SHINGO INSTITUTE
HOME OF THE SHINGO PRIZE

SHINGO MODEL™
Shingo Institute Licensed Affiliates bring years of teaching experience and a wide array of expertise. Located throughout the world, they are available to support those on their journey, in their country and in their language. To see the full list of Shingo Affiliates, go to the link below:

To learn more: www.shingo.org/affiliates
LICENSED ONLINE PROVIDER

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WORKSHOPS

Shingo Licensed Affiliates offer Shingo workshops publicly all over the world. These workshops take participants deeper into the Shingo Model™ and provide a more profound understanding of the ideal behaviors necessary to achieve ideal results within an organization. Currently scheduled workshops can be found at shingo.org/education as well as registration information.

DISCOVER EXCELLENCE

This foundational, two-day workshop introduces the Shingo Model, the Shingo Guiding Principles and the Three Insights to Enterprise Excellence™. With real-time discussions and on-site learning at a host organization, this program is a highly interactive experience. It is designed to make learning meaningful and immediately applicable as participants learn how to release the latent potential in organizations to achieve enterprise excellence.

DISCOVER participants will:

• LEARN and understand the Shingo Model.
• DISCOVER the Three Insights of Enterprise Excellence.
• EXPLORE how the Shingo Guiding Principles inform ideal behaviors that ultimately lead to sustainable results.
• UNDERSTAND the behavioral assessment process through an interactive case study and on-site learning.
• APPLY your learning with a call to action.

CULTURAL ENABLERS

CULTURAL ENABLERS builds upon the knowledge and experience gained at the DISCOVER EXCELLENCE workshop and takes participants deeper into the Shingo Model by focusing on the principles identified as Cultural Enablers:

• Respect Every Individual
• Lead with Humility

Cultural enablers make it possible for people within the organization to engage in the transformation journey, progress in their understanding and build a culture of enterprise excellence. Enterprise excellence cannot be achieved through top-down directives or piecemeal implementation of tools. It requires a widespread organizational commitment throughout its culture.
CONTINUOUS IMPROVEMENT

Continuous improvement begins by clearly defining value through the eyes of customers. The CONTINUOUS IMPROVEMENT workshop continues the discussion around ideal behaviors, fundamental beliefs and behavioral benchmarks as they relate to the principles of Continuous Improvement:

- Seek Perfection
- Flow & Pull Value
- Assure Quality at the Source
- Focus on Process
- Embrace Scientific Thinking.

This workshop gives participants a deeper understanding of each principle and the behaviors it should bring.

ENTERPRISE ALIGNMENT & RESULTS

To succeed, organizations must develop management systems that align work and behaviors with principles and direction in ways that are simple, comprehensive, actionable and standardized. The sum of individual efforts is less than the effective alignment of the pieces into a single integrated whole. Create value for customers through the effective alignment of every value stream in an organization. ENTERPRISE ALIGNMENT & RESULTS dives into the principles of Enterprise Alignment:

- Think Systemically
- Create Constancy of Purpose.

BUILD EXCELLENCE

BUILD EXCELLENCE is the capstone workshop that takes all the detailed learnings from the previous four Shingo workshops which develop the structure of the Shingo Model. This final course demonstrates the integrated execution of systems that drive behavior toward the ideal as informed by the principles in the Model. BUILD EXCELLENCE helps build a structured road map to execute a cultural transformation. It builds upon a foundation of principles, using tools that already exist within many organizations. It teaches the student how to build systems that drive behavior which will consistently deliver desired results.
ACKNOWLEDGEMENTS

The Shingo Institute wishes to thank the team that provided scholarly work to produce the Shingo Model and Guidelines published in January 2008. The Shingo Model is still the basis for the curriculum and other work the Institute continues to develop today. Those most closely involved during their tenure at the Shingo Institute and Utah State University were Shaun Barker, Dr. Randall Cook, Robert Miller and Jacob Raymer, with special thanks to Dr. Brian Atwater for his contributions regarding systems thinking.

