Teaching and Deploying Improvement Methods BETTER with Deming principles

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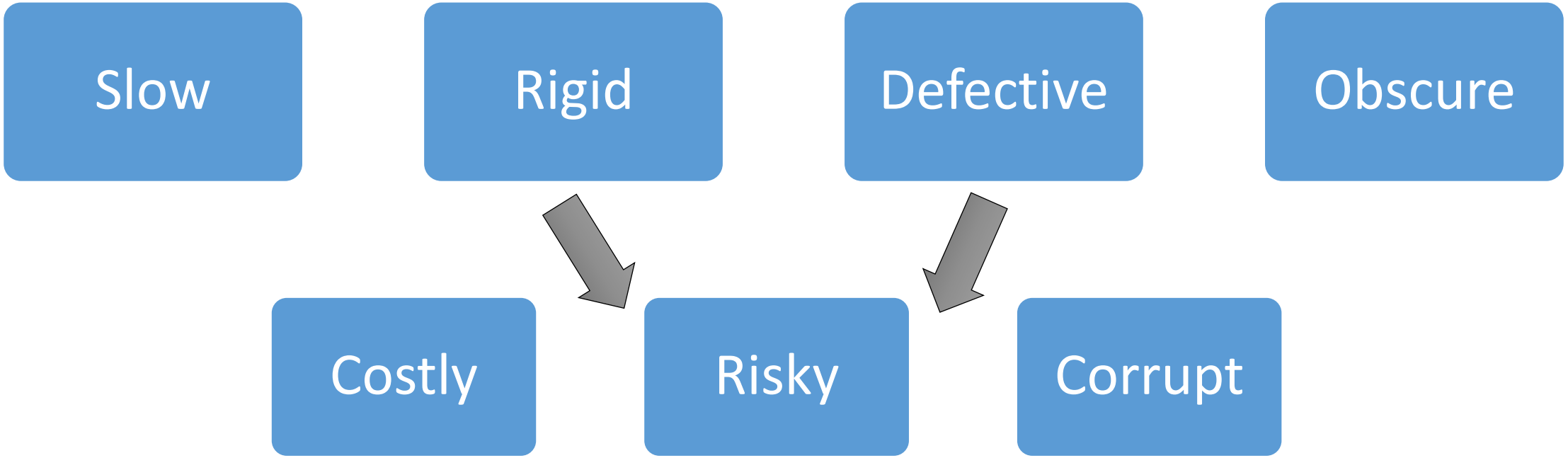
Objective:

- Your company’s operational excellence.
- Through consulting, training and coaching.
- To build high performance operations.

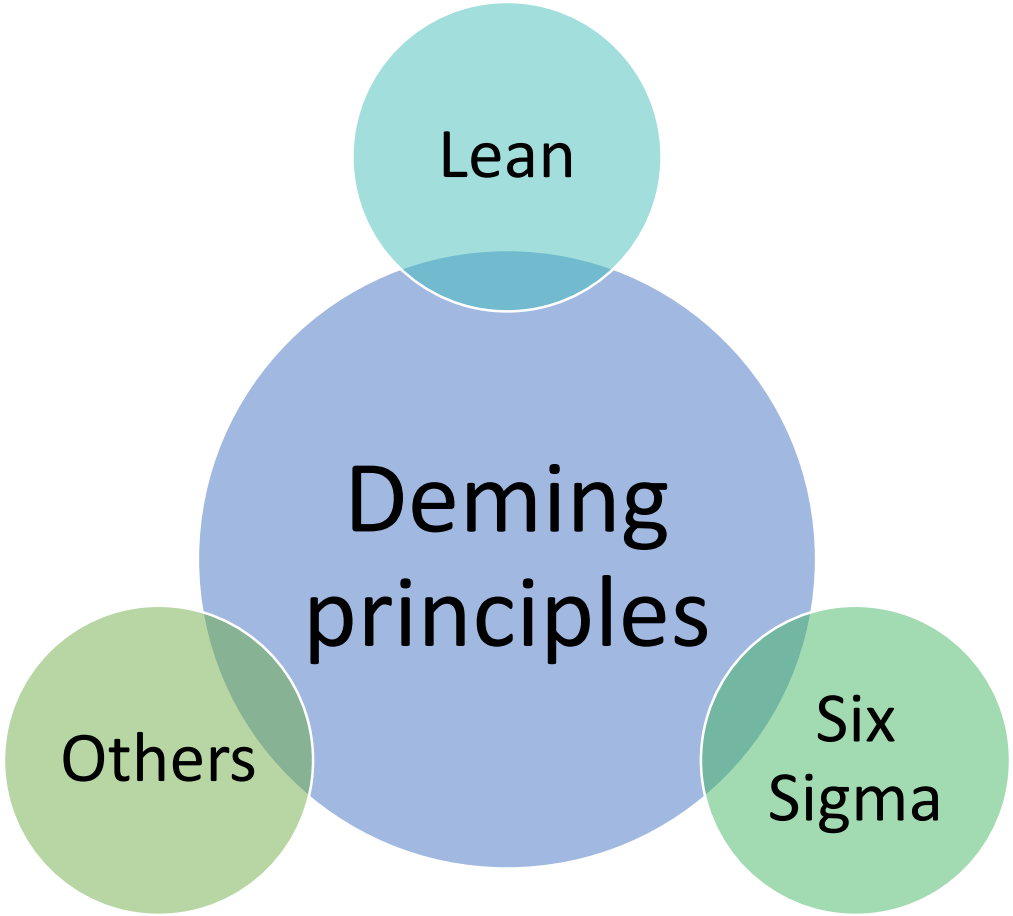
We counter these operational diseases



Improvement methods …

- Lean.
- Six Sigma.
- Combinations of both.
- Other methods.

… are based on Deming principles



What is Lean?

- A way to establish a production system that creates more customer value using less resources.
- By understanding what customers value and focusing its processes to deliver it.
- Through the continuous optimization of product and service flow across departments.
- Eliminating waste in the entire value chain to accelerate response while lowering cost and defects.

What is Six Sigma?

- A business improvement effort.
- Focused on increasing customer satisfaction and product/service performance.
- Seeks to reduce variation of important process/product/service characteristics.
- Composed of disciplined methods, results-focused metrics and dedicated people.

But these methods are not integrated with Deming

- Shewhart, Deming in history.
- Few references to their work.
- Disconnected from SoPK.
- Sometimes at odds with 14 principles.

Problem: improvement seen as steps and tasks.

- Emphasis is on sequence.
- Emphasis is on project management.

