QMD Managing for Quality Webinar Series

Session #7

Managerial Engineering – Designing Future Firms

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How will "Managing for Quality" change?

Session 1	Making Quality-Based Executive Decisions
Session 2	Leading Transformation – Managing Improvement
Session 3	Designing Quality as an Inclusive Business System
Session 4	Conducting Executive Inquiry and Formulating Strategy
Session 5	Understanding Japanese-Style Strategy Management
Session 6	Organizational Learning – Triple-Loop Experience
Session 7	**Managerial Engineering – Designing Future Firms**
Session 8	Understanding the Financial Component of Quality
Session 9	Reflecting on Strategic Implications of Attractive Quality
Session 10	Discovering Profound Insights of Operational Excellence
Session 11	Defining Quality to Apply to Everyone, Everywhere
Session 12	Managing for Quality Amidst Digital Turbulence

Abstract of Session #7:

This webinar describes a collection of activities that can be described as "managerial engineering." These activities provide a logical design and structuring of business processes. The objective is to make the business processes become more responsive to external market, technological, social, legal, and regulatory influences. The mechanism by which this alignment occurs is a linkage of strategy formulation and deployment processes to the supporting feedback loops that minimize potential strategic upsets that occur from external dynamic shifts. This way of working integrates active external data monitoring process with the internal Process of Management (POM) which humanizes technology such as big data search engines, linked and aligned predictive system of measurements and simulation analysis to assess business alternatives by conducting "what if" scenario analyses to evaluate the spectrum of changes and determine how its people can manage these technologies.

Learning Objectives for Session #7:

Learning Objective 1: Discover the relationship between the strategy management and managerial engineering processes.
Learn how managerial engineering occurs as an end-to-end process across strategy assessment, strategy search, and strategy formulation activities.

Learning Objective 2: Understand how the SDCA and PDCA cycles relate to the management of improvement projects.
Describe how the SDCA and PDCA processes operate across the Gemba 1 and Gemba 2 organizations and how they incorporate 5-S activities in the SDCA daily management process.

Learning Objective 3: Learn how the five Process of Management (POM) steps operate to manage improvement activities within the SDCA/PDCA Cycles.
Incorporate the POM activities in the improvement activities of a process owner or change agent.

Managerial Engineering – Designing Future Firms

Part 1:

Engineering Management of an End-to-End Working System

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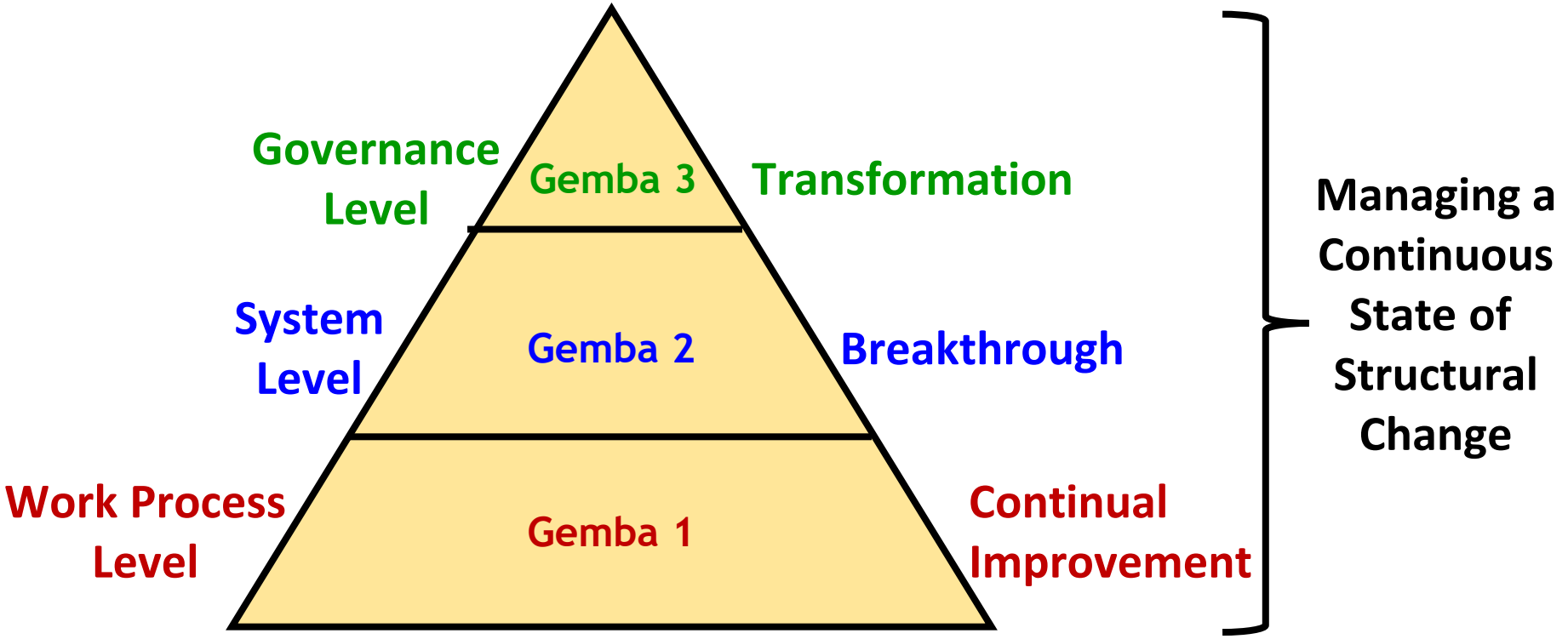
What is "managerial engineering?"

- In the past, management engineers have designed systems for control. Today they are designing systems that support ongoing change.
- Managerial engineering is an emerging field in the discipline of industrial engineering. It establishes interrelationships between operationally-based and project-based organizations to engineer the entire business into a linked and aligned "system of systems."
- This methodology focuses on organizational design that structures change initiatives to shift from a classic functional bureaucratic system of multiple self-regulating departments and disciplines into a network of linked cross-functional systems of a process-defined activities.
- Management engineers act as high-level business analysts and use cross-disciplinary engineering knowledge and skills, as internal consultants to design, develop, and deploy more efficient, cost-effective processes and operating methods. They coach teams through implementation and then mentor the process owners by monitoring routine performance to identify issues that call for changes to increase total system results.

Managerial engineering "designs in" quality:

How must management structure change projects to gain the advantage of available resources and sound decisions?



Collective activity required across the organization to manage change!

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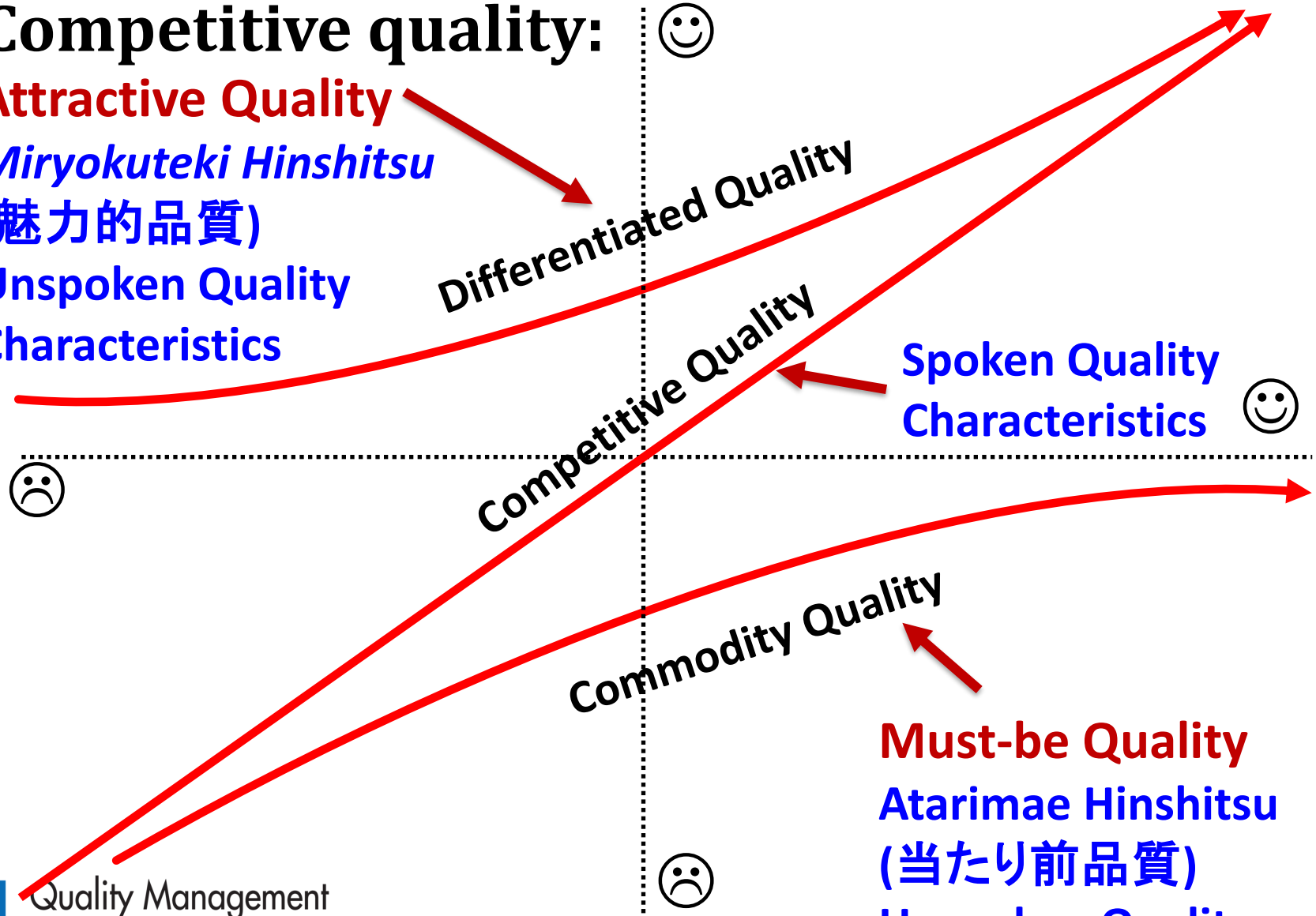
Designing quality into the productive system is a requirement to produce quality outcomes in goods and services.

