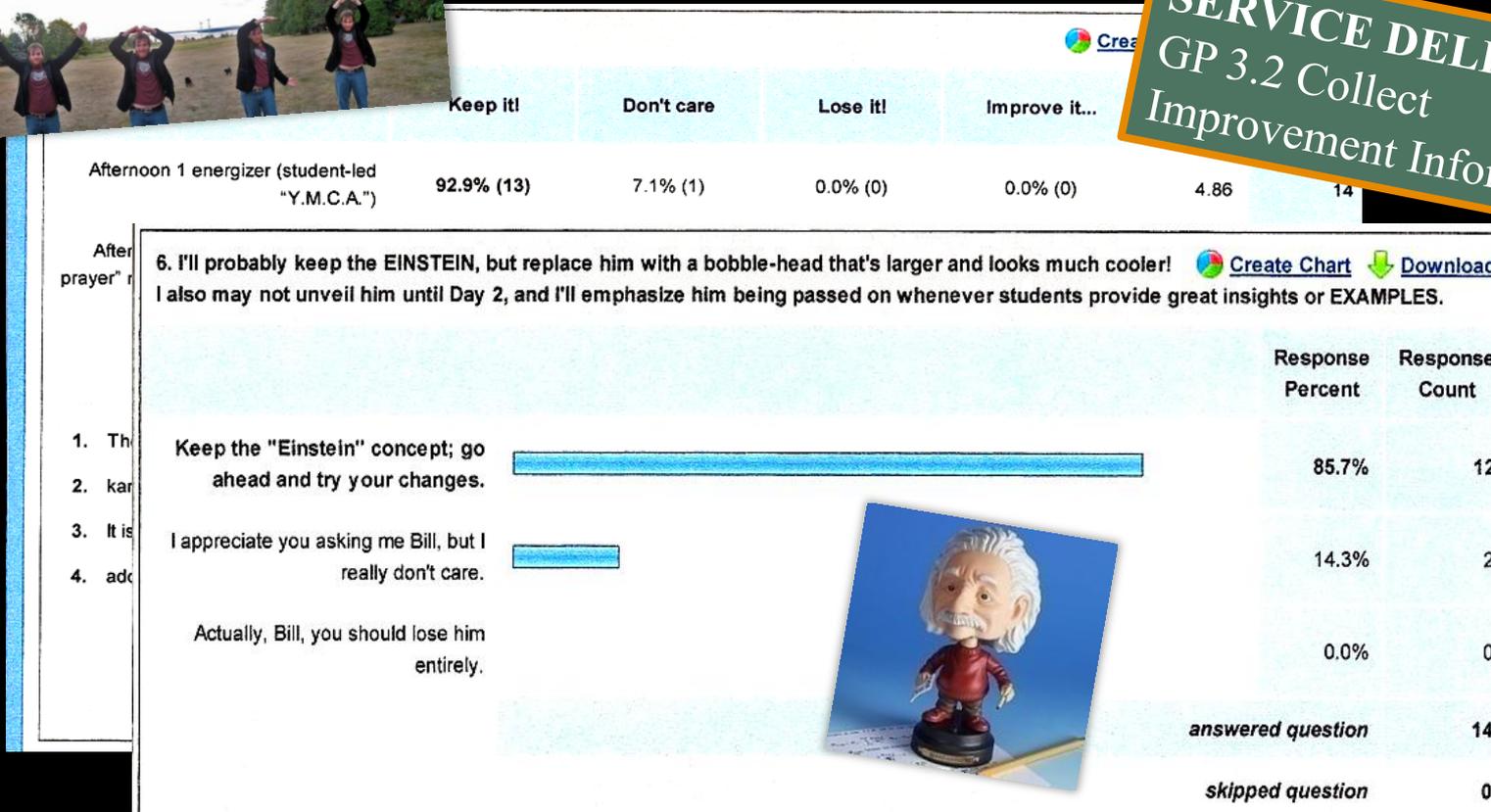We introduced an explosion of
new classroom ideas this fall…

How are these used in class? Give us $1290 and three days of your time, and you can find out!

