

Work ON Your Engineering  
Business, Not IN It!

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Conference

**cognence**inc  
Improving Software Economics

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# How Is Your Company Run?

- Day-to-Day?
- Quarter-to-Quarter?
- Year-to-Year?
- Multi-Year?

What activities does management engage in that overlay the activities overwhelming employees on a day-to-day basis? *Or, is management consumed by the day-to-day as well?*

What insight does management have into the *business model* that's being employed, and how to improve and refine it?

# What Is Your Competitive Advantage?

- Technology?
- People?
- Quality?
- Cost?

HOW you develop your products can strongly determine WHAT competitive advantages you are able to obtain and maintain

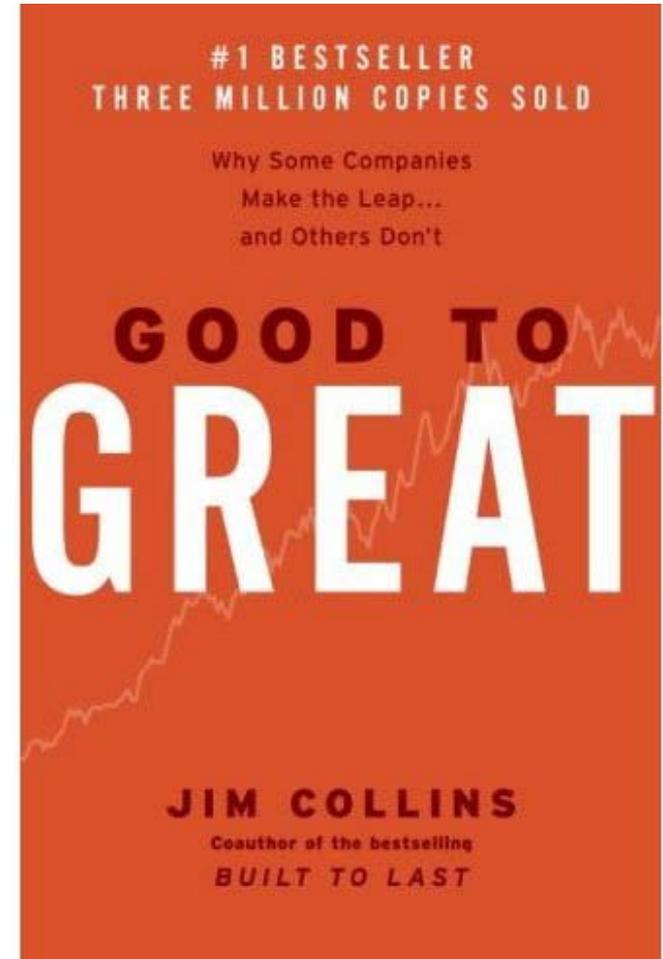
# Successful Businesses...

- Run operations as if they were a franchise
  - Every business process is standardized
  - Average employees can easily be successful by following the processes as outlined
  - Well executed processes are scaled and leveraged across the organization
- For software organizations, “franchising” processes can result in a 50% or more increase in productivity



# Jim Collins' *Good to Great*

- Good-to-great companies focus equally on what to do, what not to do, and what to stop doing
- Technology-driven change had virtually nothing to do with igniting a transformation. Technology can help accelerate, but doesn't cause change. Technology influences typically come last, not first.



## Key Concept From *Good to Great*

“Good-to-great companies built a *consistent system* with clear constraints, but they also gave people the freedom and responsibility within the framework of that system. They hired self-disciplined people who didn’t need to be managed, and then *managed the system*, not the people.”

# Other *Good to Great* Thoughts

- "What are the brutal facts? We've got to get a grip on the facts, what are the trends, what are the trendlines, how bad is it? Get a grip on the facts."
- "How does a culture of mediocrity take hold? The signature of mediocrity is chronic inconsistency"
- "What you can measure you can target. And what you can target you can accomplish."
- "Don't look for silver bullets. Pick a lead bullet and polish it so it becomes silver"

# Key Franchising Concepts

- Great businesses are not built by extraordinary people, but by ordinary people doing extraordinary things
- To achieve this, a system is absolutely essential – it becomes the tools people use to increase productivity, to get the job done in a way that differentiates
- A franchise is simply *your unique way of doing business – your system*
- If you haven't orchestrated your business, you don't own it!

Source: *The e-Myth Revisited*, Michael E. Gerber, HarperCollins Publishers, 1995

# Management's Role

- It's management's job to develop systems and tools and teach people how to use them
- Its the people's job to use the systems and tools and to recommend improvements based on their experience with them
- Management makes sure employees understand the idea behind the work they are being asked to do
- Avoid "Management by Abdication"!