Critical Success Factors in Managerial Design:

1. Understand the Requirements
   - Key Performance Indicator
   - Deliverable Requirements
   - Customer Testing and Measurement System
2. Define the Quality Characteristics
   - Designing Effective Systems: – Must-Be Quality
   - Developing Customer Intimacy: One-Dimensional Quality
   - Creating Competitive Edge: Attractive Quality
3. Pursue Delivery of Customer Value
   - Job Customer Needs to Perform with Deliverables
   - Tolerance Limits for Performance
   - Resource Availability and Scheduling

Discover Profound Knowledge in All Dimensions

Competitive quality:



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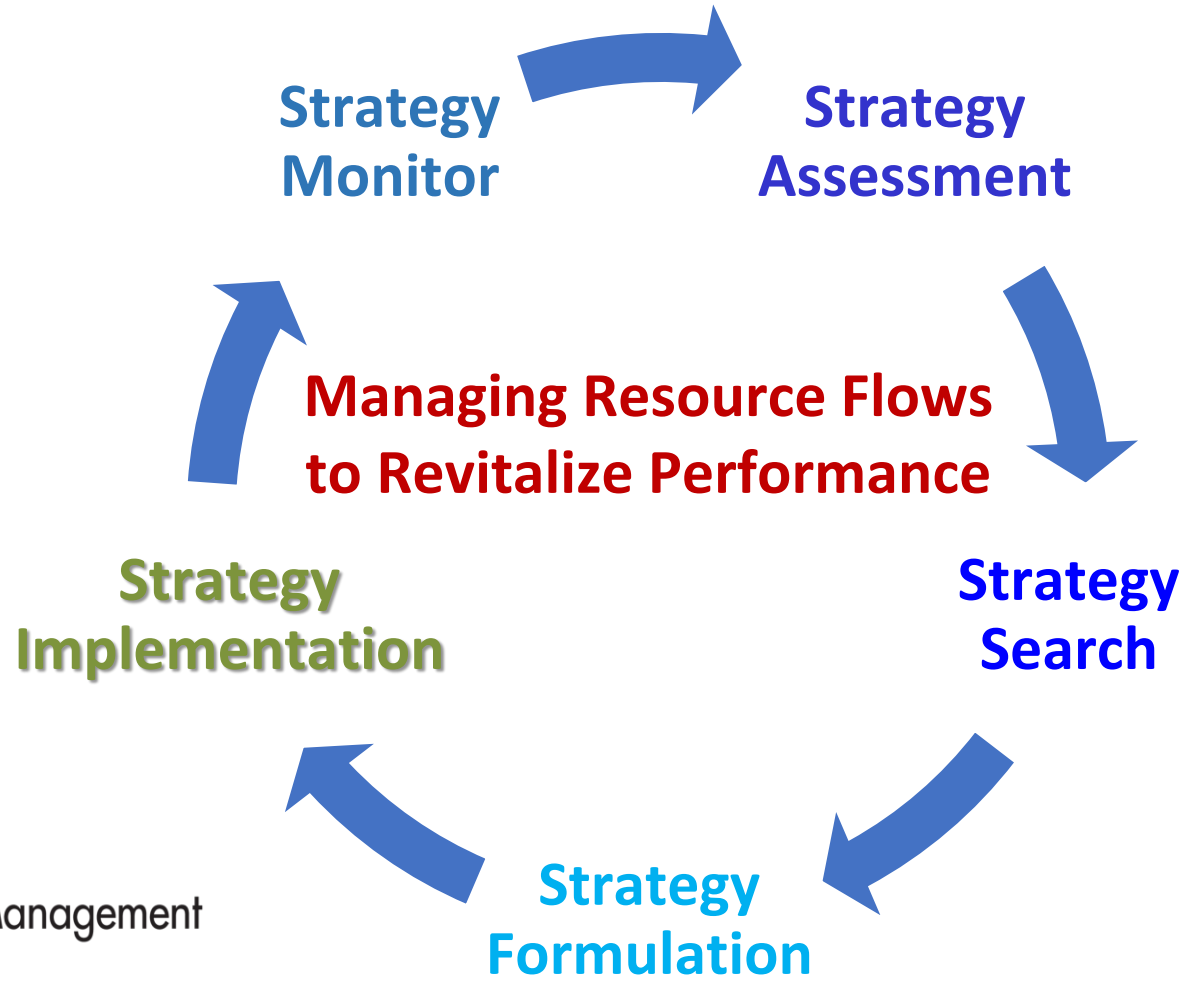
Deploying quality into work by applying POM: Managing a "strategy loop" for breakthrough!



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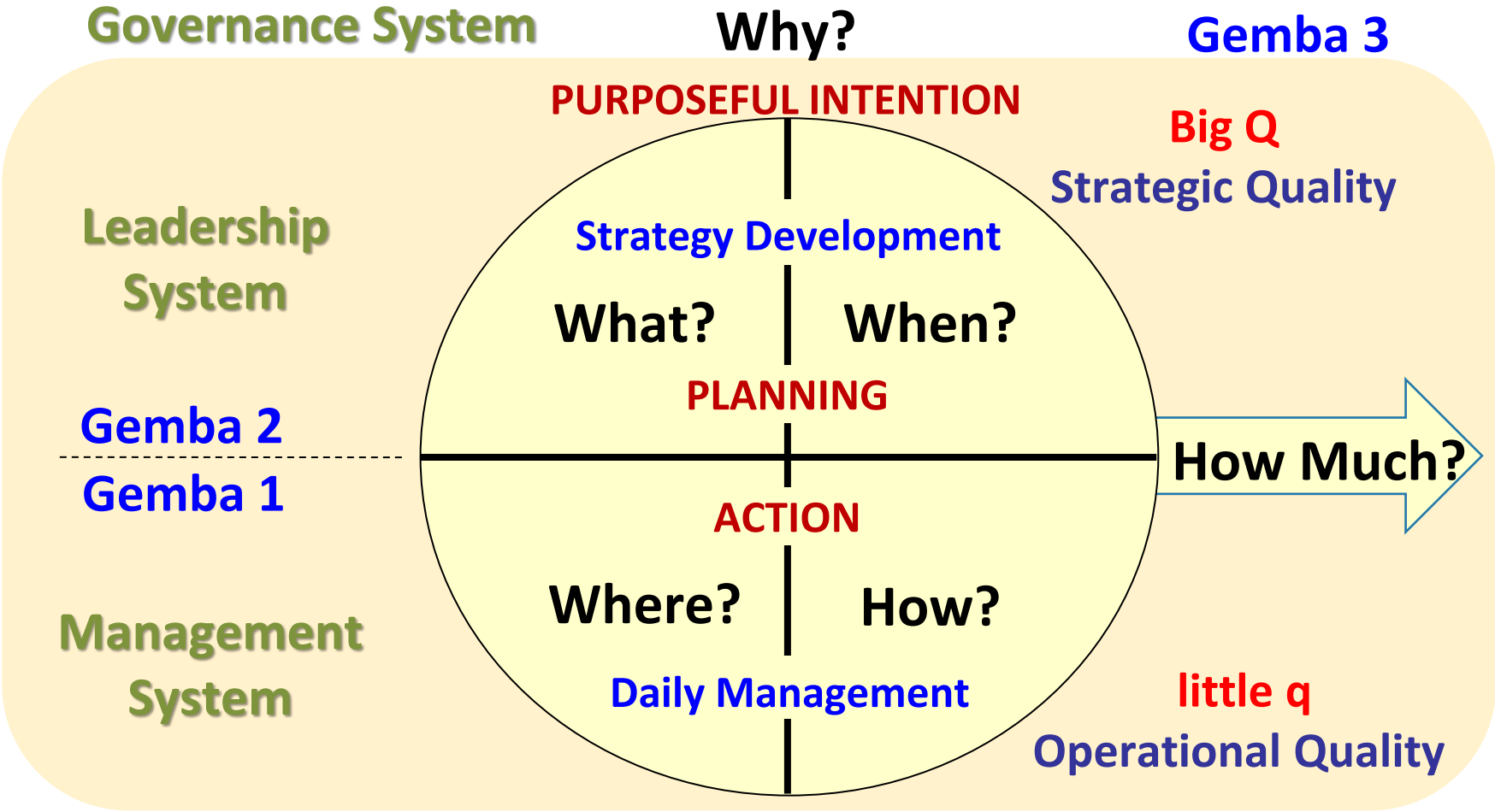
Probing questions drive scientific inquiry:



What questions should you ask to get results that are desired for your current improvement objectives?

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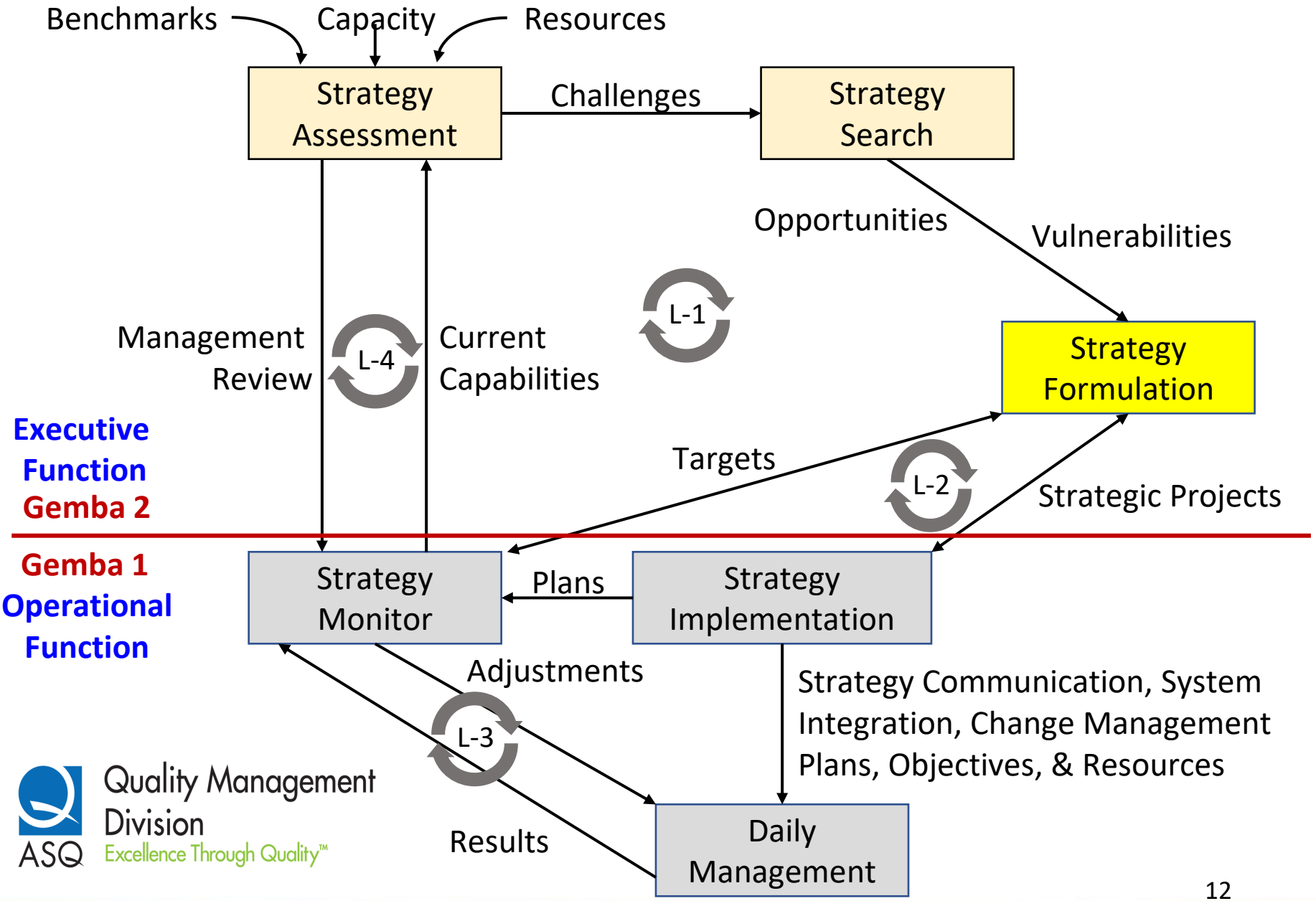
The process of strategy management:



