Why Project Managers (Understandably) Hate the CMMI*

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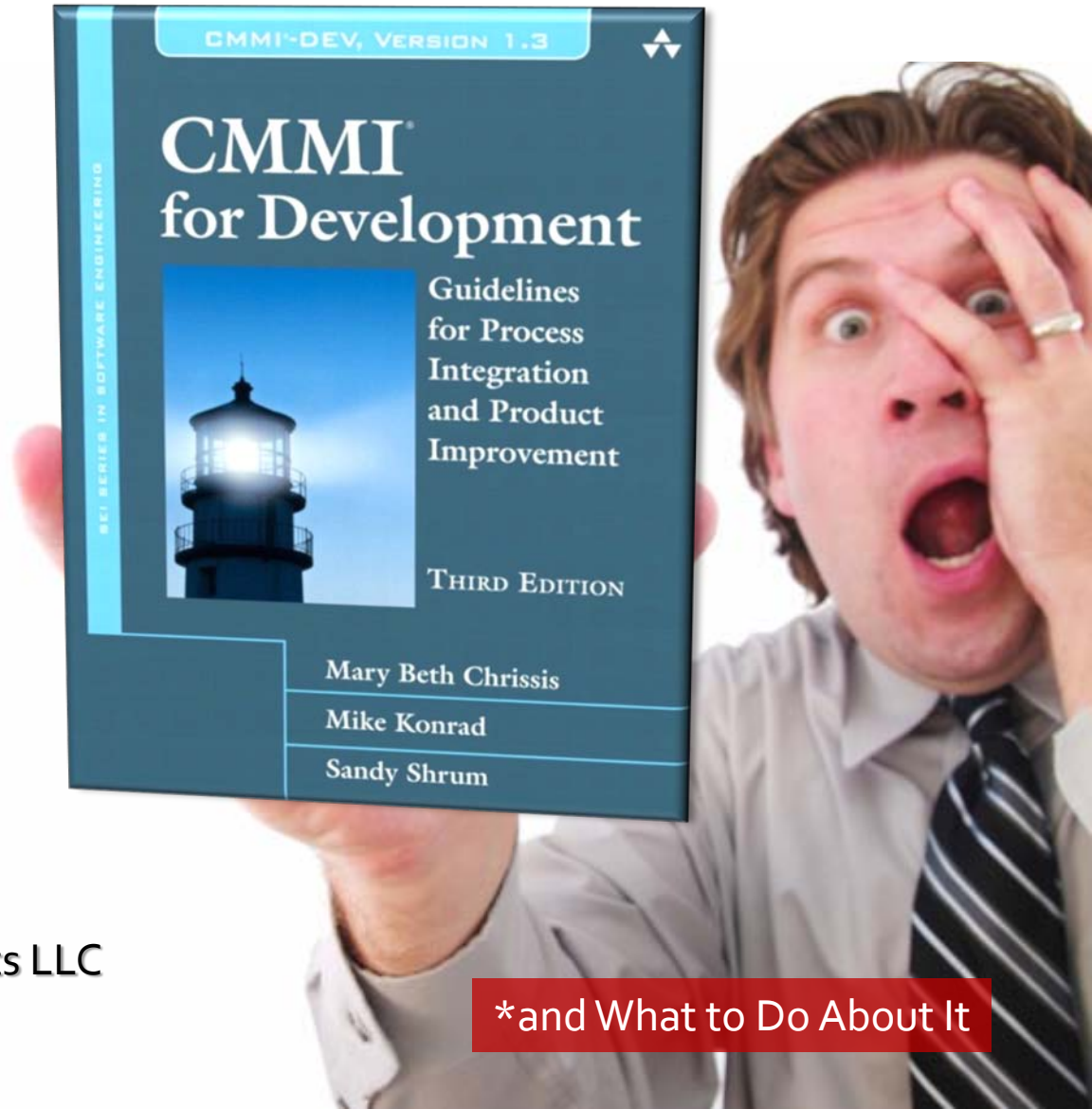

*and What to Do About It

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Let’s roll!

Ground rules

2:15 - 3:00

at the end *

set to **stun**

* better yet: **Garrity's** at 5:30

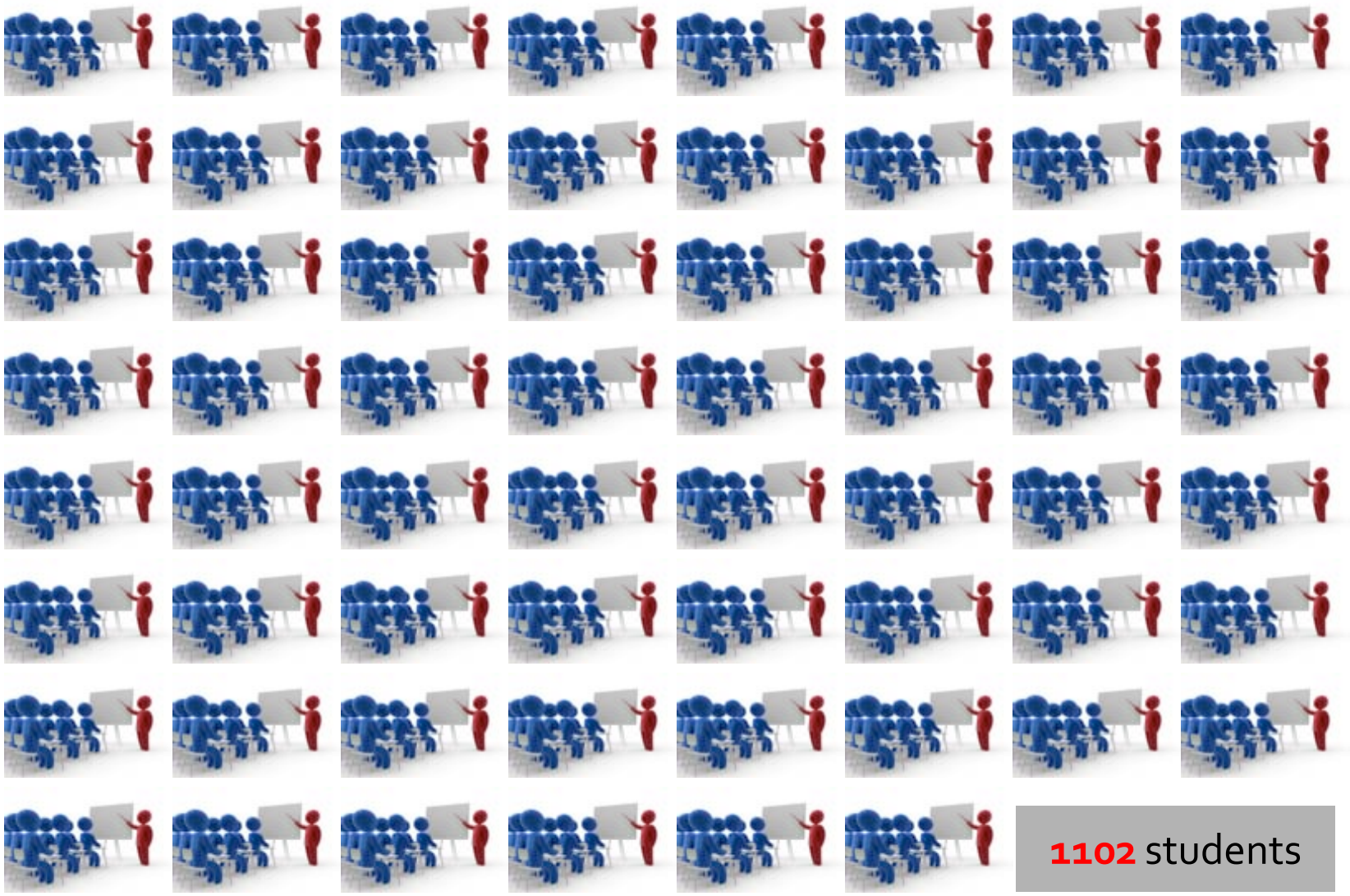
and **yes**
I have...

ing.com

So who am I?