The Shingo Institute would also like to thank the members of the Shingo Executive Advisory Board who provided practical insights and critical feedback as the Model evolved. There are so many other friends of the Shingo Institute that have and continue to contribute time and ideas in the pursuit of enterprise excellence. The Institute is so appreciative of each and every person.

Finally, thank you to the Jon M. Huntsman School of Business at Utah State University for providing the Shingo Institute with a home and an environment to learn, flourish and grow.
Purpose:
Based on timeless principles, the Shingo Institute shapes cultures that drive operational excellence.

Mission:
The Shingo Institute conducts cutting-edge research, provides relevant education, performs insightful enterprise assessment, and recognizes organizations committed to achieving sustainable world-class results.
“In the final analysis, national prosperity depends on improved productivity and, conversely, it is only on a foundation of increased productivity that we can build a wealthy nation and happy citizens.”

— Shigeo Shingo

**SHINGO ORIGINS**

Few individuals have contributed as much to the development of the ideas called TQM, JIT and Lean as did Shigeo Shingo. Over the course of his life, Dr. Shingo wrote and published 17 books, eight of which were translated from Japanese into English. Many years before they became popular in the Western world, Dr. Shingo wrote about the ideas of ensuring quality at the source, flowing value to customers, working with zero inventories, rapidly setting up machines through the system of “single-minutes exchange of die” (SMED)* and going to the actual workplace to grasp the true situation there (“going to gemba”). He worked extensively with Toyota executives, especially Mr. Taiichi Ohno, who helped him to apply his understanding of these concepts in the real world.

Always on the leading edge of new ideas, Dr. Shingo envisioned a collaboration with an organization that would further his life’s work through research, practical-yet-rigorous education and a program for recognizing the best in enterprise excellence throughout the world. In 1988, Shingo

* The use of “single-minutes exchange of die” instead of the more common “single-minute exchange of dies” is deliberate and invokes the translation used in the original English translation of Shigeo Shingo’s *The Toyota Production System from an Industrial Engineering Viewpoint*. For a history of the origin of the use of “single-minutes exchange of die,” see Shingo, Ritsuo: *My Leadership: The China Years*, Shingo Institute, 2016, p. 17-19.
received his honorary doctorate of management from Utah State University and, later that year, his ambitions were realized when the Shingo Prize was organized and incorporated as part of the university. While the Shingo Prize remains an integral part of what the Shingo Institute does, the scope has expanded to include various educational offerings, a focus on research and a growing international network of Shingo Institute Licensed Affiliates.

A BRIEF INTRODUCTION

For any organization to be successful in the long term, it must engage in a relentless quest to make things better. Leaders must lead their organizations on a continuous pursuit of perfection. Although it is fundamentally impossible to achieve perfection, the pursuit of it can bring out the very best in every organization and in every person.

Improvement is hard work! It requires great leaders, smart managers and empowered associates. Sustainable improvement cannot be delegated down nor organized into a temporary program or initiative. Improvement requires more than the application of a new tool or a leader’s charismatic personality. Sustainable excellent results requires the transformation of a culture to one where every single person is engaged every day in making small, and from time-to-time large, changes.

Every organization is naturally in some state of transformation. The critical question is “Into what is the organization being transformed?”

Sustainable results depend upon the degree to which an organization’s culture is aligned to specific guiding principles rather than depending solely on tools, programs or initiatives. The Shingo Model provides a powerful framework that will guide the reader in transforming an organization’s culture and achieving ideal results.
THE SHINGO MODEL™

The Shingo Model is not an additional program or another initiative to implement. Rather, it introduces Shingo Guiding Principles on which to anchor current initiatives and to fill the gaps in efforts toward ideal results and enterprise excellence.