Then improvement is:

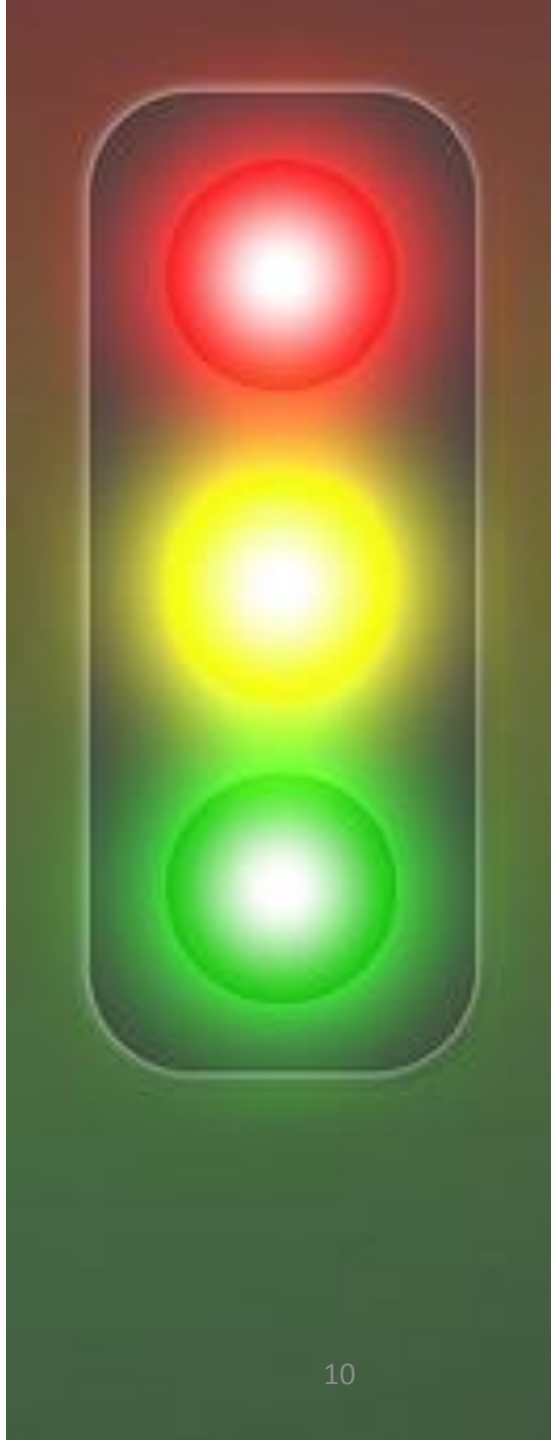
- Shallow, incomplete.
- Not too smart.

Problem: improvement seen as methods and tools …

- Emphasis is on speed to results.
- Emphasis is on what can be measured: number of tools taught, …

So,

- Methods and tools become meaningless.
- Learning without direction.



Ignoring a common origin triggers tribal mentality

- “We only do Six Sigma …”
- “We only do Lean …”

- What you teach, what you learn is not so good.

Managers launch programs but do not involve themselves

- “Education for my teams”
- “I already know how to improve processes …”

The result is a wasteful program

- Slow projects.
- Confused practitioners.
- Blame the methods.
- Lost opportunity to learn how to learn.

But it does not have to be like that

1. Create a stable program of improvement.
2. Let learning happen.
3. Teach how to think.

Deming principles are the origin of mainstream concepts and tools already.

SoPK elements map to most LSS tools

SoPK component	SIPOC	FTY	Fishbone	Customer focus	Visible figures	7 wastes	8th waste	Respect of process	Respect of worker	Manage by facts	Defects to customer	Operational problems	Autonomation	Go see - ask why	Notion of perfection	Teamwork	Pain vs joy
System	●	●	●	●	●	●		●			●	●	●			●	
Variation		●	●	●	◑	●	◑	●		●	●	●	●		●		
Learning	●		●		●		●	●	●	●			●	●	●	●	
Psychology		●	●	●	●		●	●	●	●	●		●	●	●	●	●

Recognize key challenges

- “We just need a bit of lean”
- Training for Green Belts only.
- No organizational support.
- Results expected in 6 months.

Put everybody in the company to work to accomplish the transformation.

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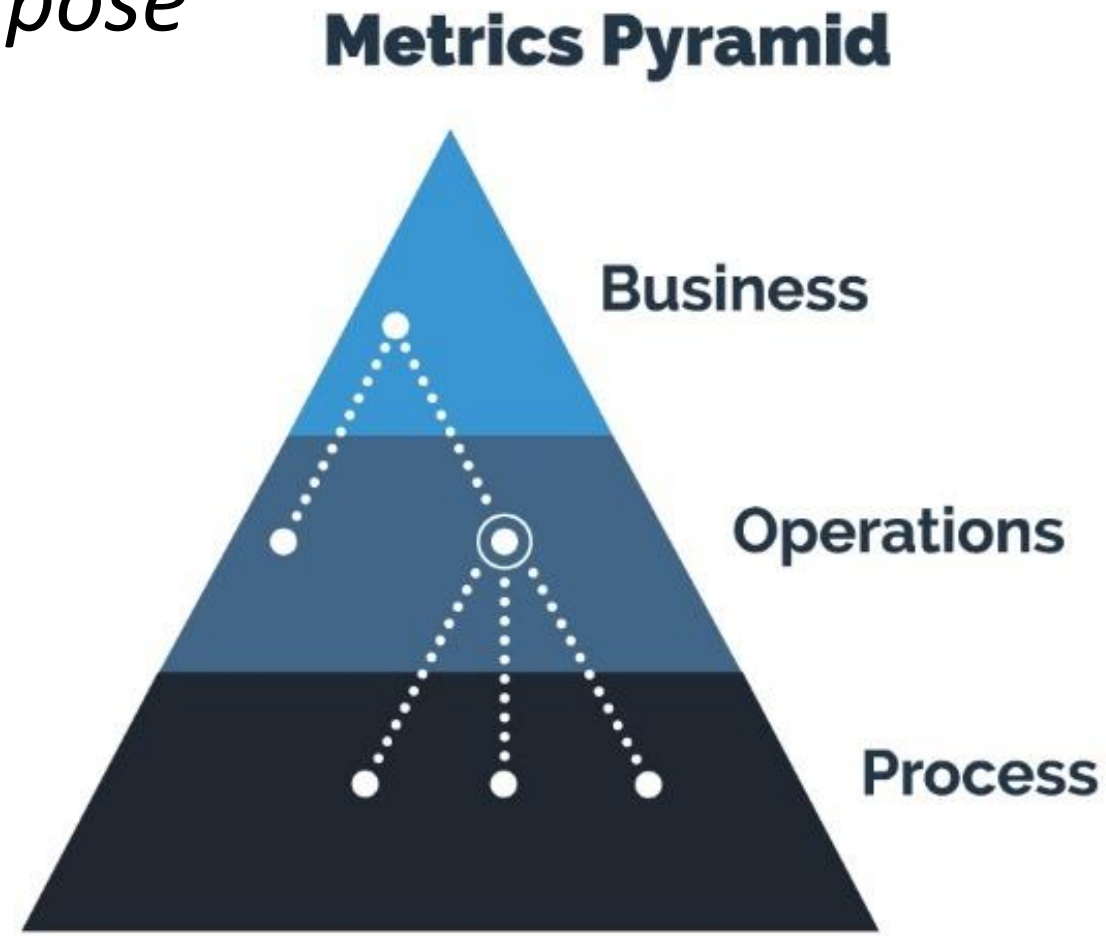
Source: www.deming.org

1. Follow business-level objectives to define a steady program

- *"Create constancy of purpose toward improvement …"*
- Start at the top.
- Make long, short term compatible.
  - Waves and quick wins.



