Acquiring Process Expertise and Tools:

A Fact-Based Methodology

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What you should get out of this presentation

This presentation gives you information on these topics:

1. Why this information is important to you
2. Some really bad criteria for acquiring process expertise and tools
3. Using IDEAL as a framework for process consulting acquisition decisions
4. The maturing client-consultant relationship
5. Criteria you can use to make decisions about acquiring process expertise or process tools
6. A process vendor rating checklist
7. Where to go for more information

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Why this information is important

The software and systems process improvement industry is growing:

- 2,000+ CMMI process consultants or tool vendors
- 6+ after-market CMMI implementation books
- Investment in process improvement ranges from $5,000 to $10,000 per employee per year
- Major outsourcing firms market process capability and maturity levels in $multi-million contracts
- DoD agencies spend $120B to $160B in acquisition for systems and system engineering

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Assertion: Process improvement cannot be outsourced

Process improvement can't be outsourced because:

- The organizational unit (OU) is appraised, not the consultants; by definition of "institutionalization," the OU must own the change
- Having tools that create all the necessary artifacts and process assets doesn't prove people are actually doing the work

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5 bad reasons to outsource process improvement

1. Cool booth at SEPG conference

2. Guaranteed we'd be certified at maturity level N

3. They're good golf partners

4. They're cheap

5. They used to work at the SEI

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Why acquire process expertise or tools?

There are two primary factors in deciding whether to acquire outside process expertise or tools:

- Your organization does not possess skills that it needs to accomplish its goals, and or
- Acquiring outside expertise or tools is more cost-effective than establishing them internally

But, before you can make the above decisions, you first have to know:

- The organization's business and process improvement goals
- What skills and tools your organization currently possesses

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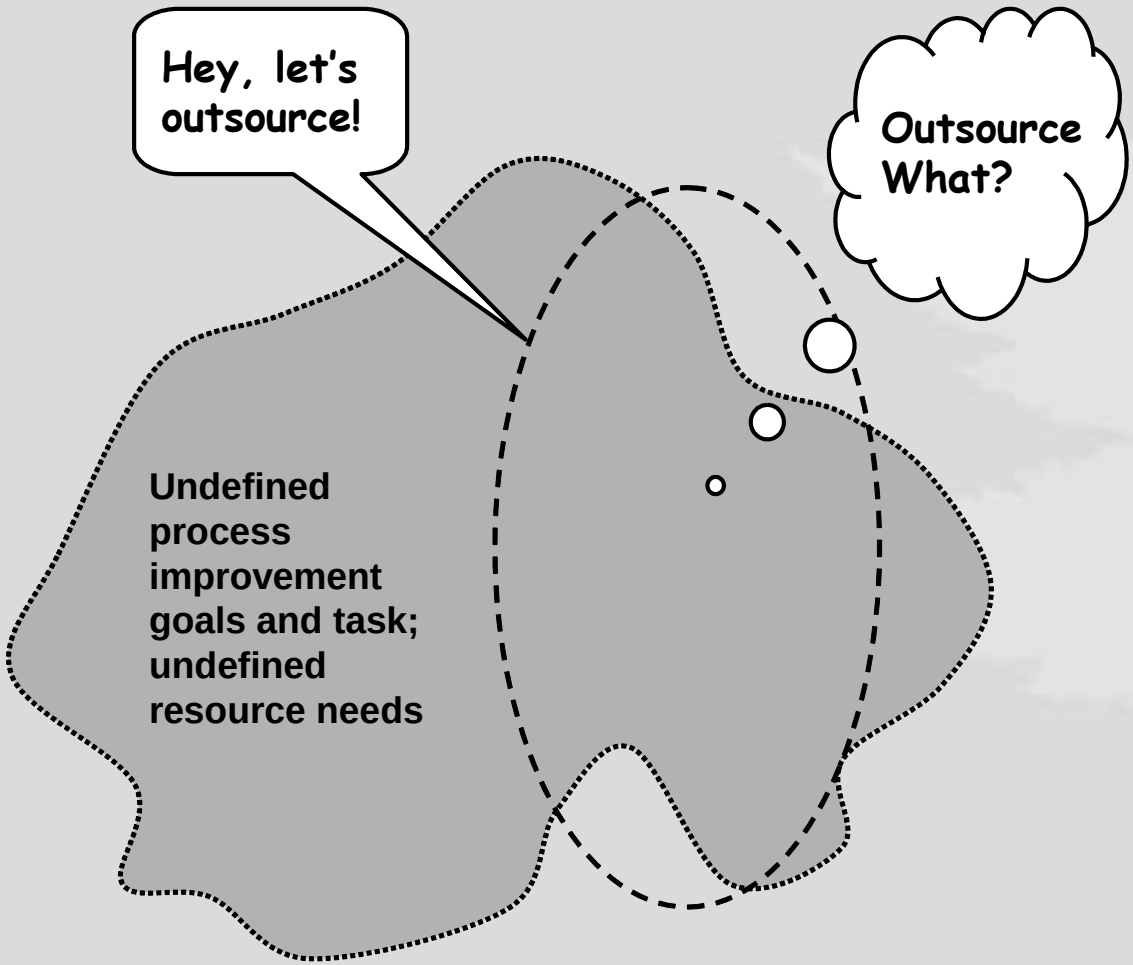
Some definition before outsourcing