Whether an organization’s objectives are for financial or more altruistic purposes, the focus of all leaders is on results—more sales, higher ROI, better employee retention, faster turnaround time, etc. Organizations design systems with the intention of achieving specific results and select tools to support those systems. When one doesn’t achieve target results, they often try tweaking or modifying current systems or implementing new tools in the hope of reaching that target.

**TOOL:** a single device or item that accomplishes a specific task (e.g., value stream map, health benefit plan, an award, newsletter, etc.)

**SYSTEM:** a collection of tools or tasks that are highly integrated to accomplish an outcome (e.g., production plan, onboarding new employees, bookkeeping, recognition systems, customer support system, etc.)

**RESULT:** a measurable outcome—either successful or unsuccessful—from implementation of tools and systems (e.g., faster turnaround, more engagement from employees, higher customer or patient satisfaction, etc.)

![Diagram showing the relationship between results, systems, and tools.](image-url)
However, an important element is missing in the above model. Tools and systems alone do not operate a business. People do.

Each person within an organization has a set of values and beliefs that influences the way he or she behaves. Ultimately, the aggregate of people's behaviors makes up organizational culture, and culture greatly influences the organization's results.

Professor Edgar Schein of the MIT Sloan School of Management said, “The only thing of real importance that leaders do is to create and manage culture. If you do not manage culture, it manages you, and you may not even be aware of the extent to which this is happening.”

Cultures that form by accident or without attention can have significant, far-reaching negative effects. A culture built around “firefighting” honors and promotes the “firefighters” rather than identifying and fixing the problems that cause emergencies in the first place. In a culture that promotes the “power hungry,” people might withhold information except when it has the potential to benefit them personally. They keep the decision-making authority as close as possible rather than trusting others to make appropriate choices, thus making the organization respond much more slowly to issues and much less likely to make the best decisions. Likewise, it’s not difficult to imagine the behaviors one might see arise in organizations that foster cultures of fear, survival, blaming/backbiting, malaise, etc.
Conversely, excellent organizational cultures are built around humility, respect, trust, collaboration, innovation, empowerment, etc. What are the behaviors one would expect to see within these organizations? How might their results differ from the results of other organizations? Finally, what is at the foundation of these organizations such that they manage their culture rather than allow their culture to manage them?

In asking these questions, the Shingo Institute gained three important insights.

THREE INSIGHTS OF ENTERPRISE EXCELLENCE™

1. Ideal Results Require Ideal Behaviors
The results of an organization depend on the way their people behave. Whether or not an employee shows up to work in the morning will influence the results of that day. To achieve ideal results, leaders must do the hard work of creating a culture where ideal behaviors are expected and evident in every associate.

2. Purpose and Systems Drive Behavior
It has long been understood that beliefs have a profound effect on behavior. What is often overlooked, however, is the equally profound effect that systems have on behavior. Most of the systems that guide the way people work are designed to create a specific business result without regard for the behavior that system consequentially drives. Managers have an enormous job to realign both management and work systems to drive the ideal behavior required to achieve ideal business results.

3. Principles Inform Ideal Behavior
Principles are foundational rules that govern the consequences of behaviors. The more deeply one understands principles, the more clearly they understand ideal behavior. The more clearly they understand ideal behavior, the better they can design systems to drive that behavior to achieve ideal results.

“There are three constants in life… change, choice and principles.” — Stephen R. Covey
For any organization to be successful in the long term, it must be engaged in a relentless quest to make things better. Failure to make this an organizational priority will inevitably result in organizational decline. Excellence must be the pursuit of all great leaders. In fact, the passionate pursuit of perfection, even knowing it is fundamentally impossible to achieve, brings out the very best in every human being.
The Enabling Role of Improvement Tools and Systems

A tool is a point solution or a specific means to a specific end. Dr. Shingo described the concept of a tool as a technique for solving a specific problem, necessary but not sufficient by itself to solve broader problems. He taught that tools should be selected to enable a system to perform its intended purpose.

