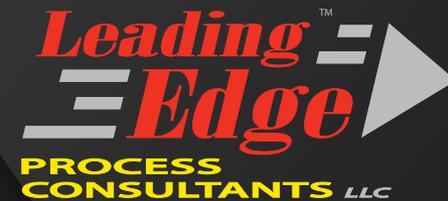


9<sup>th</sup> Annual National Defense Industrial Association  
CMMI Technology Conference and User Group  
November 17, 2009  
Denver, Colorado, USA



# CREATIVELY APPLYING CMMI-SVC IN A VERY SMALL CONSULTING FIRM

Bill Smith, CEO  
Leading Edge Process Consultants LLC  
[www.CmmiTraining.com](http://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

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)*

If you **don't** get it right...



**HIGH RISK,**  
**HIGH REWARD**

...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**.

# Growth of Our CMMI Training Business

“Cinderella story... outta nowhere...” [Caddyshack, 1980]

	2007	2008	2009
Google rank - “cmmi training”	NA	Fell asleep before finding	<b>#3</b> (after 2 SEI pages)
# Intro to CMMI students taught	0	89	<b>223</b> (projected) (191 thru 11/6)
Average public class attendance	NA	11.3	<b>25.4*</b> (thru 11/6)
Net income	Negative	x	<b>15x</b> (projected) (10x thru 11/6)
% of income from CMMI classes	NA	100% (CMMI-DEV)	100% (CMMI-DEV, -SVC)

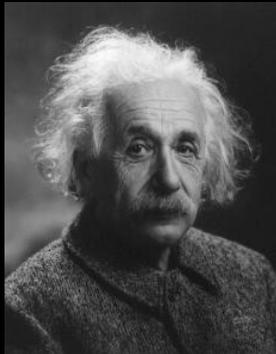


\* Includes three space-constrained “sell-outs”

# But... How Are We Doing It?

**A BIT**

“Just try harder”?



*Insanity: doing the same thing over and over again and expecting different results.*

- A. Einstein

**SOME**

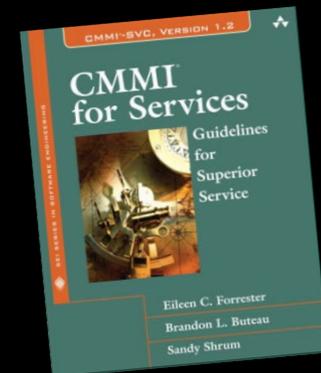
Natural business growth?



In *this* economy?