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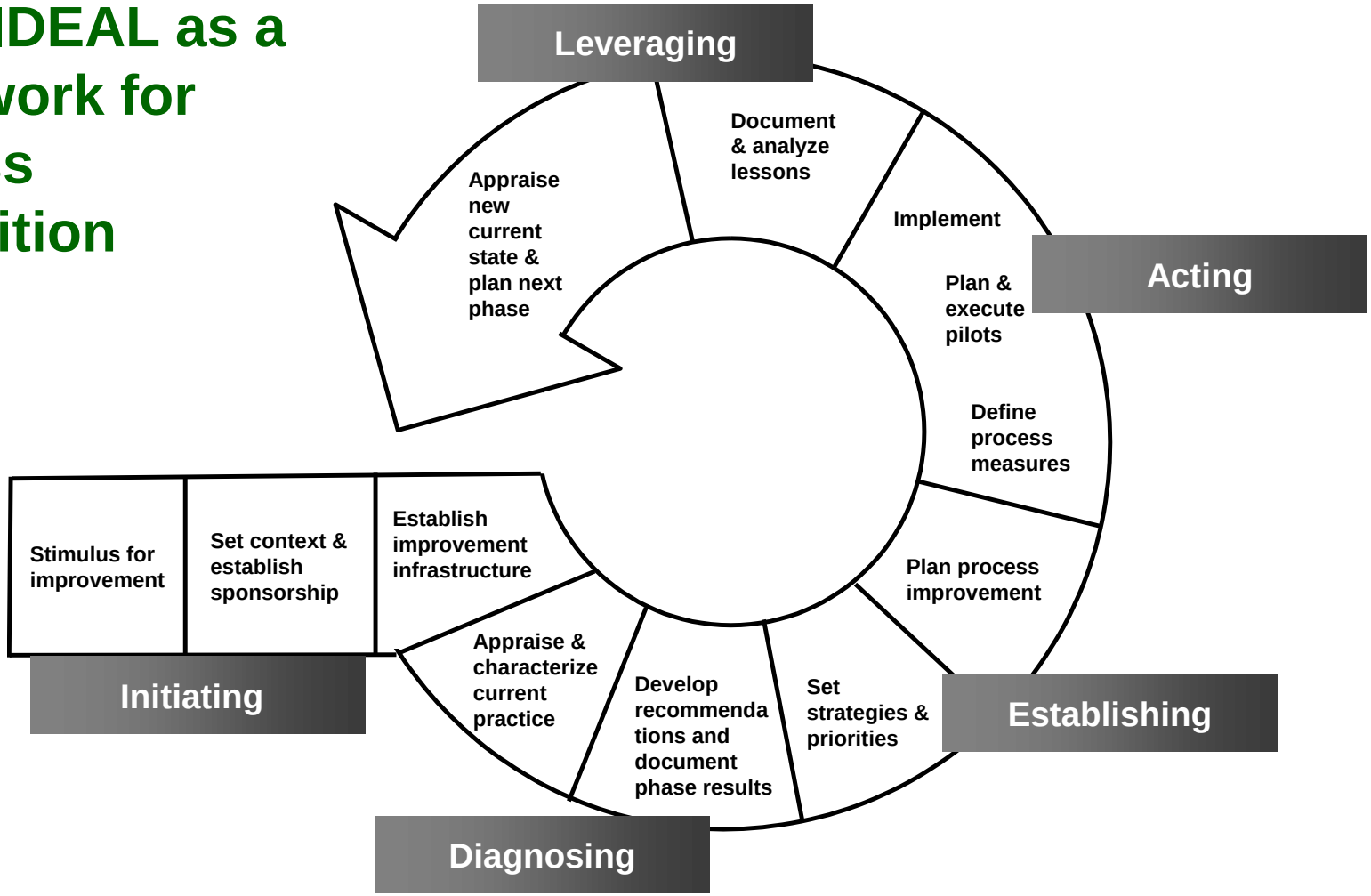