Think of a system as a collection of tools working together to accomplish an intended outcome. A successful enterprise is usually made up of complex systems that can be divided into layers of sub-systems, each containing the necessary tools to enable the successful outcome of the system.

A common mistake made by organizations is to focus too heavily on a specific tool-set as the basis for improvement efforts. Tools do not answer the question of “why” only the question of “how.” Knowing the “how” without understanding fully the “why” leaves team members waiting for instructions and powerless to act on their own.

Conversely, when team members understand how the tools they use serve the larger system and its purpose, they are better able to use the tools toward the desired outcome. In other words, if they understand why the tool is important to the system, they can use the tool in alignment with the purpose of the system. It is an important form of empowerment for team members.

Dr. Shingo also taught that the primary role of managers must shift from firefighting to designing, aligning and improving systems.

To learn more about the Shingo Model, Shingo Guiding Principles and Three Insights of Enterprise Excellence, attend the DISCOVER EXCELLENCE workshop, the pre-requisite in the Shingo education series. Visit http://shingo.org/education for workshop dates and locations.
SHINGO GUIDING PRINCIPLES

Stephen R. Covey defined a principle as a natural law that is universally understood, timeless in its meaning and self-evident. He taught that values govern actions but principles govern the consequences of actions.

Study and experience has yielded in a list of ten guiding principles, known as the Shingo Guiding Principles, that are the basis for building a lasting culture and achieving enterprise excellence. Following Dr. Shingo’s counsel to “think in terms of categorical principles,” the principles are divided into four dimensions: Cultural Enablers, Continuous Improvement, Enterprise Alignment and Results.

Learning and Teaching the Principles

The first step a leader must take in leading a cultural transformation is a personal journey to understand what each of these Shingo Guiding Principles mean conceptually. It is impossible for a leader to lead the development of a principle-based culture until he or she has gone through the deep personal reflection required to begin a cultural transformation. This is no trivial task. Fully embracing these principles requires a fundamental re-thinking of the rules of engagement.
At a minimum, leaders must be curious enough to experiment with the principle. John Shook at the Lean Enterprise Institute taught that it is often impossible to “think our way into a new way of acting.” Rather, guided by correct principles, one may do, observe, learn and then do something else until “we act our way into a new way of thinking.” By carefully analyzing the cause-and-effect relationship between principles and results, a leader will begin to shift beliefs about what drives optimal business performance. After gaining this new insight, it becomes the effective leader’s primary responsibility to see that others in his/her organization have experiences where they can gain the same insight.

Whether acknowledged or not, the *Shingo Guiding Principles* always govern the consequence of a leadership and management behaviors. An example may help. If a leader allows a culture to emerge where employees are thought of merely as an unfortunate cost burden or where the smartest people are those who rise to the top, the consequence will be a workforce that is not fully engaged. Ideas for improvement are never articulated and acted on, people feel unfulfilled in their work and turnover is high. Labor costs become excessively high, business systems stagnate and innovation is not fast enough to compete in a rapidly changing business climate. Unwise leaders see this as a validation of what they believed, rather than the disappointing end of a self-fulfilling prophecy.

When people understand principles for themselves they become empowered to take personal initiative. Leaders who teach associates the principles behind the tactics or the tools can be confident that innovation from each individual will be pointed in the right direction. It is not necessary for a leader to define every ideal behavior for others. If the principle is truly a principle, people with different values will readily be able to define ideal behavior for themselves and, over time, behaviors become consistent even in a diverse environment. When leaders precisely define the detailed and expected behaviors for everyone else, resentment builds. It conveys mistrust and makes people feel incompetent.