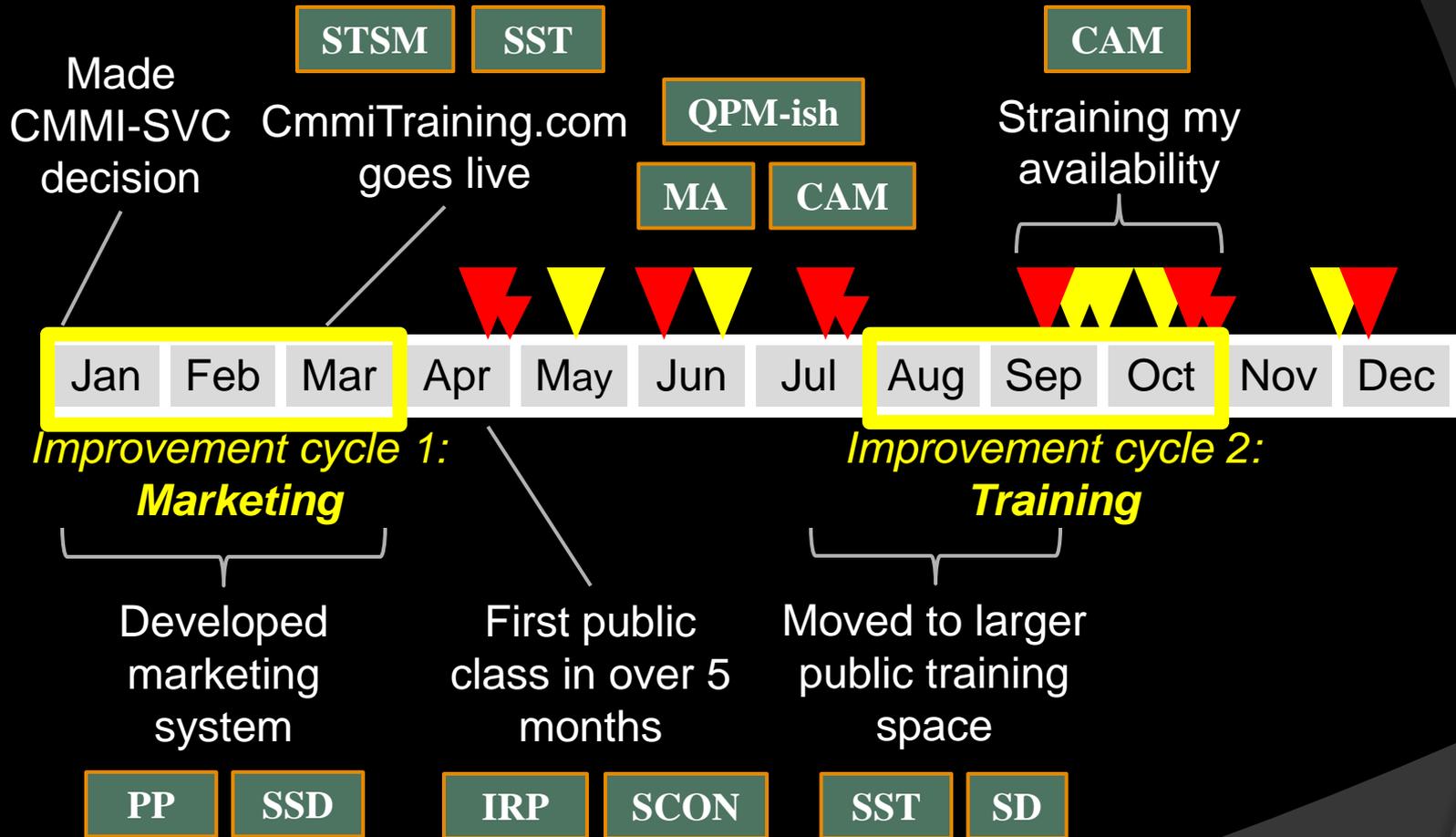
**YES!**

Get better?



Using the CMMI for Services as a guide.

# 2009: The Year in Review



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

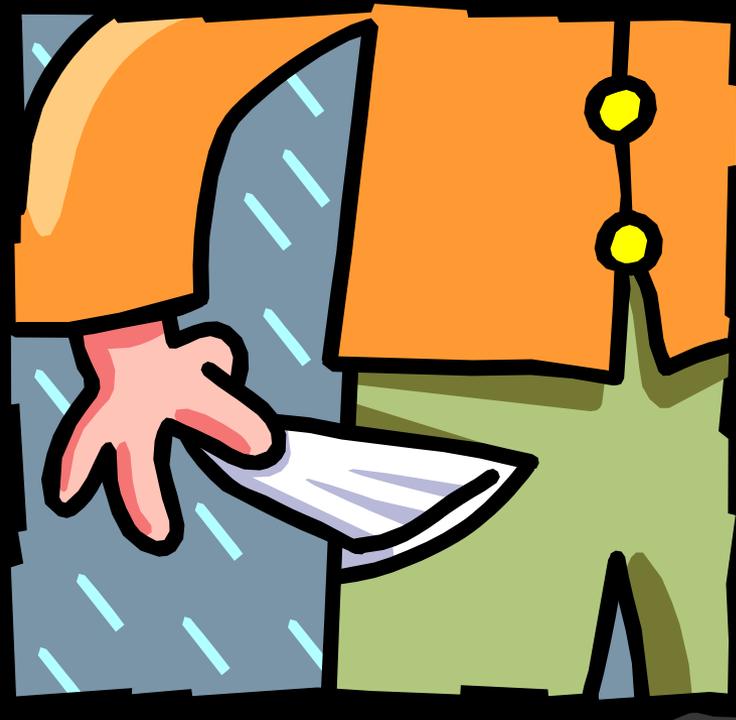
“CMMI in a One-Person Company? Are You Crazy?\*