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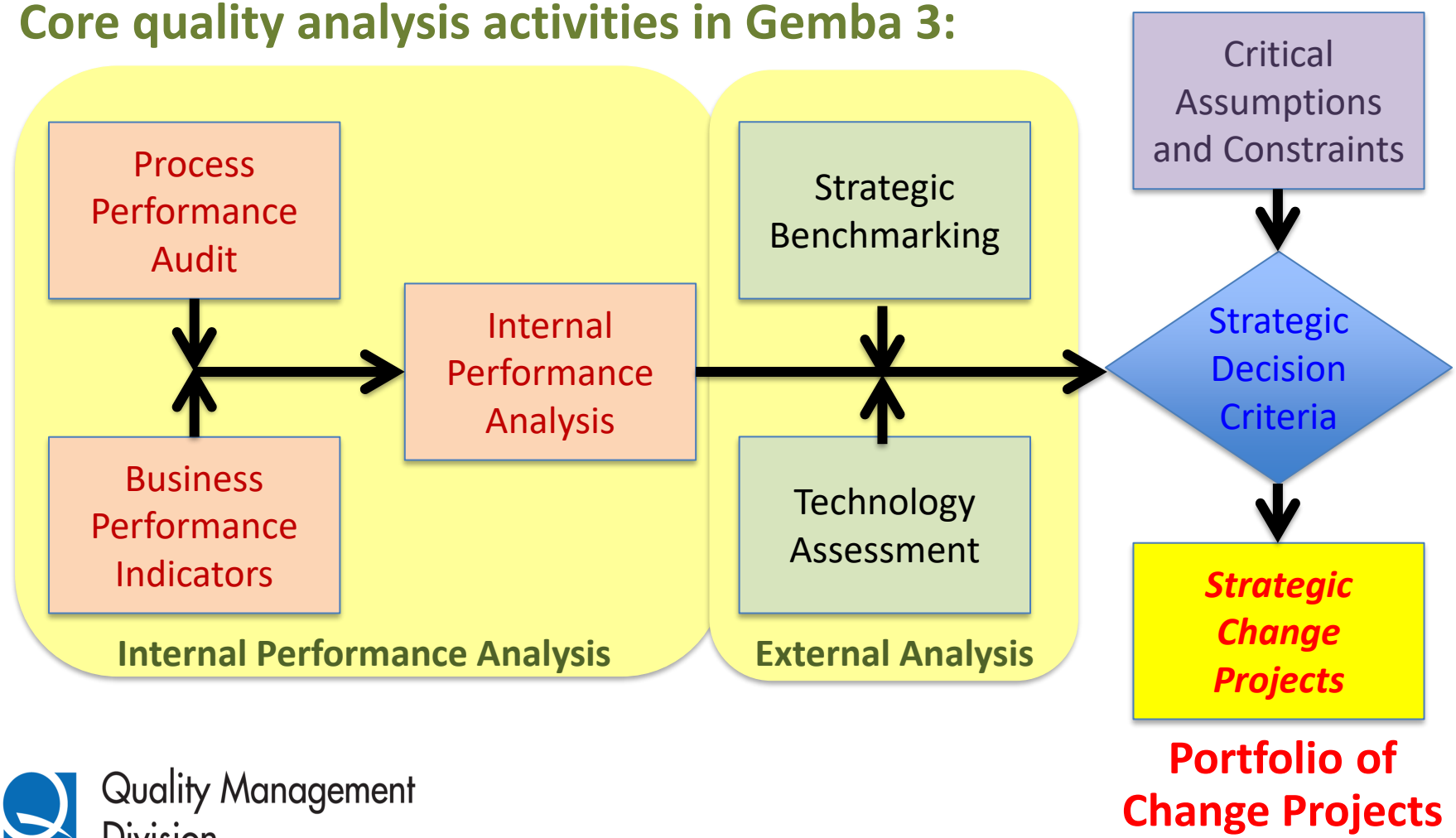
Strategy assessment, search, and formulation:

Managerial engineering analyses derive choices for strategic projects.

Core quality analysis activities in Gemba 3:



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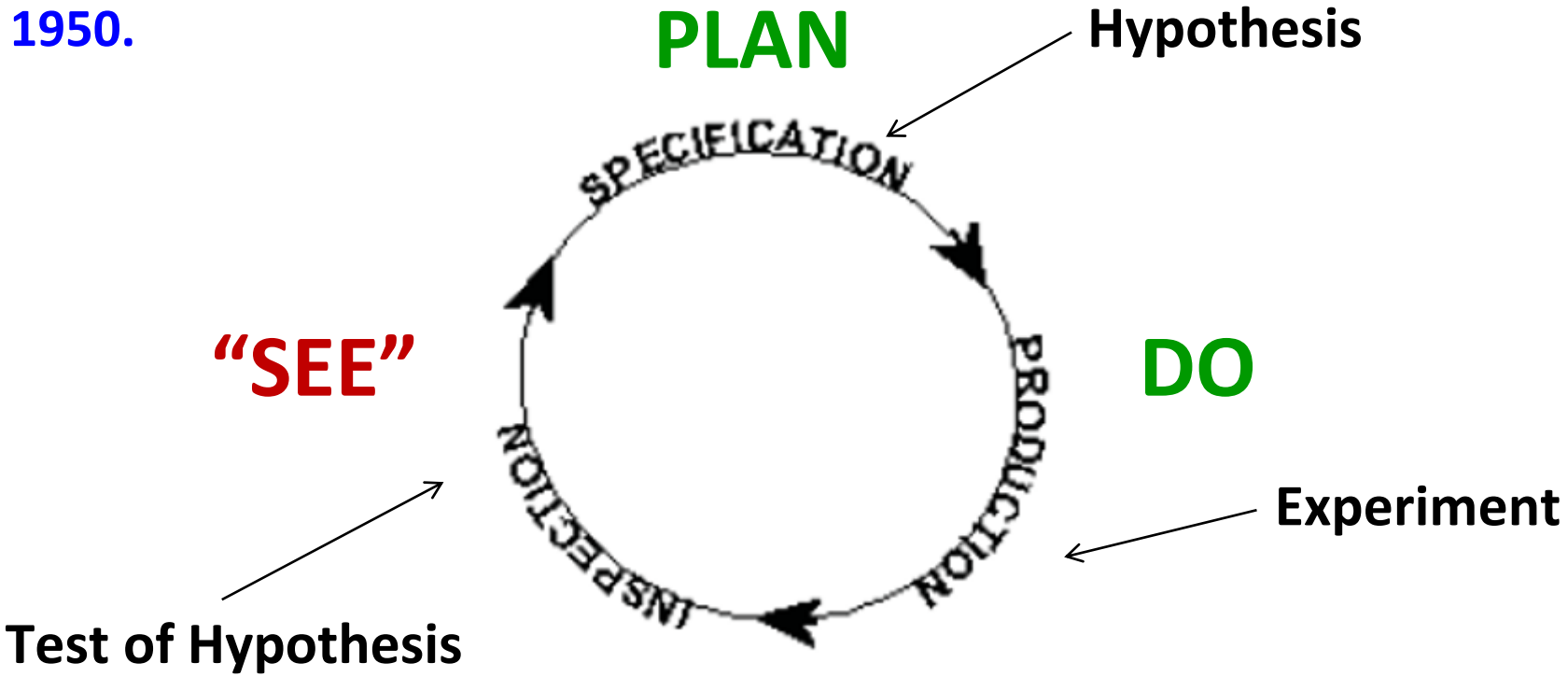
* Gregory H. Watson (1994), Business Systems Engineering (New York: Wiley).

The idea: Shewhart's "Cycle of Improvement"

This cycle documents the thinking of Taylorism (Plan-Do-See) that was created by the Japanese Efficiency Society between 1912 and 1950.



Taylor initiated an "efficiency movement" that evolved into industrial engineering and added an "inspection function" to complement a division labor into manages and workers by Adam Smith.

Wisdom about planning processes:

"Too many managers are Do-Act managers. That is exactly what they get: do-do!"

~ Noriaki Kano

"Plans are only good intentions unless they immediately degenerate into hard work."

~ Peter F. Drucker

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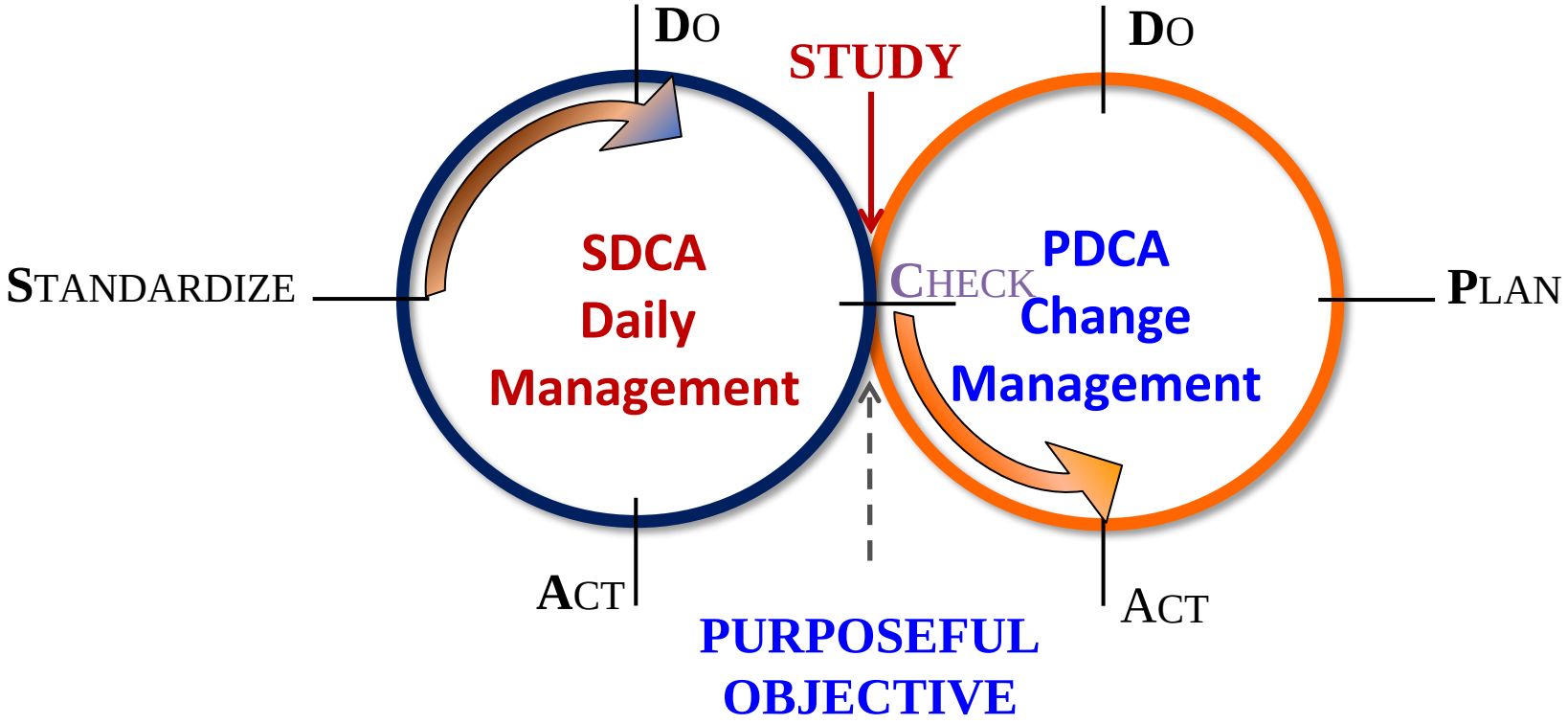
Improvement targets value-adding work:

Effective changes must be implemented in the daily work activities!