Getting Better, Constantly (2)

## …which we piloted in class before becoming part of our standard process

SERVICE DELIVERY
GP 3.2 Collect
Improvement Information

	Keep it!	Don't care	Lose it!	Improve it…		
Afternoon 1 energizer (student-led "Y.M.C.A.")	92.9% (13)	7.1% (1)	0.0% (0)	0.0% (0)	4.86	14

6. I'll probably keep the EINSTEIN, but replace him with a bobble-head that's larger and looks much cooler! 🔴 Create Chart ⬇ Download
I also may not unveil him until Day 2, and I'll emphasize him being passed on whenever students provide great insights or EXAMPLES.

	Response Percent	Response Count
Keep the "Einstein" concept; go ahead and try your changes.	85.7%	12
I appreciate you asking me Bill, but I really don't care.	14.3%	2
Actually, Bill, you should lose him entirely.	0.0%	0
answered question		14
skipped question		0

Measuring Our Training Delivery Results (1)

WHAT WE LOOK AT

- Standard SEI Class Evaluations, aggregated for each class
- Our own, more customized web survey *(using Survey Monkey)*
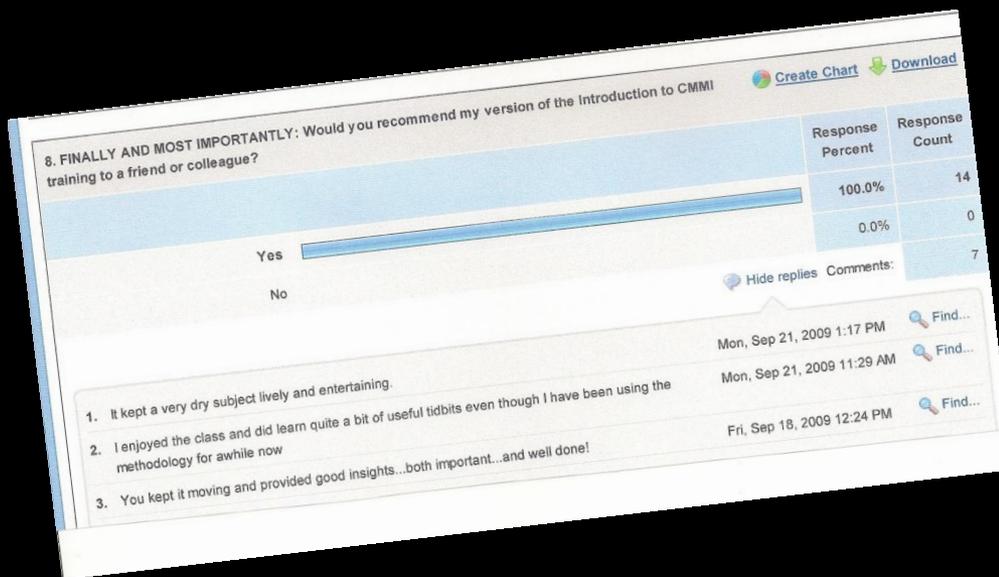
MOST IMPORTANT QUESTION

Would you recommend our version of the Introduction to CMMI *training to a friend or colleague?*

INITIAL RESULTS

Since doing this for 3 classes, everybody has replied "yes."

"Got to admit, it's getting better" [Lennon, McCartney]

The Future

2010 and Beyond

- Use our 2009 gains as a **foothold** for continued improvement
- Keep a watchful **eye on the competition**
- Add more **structure** to our process improvement program
  - Still grounded in business value
  - More proactive, a bit less "just-in-time"

Planning Our Improvements

- Another planned improvement cycle in early 2010
- How to find the time?
    - "Skipping" a public class on our calendar
- Harsh business reality:
    - Sometimes you need to make *less money now* so you can make *more money later*

12 week gap

(typically 6 weeks)

Date	Course	Location
Dec 8-10, 2009	Introduction to CMMI v1.2 (CMMI-DEV)	Reston, VA
Mar 9-11, 2010	Introduction to CMMI v1.2 (CMMI-DEV)	Reston, VA
Mar 12, 2010	Services Supplement for CMMI v1.2	Reston, VA
April 13-15, 2010	Introduction to CMMI v1.2 (CMMI-DEV)	Reston, VA

A Sampling of Future Improvements (1)

Issue	Improvement	Business Reason
Received several requests for private training in Aug-Oct that we lacked the availability to handle. Some consulting/ appraisal requests also. But how many? What's the business value of opportunities missed?	Formally track requests for services *other than* public training.	If indicated by demand (e.g., missed opportunities), increase income by expanding or simply raising prices. Perhaps reduce expenses by decreasing marketing budget. Consider new services, if we don't offer what several people are asking for.