I’m familiar with the **CMMI®** …

62 Intro to CMMI® classes taught



1102 students

but more
importantly I've…

Been there, done that

process analyst

project manager

Today's **story**
is all about…

Changing this…

+

=

...into this

+

=

win

Meet Pam

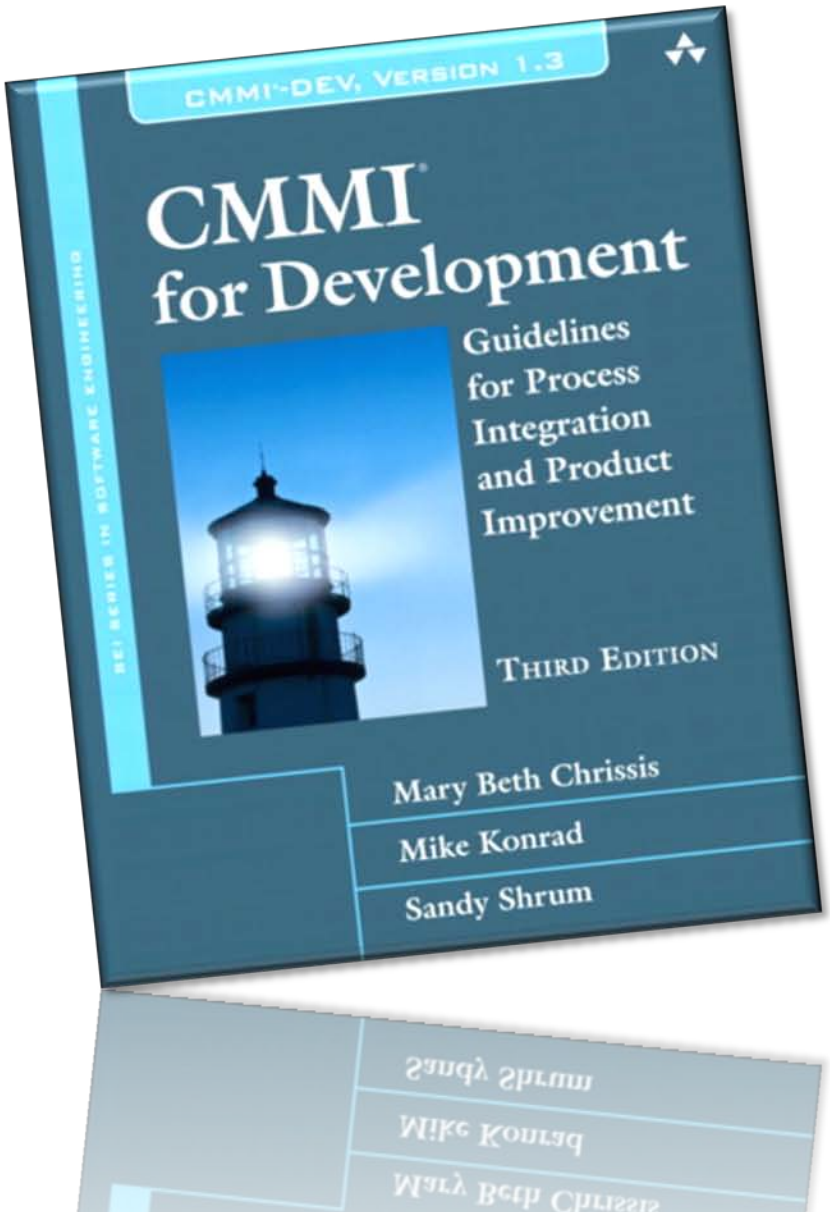
Pam leads a small **team** of…

She **works** near…

and **kicks butt** at…

Management
managers
resources
objectives
planning
people
comprises
enterprise
corporations
human
person
organization
organizing
business
Directors
directing
controlling
policy
act
one
implemented
chief
goals
innovation
Resourcing
facilitating
often
leading
effort
large
activity
getting
discipline
money
achieve
firm's
materials
together
purpose
twofold
policy's
size
natural
defined
staffing
encompasses
range
responsibility
production
perform
formulates
accomplishing
interlocking
entities
board
accomplish
According
achievement
thousands
policies
small
officer
firms
functions
activities
goal
certain
marketing
manage
basic
hundreds
financial
make
clearly
refer
definitions
guru
group
also
manipulation
along
simply
power
included
corporate
machines
desired
manipulating
formulating
coordination
executive
multinational
technological
deployment
accordance
task
factor
companies
decisions
firm

but is **clueless**
about…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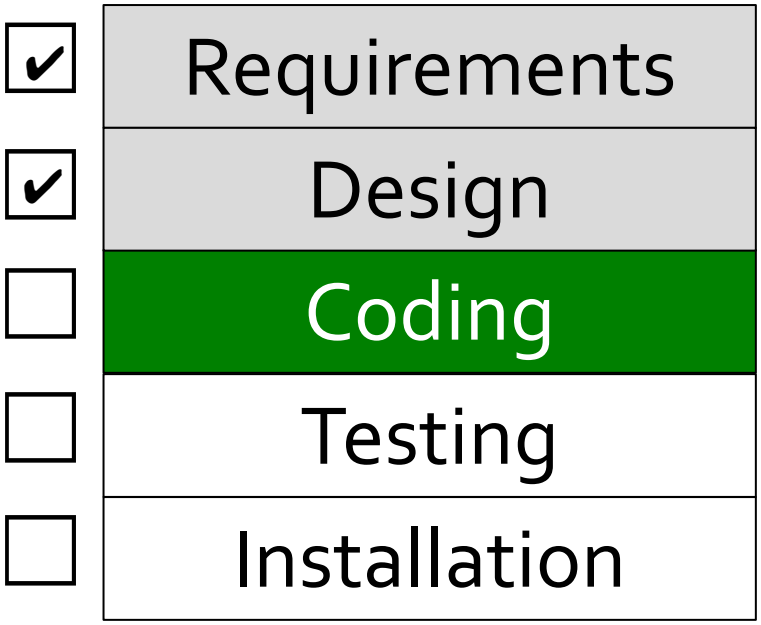
CMMI®
for Development
Guidelines
for Process
Integration
and Product
Improvement
THIRD EDITION
Mary Beth Chrissis
Mike Konrad
Sandy Shrum