Management of quality in the routine activities is achieved using work standards.

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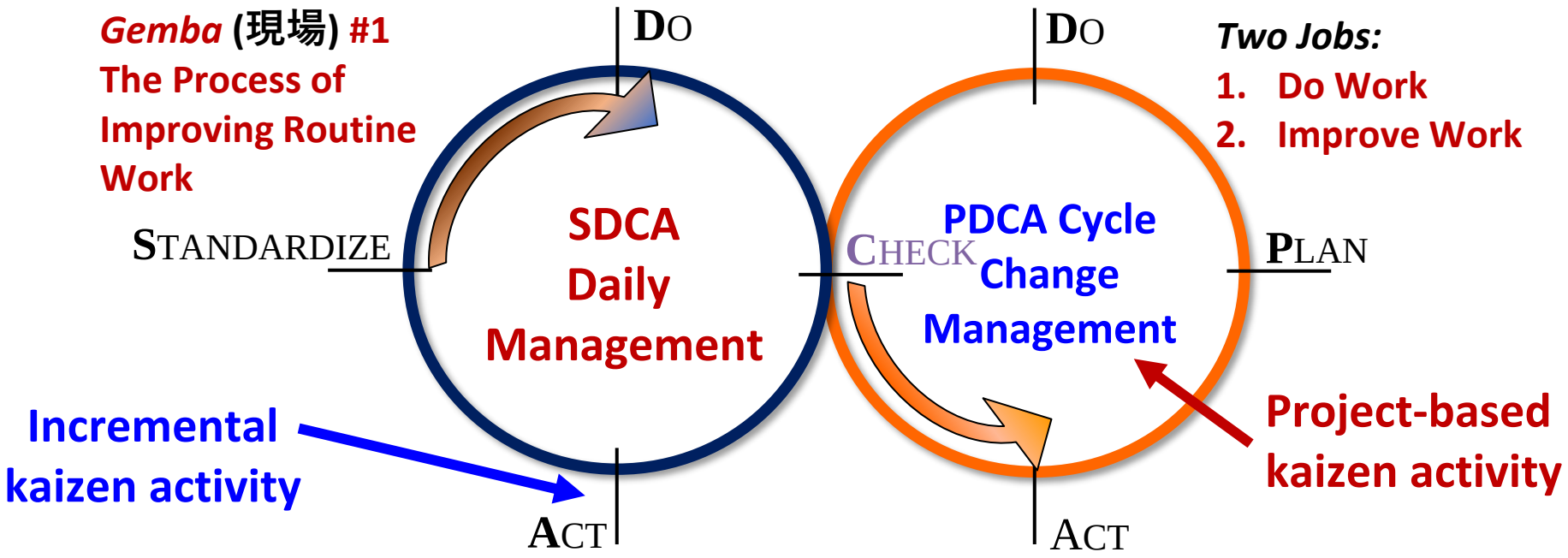
* Standardize-Do-Check-Act (SDCA) / Plan-Do-Check-Act (PDCA) together comprise the fundamental mental model for managing change.

PDCA manages organizational change projects:



Activities	Facilitate Team – Lead Analysis
Controls	Work Review – Waste Identification – Team Action
Measures	Work Balance – Flow Productivity

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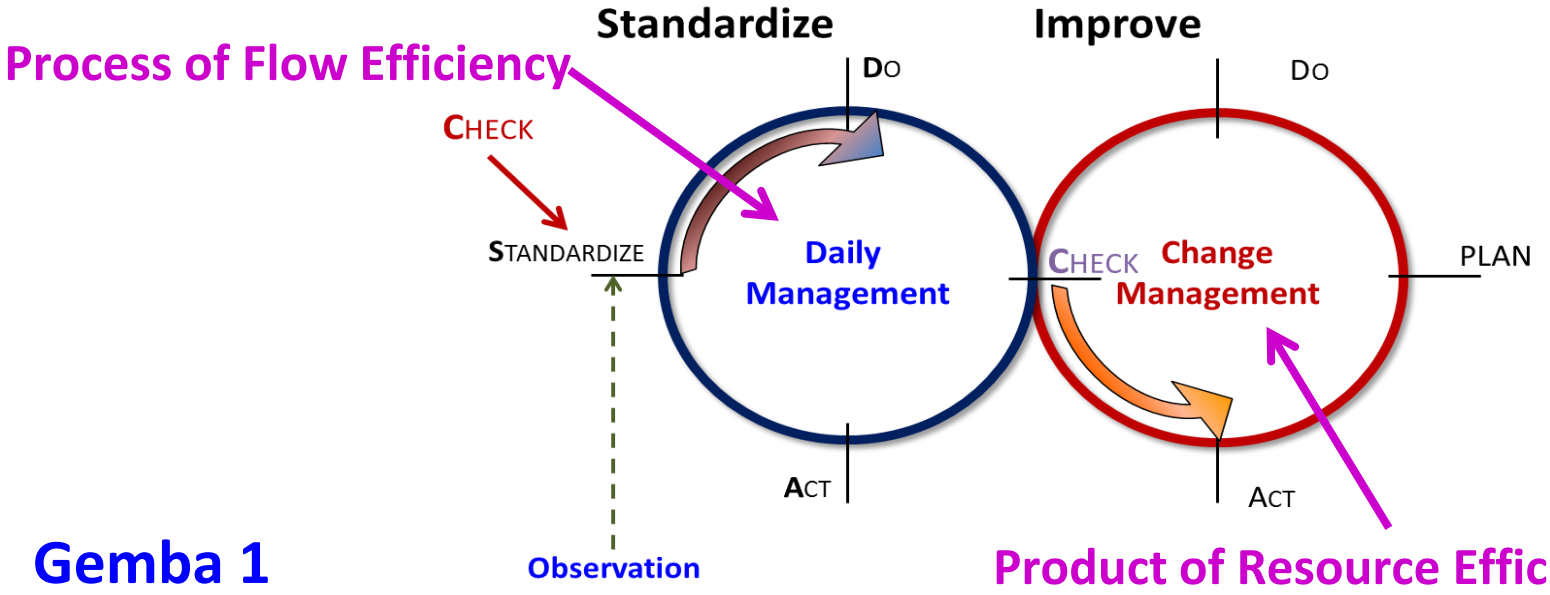
Understanding "standard work:"

- Standard work defines the most efficient method to produce a deliverable that meets its requirements for quality at desired rate of production and within a targeted budget at the lowest total cost.
- It breaks work into sequential elements and defines tasks to be performed using checklists and sets the quality criteria to be assessed using established test procedures, performance thresholds and boundary limits for control.
- Workers must be trained in these tasks; provided adequate tools, methods, and equipment to perform work; permitted decision rights to regulate the performance of the work to assure that targets for output are achieved; and maintained current on requirements for cycle time, takt time, and standards for managing work-in-process inventory.

Process Owners manage this daily work cycle:

Daily Management: The continual and incremental cycle of performing and reinvigorating routine work processes!



Gemba 1

The daily work of the organization done by using work processes.

Gemba 2

The strategic work of allocating resources to encourage higher productivity in the workplace.

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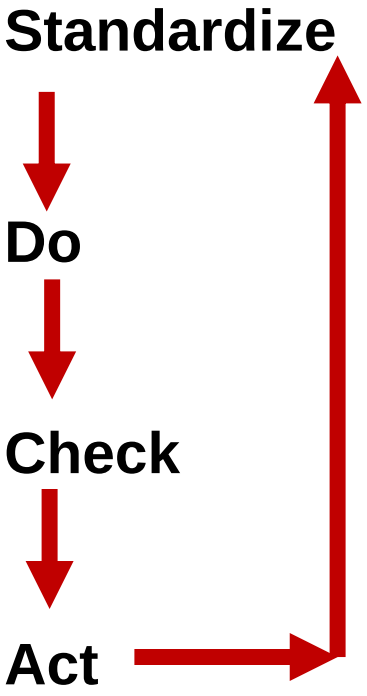
Improvement is embedded into daily work:

Workers do work and simplify or improve work standards:



1. *Arrange all daily work activities into a set of standard ways of working;*
2. *Perform work activities;*
3. *Evaluate the work against its standards for compliance; and*
4. *Adjust work activities if there is a shortfall in results or improve the standard way of working.*

Continue applying this cyclic process of work management continually.

Seiketsu = purification; antiseptic cleaning; part of Total Productive Maintenance

Shitsuke = teaching manners; living by rules; or following the way with discipline

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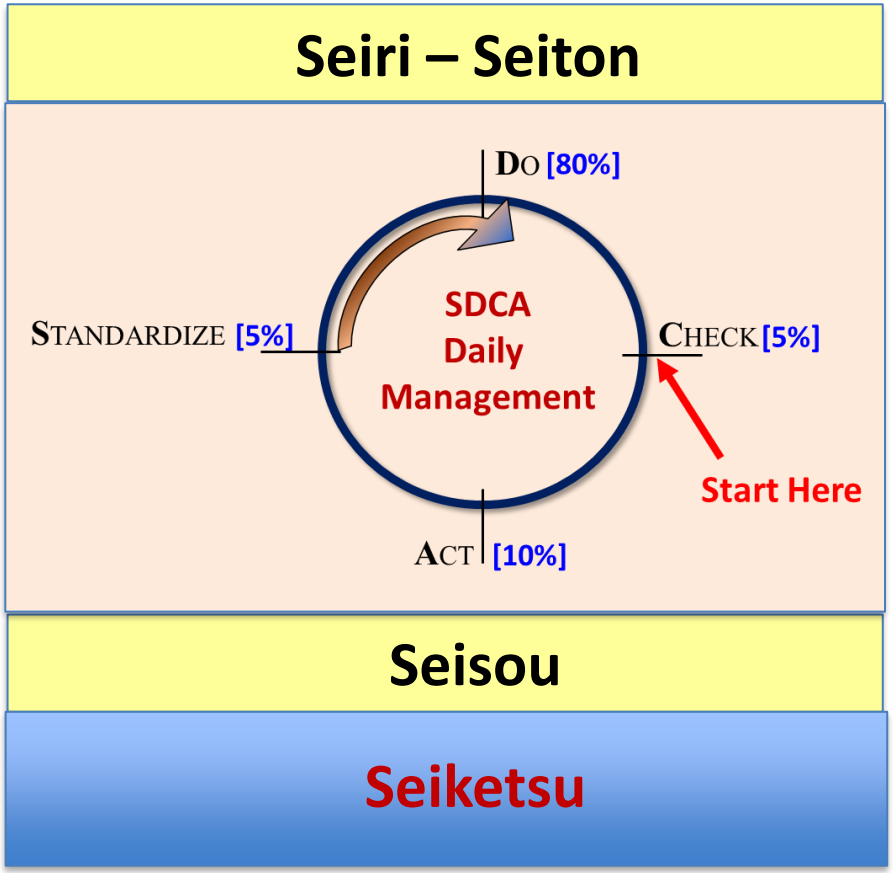
Understanding the discipline of daily work:

It is all in a day's work:



Productive time available for working is divided into three components: preparatory, the actual value-adding work, and closure of the workday.