# Making the Decision

*\*Those who know me already know the answer.*

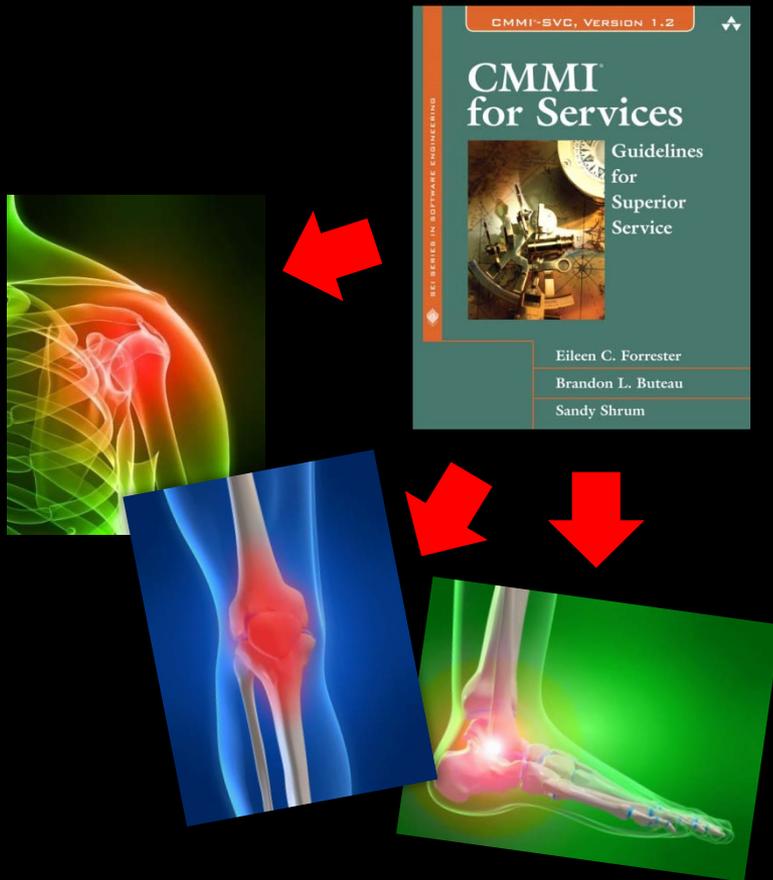
# Making the Business Decision (1)

- 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)



“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](http://www.CmmiForServicesDiary.com))

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

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



# Pinpointing Our Pain (1)

Training?



High levels of student satisfaction

Marketing?