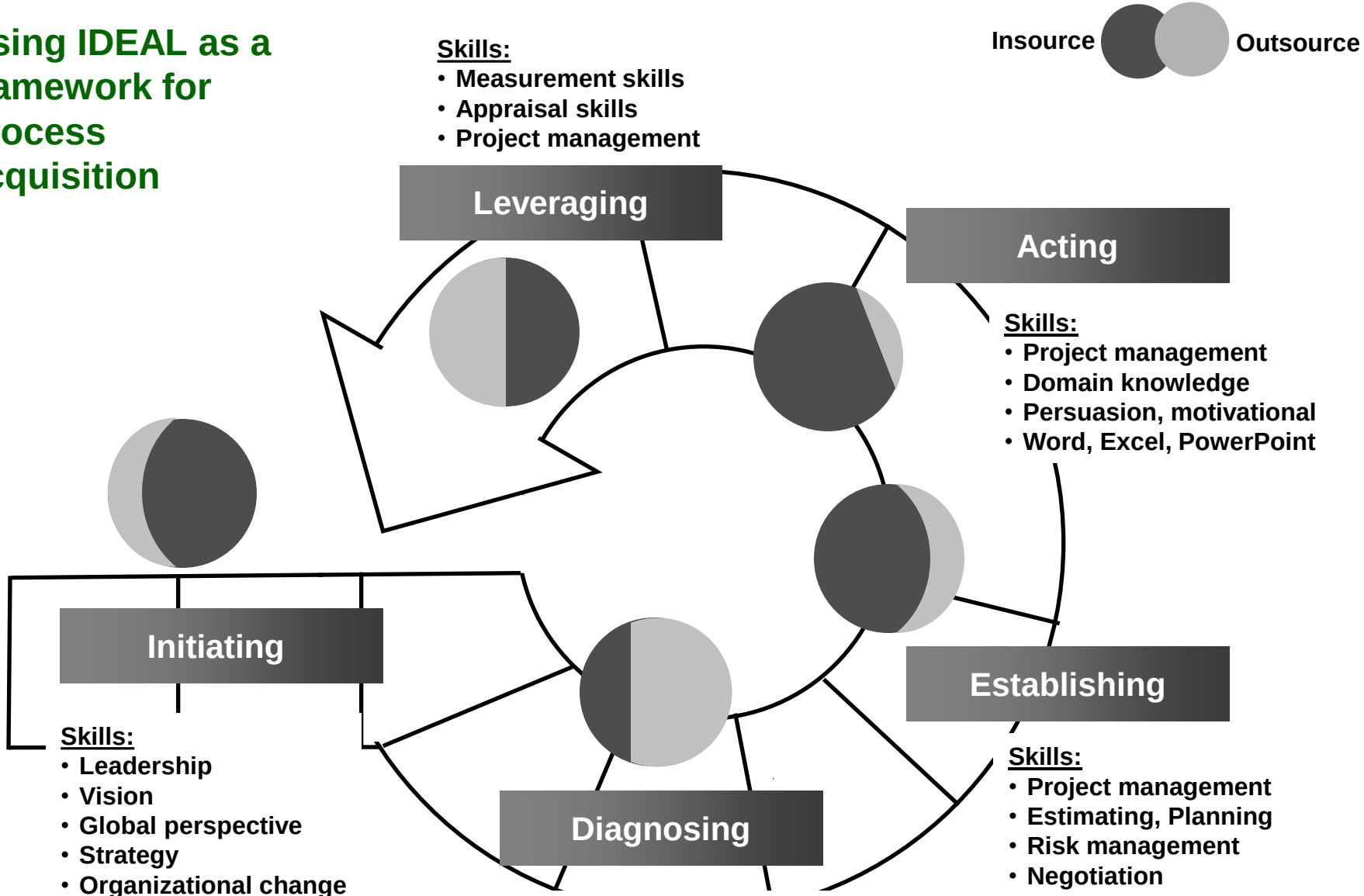