except she's
heard it **creates**…

Pam's team has started coding



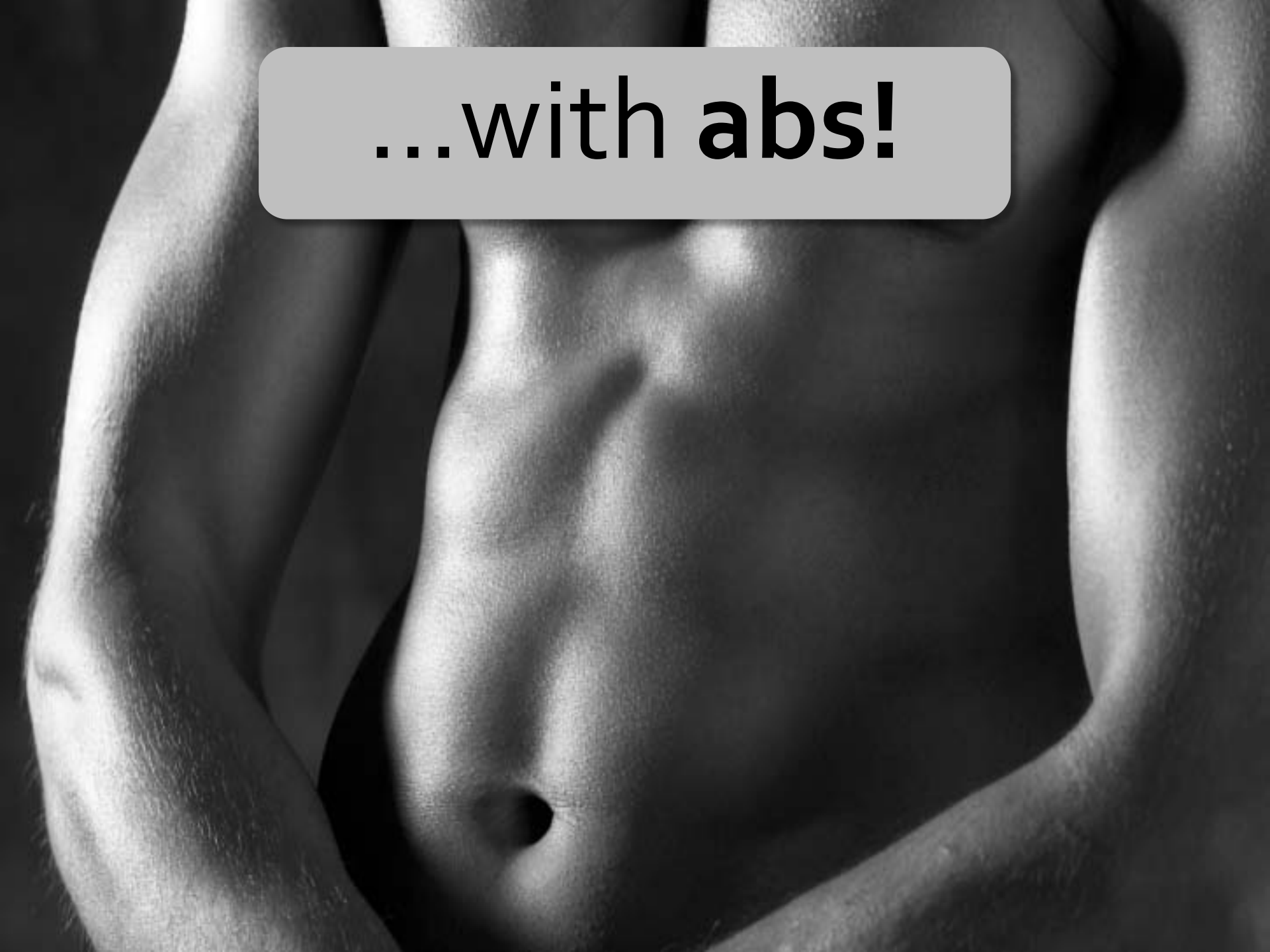
Her project is rockin'!

on schedule!

on budget!

happy customer!

She even has a new **boyfriend**…


…with **abs!**

Life is good
for Pam!

One day Pam gets an **e-mail**…

Uh-oh

Use our new *CMMI processes**

Blah blah blah **all projects must use our new CMMI processes** blah blah blah. Blah blah blah immediately blah blah blah. Blah blah blah under penalty of death blah blah blah.

Blah blah blah congratulate blah blah blah process group blah blah blah sweated blood blah blah blah.

Signed,

Blah

Mr. Blah Blah
VP of Blah Blah

*Of course we know there's no such thing

Deployment

=

Do this **(now)**

because

we said so!

Whatever.

I'll look at that stuff **when I have time**.

Pam's

CMMI®
Rock-O-Meter

Then one day
Pam has a…

...brainstorm!

Maybe

(just maybe)

this "CMMI® stuff"

can be **useful!**

Pam wants a…

She consults the PAL*

*process asset library

…and finds templates for systems like

this

…but her system is more like **this**

She's forced to develop a plan

on her own

Crap! I thought the CMMI® was supposed to **help** with stuff like this!

Pam's

CMMI®
Rock-O-Meter

3

QA pays
a visit...

Pam's project is audited

Y	N	
☐	☑	Blah blah blah **data management plan**.
☐	☑	Blah blah blah **stakeholder involvement plan**.
☐	☑	Blah blah blah blah blah blah.

FAIL

She talks with QA

But the project is **half over!**

You must **follow the process**.

I have **no time** for this!

You must **follow the process**.

It **doesn't help** my project!

You must **follow the process**.

The

rules were changed

on Pam

mid-stream!

She works
day…

...and night

Addressing "non-compliances"

instead of

-

But most “fixes” have no business value

So the CMMI® really is just about **paperwork**…

…and now I'm **behind schedule**!

Pam's

CMMI®
Rock-O-Meter

Pam discovers **appraisals**…

We need you to populate an **evidence matrix** for our…

SCAMPI*

*Standard CMMI® Appraisal Method for Process Improvement

Hey, we have a **template**! It even lists example **artifacts**!

Our VP says
you have to.

The project's new part-time job,

"populate evidence matrix"…

...takes **forever**

Evidence matrix review loop

Pam's team

good enough?

try again!

EPG*

*engineering process group

The project is now so

distracted

by CMMI®

"compliance"

that…

…it’s hopelessly **behind schedule**

…the team is **burned out**
OUT
IN

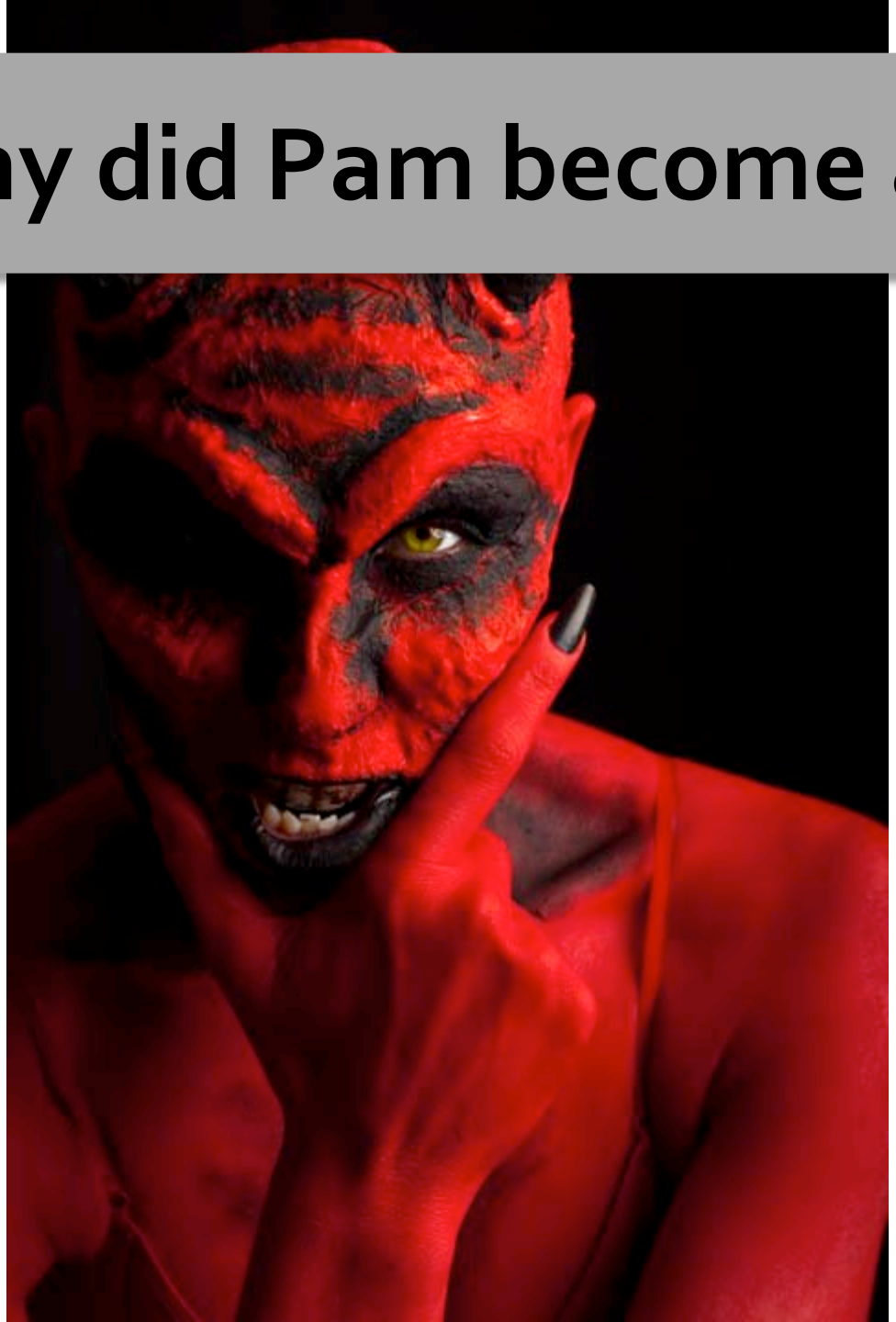
…the customer's **not smiling** anymore

…and Pam’s boyfriend **dumps** her!