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...*



Not Hard to Do, Because Last Year It Stunk

# Improving Our Marketing

# 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)”

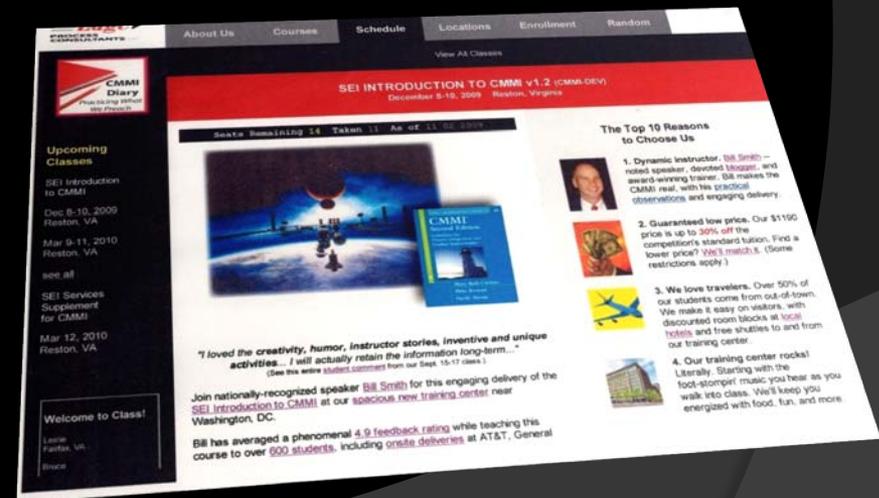
[from *Student Attraction Strategy 2009*, 1/5/2009]