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2. Select projects that support the aim of the business

- *"The aim of the system is the optimization of all its parts."*
- Find opportunities to:
  - Support strategic plans.
  - Meet customer needs.
  - Fix process weaknesses.

Keep system-wide view of the program

- Sustain the aim of the program.
- Promote infrastructure projects
  - No short-term ROI is fine.
- Reduce duplication of efforts.

3. Train and certify employees and supervisors

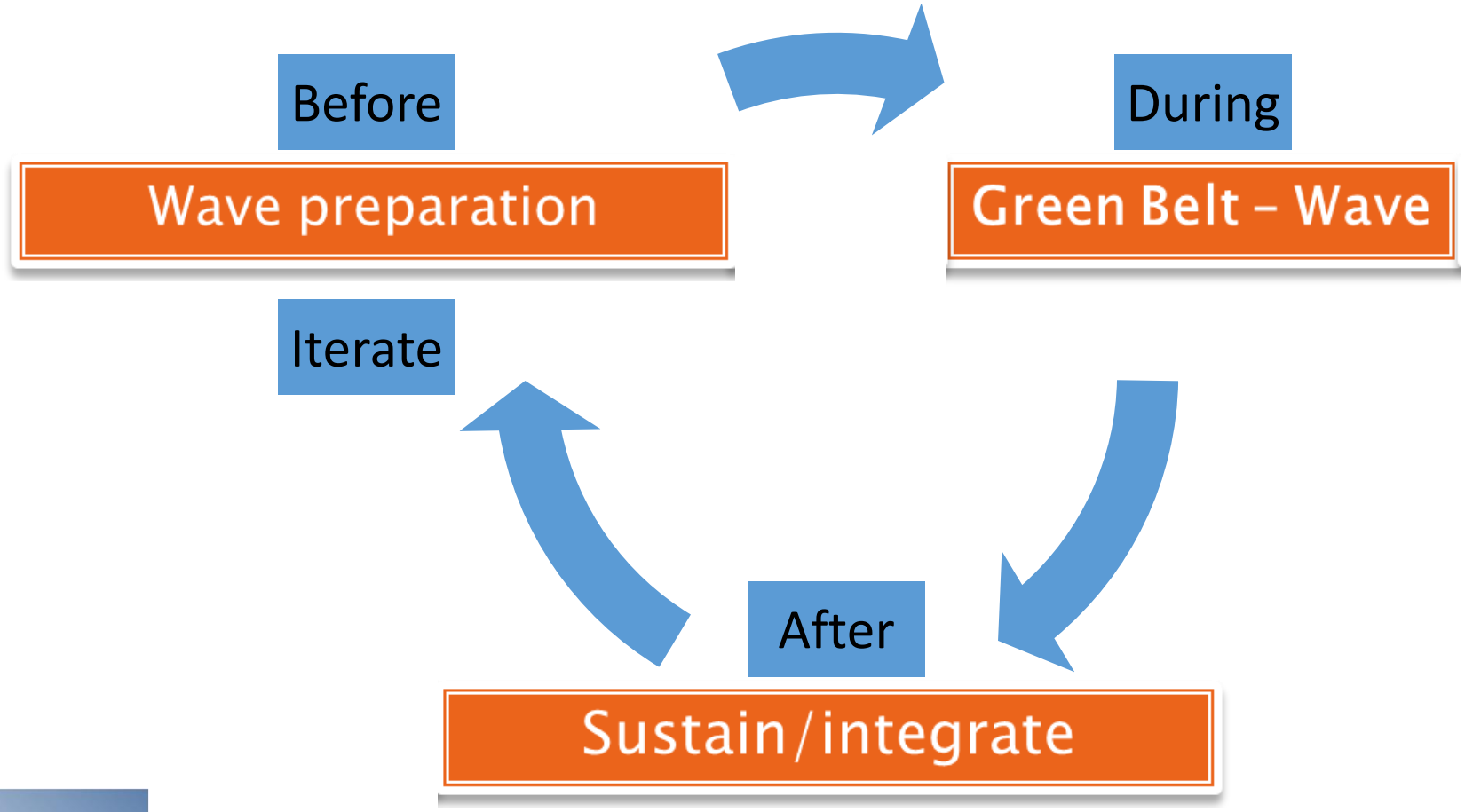
- Supervisors must provide organizational support.
- Be champions of their employees!
- Before, during and after project execution.

Before project start, supervisors provide direction

During project execution, supervisors follow closely and protect project integrity