Meet the
new Pam…

Pam's CMMI® Rock-O-Meter

Why did Pam become a…

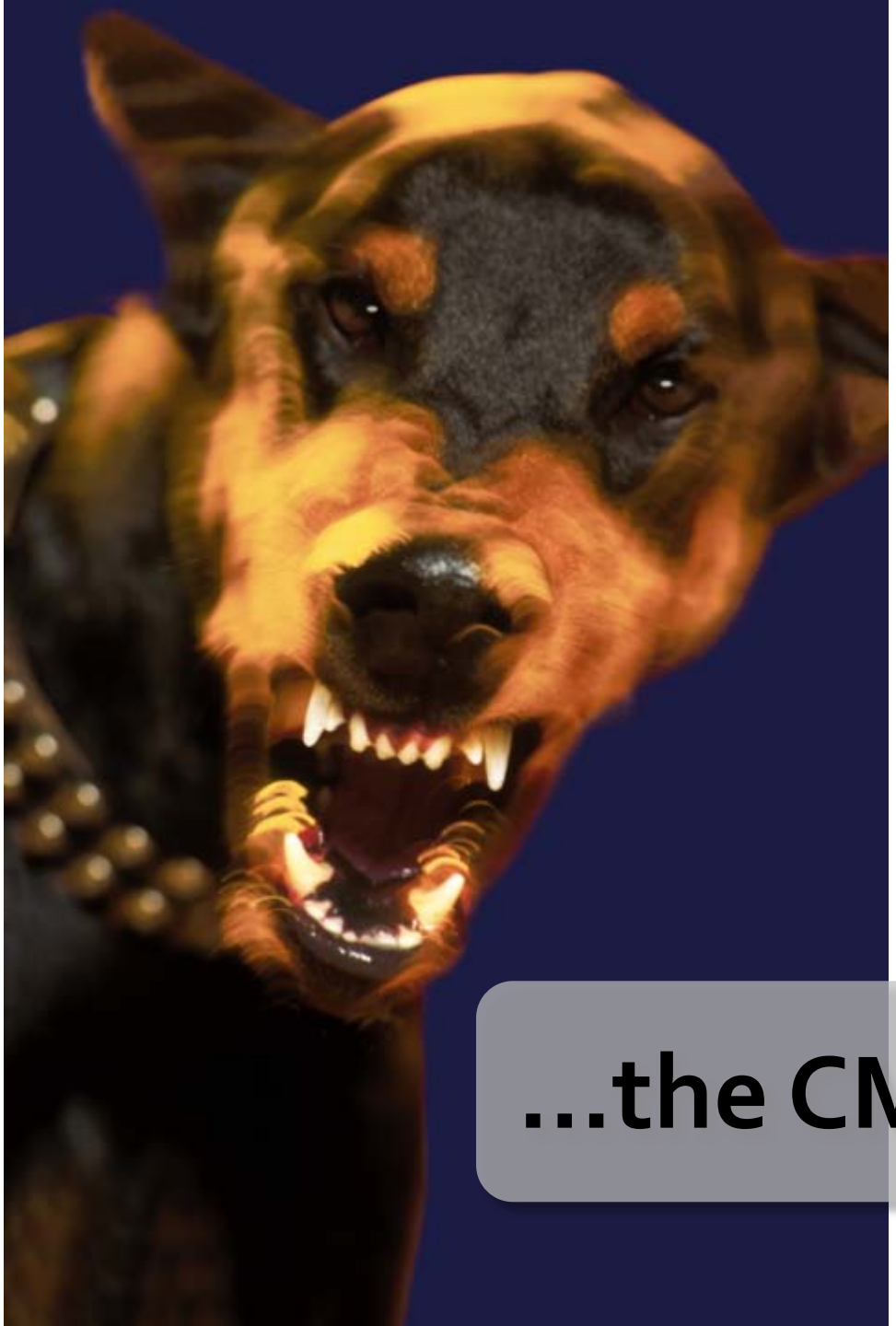


?

Why do project managers…

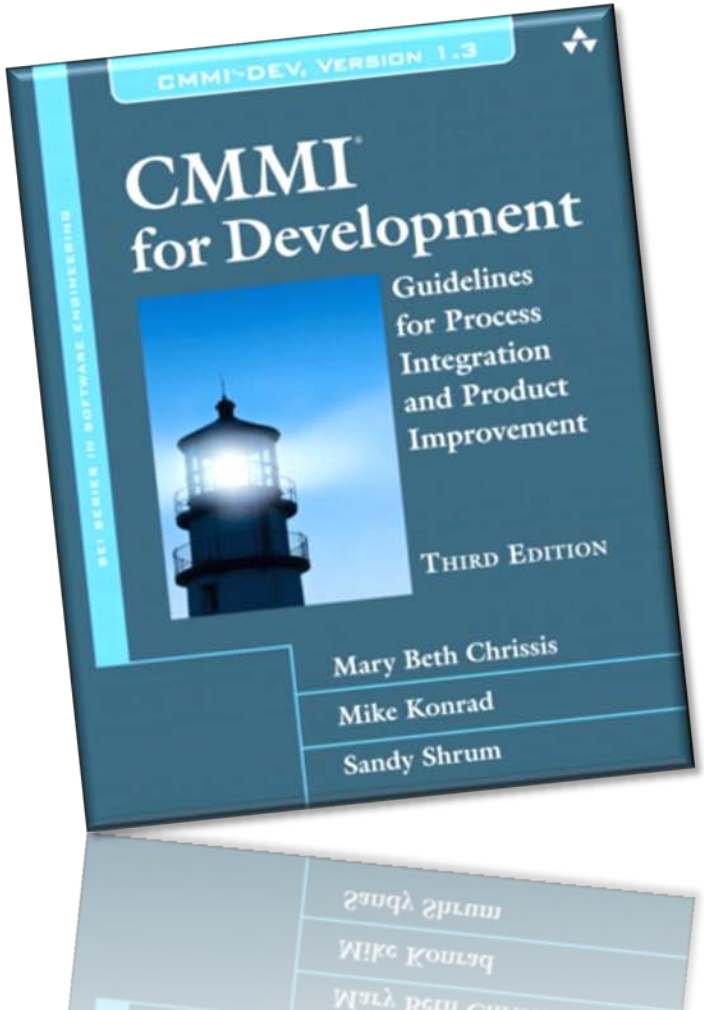
often...

hate...



…the CMMI®?