## 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](http://www.amplifyllc.com)

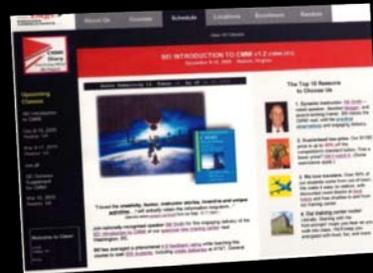


# Developing CmmiTraining.com (2)

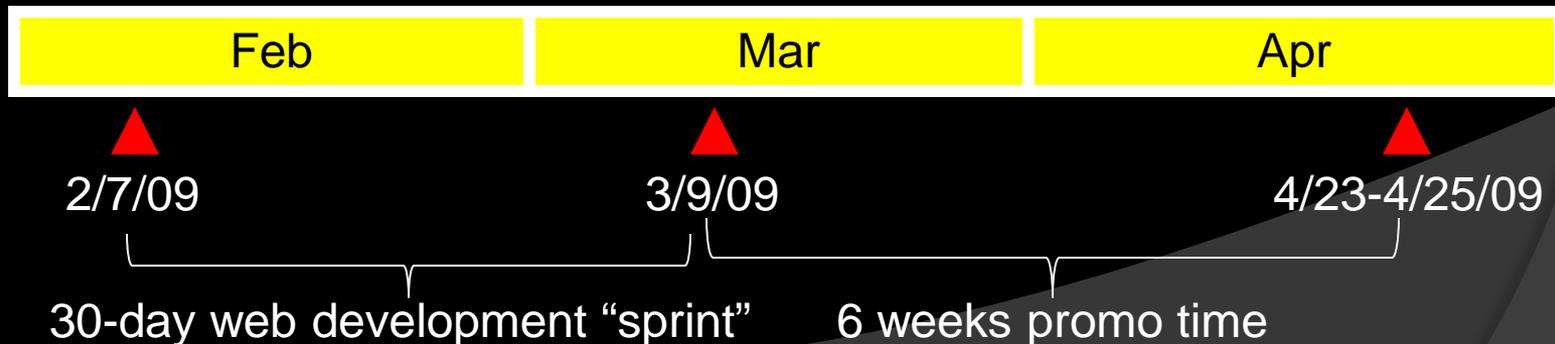
Old, money-sucking website



Spiffy new money-making website



Classroom of eager CMMI students



# 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)



## 2009 vs. 2008

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

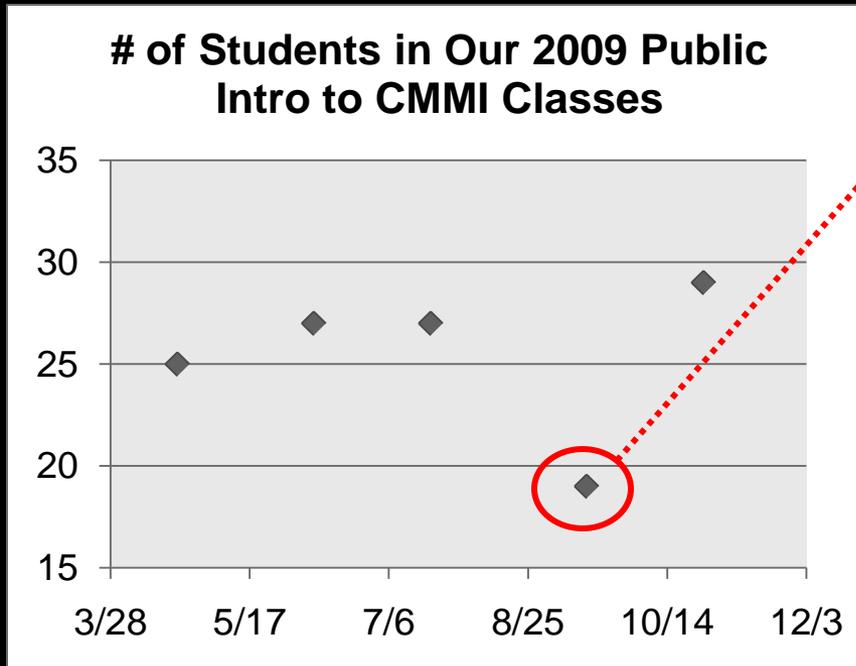
Given our corporate vision, this may have been the difference between staying in business... and not.

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



- 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)

Leading Edge Process Consultants CLASS PRIZES AND GIVEAWAYS Introduction to CMMI

Day	When	Item
1	AM	Intro music - "It's My Life"
		Flying Monke
		Intro music - "Rock N Roll Part 2"
		Frisbees
		Mod 1, During Intros
		Mini CMMI
		Mod 1, Slide 12 - My Rules of Engagement
		Einstein Bobblehead
		Mod 1, Slide 12 - My Rules of Engagement
		Attack Bunny

Dates: 9/15-17  
Course: Intro to CMMI

**BEFORE CLASS CHECKLIST**

- Create Name Tents**
  - 1 Create a name tent file, using the Name Tent Template and the student names / organizations in the class roster.
  - 2 Double-check the spelling of all student names and organizations in the name tent file.
  - 3 Obtain instructor approval of the completed file, making corrections as needed.
  - 4 Print the name tents on the special name tent paper.
  - 5 Carefully remove and discard perforated portions of the printed name tents.
  - 6 Give the printed name tents to the instructor.
- Create Certificates**
  - 1 Create a certificate file, using the Certificate Template for the appropriate course and the student names / organizations in the class roster.
  - 2 Change the date on the Slide Master in the certificate file to be the last day of class.
  - 3 Double-check the spelling of all student names in the certificate file.
  - 4 Obtain instructor approval of the completed certificate file, making corrections as needed.
  - 5 Print the certificates on the special gold certificate paper, using the "Best" print quality.
  - 6 Give the printed certificates to the instructor.
- Pack Bags**
  - 1 Check with instructor regarding which student material variations to use for the class.
  - 2 Fill one Leading Edge bag for each student. Use brief bag for 3-day classes, backpacks for 1-day classes. Each bag receives:
    - o 1 bound student class notebook
    - o 1 reference book (e.g., the blue CMMI book)
    - o 1 Leading Edge pen
    - o 1 Leading Edge Post-It highlighter
    - o 1 "Ledge" (stress pal)
  - 3 Place packed bags in the staging area OR Load Vehicle (ask instructor).
- Load Vehicle**
  - 1 CMMIROX-mobile w/ packed bags.

- 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)

**SERVICE DELIVERY**  
GP 3.1 Establish a  
Defined Process

- ◎ 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



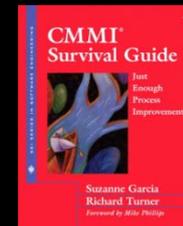
**Connor Smith**

*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 \$1190 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.