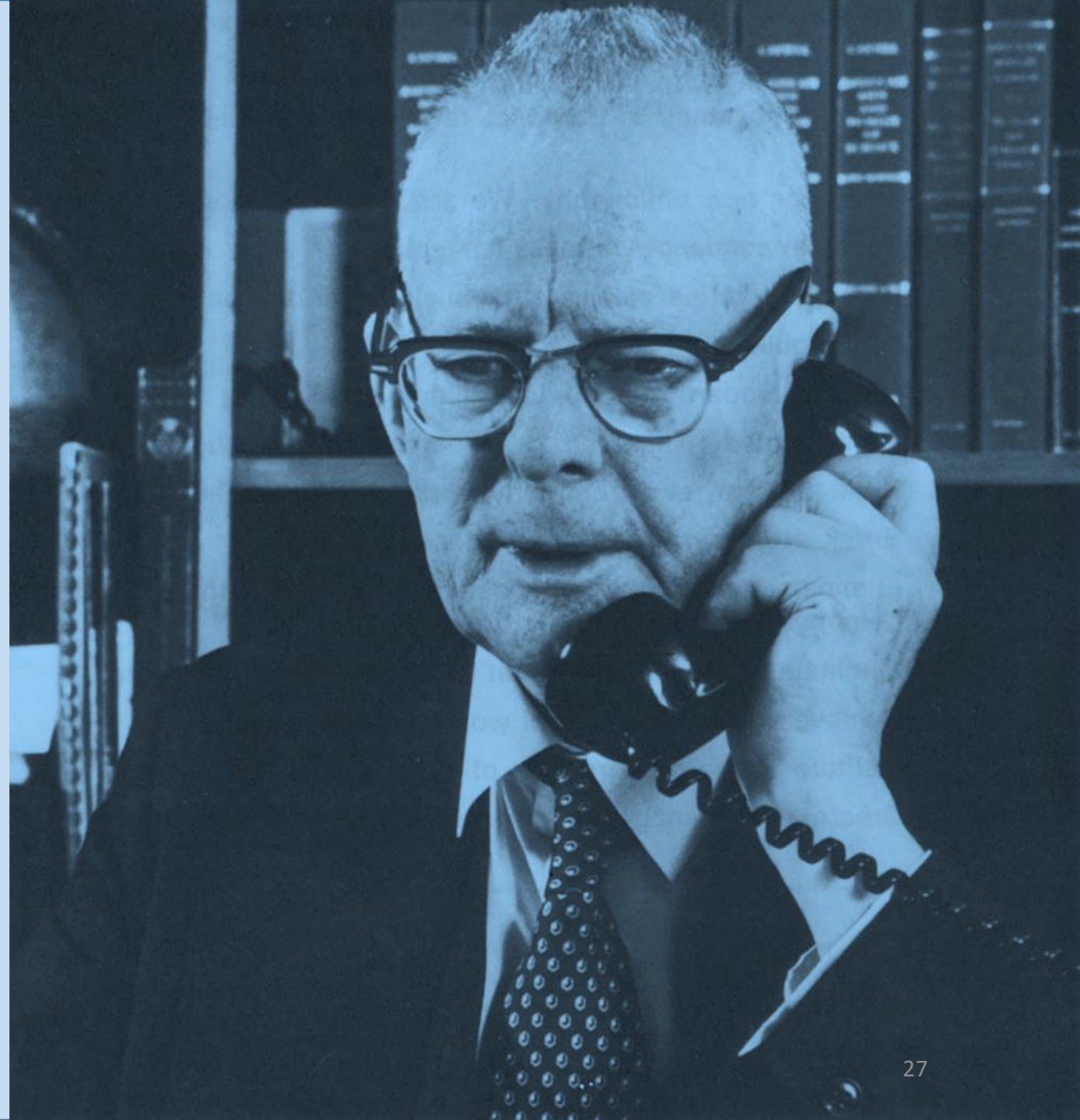
After project conclusion, supervisors integrate and propagate solution

Project impact is enhanced, its reach extends across the organization



Institute training on the job.

Institute leadership.



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Source: www.deming.org

4. Focus on the fundamental types of operational problems

- Process improvement methods must focus on solving problems.
- Generic families of operational problems:
  - A slow operation.
  - A rigid, inflexible process.
  - A defective procedure.
  - An obscure workflow.

5. Teach supervisors to let discoveries happen

- Projects of improvement are projects of discovery.

- Some space, freedom needed.

Managers must create the environment for needed for learning

- *“The aim of supervision should be to help people and machines and gadgets to do a better job.”*
- Prioritize defining the problem and finding the solution.
- Balance with project management (cost, schedule and scope).

6. Favor accessible analytical tools and invite everyone to participate

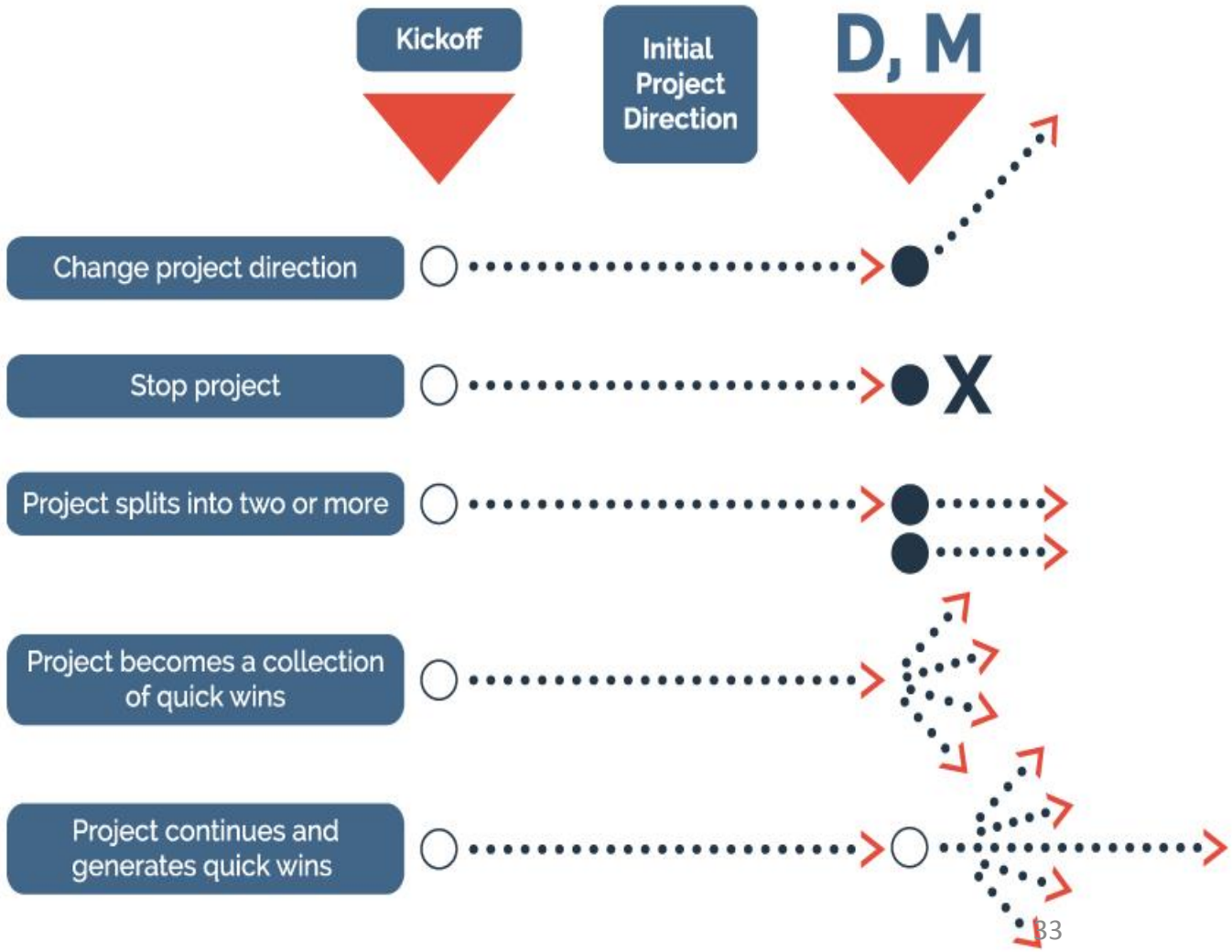
- Programs may risk creating an elite tasked with improving the organization.
- Teach an understanding of variation.
- Deploy graphical analysis tools.