Preparatory time is dedicated to "seiri-seiton" activities for making ready to do the work.

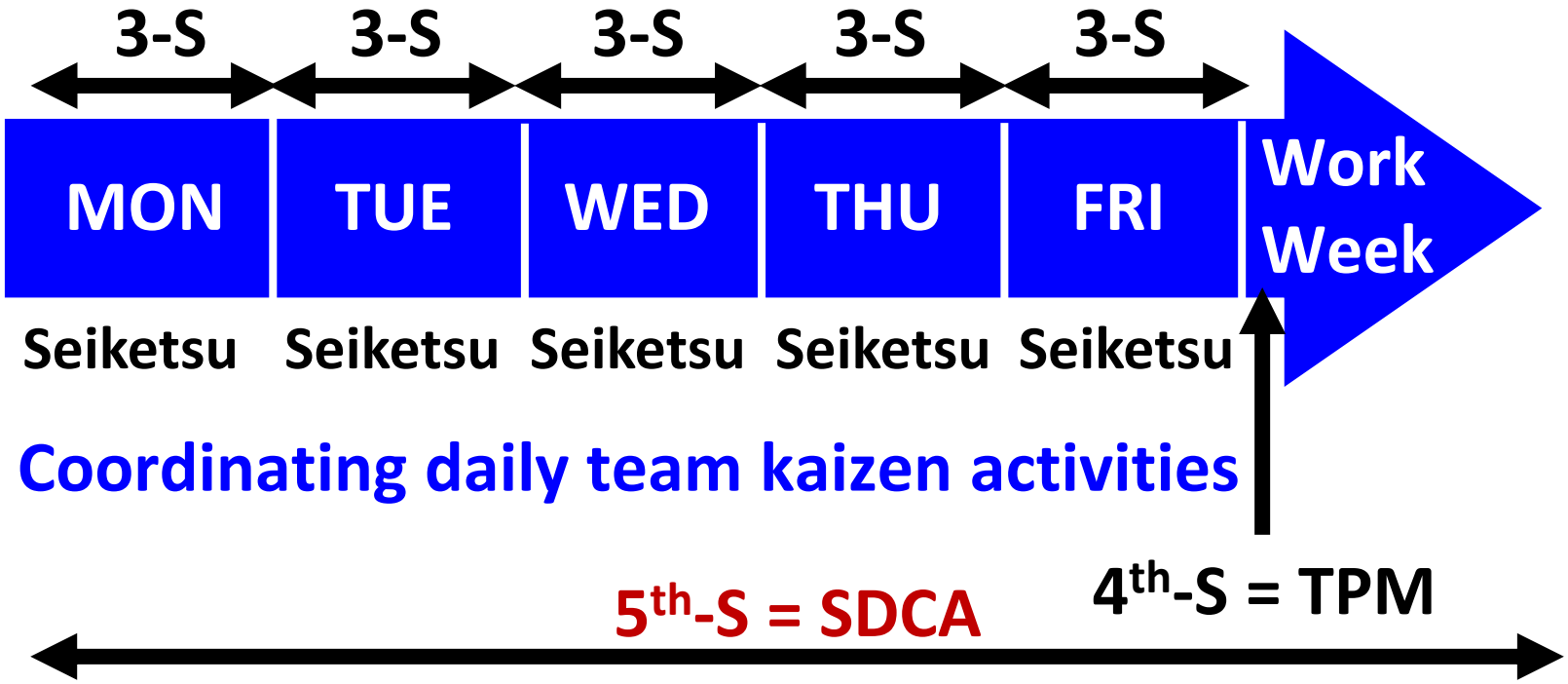
Value-adding work should be performing the work or doing projects to improve the work processes.

Closure work activities sort out the waste produced and get each of the workstations ready for the next working period.

Productive maintenance occurs as needed on a regular basis: this is seiketsu.

How does '5-S' relate to daily management?

Workplace Management Discipline = Constancy of Purpose!



The '4th S' (seiketsu) standardizes housekeeping process for the long-term. It is better known as Total Productive Maintenance (TPM). The '5th S' (shitsuke) "sustains" the performance discipline and relates to embedding it into the culture of an organization's routine way of working. This is the SDCA daily management working cycle.

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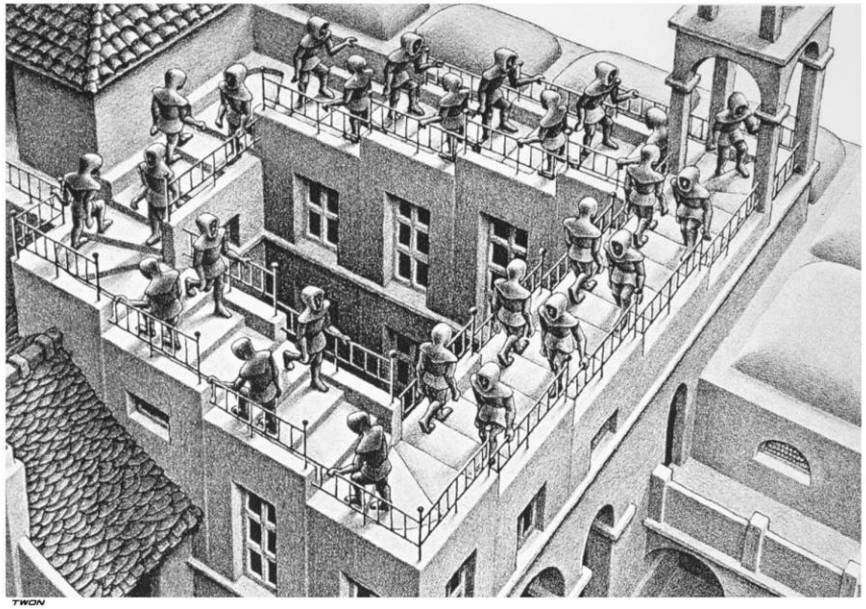
Improving on Standard Work:

Taking the second step in the kaizen journey.



To make progress it is most important NOT to begin on an impossible journey.

Understanding both where you are and where you want to be is just the beginning.

It is essential that the path to the destination be planned.

Transition from routine daily work to transform activities so they reliably perform with increased effectiveness, efficiency, and economy requires intervention of management to supply additional resources according to prioritized plans for changing the way that work is performed.

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3 R's: Responsibility, Resources & Rights:

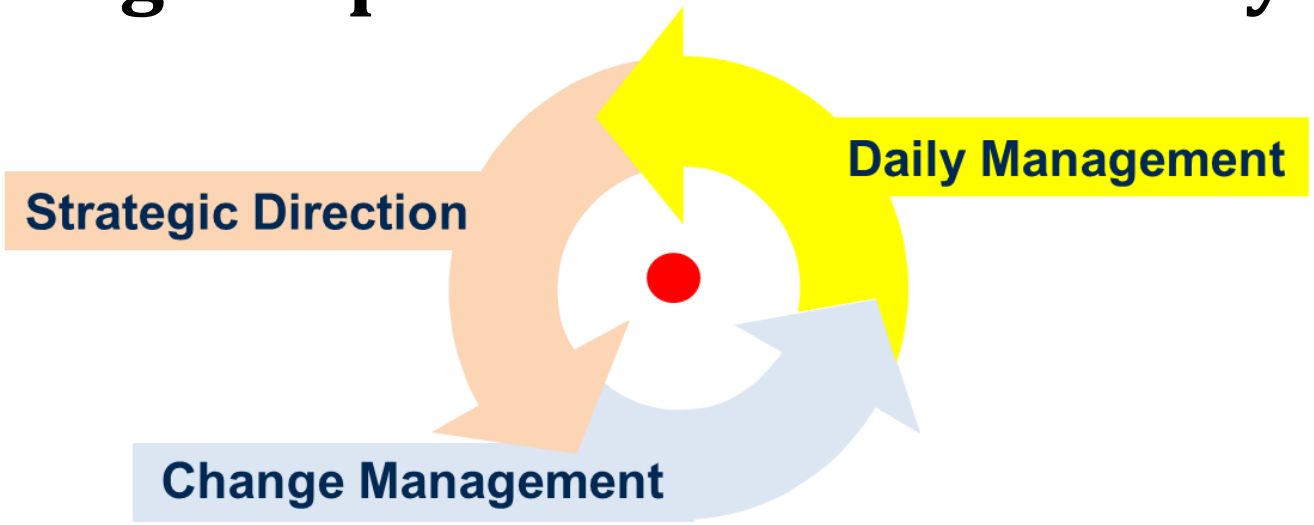
"When you go to the Gemba, ask what can you give them. Do not go to scold them. That is not the way of kaizen."

~ Taiichi Ohno

The three "gifts" of management:

- **Direct Responsibility: clear job to do with a key measurable objective, defined boundaries or limits of responsibility, and agreed-upon, clear schedule for performance.**
- **Dedicated Resources: required methods, tools, and training to accomplish the assigned job with sufficient support of key individuals required for operational or technical support.**
- **Decision Rights: Authority to make decisions in the area of responsibility including commitment of budgeted funds and assignments of work to team participants.**

Operating components of a business system:



Organizations Operate Differently at Different Levels:

- **Leadership Level** – Seek and apply resources to achieve the organization's purposeful aim through operational activities.
- **Cross-Functional Level** – Distribute the critical resources and decision rights so that the business system works effectively.
- **Operational Level** – Perform value-adding work.

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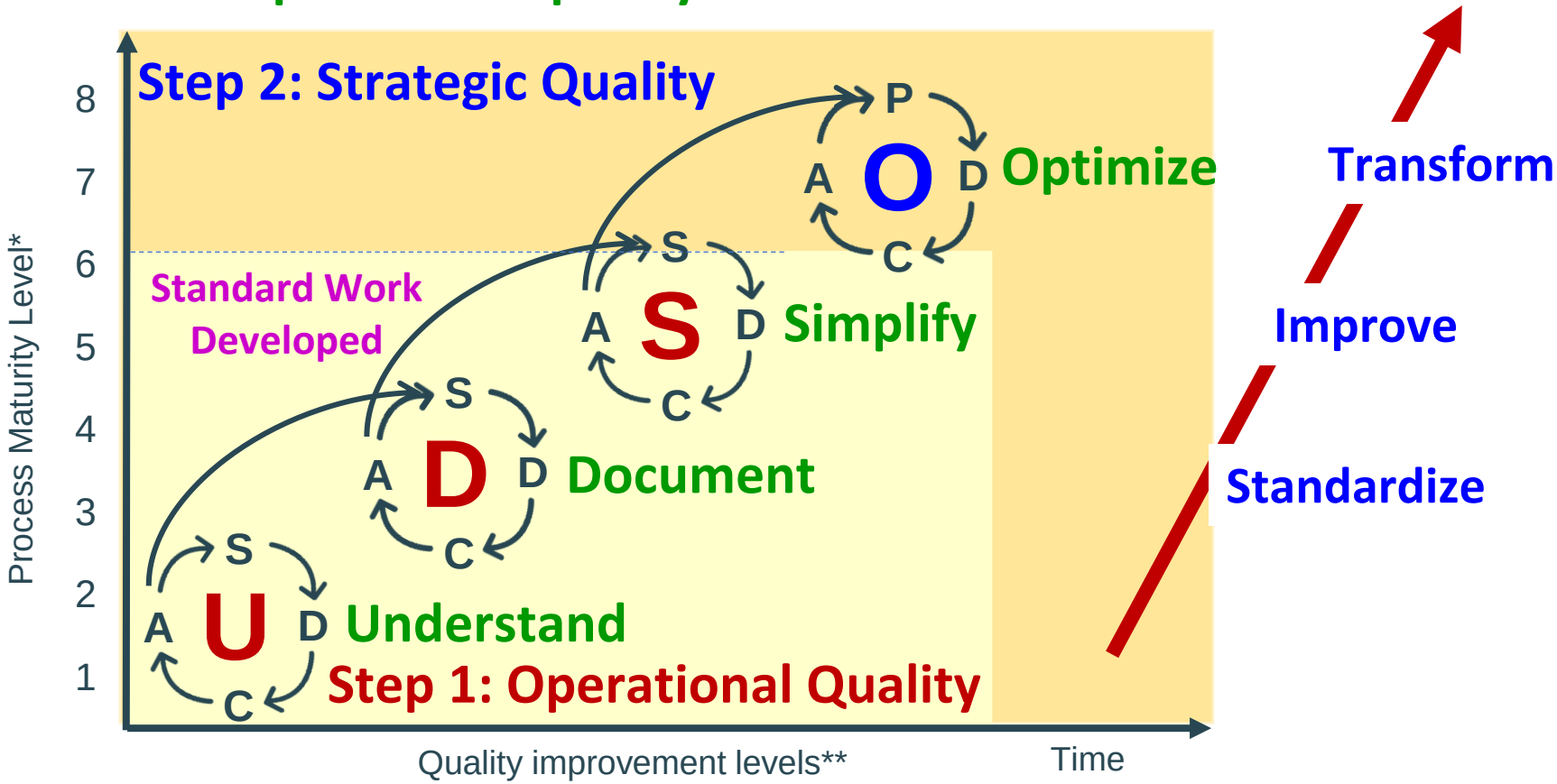
Improvement projects must integrate across all three levels to assure change operates in an effective way within this system.

