



l e a n

software development

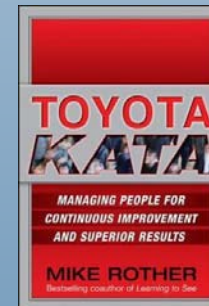
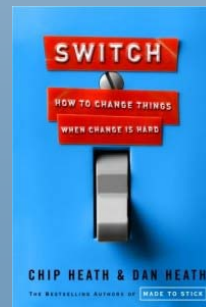
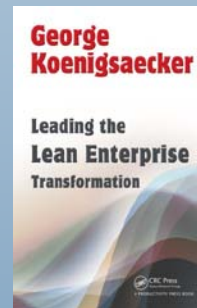
What's Wrong with Targets?

MBO vs. Strategy Deployment

Five Models of Leadership



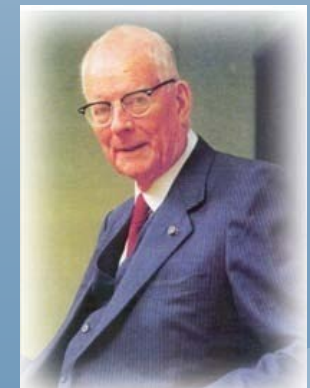
1. Management by Objectives
 - ✓ SMART Goals
2. System of Profound Knowledge
 - ✓ 14 Points
3. Strategy Deployment
 - ✓ True North
4. Improvement Kata
 - ✓ Coaching Kata
5. Switch
 - ✓ Three Surprises



PETER
DRUCKER



“There is only one valid definition of business purpose: to create a customer.”



Prof. W. Edwards Deming

Switch



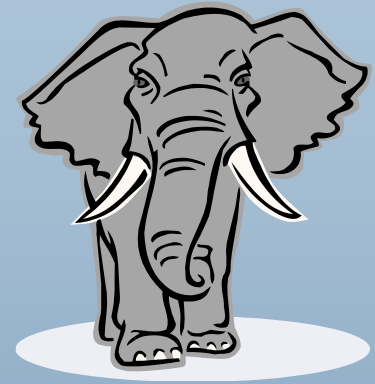
1. *Direct the Rider*

× Clear Direction



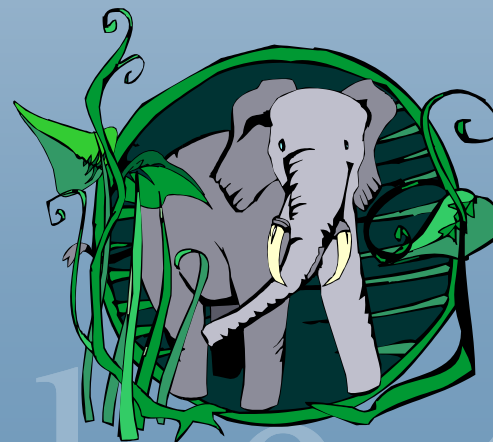
2. *Motivate the Elephant*

× Ample Motivation

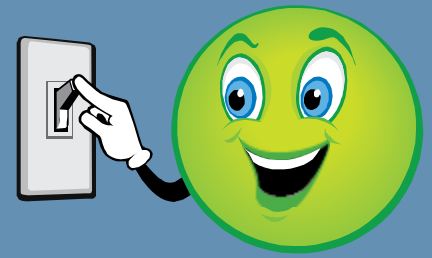


3. *Shape the Path*

× Supportive Environment



Clear Direction

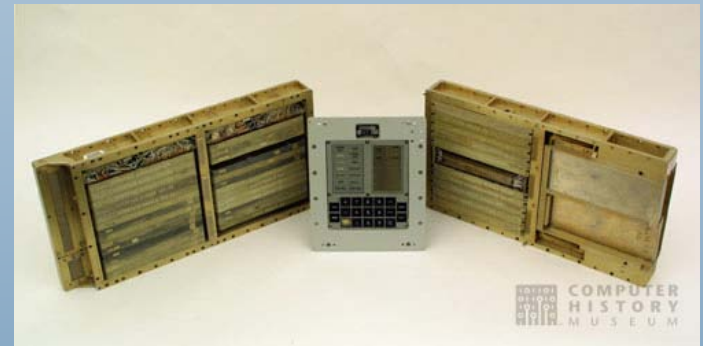


Point to the Destination

- ✓ Let people know where they're going and why it's worth it.
 - ✗ *John F. Kennedy – To the moon before the decade is out: 1960*