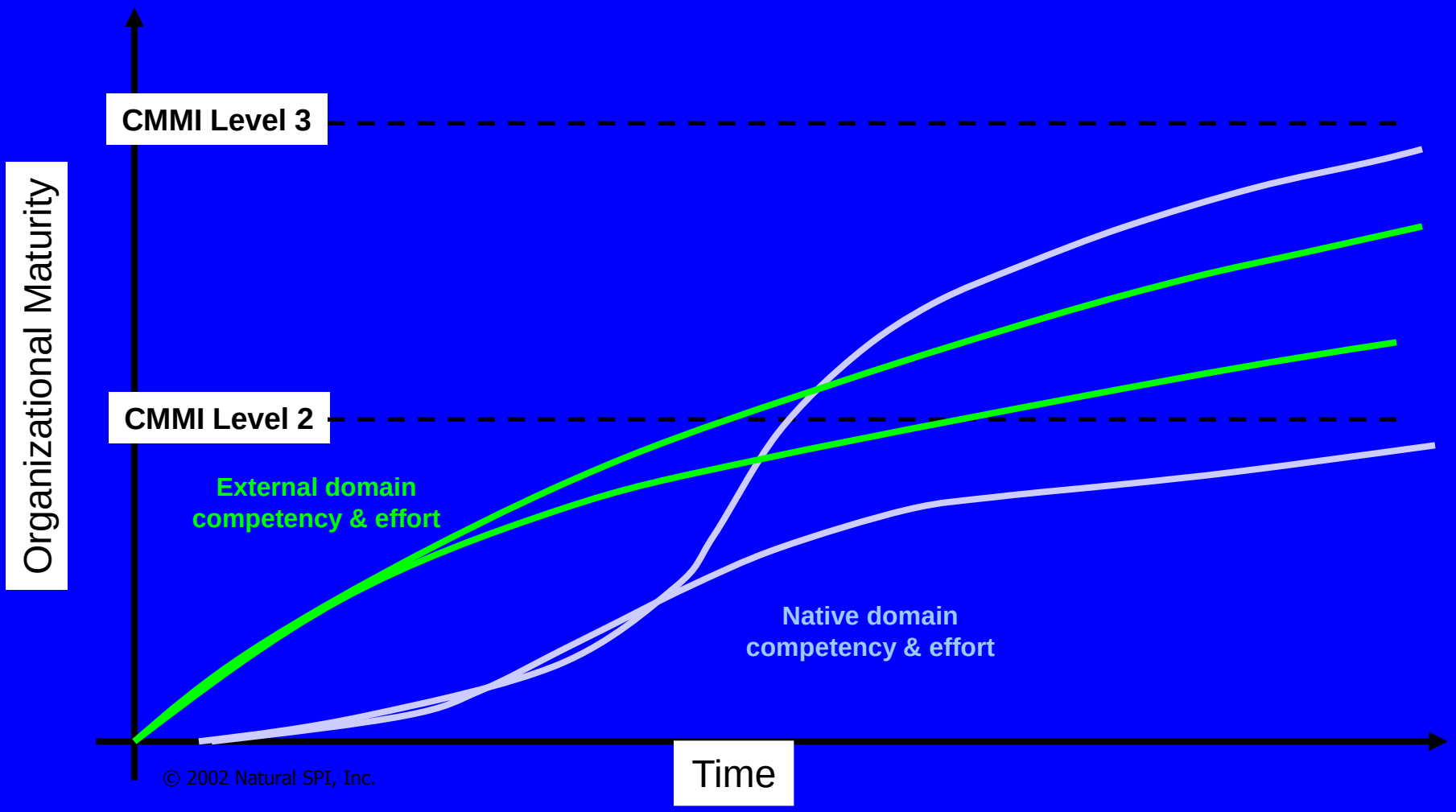
Using IDEAL as a framework for process acquisition