All change happens one project at a time!

- The word "change" implies that there is some base state from which movement occurs – from one state to another.
- Kaizen literally means "change for the better" – it is the desired direction for change to proceed!
- Should we accept "chaos" as the original state or would some degree of stability provide a stronger foundation on which to make change happen?
- Therefore, Joseph M. Juran commented: "Without a standard there can be no improvement."
- What is the base state from which change begins?
- Eliminating instability of "chaos" is the first step in designing a management process to achieve kaizen change for the better.

UDSO: Managing facts to transform work!

Build a solid foundation by standardizing daily work to achieve consistent operational quality!



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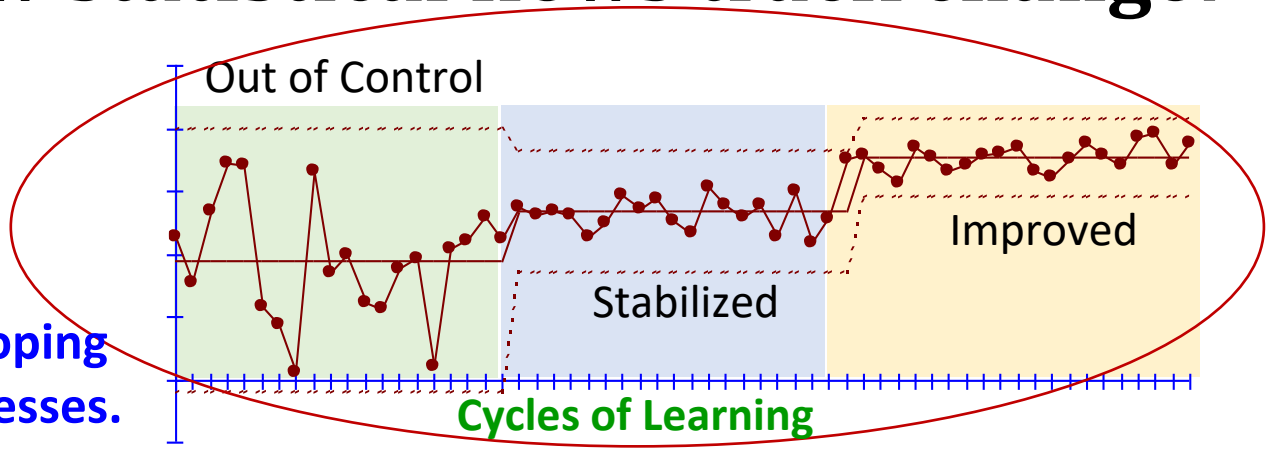
* Gregory H. Watson (2011), Process Management to Enable Growth, *Journal of Quality & Participation.*

** Gregory H. Watson (1994), *Business Systems Engineering*, (New York: John Wiley).

Consider how statistical flows track change:



Steps toward developing standard work processes.

These three "learning levels" are embedded in a UDSO model through "cycles of learning" – all of this occurs within the first loop of the "Triple-Loop" Learning process!

- **Level 1: *Understand* sources of special causes of variation.**
- **Level 2: Eliminate special causes and *document* the process.**
- **Level 3: *Simplify* the process by eliminating waste and losses across the process.**

Then complete the 2nd and 3rd SDCA cycles!

"Impressive standard work is never absolute in its practice. First, pick a starting point that fits you the best and create a solid foundation which will help you gather useful clues for establishing a more desirable and attainable achievement of standard work . . . Do not aim for perfection. Create a lenient standard work to begin with."

~ Taiichi Ohno
Workplace Management

- The most important thing about improvement is to start!
- The second most important thing is to continue improving!
- The third most important think is to challenge perfection!

This is the "great, unfinished work" of managing for quality!

Like scientific knowledge, standard work is never settled, and is always open to innovative discoveries!

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What do we do with all these opportunities?

"All change occurs one project at a time and in no other way." ~ Joseph M. Juran

- Opportunities for Improvement (OFIs) must be consolidated and sequenced in priority of need using an assessment of their impact on the performance of the business system.
- A portfolio of change projects should be created to identify the most important issues to be addressed and to establish priorities for assigning available resources to correct these deficient circumstances.
- Improvement projects should be selected using a systems-based perspective of the value contribution to increasing the overall performance based on perceptions of customers and stakeholders.

Managerial Engineering – Designing Future Firms

Part 2:

Guiding the Process of Management

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How should we manage changes in work?

"There is nothing so useless as doing efficiently that which should not be done at all."

~ Peter F. Drucker

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Why does Quality Matter in Designing a POM?

Quality should be the beneficial objective of all work activities as well as their management – delivering value to customers by:

- **Identifying and eliminating muda waste from all sources.**
- **Understanding and streamlining flow.**
- **Finding and reducing special cause variation in quality and time.**
- **Improving the safe operating conditions for workers.**
- **Reducing transaction costs in process activities.**
- **Fool-proofing operating tasks to eliminate inadvertent errors.**
- **Accepting quality assurance responsibility at each point of work.**
- **Pursuing perfection in achieving work capability and capacity.**

The Importance of Collaboration:

"Effective work is actually done in and by teams of people with diverse knowledge and skills. These people have to work together voluntarily and according to the logic of the situation and the demands of the task, rather than according to a formal jurisdictional structure."

~ Peter F. Drucker
The Effective Executive

"Management is doing things right. Leadership is doing the right things." **~ Peter F. Drucker**

"A fundamental 'right thing' is 'work together.'"

~ Gregory H. Watson

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Becoming a Successful Internal Consultant:

New role of managerial engineer: Trusted advisor & business analyst!

An internal consultant does not merely predict the future; their job is to effect the future. They become the cause that is behind the change.

A great internal consultant recognizes the problems before they become emergencies and has a solution ready before managers know that the problem exists!

Great internal consultants are curious about what is happening and skeptical about all data; they anticipate situations and have already considered the what-if scenarios so they have valuable insights into the conditions that could happen as well as what unintended consequences of these action could occur.

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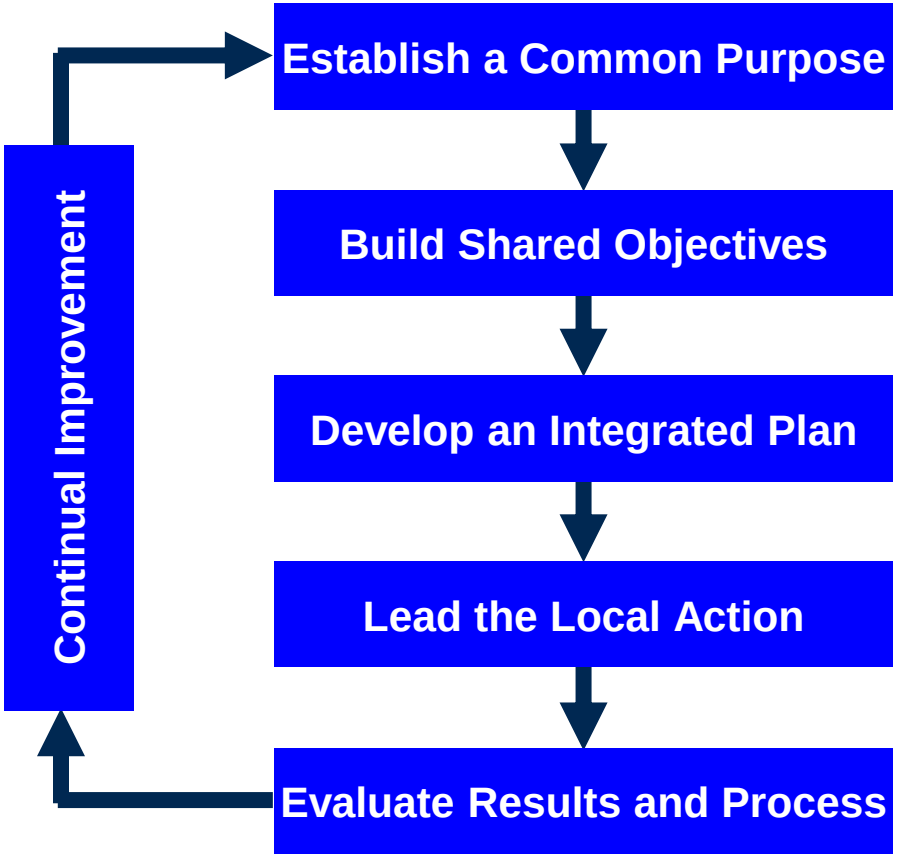
PDCA is a basis for the Process of Management:

- Workers follow the SDCA cycle for standardization of work and its evolutionary or incremental improvement. This is the "Daily Management System."
- Supervisors and Managers follow the PDCA cycle to check or assess what needs to be improved and to make the process more effective for change management. This process acts in concert with SDCA to provide resources that will enable the daily work to achieve breakthrough performance and gain in productivity and profitability.
- The use of PDCA in the Process of Management (POM) has been modeled in detail by Hewlett-Packard Company in the late 1980s and POM is still applied over 30 years later.
- What can you learn from studying this benchmark process? Can it be adopted for your organization?

Understanding the PDCA embedded in POM:

Hewlett-Packard studied their most successful leaders to discover what is common about the way they lead their teams to success.



The Process of Management (POM) is distinct from *content* (or strategy and tactics) and the *analytical tools* (statistics and graphs, etc.) that enable it to be implemented.

POM can be exercised at all levels of an organization and is based upon a Plan-Do-Check-Act (PDCA) model of process improvement.