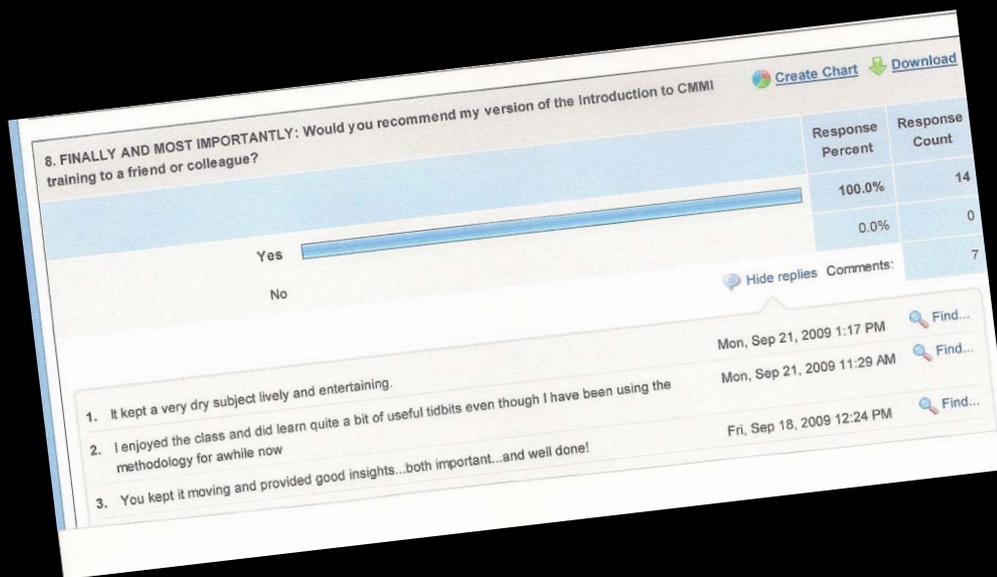
		Response Percent	Response Count
1. The "Einstein" concept is great, but I'd like to see you keep it ahead and try your changes.		85.7%	12
2. I appreciate you asking me Bill, but I really don't care.		14.3%	2
3. Actually, Bill, you should lose him entirely.		0.0%	0
		<b>answered question</b>	<b>14</b>
		<b>skipped question</b>	<b>0</b>



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

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 <b>sick</b> 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 <b>back-up</b> instructor.	A public training class is a \$30K+ revenue event – tons of money for a small company like ours. Refunding this money could be <b>crippling</b> – 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

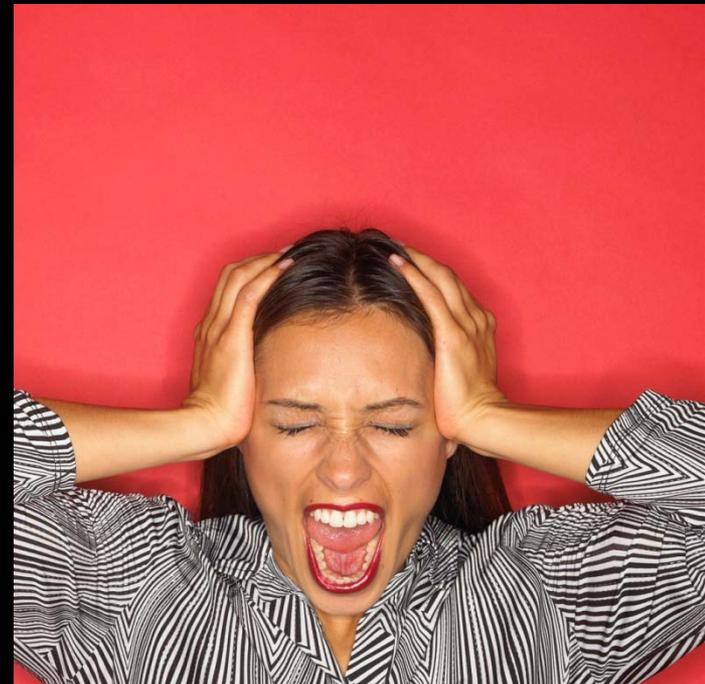
- ◎ We've begun applying the CMMI for Services to our **Marketing** and **Training Delivery** processes.
- ◎ Our process improvement initiative is solely about **business value**. We have no current plans to attain a Maturity Level rating.
- ◎ We've achieved a **significant net income gain** in the past 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.