Using IDEAL as a framework for process acquisition



Client-Consultant relationship changes with maturity



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Vendor selection questions and criteria

Once you have decided that you need outside process consulting or tools, use these questions to establish your vendor selection criteria:

1. What is the candidate consultant really selling?
2. What do the candidate consultants have to say about your organization's ROI or ROA on process improvement expenditure?
3. Is your decision based on the consultant's reputation or verifiable historical performance?
4. How interested is the consultant in learning about your organization's current process capability or organizational maturity?

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Vendor selection questions and criteria

What are the consultants really selling?

1. Appraisals? Or appraisal planning and preparation?
2. Maturity or capability levels?
3. Training?
4. Advice? Based on what experience?
5. Tools or process improvement automation?

Does the expertise, services, or products the consultant offers match your organization's needs?

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Vendor selection questions and criteria

What do the candidate consultants say about process improvement ROI or ROA?

1. Do they (without prompting) talk about measurable business benefits from process improvement?
2. Do they ask you about the organization's business goals, and talk about how PI can contribute to goal achievement?
3. How will they track, measure, and report improvement?
4. Is your success and the consultant's success interdependent? Should it be?

Will you get business results from process improvement?

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Vendor selection questions and criteria

Is your selection based on reputation or verifiable performance?

1. Where have they worked and what have they done?
2. Have they ever had “roll-the-sleeves-up” implementation experience?
3. Can they show historical performance measures such as actuals compared with plans?
4. Do they give you referrals that check out?

Is the vendor’s reputation deserved?

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Vendor selection questions and criteria

How interested is the consultant in learning about your organization's current process capability?

1. Do they propose a "solution" without first learning about your problems, goals, and priorities?
2. Do they try to find out what you already have in place? Do they respect those things?
3. Does the consultant's proposed "solution" fit your organization's philosophy, approach, and environment? How do you know?

What is the cost of "slash-and-burn" process improvement? Is that what you need?

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Acquiring tools

Tools exist which can automate many software and system process tasks and activities:

- Requirements management and traceability
- Software and system size, cost, and schedule estimating
- Project scheduling
- Project tracking and reporting
- Risk analysis, planning, and managing
- Configuration and data management
- Measurement collection, analysis, and reporting
- Process asset definition and management

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What tools cannot do

Tools can automate the work people do.