Not because of…



But because of problems with…

1. Process development
2. …and finds templates for systems like **this**

…but her system is more like this

3. She's forced to develop one **on her own**

But because of problems with…

1. Process development
2. Process deployment
3.

But because of problems with…

The project's new part-time job,

"populate evidence matrix"…

1. Process development
2. Process deployment
3. Appraisals

But because of problems with…

1. Process development
2. Process deployment
3. Appraisals

We could go **on and on**
and on
and on
and on

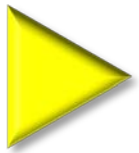
about each of these…

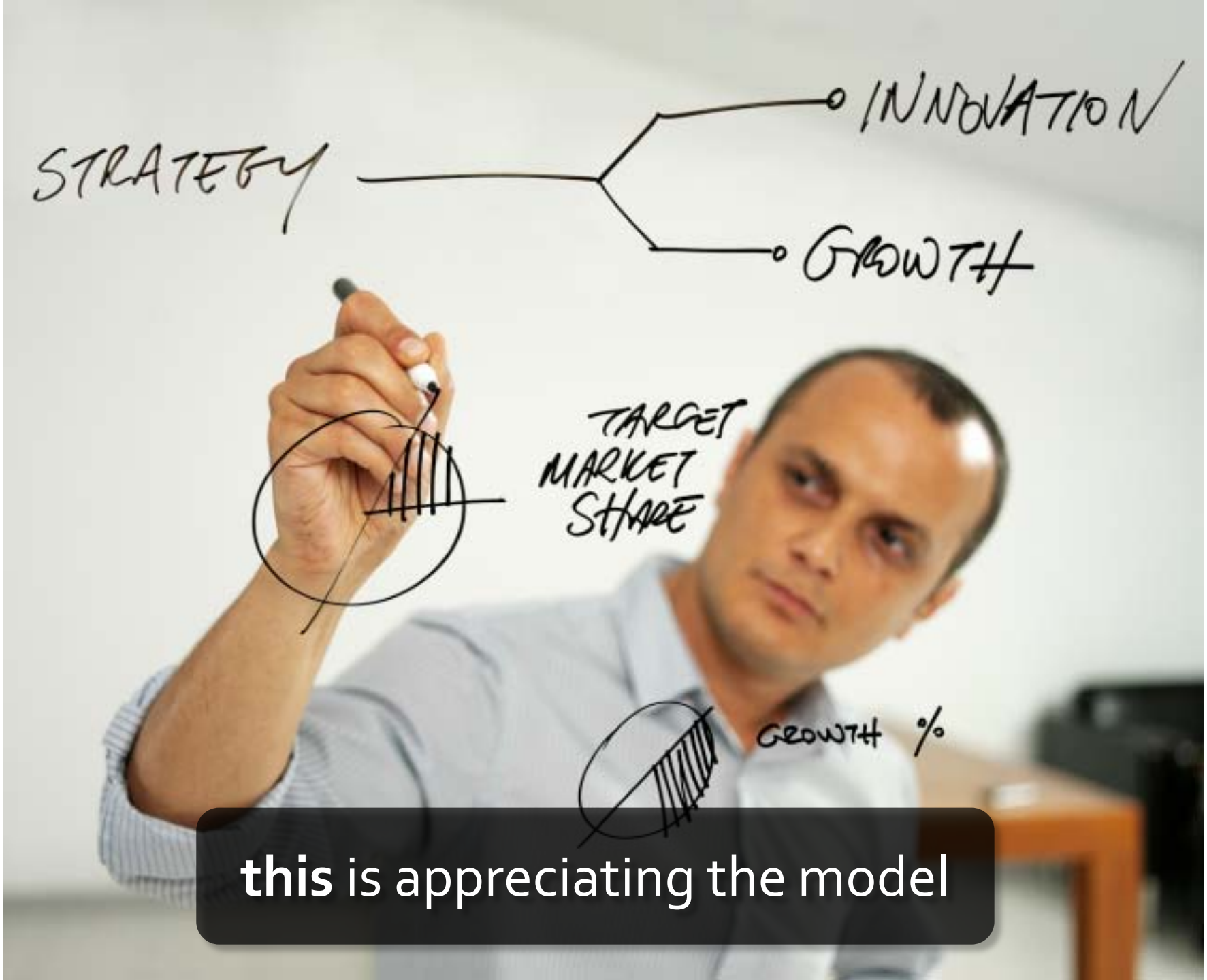
Instead let's focus on a few process improvement **best practices…**

…that a **project manager** might value

Process development

Ensure that your process developers **appreciate** the model





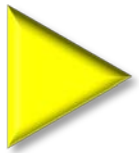
this is appreciating the model

this is appreciating the model

this is appreciating the model

this is **not**

Involve people
that do
“real” work



like **her**...

and **him**...

…but maybe **not him**

Use
project planning
to plan your
PI* project

*process improvement

Open the book

Specific Goal and Practice Summary

SG 1 Establish Estimates
- SP 1.1 Estimate the Scope of the Project
- SP 1.2 Establish Estimates of Work Product and Task Attributes
- SP 1.3 Define Project Lifecycle Phases
- SP 1.4 Estimate Effort and Cost

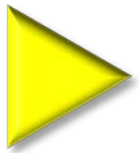
SG 2 Develop a Project Plan
- SP 2.1 Establish the Budget and Schedule
- SP 2.2 Identify Project Risks
- SP 2.3 Plan Data Management
- SP 2.4 Plan the Project's Resources
- SP 2.5 Plan Needed Knowledge and Skills
- SP 2.6 Plan Stakeholder Involvement
- SP 2.7 Establish the Project Plan

SG 3 Obtain Commitment to the Plan
- SP 3.1 Review Plans That Affect the Project
- SP 3.2 Reconcile Work and Resource Levels
- SP 3.3 Obtain Plan Commitment

ices by Goal

Don’t estimate by pulling numbers out of…
…the air!

Develop **useful** tailoring guidance

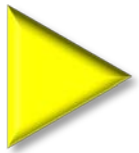


This seems **heavyweight** for my little project.
I'll create a plan from scratch.*
Project Plan Template
*and spend my time **figuring out how** to manage my project instead of **actually managing** it!

Perfect!
Large
Project
Plan
Template
> $100K
Small
Project
Plan
Template
< $100K

Process deployment

Don’t just
announce
the existence
of a **book**



Unless **this** is the reaction you want

Whatever.

I'll look at that stuff **when I have time**.

…is **not** a **deployment plan**

Try these things instead

Communicate

Train

Ensure Access

Learn

Schedule

Monitor

Guide

Pilot

Top 3 success factors
in an improvement initiative

1

senior leadership support

2

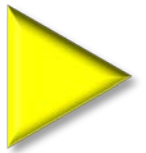
communication

3

training
(of those impacted by the initiative)