# Recommendations

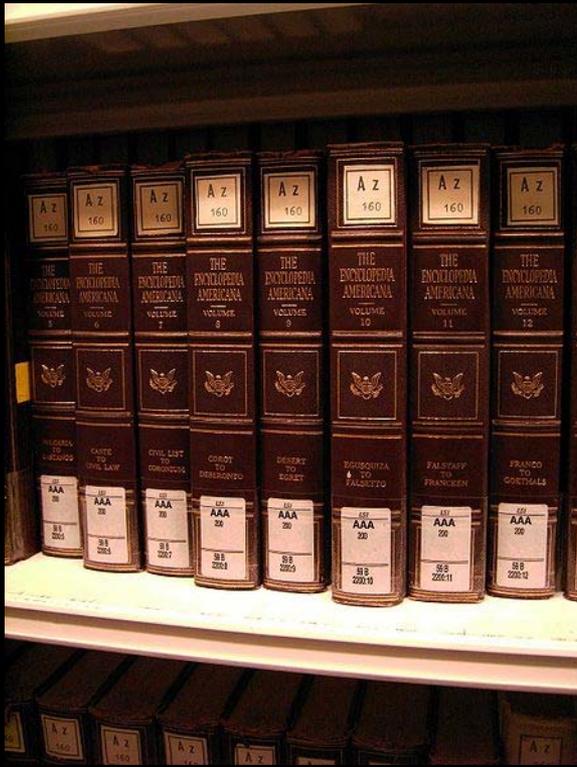
for the Ultra Small Organization (1)

## 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

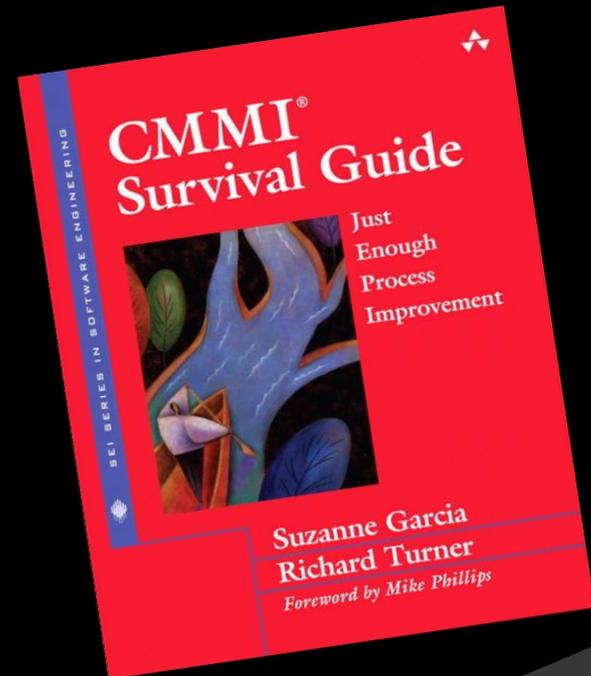
It's chock full of good ideas. Probably *too* many for you. Some of them will *quickly* benefit your organization. The others? Ignore them for now.