7. Conduct effective project review sessions

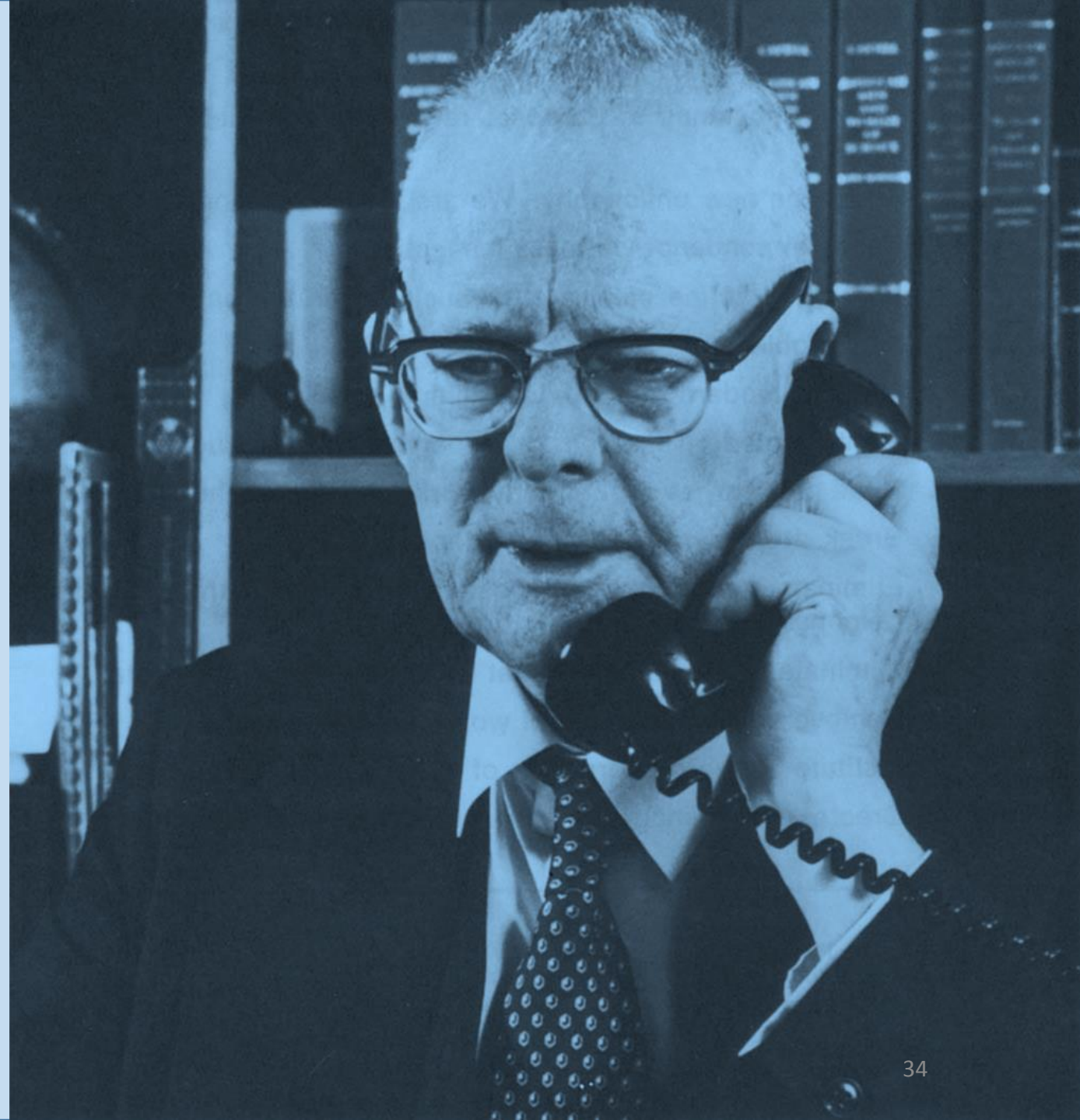
- A deadly disease of companies is:
  “Management by use only of visible figures …”
- What was learned so far?
  - About the process being improved.
  - About the organization that conducts it.
  - About the technology that supports it.

Decide project direction based on knowledge

- Every project review (tollgate) is a time to confirm learning.
- The illustrated team decides what to do next.



Start on the road to knowledge. [Have] a yearning for more knowledge.