Source: *The CMMI Success Factor Survey,* ACME Process Group, 2010

Caring
is better than
enforcing



This is not caring

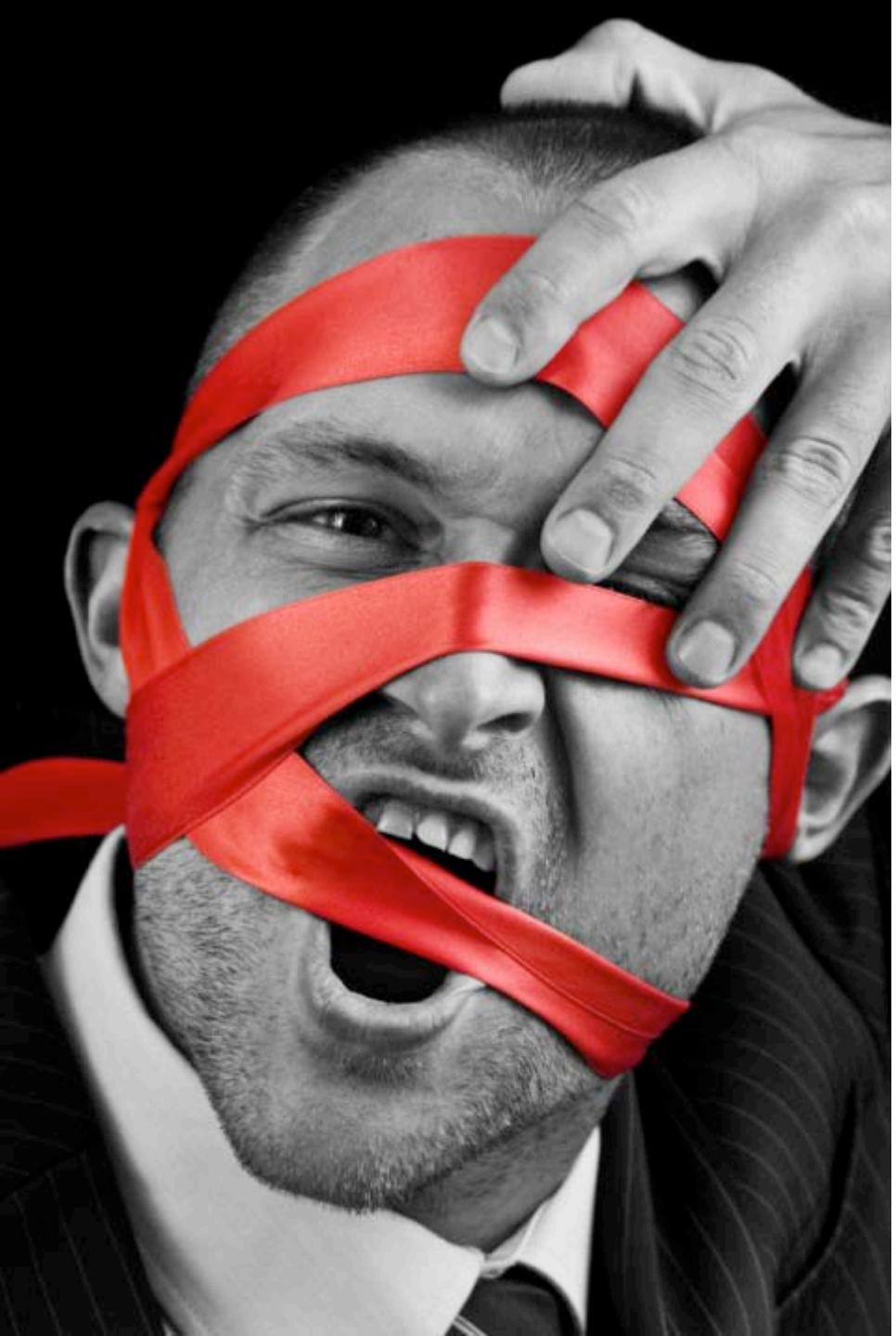
But the project is **half over!**

You must follow the process.

This is caring

But the project is **half over!**

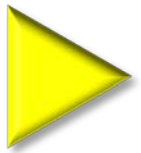
Okay, good point. Let's think about what would make sense here.



"Complying for compliance's sake **ravages** the operation and firmly entrenches **self-defeating** cycles of continued **mediocrity**."

Hillel Glazer,
High Performance Operations

Don't
change the rules
on a project that's
already been
planned



…unless you're willing to toss

OR

OR

cost schedule quality

out the…

why?

A process change = a plan change

organizational standard process

1 A change **here**…

2 …applied to the **project**

3 …will impact the **project plan**

4 …which includes:

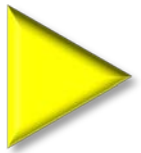
- budget
- schedule
- resources
- etc.

revised Project Plan

project's defined process

Appraisals

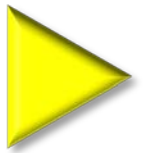
Hire an appraiser with a **business value** mindset



Again...

maybe **not him**

Don’t
under-estimate
the cost of
evidence collection



Average **total*** effort

2500-3000 hours

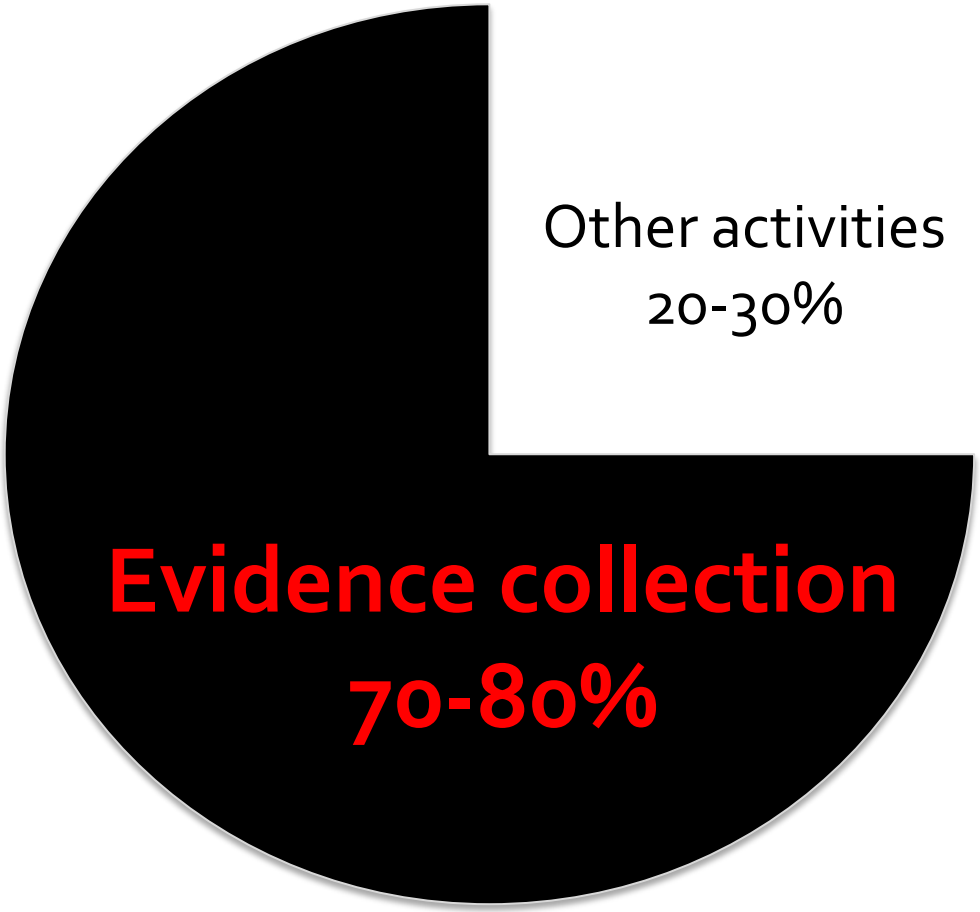
for **small**** ML 3 appraisals

*all appraisal activities, including but not limited to evidence collection

**2 projects, 6 team members + Lead, first appraisal at ML 3, CMMI SE/SW v1.1

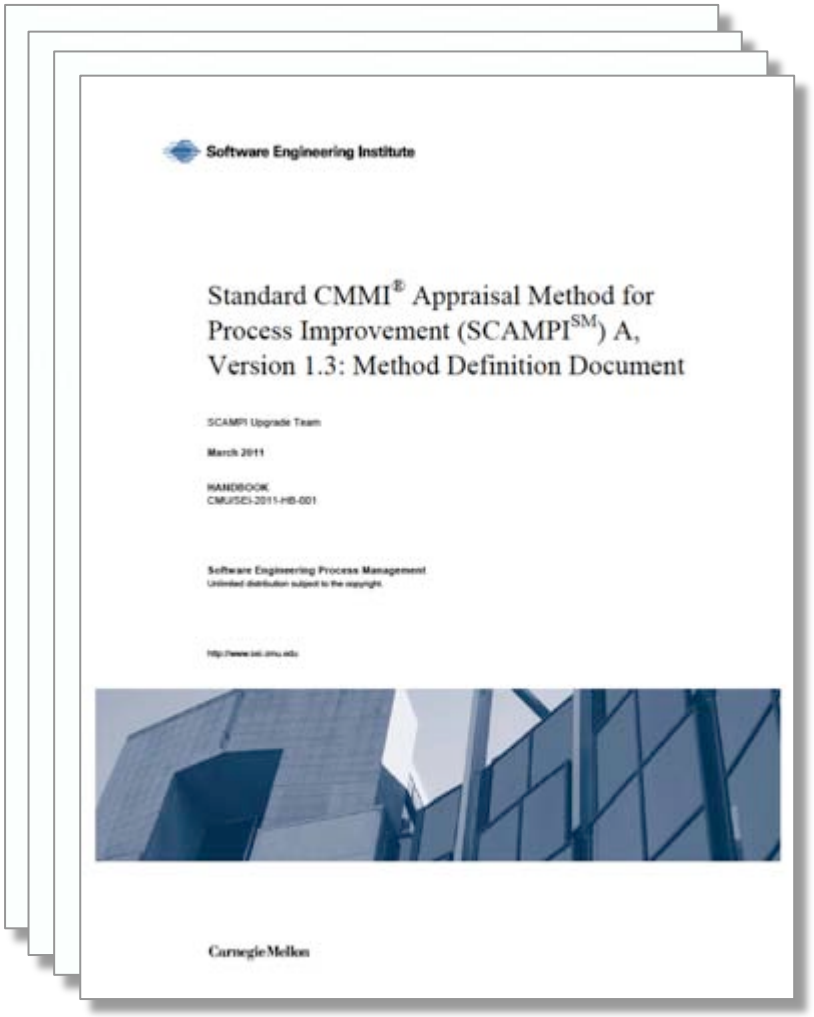
Source: *Value-Based CMMI Appraisal Techniques,* Systems and Software Consortium Inc., 2006