Follow the Bright Spots

- ✓ Find what's working and clone it.
 - ✗ *Kent Beck – XP Explained: 1999*



Script the Critical Moves

- ✓ Sweat the small stuff. Think in terms of specific behaviors.
 - ✗ *Ken Schwaber – Scrum Certification: 2003*

Ample Motivation



Find the Feeling

- ✓ Knowing something isn't enough. Put people in touch with customers.
 - ✗ *It's painful to watch usability tests!*
 - ✗ *Walk in the shoes of customers.*

Shrink the Change

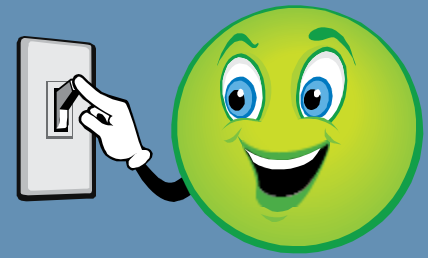
- ✓ Break down the change into small steps.
 - ✗ *Establish a cadence for frequent feedback.*
 - ✗ *Write the tests before you write the code.*



Grow the People

- ✓ Cultivate a sense of identity and instill a learning mindset.
 - ✗ *Instill pride of workmanship.*
 - ✗ *Stop looking for silver bullets.*

Supportive Environment



Change the Environment

- ✓ Avoid the “Fundamental Attribution Error”.
 - ✗ *We attribute people’s behavior to the way they are rather than to the situation they are in.*



Build Habits

- ✓ Create a path of least resistance; use action triggers and checklists.
 - ✗ *Daily meetings, Standards, Automation...*

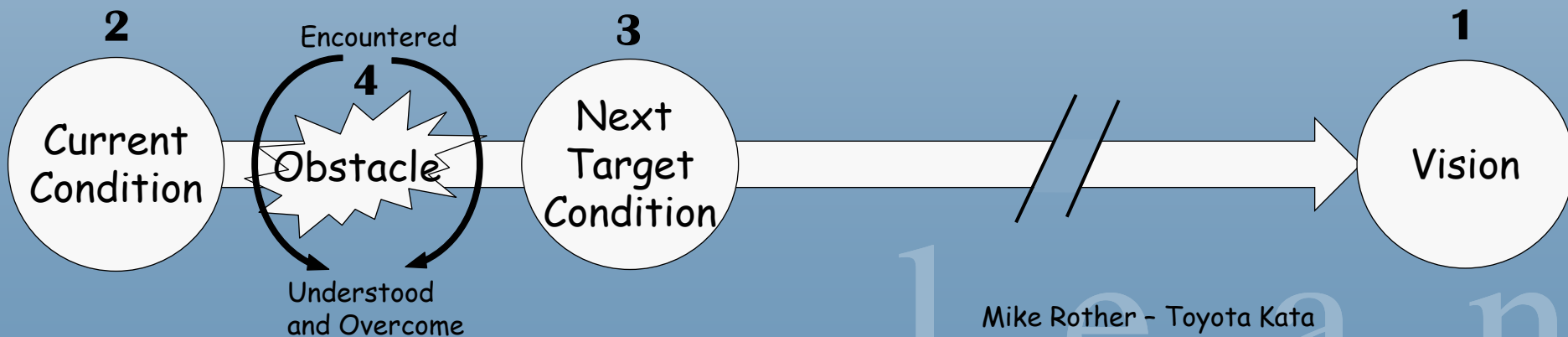
Rally the Crowd

- ✓ Behavior is contagious. Make good behavior visible.
 - ✗ *Kanban Boards, Knowledge Briefs, Big Visible Charts*

Improvement Kata



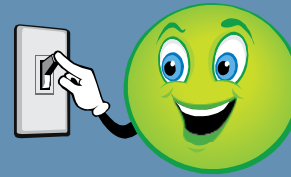
1. Visualize perfection
2. Have a first hand grasp of the situation
3. Define a target condition on the way to perfection (Strive to move step-by-step to the target)
4. As obstacles are encountered, they are systematically understood and overcome