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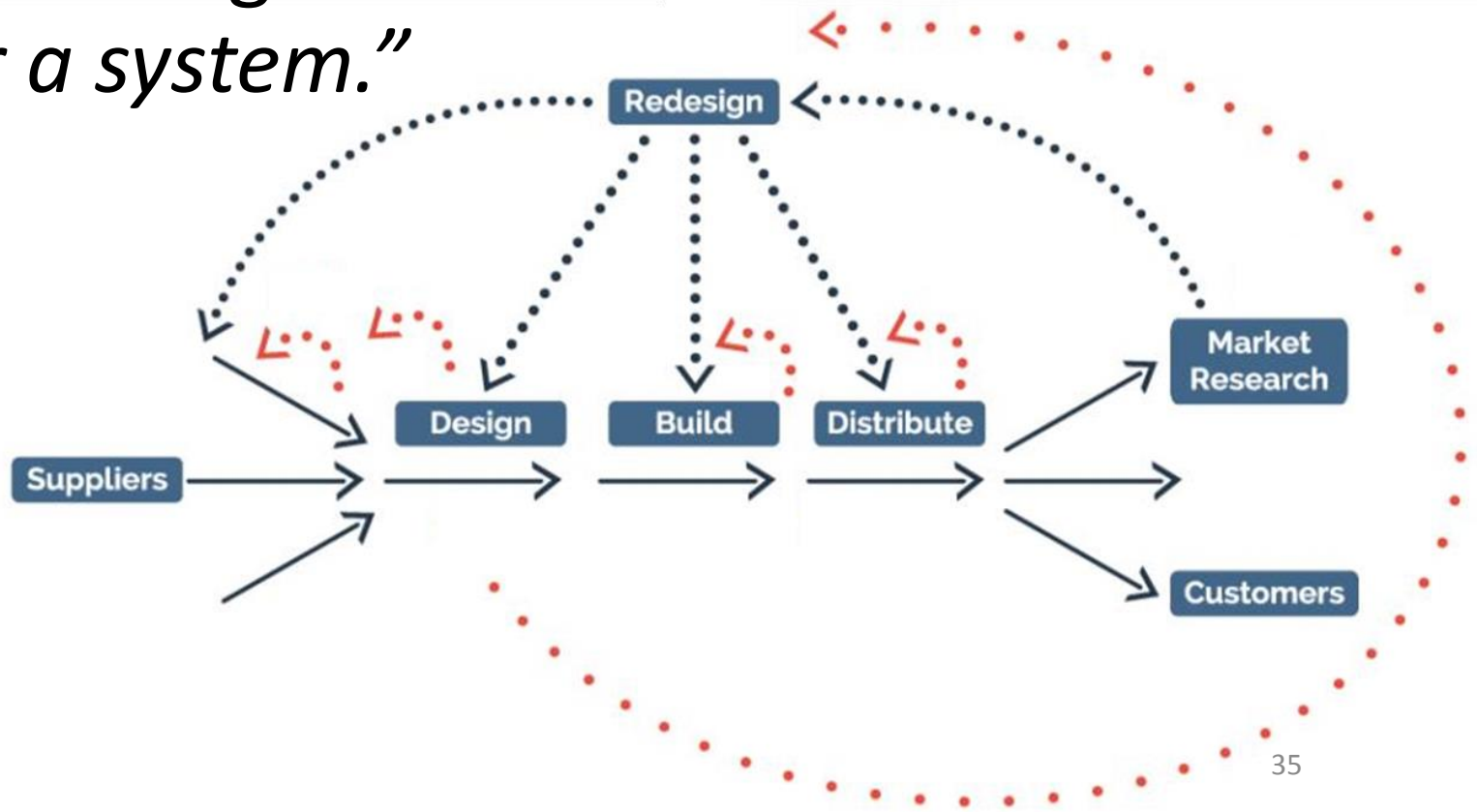
8. Teach the need for systems thinking

- Deming's System of Profound Knowledge compels us to gain *"an appreciation for a system."*



Teaching tools separate from a structure?

- A systematic method is not a collection of tools.
- It is expeditious.
- It is easy to test.
- Tools may be used:
  - Ineffectively (practitioners).
  - Dangerously (process).
  - Frustratingly (company).

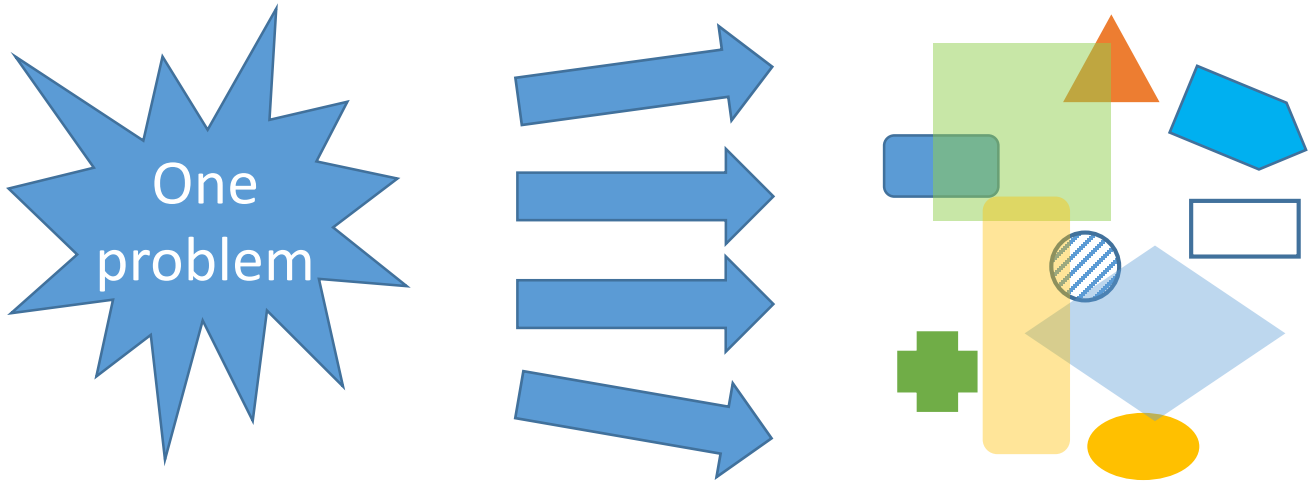
Teach how to think!

- How to approach a problem?
- What to assume?
- Which questions to ask?
- What to measure?
- How will I know I’m done?
- Share the joy of learning!

9. Create an appetite for learning with problem-based teaching

- A bit of psychology: individuals learn in individual ways, not as a cohort.