# 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

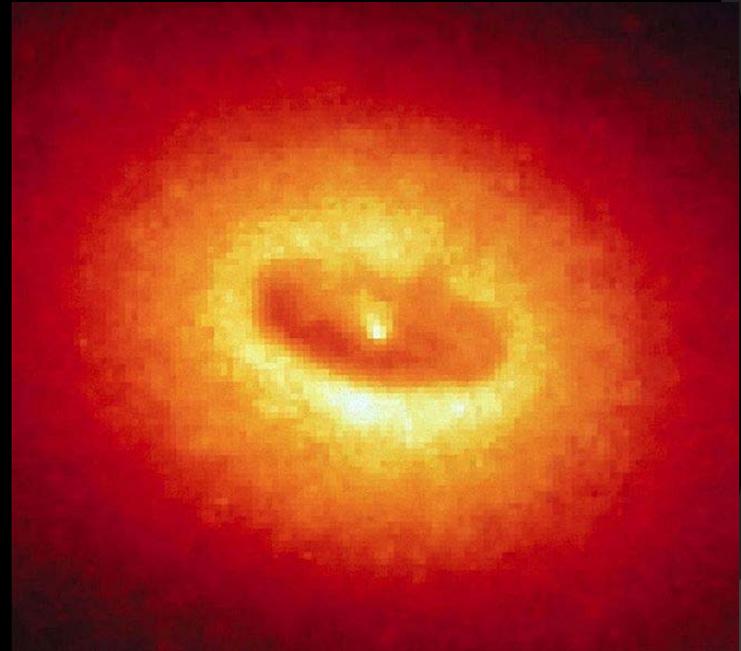
It’s nice to be compliant but it’s way nicer to make money. Focus on using pieces of the CMMI to achieve your business goals. Measure your success with dollars, not a Maturity Level.

# 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.

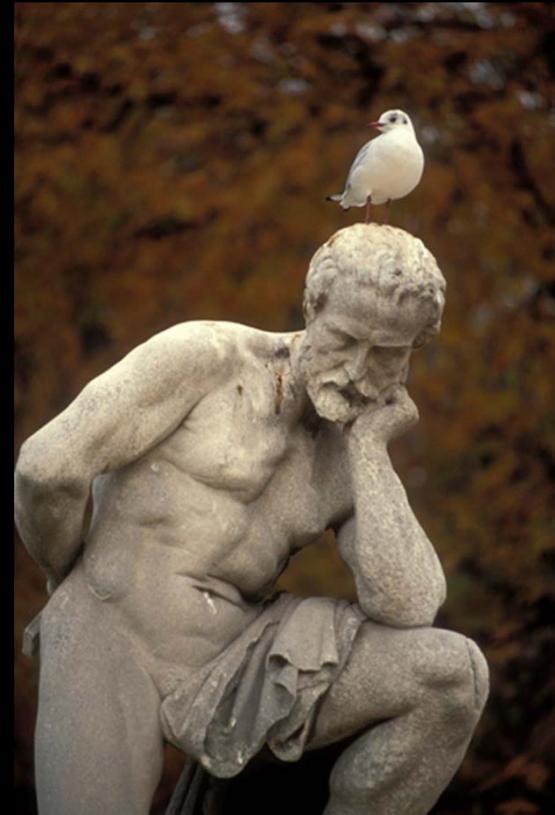
# Recommendations

## 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.*



# 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

# Any Questions?



**Website:** [www.CmmiTraining.com](http://www.CmmiTraining.com)  
**Blog:** [www.CmmiForServicesDiary.com](http://www.CmmiForServicesDiary.com)  
**Twitter:** CmmiRox  
**LinkedIn:** [www.linkedin.com/in/billsmithleadingedge](http://www.linkedin.com/in/billsmithleadingedge)



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

## **SEI Introduction to CMMI**

- Dec 8-10, 2009
- Mar 9-11, 2010
- Apr 13-15, 2010

## **SEI Services Supplement for CMMI (CMMI-SVC)**

- Mar 12, 2010

## **Private Classes?**

- [Bill@CmmiTraining.com](mailto:Bill@CmmiTraining.com)