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Adapted from Hewlett-Packard, circa1987

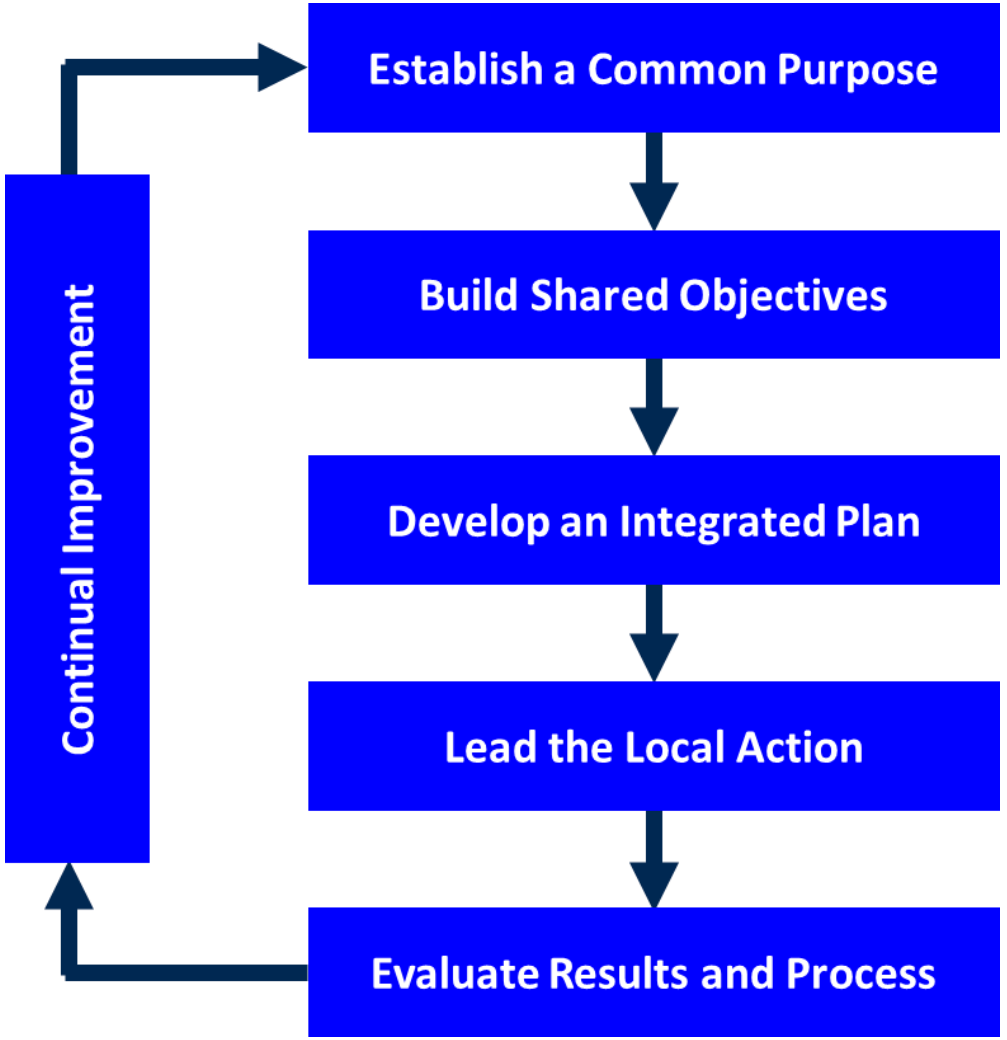
Decomposing POM into Actionable Stages:

One job of leadership is to find and then fund its future organization.

Achievement of a vision and its long-term goals is achieved by changing the way value-adding work is performed routinely.

These changes must be planned as a portfolio of improvement projects to shift performance.

What change is needed for this future?



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Managerial Engineering:
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Process of Management – Stage 1

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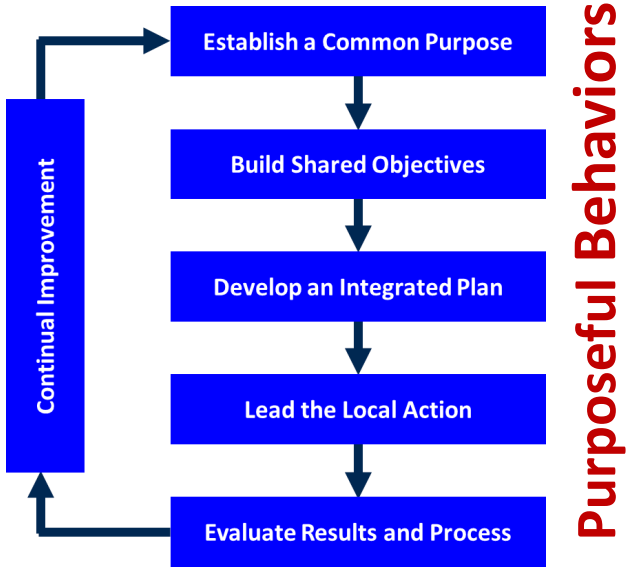
Process of Management – Stage 1:

Application of PDCA to the Process of Daily Management



Establish a Common Purpose *

- Communicate with Customers
- Study the Environment
- Align with Organizational Objectives
- Be Willing to Innovate
- Analyze and integrate Data

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* Reference: Hewlett-Packard Training Course, "The Process of Management" (1987).

POM Stage #1 Detailed description:

- **A common purpose establishes the relationship to customers and competitors, and it identifies the contribution of the process team as aligned with an organization's goals and objectives.**
- **POM will *challenge the legacy or "same old way" of working by asking "what if" about the positives for innovation and any negatives that create unreliable conditions*.**
- **Experiments with technology, processes services are intended to improve standard work based on standard work performed with a willingness to make adjustments in process activities**
- **Adjustments should be based on observations using shared situational awareness of the environment and sensemaking about it influence on the critical few opportunities to improve that will create significant changes in performance.**

Humanization of technology in POM #1:

Application of the Constructal Law to the Process of Management:

Flow systems have two features: there is content flowing through them like a current, and there is a design or system through which it flows. The Constructal Law describes how systems evolve over time to increase their flow achieving more productive systems over time. The system contains both a structural design as well as the pulse or cadence at which the flow occurs. When a system flows better, then it is healthier.

Purposeful Behaviors

Flow systems may behave in one of two ways:

- **River Model: one-way flow, like a command and control system, where the upstream process commands or dictates the cadence of the flow and downstream deals with the consequences. This "purposeful behavior" is dictatorial – "do it my way."**
- **Lung Model: two-way flow, whereby a "give and take" system is exchanging content by accepting good input and exhausting the toxic output. This "purposeful behavior" is participative.**

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How will you establish the "aim" or "purpose" that shapes the path for your project team?

* Adrian Bejan and J. Peder Zane (2013), *Design in Nature* (New York: Random House).

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Process of Management – Stage 2

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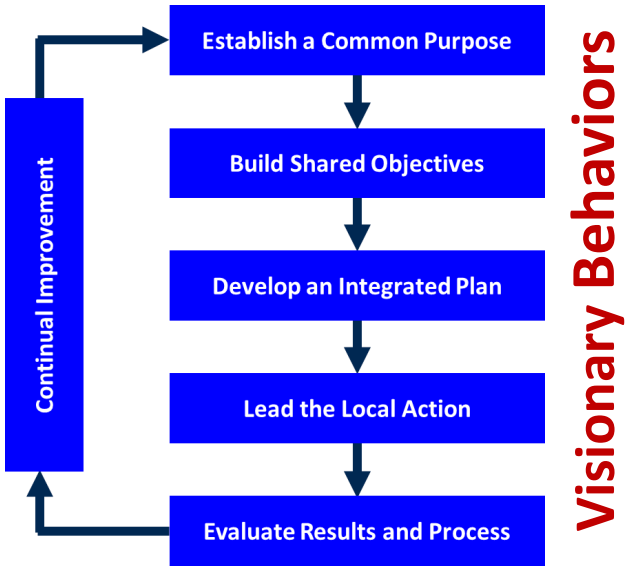
Process of Management – Stage 2:

Application of PDCA to the Process of Daily Management



Visionary Behaviors

Build Shared Objectives *

- **Build Common Values**
- **Communicate the Vision**
- **Involve People in Building the Vision**
- **Maintain Alignment to the Vision**
- **Measure Performance Against the Vision**

* Reference: Hewlett-Packard Training Course, "The Process of Management" (1987).

POM Stage #2 Detailed description:

- Shared objectives align a process team to mutually respectful ways of working as a coherent group and define its modes of functioning with external others to build shared commitment to excellence in customer deliverables while respecting the values that others bring to the business relationship.
- POM encourages team discussion and agreement on work philosophies, practices and processes.
- Leaders explain how proposed changes benefit all team members and communicate its desired purpose, rationale, and specific direction for implementation.
- Process leaders must describe opportunities so everyone can understand their roles and how they contribute to results.
- Finally, leaders must test the team's agreement and make enhancements based on feedback from team members.

Humanization of technology in POM #2:

Application of the Constructal Law to the Process of Management:

Flow systems have two features: there is content flowing through them like a current, and there is a design or system through which it flows. The Constructal Law describes how systems evolve over time to increase their flow achieving more productive systems over time. The system contains both a structural design as well as the pulse or cadence at which the flow occurs. When a system flows better, then it is healthier.

Visionary Behaviors

Vision system anticipate strategic outcomes in one of two ways:

- **Close View of Future Possibilities: profound knowledge can be encouraged by carefully analyzing future potential situations as if they occurred and determining in advance how to manage the negative effects and unintended consequences.**
- **Gaining Perspective of Current Activities: profound knowledge is also achievable by gaining perspective in examining the current state of work from different points-of-view.**

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How will you learn how to see differently all possibilities in the future and present?

* Adrian Bejan and J. Peder Zane (2013), *Design in Nature* (New York: Random House).

Managerial Engineering:
Designing Future Firms

Process of Management – Stage 3

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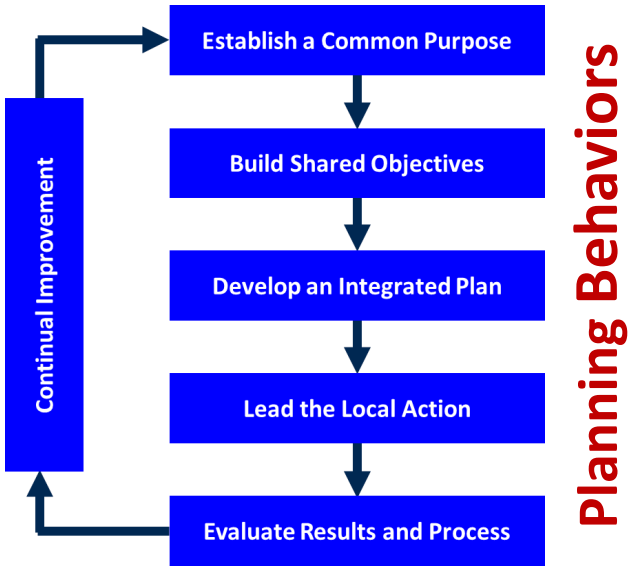
Process of Management – Stage 3:

Application of PDCA to the Process of Daily Management



Develop an Integrated Plan *

- Use Effective Planning Techniques
- Identify Appropriate Resources
- Develop a Spirit of Shared Responsibility
- Manage the Resource Flow
- Assess Risk and Evaluate Progress

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* Reference: Hewlett-Packard Training Course, "The Process of Management" (1987).