Problem-based teaching creates a pull for knowledge

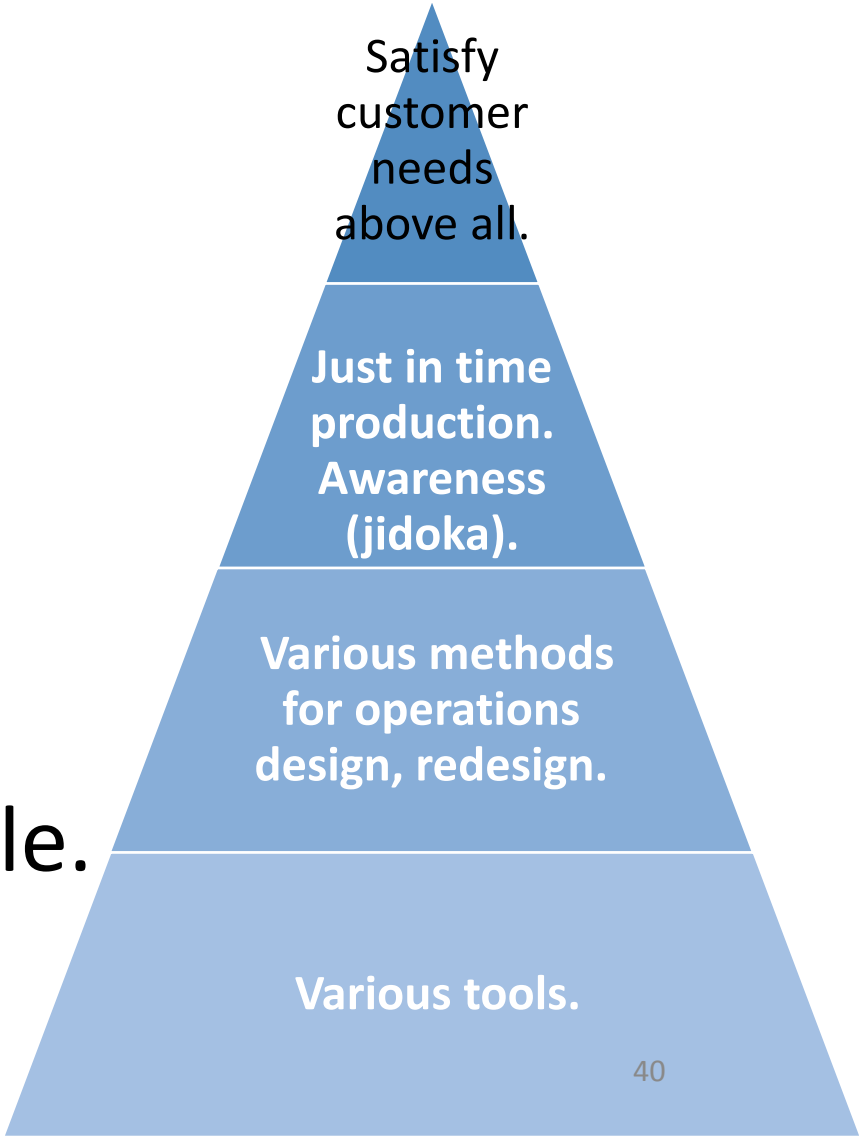


A few strategies from personal interpretations

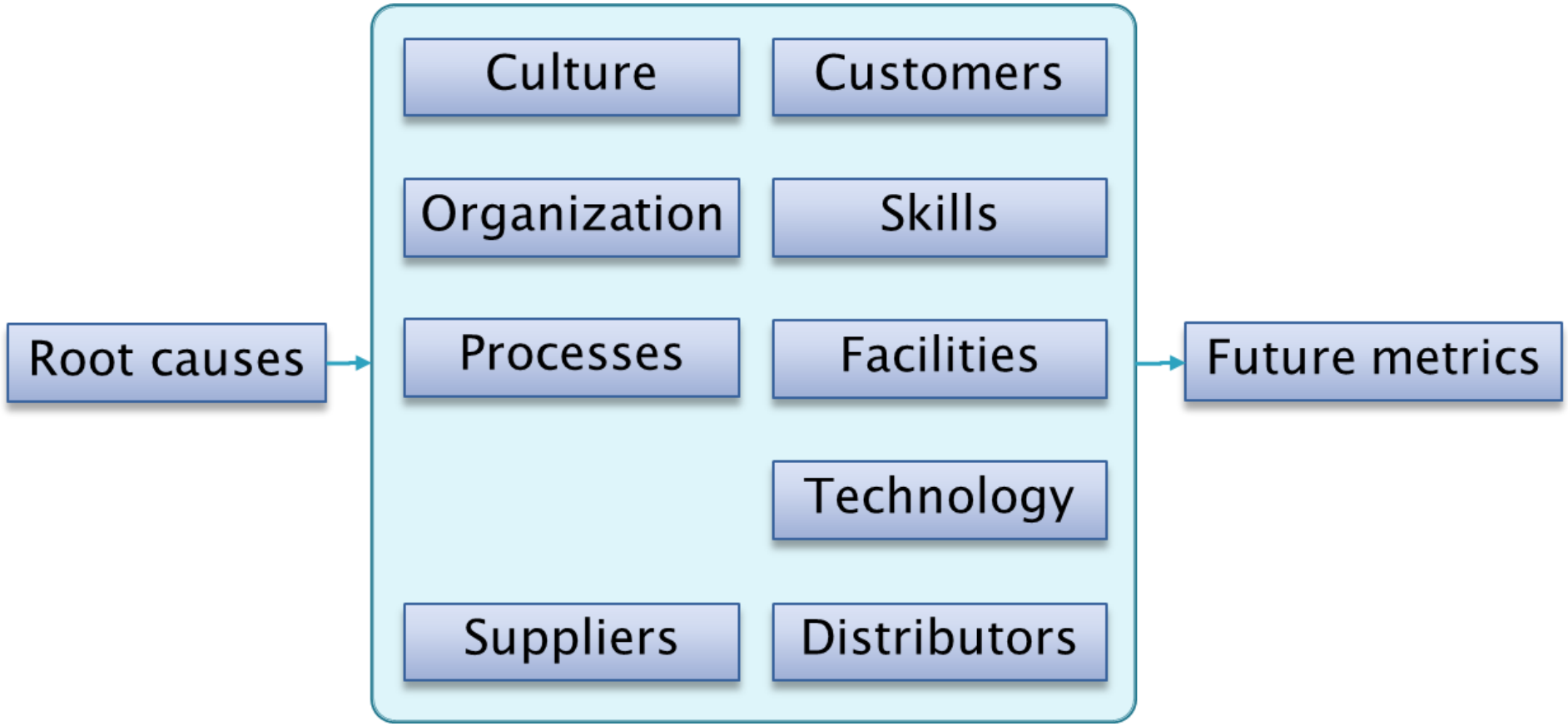
Many tools pulled as needed by learners

10. Teach operations design

- Many methods focus on increasing team creativity.
- Some methods focus on the use of designed experiments.
- What about actual principles for designing a better operation?
- The Toyota Production System example.