Mike Rother - Toyota Kata

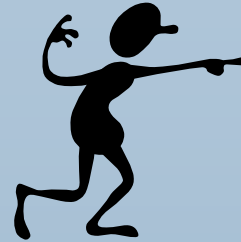
Improvement Kata

(Script the Critical Moves)



1. Visualize perfection

✓ *Point to the Destination*



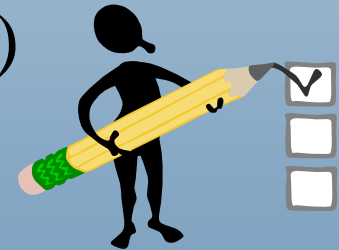
2. Have a first hand grasp of the situation

✓ *Find the Feeling*



3. Define a target condition on the way to perfection
(Strive to move step-by-step to the target)

✓ *Shrink the Change*



4. As obstacles are encountered, they are systematically understood and overcome

✓ *Change the Environment*



Coaching Kata



Everyone has a Mentor The Mentor

- ✓ Knows the details
- ✓ Asks questions
- ✓ Teaches the improvement kata
- ✓ Focuses on learning
 - ✗ Not results



Grow People, Build Habits

"We build people before we build cars." (Toyota)



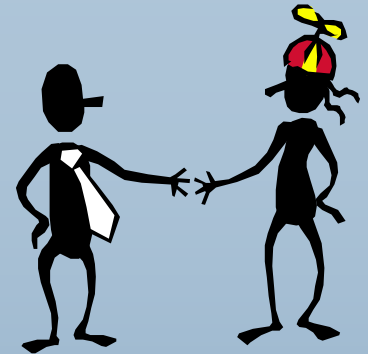


Case Study: Strategy Deployment

CIO – Christopher Jurasek

1. What is Our Purpose?

- ✓ Increase business success through technology.
- ✗ Business units decide what is needed for success.



2. Approach

- ✓ Use dashboard to track normal conditions
- ✓ Focus on a few (3) improvement initiatives
 - ✗ Aimed at achieving breakthrough improvement
 - ✗ CIO hosts frequent (monthly) review meetings



3. First Major Initiative – Satisfy Customers

1. Achieve a satisfaction rating of 4.5 on a scale of 0-5.
 2. Meet customer-determined deadlines 95% of the time.
- ✓ Not everyone thought this was possible
 - ✗ Some people had to change jobs



Demand Management Initiative

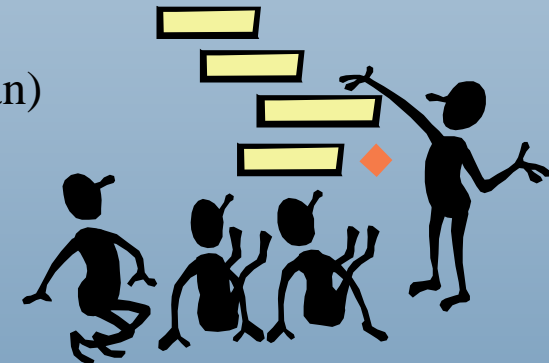
First Step – Assess Current Situation (Small Requests)

- ✓ Map the Current Request Process (System Capability)
 - ✗ No System to Track Requests
 - ✗ Ambiguous Requests
 - ✗ Multiple Handovers
 - ✗ Large Queues
 - ✗ Long Delays



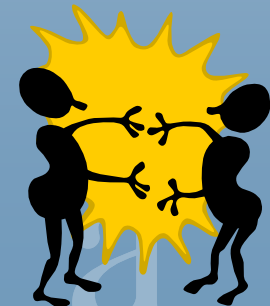
Second Step – Initiate a Project to Change the System

- ✓ Create a New Request Process (With Implementation Plan)
 - ✗ Create a Ticket Tracking System
 - ✗ Assign an Owner to Each Queue
 - ✗ Vet each Request in Collaboration with Business
 - ✗ Minimize Handovers and Create Flow