Source: *The e-Myth Revisited*, Michael E. Gerber, HarperCollins Publishers, 1995

# The Capability Maturity Model Integration

- The CMMI is a framework that describes the key elements of an effective systems and software process, and provides for an evolutionary improvement path from an ad hoc, immature process to a mature, disciplined one.
- The CMMI guides engineering organizations that want to gain control of their processes for developing and maintaining systems and software and to evolve toward a culture of software engineering and management excellence.
- The intent of the CMMI is to install a process infrastructure that supports standardization, scalability, continuous re-evaluation, and improvement – *in other words, an engineering system*

# How CMMI Supports Working ON Your Business

- Policies, and all the other generic practices
- Maturity Level 2
  - MA, PPQA
- Maturity Level 3
  - DAR, OPD, OPF, OT
- Maturity Level 4
  - OPP, QPM
- Maturity Level 5
  - OID, CAR

# Examples of Working IN versus ON Your Business - 1

## IN

Reacting to project problems after they occur

Becoming good at responding to customer complaints, instead of eliminating them

## ON

Instituting a cross-project measurement and periodic review program that illuminates and addresses potential issues before they occur

Reviewing how projects are accomplishing their work, and that they are following the organization's expectations

# Examples of Working IN versus ON Your Business - 2

## IN

Letting teams approach projects however they'd like, and bringing in whatever tools they want

## ON

Instituting a *consistent engineering process*, and constantly measuring and refining it based on facts

*Quantitatively evaluating and implementing* new technologies/tools in a disciplined fashion

# Examples of Working IN versus ON Your Business - 3

## IN

Allowing key project decisions to be made by the political/influential power of certain project team members

## ON

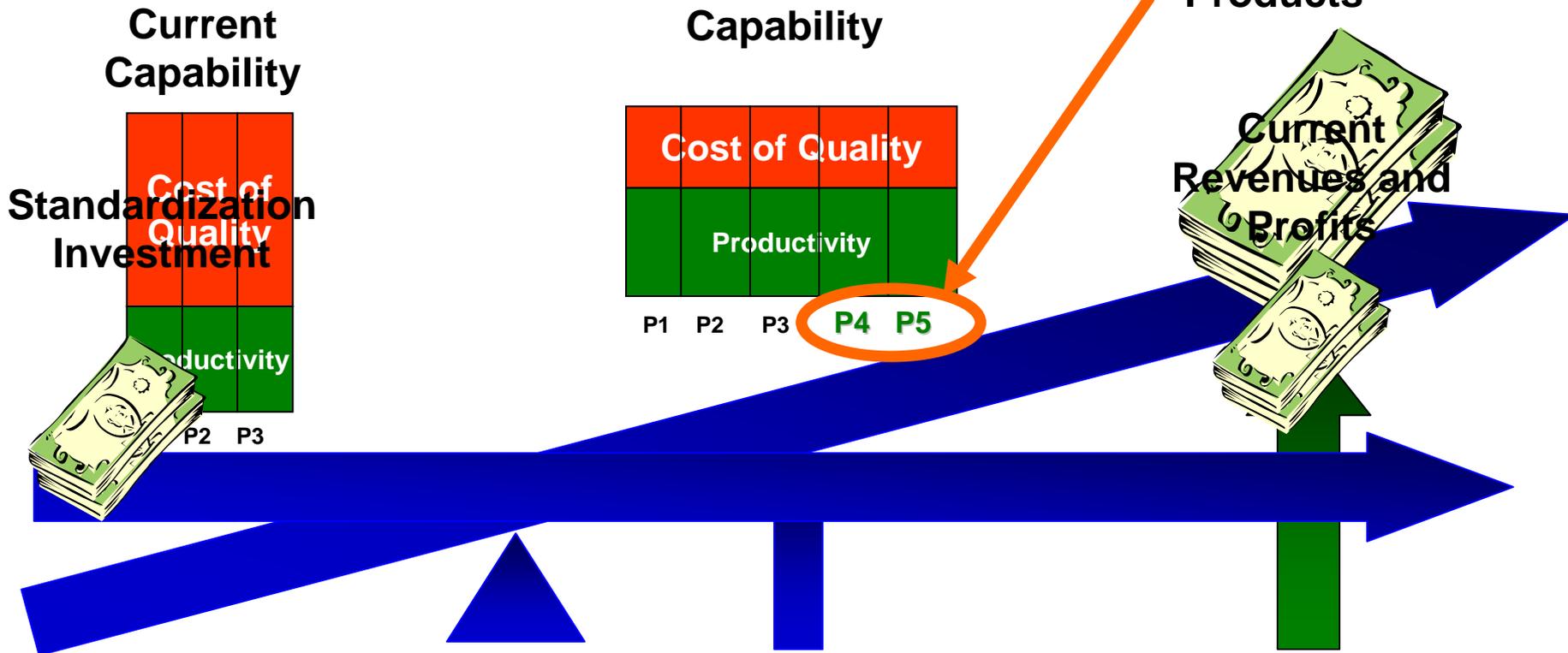
Requiring DAR to be used in a light-weight, but quantitative fashion to remove individual and political influence out of the process



# Leverage

Standardization has a leverage effect beyond just quality and productivity increases

Higher Revenue and Profits through More Marketable Products



# Thank You!

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