CAPACITY AND AVAILABILITY MANAGEMENT (CAM)

SERVICE DELIVERY (SD)

STRATEGIC SERVICE MANAGEMENT (STSM)

A Sampling of Future Improvements (2)

Issue	Improvement	Business Reason
What if our instructor gets sick and can't deliver a public class for which 30 students are enrolled, half of whom have flown into town to just for the occasion?	Preemptively take mega-doses of Vitamin C. More realistically, have a back-up instructor.	A public training class is a $30K+ revenue event – tons of money for a small company like ours. Refunding this money could be crippling – and the customer dissatisfaction hit could be severe.

INCIDENT RESOLUTION AND PREVENTION (IRP)

SERVICE CONTINUITY (SCON)

IRP vs. SCON: Which One?
*Though some might say this issue is about IRP, it's so potentially serious that we believe **we'll benefit more from applying the principles of SCON** to it. Hey, whatever works!*

Parting Words of ~~Wisdom~~ Experience

In Conclusion

Conclusions

- We've begun applying the CMMI for Services to our Marketing and Training Delivery processes.

- Our process improvement initiative is solely about business value. We have no current plans to attain a Maturity Level rating.

- We've achieved a significant net income gain in the past year. We unquestionably attribute much of that gain to our adoption of key CMMI-SVC principles.

- Given our success, we'll continue adopting the CMMI for Services through 2010.
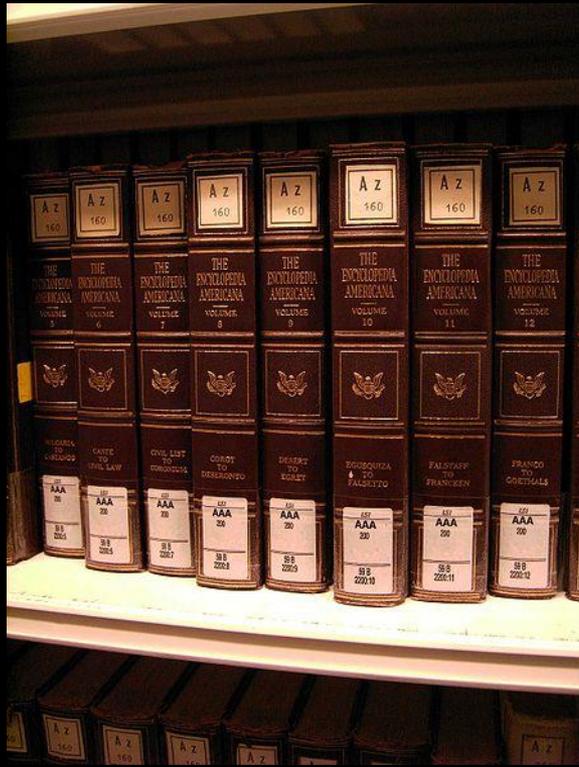
CmmiTraining.com

Recommendations

for the Ultra Small Organization (1)