Tools cannot:

- Improve leadership
- Keep anyone from making bad or irresponsible decisions
- Eliminate politics
- Fix a broken process (but it can make bad things happen faster)
- Motivate people
- Change the culture
- Relieve people of having to think

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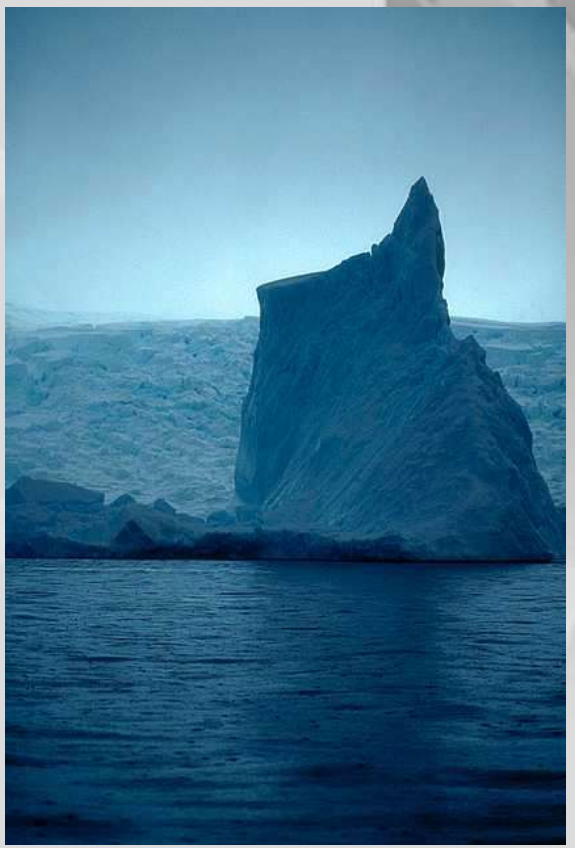
Acquiring tools: The rest of the iceberg

Often, the cost of the tool is just the tip of the iceberg of the total cost. Other costs include:

1. Training and learning costs
2. Integration with existing environment and platforms
3. Initial loss of productivity during learning and transition
4. Tailoring or customization
5. Data migration from legacy systems
6. Cost of running parallel systems or processes during transition
7. Maintenance and licensing fees and upgrade costs



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Process tools selection questions and criteria

Questions you should ask before buying a process improvement tool:

1. Does the tool do something you need or want?
2. Would a lower cost, less elaborate solution satisfy your current and future requirements?
3. How much are the unobvious labor costs: learning, tailoring/customizing, data migration, interfaces?
4. How much expert labor could you buy for the cost of the tool?

What will the tool do that can't be done just as easily and at a lower cost?

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Vendor selection questions and criteria

Ultimately, the selection of a process consultant or tool vendor will come down to one simple question …

Who do you trust?