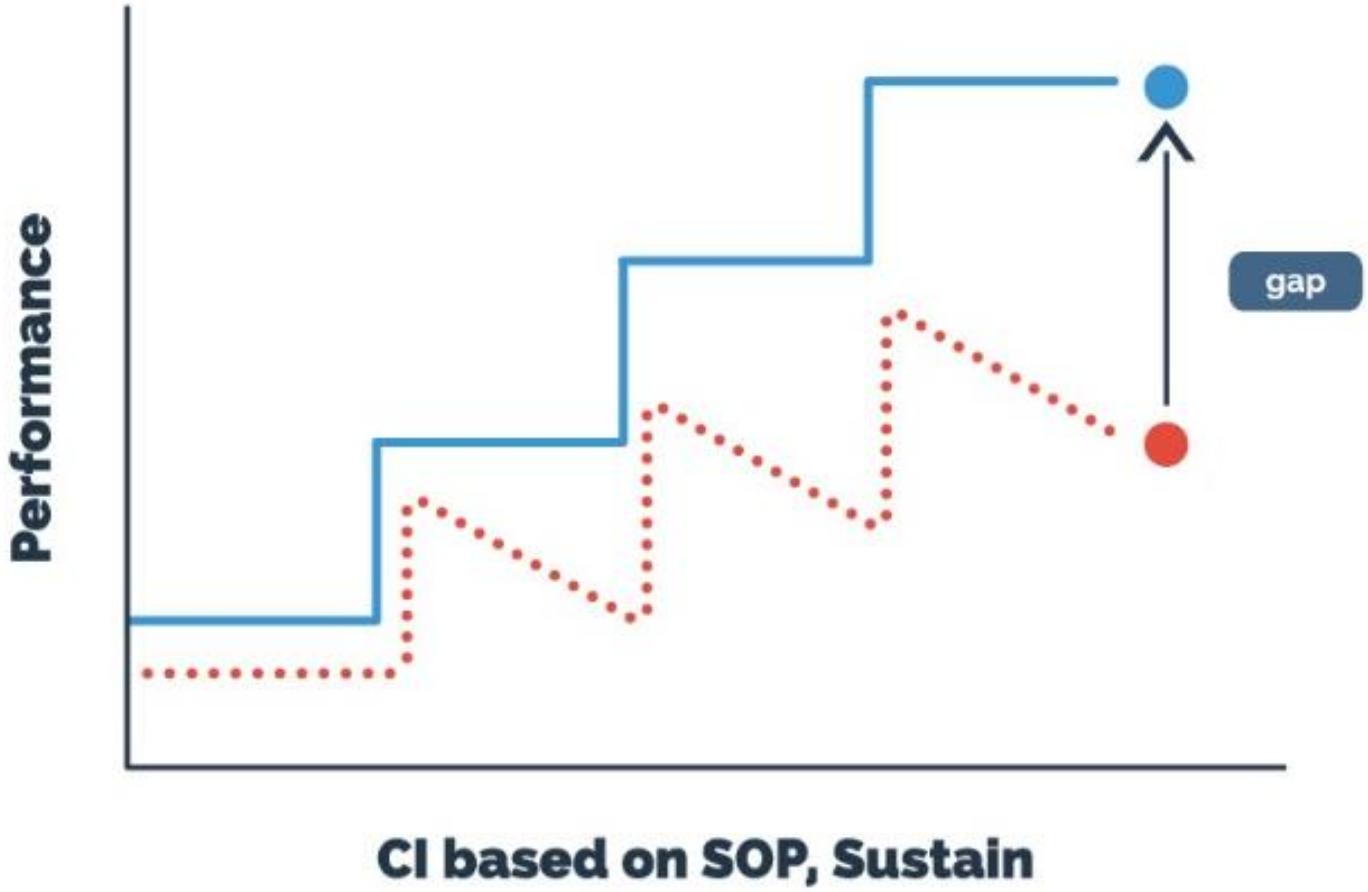


Operational design impacts all aspects of a business



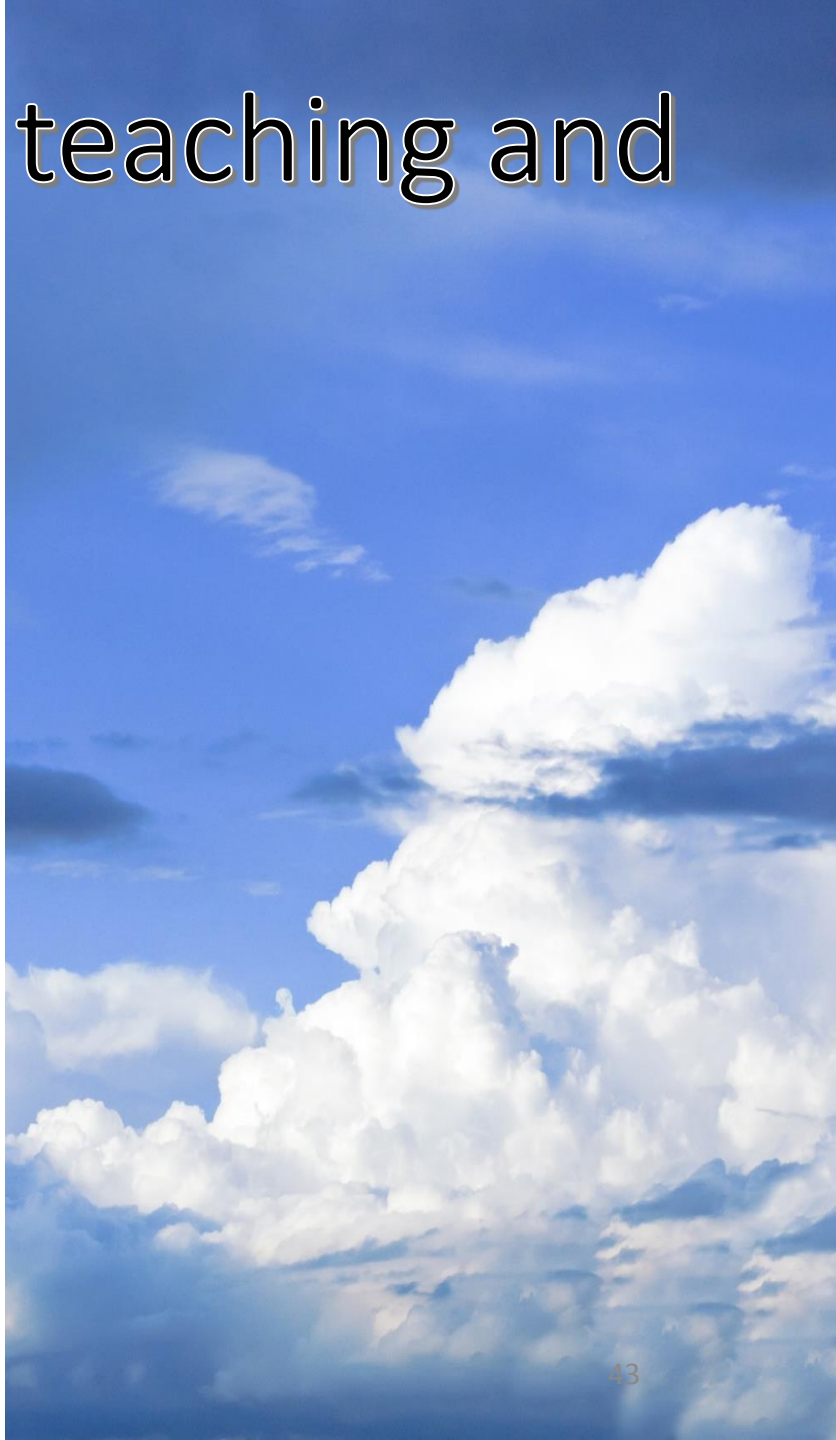
11. Teach use of standards

- Standard operating procedures.
- Basis for sustainable benefits.



Recommendations for better teaching and deployment of C.I.

- Teach and deploy improvement methods at all levels.
- Teach how to think about problems.
- Make knowledge accessible to all.
- Teach individuals individually.
- Deploy in alignment with business.
- Use more design principles.



Q&A

For further discussions, please contact me at fpulgarvidal@fkiQuality.com or 1 630.544.0116

Thank you.