1. Don't Panic!

Yes, we realize the CMMI can seem overwhelming. *It doesn't have to be that way, though.* Relax and take a deep breath before you proceed…
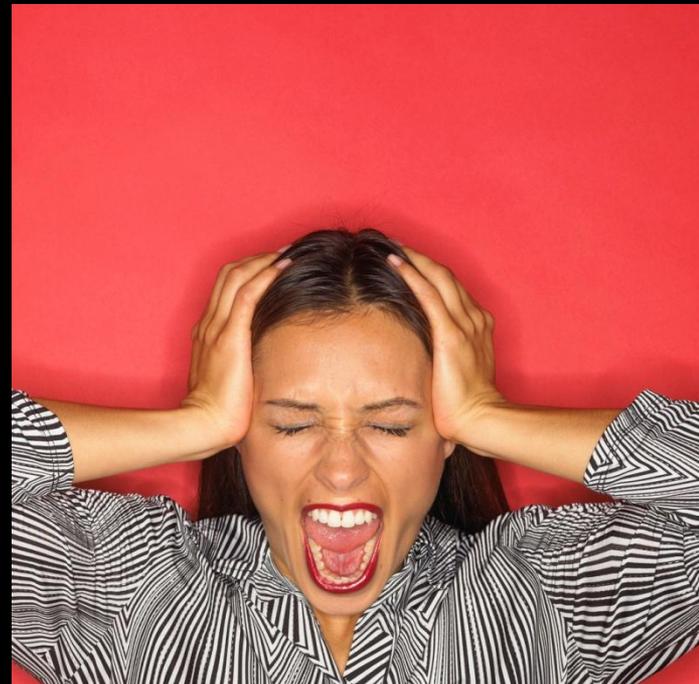
Recommendations

for the Ultra Small Organization (2)


2. View the CMMI as an Encyclopedia of Good Stuff

It's chock full of good ideas. Probably *too* many for you. Some of them will *quickly* benefit your organization. The others? Ignore them for now.

CmmiTraining.com

Recommendations
for the Ultra Small Organization (3)

3. Focus on Your Pain

Show immediate benefit by using an iterative -- or "agile" -- process improvement approach. (Need a detailed example? Check out the *CMMI Survival Guide*.)
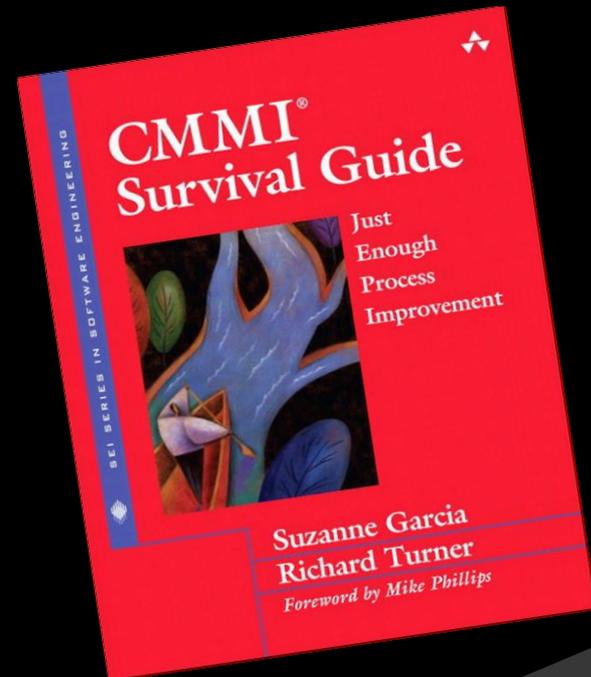
Recommendations

for the Ultra Small Organization (4)


4. Abandon Your "Compliance" Mindset

It's nice to be compliant but it's way nicer to make money. Focus on using pieces of the CMMI to achieve your business goals. Measure your success with dollars, not a Maturity Level.

Recommendations

for the Ultra Small Organization (5)