**Aligning Systems with Principles**

All work in organizations is the outcome of a system. Systems must be designed to produce a specific end goal, otherwise they evolve on their own. Systems drive the behavior of people, or rather they create the conditions that cause people to behave in a certain way. One of the outcomes of poorly designed systems is enormous variation in behavior or even consistently bad behavior. Variation in behavior leads to variation in results. Operational excellence requires ideal behavior that translates into consistent and ideal results.
The *Shingo Model* illustrates the critical need to align every business, management and work system of the organization with the *Shingo Guiding Principles*. When systems are properly aligned with principles, they strategically influence people's behavior toward the ideal.
CULTURAL ENABLERS

The first dimension of Shingo Model consists of the Cultural Enablers principles. Cultural Enablers are at the foundation of the pyramid as they focus on the foundation of an organization: people.

RESPECT EVERY INDIVIDUAL

Respect must become something that is deeply felt for and by every person in an organization. Respect for every individual naturally includes respect for customers, suppliers, the community and society in general. Individuals are energized when this type of respect is demonstrated. Most associates will say that to be respected is the most important thing they want from their employment. When people feel respected, they give far more than their hands—they give their minds and hearts as well.

To better understand the principle of respect for every individual simply ask the question “why?” The answer is because we are all human beings with worth and potential. Because this is true, every individual deserves respect.

LEAD WITH HUMILITY

One common trait among leading practitioners of enterprise excellence is a sense of humility. Humility is an enabling principle that precedes learning and improvement. A leader’s willingness to seek input, listen carefully and continuously learn creates an environment where associates feel respected and energized and give freely of their creative abilities. Improvement is only possible when people are willing to acknowledge their vulnerability and abandon bias and prejudice in their pursuit of a better way.
“I have a foundational belief that business results start with culture and your people.”

— Doug Conant, former CEO, Campbell Soup
SELECTED SUPPORTING CONCEPTS

Assure a Safe Environment

There is no greater measure of respect for the individual than creating a work environment that promotes both the health and safety of employees and the protection of the environment and the community. Environmental and safety systems embody a philosophical and cultural commitment that begins with leadership. When leadership is committed, the organization creates and supports appropriate systems and behaviors.

_in short, safety is first!

Develop People

People development has emerged as an important and powerful cultural enabler and goes hand-in-hand with principles of operational excellence. Through people development, the organization creates the “new scientists” that will drive future improvement. People development is far greater than just classroom training. It includes hands-on experiences where people can experience new ideas in a way that creates personal insight and a shift in mindsets and behavior.

An organization’s leaders must be committed to developing people and expanding the knowledge base. Leaders come to realize that expenses for education and training are necessary investments for long-term health; as such, the commitment to this investment does not waver.

Empower and Involve Everyone

For an organization to be competitive, the full potential of every single individual must be realized. People are the only organizational asset that has an infinite capacity to appreciate in value. The challenges of competing in global markets are so great that success can only be achieved when every person at every level of the organization is able to continuously innovate and improve. Elimination of barriers to that innovation becomes the responsibility of management.
Fundamental to the *Shingo Model* is the concept of teaching people the key principles (the “why”) behind everything they do. When people understand why, they become empowered to take personal initiative. Managing a team of people who share a deep understanding and commitment to the key concepts and principles is much easier than managing the work of those who are only doing what they are told. Empowered employees who understand relevant principles are far more likely to make good decisions about the direction and appropriateness of their ideas for improvement.

Similarly, when employees have a clear sense of direction and strategy and have a real-time measure of contribution, they become a powerful force for propelling the organization forward.

**BEHAVIORAL INDICATOR EXAMPLES**

- Coaching is consistent and evident throughout and at all levels
- There is consistent, predictable leadership engagement where the work happens
- All employees turn in suggestions
- Near-misses are captured and addressed immediately
- Decision-making is pushed down to the lowest level possible with feedback provided for decisions made

To learn more about the first dimension, attend a CULTURAL ENABLERS workshop. Visit [http://shingo.org/education](http://shingo.org/education) for workshop dates and locations.
CONTINUOUS IMPROVEMENT

Where the first dimension addressed the principles around the people of an organization, the second dimension addresses the processes.

In a culture of continuous improvement the focus must not be only on quality or cost. One must incorporate all aspects of value as perceived by the customer: innovation, quality, cost, flexibility, quick delivery and a comprehensive view of environmental health and safety.