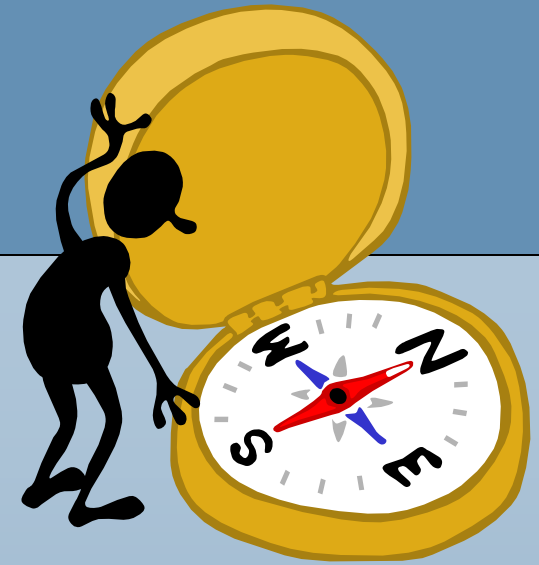


Third Step – Implement & Assess

- ✓ Monthly Accountability to CIO
- ✓ After a year:
 - ✗ Throughput average: from 5 months to 2 weeks
 - ✗ Customer Satisfaction: from less than 2 to over 4.5
 - ✗ % On time as specified by business customer: 95%
- ✓ Measurements moved to “normal” dashboard



Long Term Vision



What *should* your system achieve?

✓ What is your “**True North**”?

True North is the “Vision of the Ideal”.

Always do “What we should do, not what we can do.”

*Only then are you steering your journey toward your True North.**

**Hajime Ohba, Vice President and General Manager, Toyota Supplier Support Center*

Elements of True North

(George Koenigsaecker)

1. Quality
2. Delay / Lead Time / Flow
3. Cost / Productivity
4. Human Development
(Critical! Enables 1-3)

What is Perfection?

1. Quality - *No escaped defects.*
2. Delivery - *When customers want it.*
3. Productivity - *Constantly increasing value for constantly decreasing effort.*
4. Human Development - *Everyone can effectively solve their own problems.*

Strategy Deployment



Annually:

- ✓ Determine the key strategic efforts for the next year
 - ✗ A limited number of high level initiatives
- ✓ Identify the capability needed to enable these efforts
 - ✗ What improvements need to happen?
- ✓ Identify True North goals to support these efforts
 - ✗ Quality
 - ✗ Response Time
 - ✗ Cost/Productivity
 - ✗ Human Development
- ✓ Establish the necessary pace of improvement
 - ✗ What needs to happen each month?
- ✓ Form value stream teams to work on improvement



Monthly:

- ✓ Review progress of each value stream team
 - ✗ Focus on improvement rather than financial goals
 - ❖ Are we on pace?
 - ❖ How will we stay /get back/ on pace



Dr. W. Edwards Deming

System of Profound Knowledge



Appreciation for the system

- ✓ A systems view was fundamental; never sub-optimize.
- ✓ Manage the relationship between suppliers, producers, and customers

Knowledge of Variation

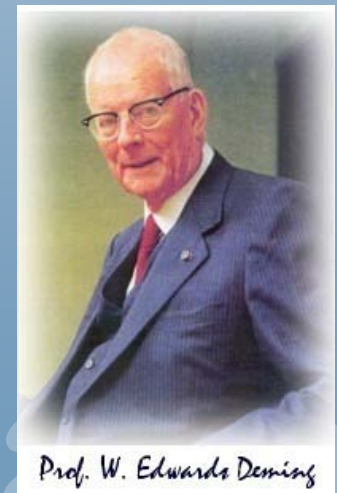
- ✓ Most variation is “common cause variation” – inherent in the system.
 - ✗ Trying to eliminate this variation only makes things worse.
 - ✗ Systemic problems lie beyond the power of the individual worker.
 - ✗ Deadline, targets, and slogans do nothing to address systemic problems.
- ✓ Provide leadership in changing the way the system works.

Theory of Knowledge

- ✓ Use the Scientific Method to improve systems
 - ✗ Hypothesis, Experiment, Learn, Incorporate Learning (PDCA)

Psychology

- ✓ When it comes to people, the things that make a difference are skill, pride, expertise, confidence, and cooperation.