5. Avoid the "Big Bang" Approach at All Costs!

Seriously, do you want to spend the next two years documenting processes? And then gathering evidence? And then shelling out tens of thousands of dollars for an appraisal? And still not know whether you truly got better? Um, neither do I.
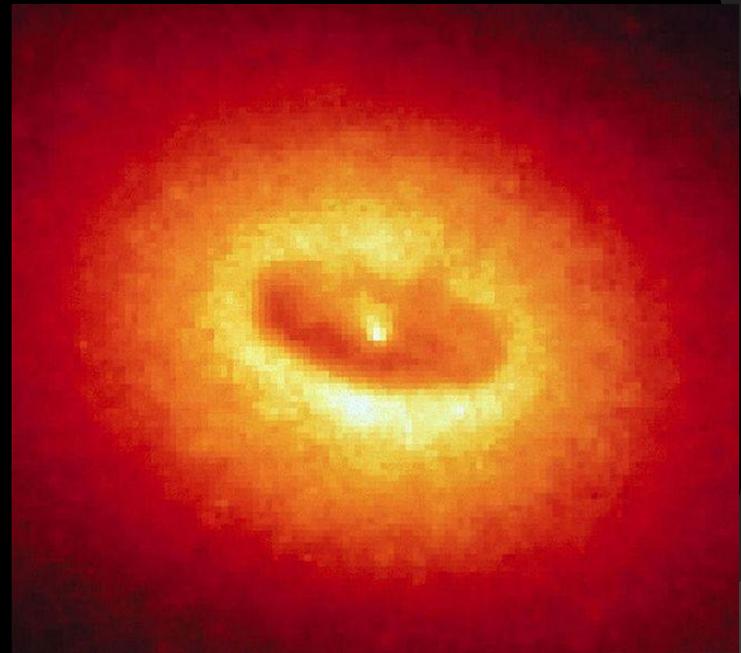
Recommendations

for the Ultra Small Organization (6)

6. Use a Just-in-Time Approach to Process Documentation Whenever Possible

You'll end up with process descriptions more rooted in reality, and more immediately useful.

Recommendations

for the Ultra Small Organization (7)

7. At Some Point You May Need to Reconsider the First 6 Recommendations

Someday you may no longer be "ultra small." Your informal communication channels may break down, and the written word will become more important. You can't always generate process documents "just-in-time." You may need to demonstrate compliance to external customers, or even yourself.

Still, you may never want to abandon Recommendation 1.

CmmiTraining.com
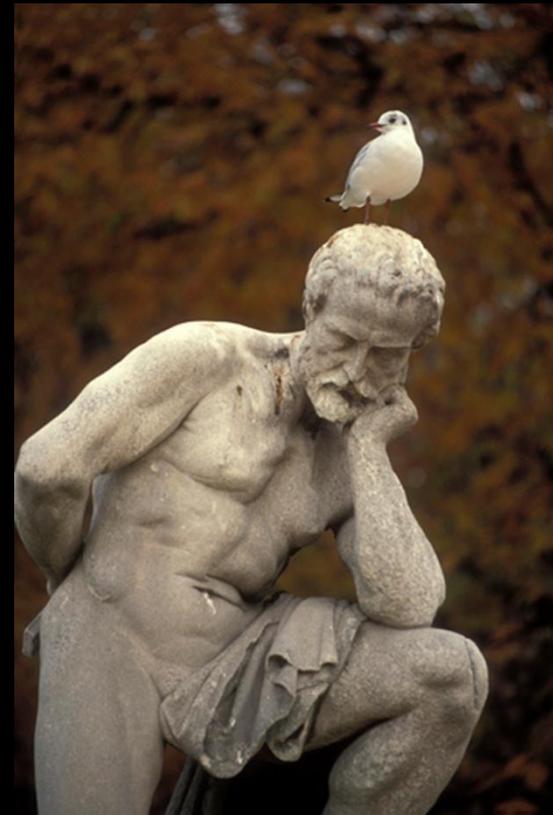
My Other Presentations This Week

- **An Overview of CMMI-SVC for CMMI-DEV Enthusiasts**
  - Wednesday 11/18
  - 8:45-9:15 a.m.
  - Wind Star Room

- **CMMI in the Social Media (for the Social Media-Challenged!)**
  - Wednesday 11/18
  - 10:45-11:30 a.m.
  - Grand Mesa F

will be replaced by

Shrinking the Elephant: If Implementing CMMI Practices Looks Like More Effort Than It's Worth, Let's Look Again
Sam Fogle, ACE Guides

Any Questions?

?

Website: www.CmmiTraining.com
Blog: www.CmmiForServicesDiary.com
Twitter: CmmiRox
LinkedIn: www.linkedin.com/in/
billsmithleadingedge

**Upcoming
Public Classes
In Reston, VA**
(DC Metro Area)

SEI Introduction to CMMI

- Mar 9-11, 2010
- Apr 13-15, 2010

SEI Services Supplement for CMMI (CMMI-SVC)

- Mar 12, 2010

Private Classes?

- Bill@CmmiTraining.com