POM Stage #3 Detailed description:

- Identify and focus upon the critical few change objectives and projects that need to be completed as a priority.
- Define critical performance indicators, data collection plan, implementation and contingency plans using risk analyses.
- Identify resources necessary to accomplish the project plans, including people to be involved according to their interests and abilities (e.g., competence and skills).
- Involve team in planning to ensure ownership of activities.
- Communicate importance of cooperation, collaboration, and interdependency among all project participants.
- Negotiate agreement on objectives and set challenging, but achievable performance targets.
- Allow people to work on their specific mechanisms to achieve within the context of the integrated plan.

Humanization of technology in POM #3:

Application of the Constructal Law to the Process of Management:

Flow systems have two features: there is content flowing through them like a current, and there is a design or system through which it flows. The Constructal Law describes how systems evolve over time to increase their flow achieving more productive systems over time. The system contains both a structural design as well as the pulse or cadence at which the flow occurs. When a system flows better, then it is healthier.

Planning Behaviors

Planning activities must avoid two failure conditions:

- **Management Myopia: examining implementation plans and the follow-through actions too closely which robs the workers of any responsibility for their actions – this sin is micromanagement.**
- **Management Hyperopia: inability to see what is happening in a distant future state because management is so caught up in the current state analysis. It assumes that the future like the past, so the organization is vulnerable to threats – this sin is distraction.**

How will you integrate the available resources, capabilities, and competence into your plan?

* Adrian Bejan and J. Peder Zane (2013), *Design in Nature* (New York: Random House).

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Process of Management – Stage 4

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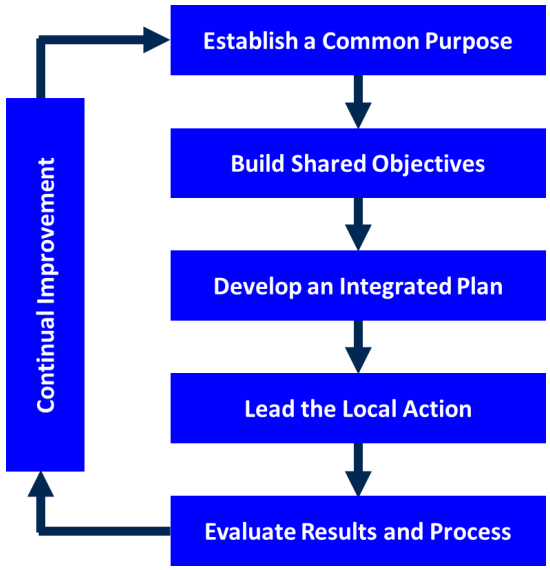
Process of Management – Stage 4:

Application of PDCA to the Process of Daily Management



Leadership Behaviors

Lead the Local Action *

- Facilitate the Action
- Review Progress toward Targets
- Gain and Solicit Feedback
- Support and Develop People
- Lead by Example
- Recognize and Reward Contributions

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* Reference: Hewlett-Packard Training Course, "The Process of Management" (1987).

POM Stage #4 Detailed description:

- Provide resources and prevent disruptions to work by resolving all conflicts using a win-win approach.
- Practice "Management by Wandering Around."
- Provide specific and timely feedback to team members which is both reinforcing and corrective.
- Confront problems in a direct, constructive manner.
- Delegate responsibility and give people freedom to act in a self-regulating way.
- Allow people to learn from their mistakes and stay in close touch with team members and stakeholders.
- Communicate in an open and honest manner demonstrating the same behavior that you expect from others.
- Behavior should be authentic – consistent with the philosophy espoused and the words expressed.

Humanization of technology in POM #4:

Application of the Constructal Law to the Process of Management:

Flow systems have two features: there is content flowing through them like a current, and there is a design or system through which it flows. The Constructal Law describes how systems evolve over time to increase their flow achieving more productive systems over time. The system contains both a structural design as well as the pulse or cadence at which the flow occurs. When a system flows better, then it is healthier.

Leadership Behaviors

Leaders tend to exercise authority in one of two extremes:

- **Dictatorial Management: this "over-specification" in the plan of action and milestones leaves little freedom for workers to apply innovation or imagination in finding better ways of working.**
- **Participative Management: this "performance specification" will establish a clear vision of the desired direction but leave a very broad discretion to workers as to how to achieve an outline of objectives and specific tasks that will gain the desired results.**

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How will you lead the local action by delegating responsibility and supporting your teammates?

* Adrian Bejan and J. Peder Zane (2013), *Design in Nature* (New York: Random House).

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Process of Management – Stage 5

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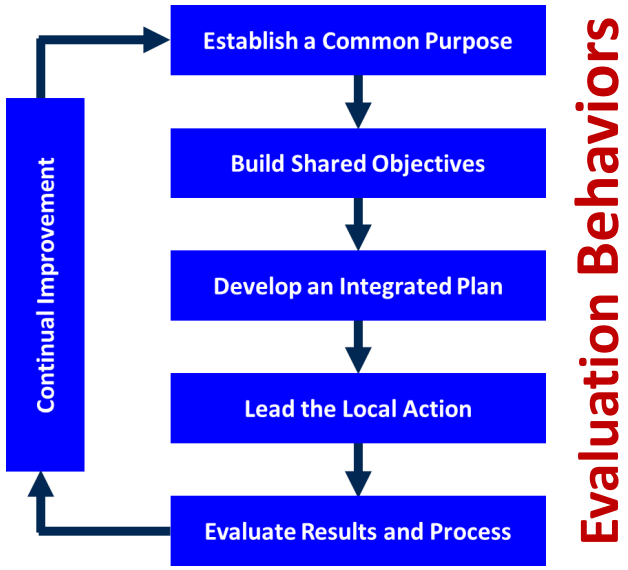
Process of Management – Stage 5:

Application of PDCA to the Process of Daily Management



Review Results and Process *

- Determine Customer Satisfaction
- Determine Company Satisfaction
- Review the Process and Results
- Identify Opportunities for Improvement
- Celebrate Success

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* Reference: Hewlett-Packard Training Course, "The Process of Management" (1987).

POM Stage #5 Detailed description:

- Collect data and feedback communications from external and internal customers to assess how well expectations have been met and determine performance against quality standards.
- Determine progress toward company performance objectives and results against the vision and goals and also for the critical strategic change projects or objectives.
- Conduct post-project reviews to critique the process and gain knowledge to improve the way of working.
- Assess team satisfaction with the process and solicit ideas for improvement. Prioritize action items for improvement.
- Ask the team how to improve your own effectiveness.
- Document the findings of this post-mortem analysis and celebrate completion at major milestones, giving the credit to all contributors for the team success.

Humanization of technology in POM #5:

Application of the Constructal Law to the Process of Management:

Flow systems have two features: there is content flowing through them like a current, and there is a design or system through which it flows. The Constructal Law describes how systems evolve over time to increase their flow achieving more productive systems over time. The system contains both a structural design as well as the pulse or cadence at which the flow occurs. When a system flows better, then it is healthier.

Evaluation Behaviors

Post-Mortem Assessment typically will focus in one of two ways:

- **Recognize Successful People: When management chooses this as their recognition system they tend to "cherry-pick" those most visible in the project and may never know who were the most significant contributors.**
- **Recognize Successful Teams: When management recognizes the full team for its work it reinforces collaboration, participation, and consensus as desired teamwork behaviors.**

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How will you evaluate outcomes for success of results and satisfaction with performance?

* Adrian Bejan and J. Peder Zane (2013), *Design in Nature* (New York: Random House).

Managerial Engineering:

Designing Future Firms

Process of Management – Renewal

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Managerial engineering redesigns the system!

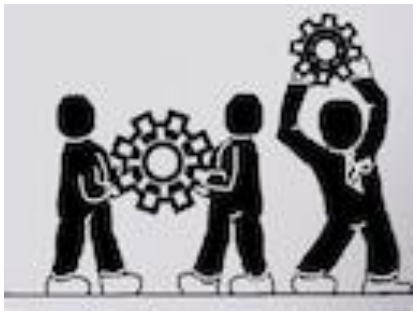
- In the past, the job of management engineers has been to design business systems for control.
- Today, management engineers must design systems that support a continuous influx of change.
- This shift requires a change in focus from functionally-oriented departments to an end-to-end business systems focus.
- Management engineers are internal consultants who work across organization departments between and across all levels to develop, implement, and monitor operational work systems to enhance their value contribution.
- More and more management engineers work at the front end of business process design where they use advanced technologies to engineer efficiently economical systems.

Now the real work of quality begins!

Now the easy work is done, and it is time to do the hard part.

Project

Problem



Issue

Excellence comes ONLY by Execution!

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Excellence is achieved through EXECUTION!

"We are what we repatedly do. Excellence then, is not an act, but a habit."

"Excellence is never an accident. It is always the result of high intention, sincere effort, and intelligent execution; it represents the wise choice of many alternatives - choice, not chance, determines your destiny."

~ Aristotle

- The only "good" project is a "done" project!
- Projects are not done until proven during implementation!
- Implementation uncovers the unintended consequences!
- Unanticipated consequences signal poor understanding!
- Poor understanding comes from insufficient reflection!

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Building the company-wide quality system:

Managerial engineering of the business system:

Quality Management +

Quality Development +

Quality Culture =

Leadership through Quality

This combined approach assures sustainability of competitive performance.

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“He who has 100 miles to walk should think 90 miles is half the journey!”

~ Zen Buddhist Proverb

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Managerial Engineering:

Designing Future Firms

Take-away Lessons Learned

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Critical take-away observations:

How will you manage?

Managerial engineering provides the technical assistance for the conduct of strategic management. It enables objectively-based analyses to support executive judgment in choosing the set of strategic improvement projects to pursue.

This webinar addressed the following learning objectives:

- **Discover the relationship between strategy management and managerial engineering.**
- **Understand how SDCA/PDCA cycles relate to projects for driving change in an organization to reach strategic ends.**
- **Learn how the Process of Management (POM) operates in conjunction with the SDCA/PDCA operational activities.**

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Thank you

Gregory H. Watson, PhD.

greg@excellence.fi

Future QMD Webinars – 6:00 PM ET (unless noted otherwise)

Managing for Quality Webinar Series by Dr Gregory H. Watson:

No. 8: "Understanding the Financial Component of Quality" August 18, 2020

No. 9: "Strategic Reflections on Kano's Attractive Quality" September 15, 2020

No. 10: "Insights into the Essence of Operational Excellence" September 29, 2020

No. 11: "Defining Quality to Apply to Everyone, Everywhere" October 14, 2020

No. 12: "Managing for Quality Amidst Digital Turbulence" November 17, 2020

Other webinars:

By Heather McCain: QMD Part 1- "How To Improve Your Member Experience Using MyASQ" July 28, 2020

James Rooney: "Basics of Root Cause Analysis" August 3, 2020

Doug Wood: "QMD Part 2- "How to use MyASQ for sharing vital knowledge August 27, 2020

Dan Zrymiak: "Managing Quality 4.0 combining ISO 25010 Criteria and ITIL practices" September 14, 2020

Jd Marhevko & Eric Zinc: "Strategic Planning and Hoshin Kanri" November 5, 2020

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