Total appraisal effort



Source: *Value-Based CMMI Appraisal Techniques*, Systems and Software Consortium, 2006

SCAMPI v1.3 may help with this a bit…



But you still need to clearly identify…

1 Process development

Ensure that your process developers **appreciate** the model

Involve people that do **"real" work**

Use **project planning** to plan your PI project

Develop **useful** tailoring guidance

2 Process deployment

Don't just announce the existence of a **book**

Caring is better than **enforcing**

Don't **change the rules** on a project that's already been **planned**

3 Appraisals

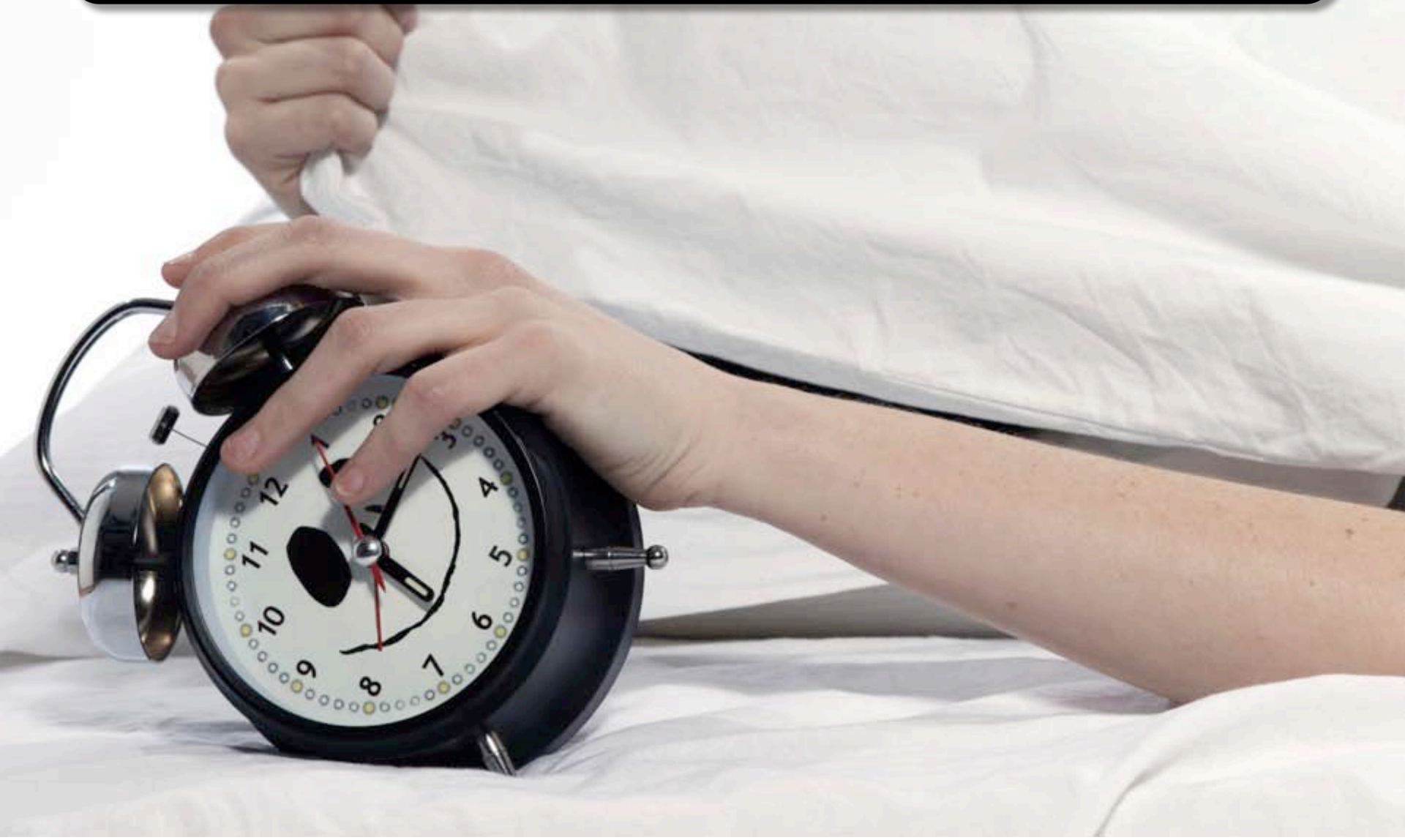
Hire an appraiser with a **business value** mindset

Don't under-estimate the cost of **evidence collection**

Super.

But whatever happened to Pam?

She wakes up one morning and…



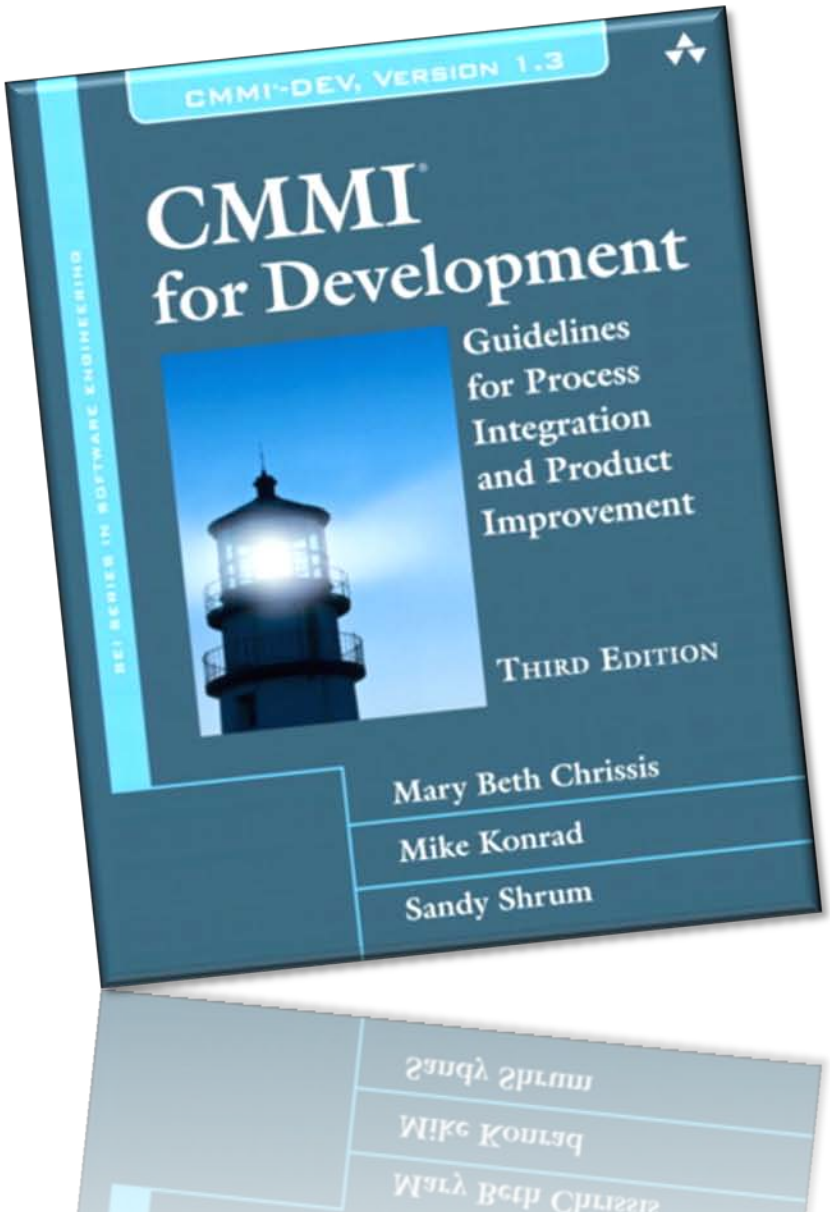
realizes her CMMI® experience was all…

Just a bad dream!!