Prof. W. Edwards Deming

Knowledge of Variation

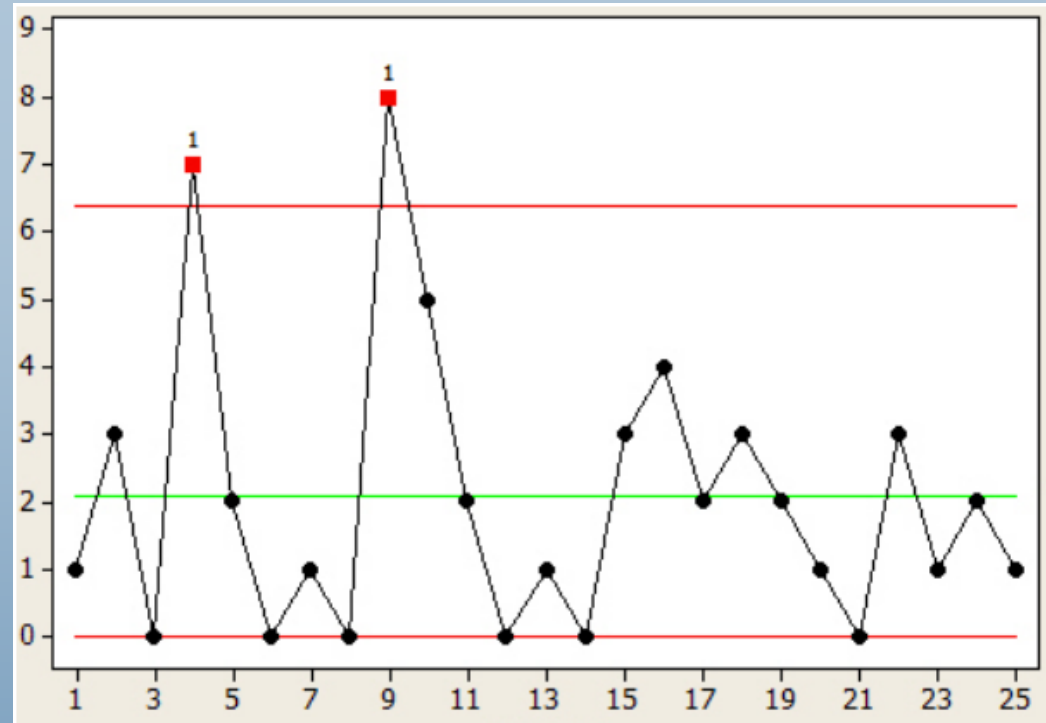
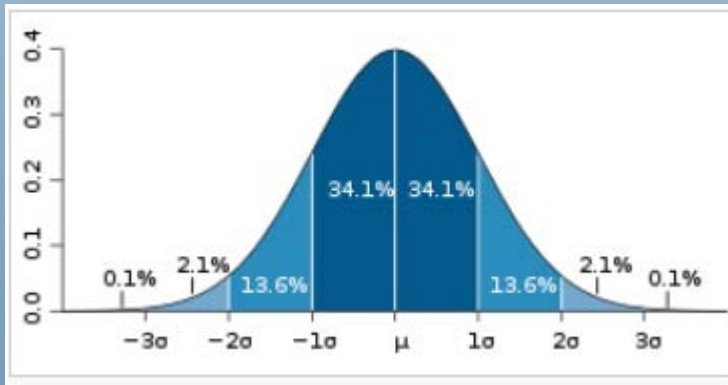


Map Capability:

- ✓ If you don't like the results
→ *Change the System!*

Distinguish Between

- ✓ Common Cause Variation
- ✓ Special Cause Variation



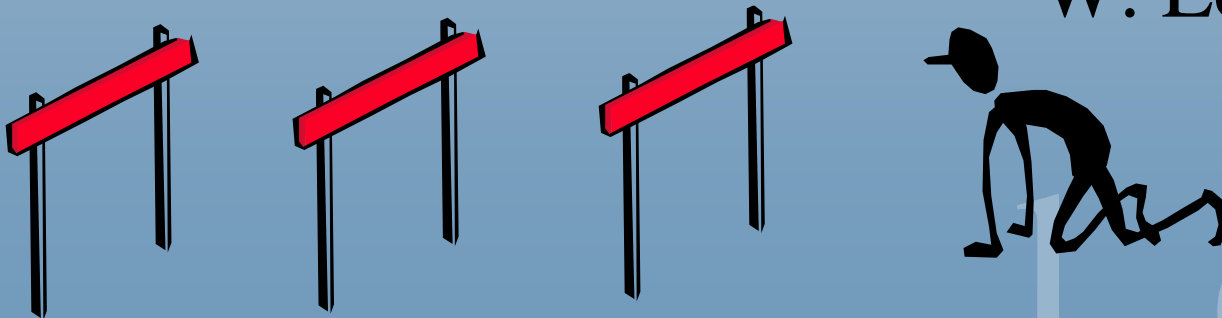
Setting goals doesn't remove common cause variation.
Trying to eliminate common cause variation will amplify it!

What's Wrong with Targets?



“If you have a stable system, then there is no use to specify a goal. You will get whatever the system will deliver. A goal beyond the capability of the system will not be reached. If you have not a stable system, then there is again no point in setting a goal. There is no way to know what the system will produce: it has no capability.”

W. Edwards Deming



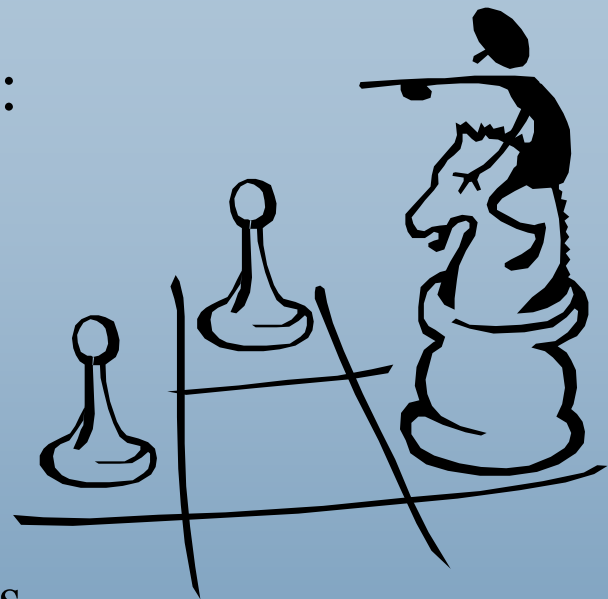
Goals Gone Wild



Be careful what you ask for, you will probably get it.

Goals are such powerful motivators that they can have severe side effects:

- ✓ narrowed focus
- ✓ reduced learning
- ✓ gaming the system
- ✓ dangerous products
- ✓ decreased cooperation
- ✓ seriously underperforming systems



“Aggressive goal setting within an organization will foster an organizational climate ripe for unethical behavior.”

Management by Objectives



Employees are involved in setting their Objectives:

- ✓ People are measured based on their ability to achieve their objectives.
- ✓ Pay incentives are usually tied to meeting targets.

Objectives should be SMART:

- ✓ Specific, Measureable, Attainable, Relevant, and Time-Bound

Deming on MBO:

- ✓ Deming argued that a lack of understanding of systems commonly results in the misapplication of objectives.
- ✓ Deming encouraged managers to abandon objectives in favor of leadership. He felt that a leader with an understanding of systems was more likely to guide workers to an appropriate solution than the incentive of an objective.
- ✓ MBO assumes that extrinsic rewards are the most effective in motivating people. Deming argued that psychology draws the opposite conclusion.



Switch on MBO:

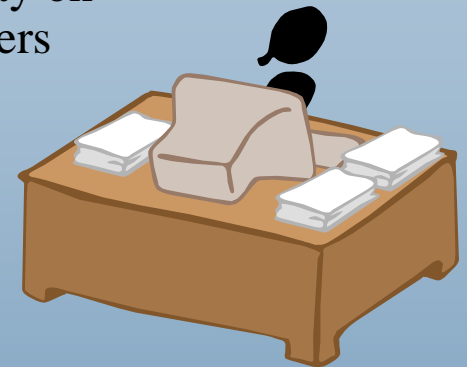
- ✓ Objectives do not direct the rider, motivate the elephant, or shape the path.