And in deciding who it is that you trust, you might consider that …

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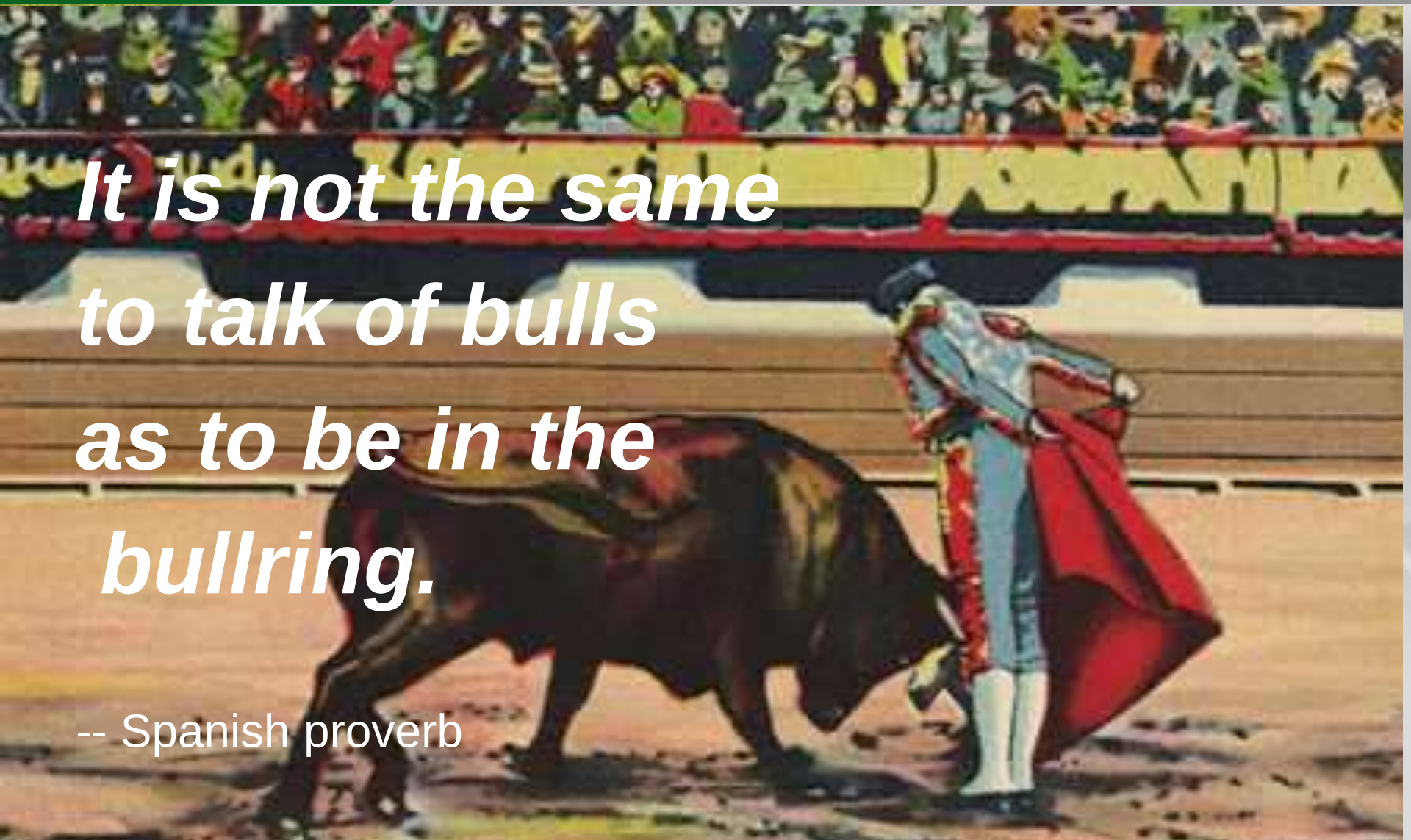

It is not the same to talk of bulls as to be in the bullring.

-- Spanish proverb

Vendor selection: Trust

Do the consultants practice what they preach? Do they live the principles of process discipline in their own work?

1. Does the consultant gather requirements for work before proposing a solution?
2. Does the consultant base estimates (e.g., proposals) on historical data using proven estimating methods?
3. Does the consultant develop realistic and manageable plans for the work they are going to perform?
4. Does the consultant monitor, track, and report progress and status against the approved plans?

(continued)

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Vendor selection: Trust (continued)

Do the consultants practice what they preach?

5. Do the consultants manage the versions or configurations of their own work products?
6. Does the consultant establish forms of objective reviews of their work against their own processes?
7. Does the consultant manage their own risks?
8. Does the consultant include in their decisions and work the people and groups who will be affected?
9. Does the consultant collect and use measures of the work they perform to improve their service to your organization?
10. Do they ever ask you what they're doing well and what they need to improve?

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For more information …

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