so she grabs some...

and heads
off to…

where...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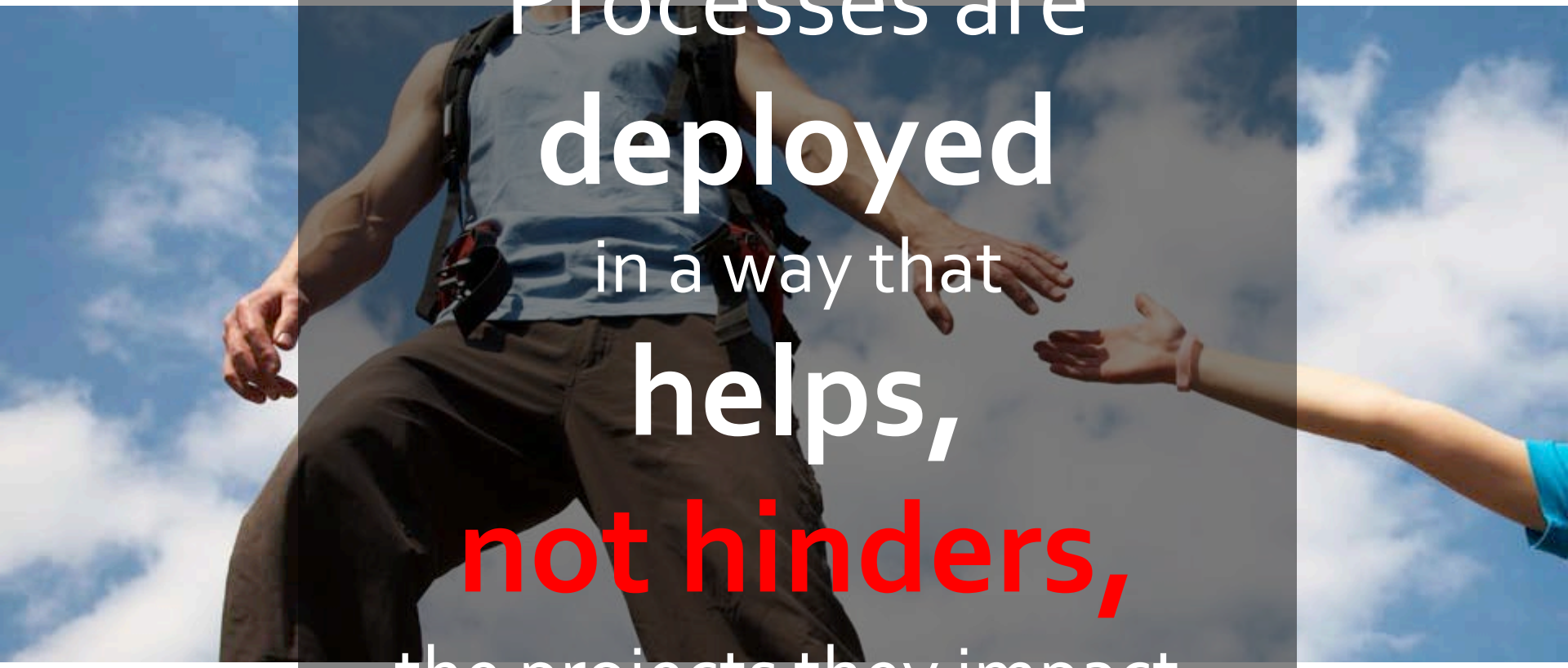
is used, but…

1

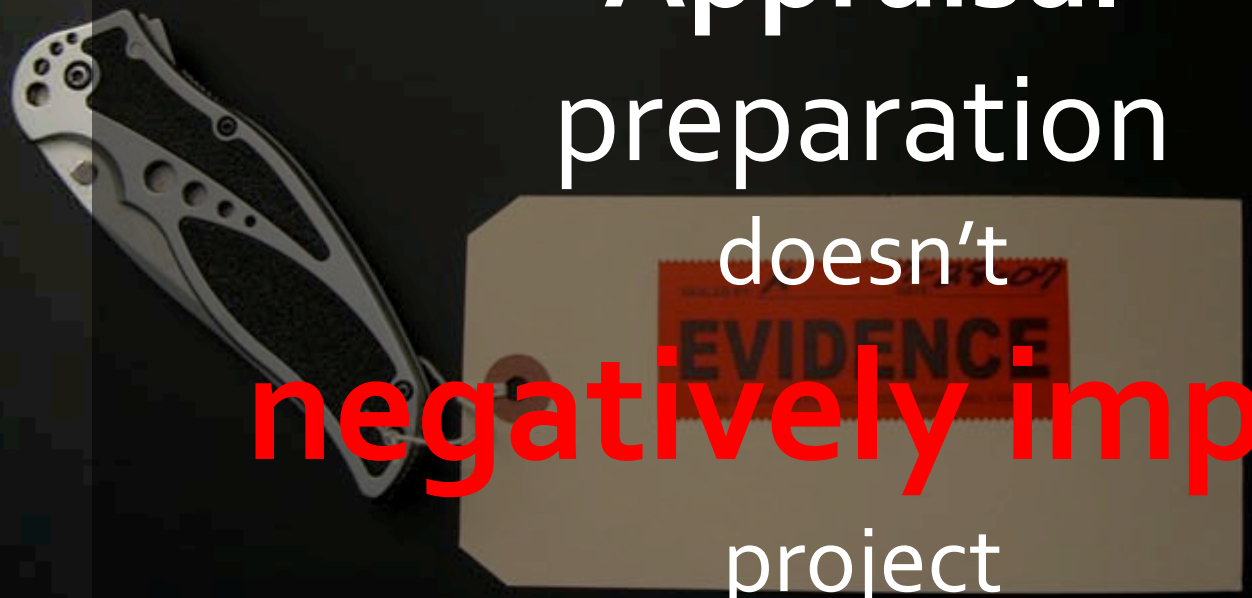
Compliance
doesn't
get in the way
of developing processes that
improve
operations.

2



Processes are
deployed
in a way that
helps,
not hinders,
the projects they impact.

3



Appraisal
preparation
doesn't
negatively impact
project
progress.

and much to
Pam's delight…

Her boyfriend still has abs!

Pam's
happy!

and all I ask
of you is to…

STOP

Please stop the

mindless bureaucracy

and instead use the CMMI® to

legitimately improve

your operations.

References

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- Chrissis, Mary Beth, Mike Konrad, and Sandy Shrum. ***CMMI for Development: Guidelines for Process Integration and Product Improvement.*** 3rd ed. Boston: Addison Wesley, 2011.
- Glazer, Hillel. ***High Performance Operations: Leverage Compliance to Lower Costs, Increase Profits, and Gain Competitive Advantage***. 1st ed. Upper Saddle River NJ: FT Press, 2012:31.
- ***Standard CMMI Appraisal Method for Process Improvement (SCAMPI) A, Version 1.3: Method Description Document***. Pittsburgh: Software Engineering Institute, March 2011.

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