Knowledge Workers



*Knowledge worker productivity**

1. Knowledge worker productivity demands that we ask the question: “*What is the task?*” **not** “*How should the work be done?*”
2. It demands that we impose the responsibility for their productivity on the individual knowledge workers themselves. Knowledge workers *have* to manage themselves. They have to have *autonomy*.
3. Continuing innovation has to be part of the work, the task and the responsibility of knowledge workers.
4. Knowledge work requires continuous learning on the part of the knowledge worker, but equally continuous teaching on the part of the knowledge worker. [Share the knowledge.]
5. Productivity of the knowledge worker is not a matter of the *quantity* of output. *Quality* is at least as important. Don't measure number of [drawings or lines of code.] Measure the “results” for a given enterprise and a given activity.
6. Finally, knowledge worker productivity requires that the knowledge worker is seen and treated as an “asset” rather than a “cost.” It requires that knowledge workers want to work for the organization in preference to all other opportunities.



Reciprocity



“Lay Off the Layoffs”

(by Jeffrey Pfeffer, Newsweek, 11/15/10)

On Sept. 12, 2001, there were no commercial flights in the United States. Almost immediately, all the U.S. airlines, save one, began announcing tens of thousands of layoffs. Today the one airline that didn't cut staff, Southwest, still has never had an involuntary layoff. It's now the largest domestic U.S. airline and has a market capitalization bigger than all its domestic competitors combined.

As its former head of human resources told me:

“If people are your most important assets, why would you get rid of them?”

Southwest has 37 consecutive years of profits.

Reciprocity

Treat other people the way you would like them to treat you, and they probably will.



learn

The Toyota Way 2001



Respect for People

Respect

Respect others, make every effort to understand each other, take responsibility and do our best to build mutual trust.

Teamwork

Stimulate personal and professional growth, share the opportunities of development and maximize individual and team performance.

Continuous Improvement

Challenge

Form a long-term vision, meeting challenges with courage & creativity to realize our dreams.

Improvement

Improve the business operations continuously, always driving for innovation and evolution.

Go and See

Go to the source to find the facts to make correct decisions, build consensus and achieve goals.

Challenge or Target?



Challenge

- Where does the organization need to be in five years?
- What does success look like? What does it feel like?
- What is the root cause of the variation in our process?
- What can we do to improve quality and response time?
- We make money to stay in business.



Target

- What results do we need for next quarter?
- Success means we meet our objectives and get bonuses.
- How do we measure our department performance?
- What kind of targets will make the most money?
- We are in business to make money.



Purpose ⇔ Passion



The Gold Standard: Tandberg – Oslo, Norway



Everyone who works there told us the same thing:

“Everything we do here is to make it easier for people to communicate.”

“This is a great company. We think of programmers and salespeople as being the most important and respected positions, the “others”, like the VP you met, all think of themselves – and express loudly – that they are in a supporting role.” Olve Maudal, C++ Programmer

Performance ⇔ Pride



TANDBERG Codec C90



20 months from Idea to Production

Started spring 2007

1st HW prototype mid 2008

Released late 2008

55-65 people involved

2-3 people mechanics/design

4-5 people electronics/hardware

40-50 people software dev

5-6 people FPGA development

4 people test developers

1 person approvals

Product Development in Tandberg

- ✓ We spend very little energy on things that are not essential
- ✓ “Plans are nothing, planning is everything”
- ✓ We do not write hours, we do not measure project cost
- ✓ Decisions are delayed as much as possible
- ✓ To fail is OK, therefore we deliver spectacular stuff
- ✓ Doers are very much respected in Tandberg
- ✓ We hire and keep exceptional people
- ✓ Communication is a key skill for all our engineers
- ✓ We are fast and “sloppy”
- ✓ We release early and we release often
- ✓ Little documentation gives effective communication
- ✓ Slack is embedded, and “skunk work” projects appreciated
- ✓ The company builds on trust
- ✓ Developers are treated as professionals, not as resources
- ✓ Fun and Profit

We follow principles, not processes!



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software development

Thank You!

More Information: www.poppendieck.com