“Improvement means the elimination of waste, and the most essential precondition for improvement is the proper pursuit of goals. We must not be mistaken, first of all, about what improvement means. The four goals of improvement must be to make things easier, better, faster and cheaper.”

— Dr. Shigeo Shingo

SEEK PERFECTION

Perfection is an aspiration not likely to be achieved but the pursuit of which creates a mindset and culture of continuous improvement. The realization of what is possible is only limited by the paradigms through which one sees and understands the world.

EMBRACE SCIENTIFIC THINKING

Innovation and improvement are the consequence of repeated cycles of experimentation, direct observation and learning. A relentless and systematic exploration of new ideas, including failures, enables one to constantly refine their understanding of reality.
“Most of what we call ‘management’ consists of making it difficult for people to get their work done.”

— Peter Drucker

FOCUS ON PROCESS

All outcomes are the consequence of a process. It is nearly impossible for even good people to consistently produce ideal results with a poor process both inside and outside the organization. There is natural tendency to blame the people involved when something goes wrong or is less than ideal, when in reality the issue is rooted in an imperfect process, not the people.
ASSURE QUALITY AT THE SOURCE
Perfect quality can only be achieved when every element of work is done right the first time. If an error should occur, it must be detected and corrected at the point and time of its creation.

FLOW AND PULL VALUE
Value for customers is highest when it is created in response to real demand and a continuous and uninterrupted flow. Although one-piece flow is the ideal, often demand is distorted between and within organizations. Waste is anything that disrupts the continuous flow of value.

“Everything should be made as simple as possible but not simpler.”
— Albert Einstein

SELECTED SUPPORTING CONCEPTS

Stabilize Processes
Stability in processes is the bedrock foundation of any improvement system, creating consistency and repeatability. Stability is a prerequisite for improvement providing a basis for problem identification and continuous improvement. Almost all of the continuous improvement principles rely on stability.

Stability is the precursor to achieving flow. Many of the rationalizations for waste are based on the instability of processes, as if they are beyond one's control. Instead, one should apply the basic tools available to reduce or eliminate instability and create processes that enable the identification and elimination of waste.
Standard Work

While stability is a necessary precondition for creating flow and improvement, creating standard work builds control into the process itself. Standard work is the supporting principle behind maintaining improvement, rather than springing back to preceding practices and results. Standard work also eliminates the need to control operations through cost standards, production targets or other traditional supervisory methods. When standard work is in place, the work itself serves as the management control mechanism. Supervisors are freer to work on other tasks when there is no need to monitor and control the work process.

Go and Observe

Direct observation is a supporting principle tied to scientific thinking. It is in fact the first step of the scientific method. Direct observation is necessary to truly understand the process or phenomenon being studied. All too frequently, perceptions, past experience, instincts and inaccurate standards are misconstrued as reality. Through direct observation, reality can be seen, confirmed and established as the consensus.

Focus on Value Stream

Flow and Pull Value combined with Focus on Process lead to the necessity of defining value streams and focusing organizational attention on them. A value stream is the collection of all of the necessary steps required to deliver value to the customer. Defining what customers value is an essential step to focus on the value stream. Clearly understanding the entire value stream, however, is the only way for an organization to improve the value delivered and/or improve the process by which it is delivered.

“Where there is no standard, there can be no improvement. For these reasons, standards are the basis for both maintenance and improvement.”

— Masaaki Imai
Keep it Simple and Visual

In society today there is frequently a bias toward complex solutions and a premium paid to those who seem to manage complexity well. However, it is usually the case that better results at a lower cost can be achieved by simplification. Dr. Shingo’s life work in mistake proofing is centered on this principle.

Many of the seven forms of waste are in fact the result of information deficits. Making information visual is the supporting principle that, when combined with simplification, solves the information deficits.

Identify and Eliminate Waste

Identification and elimination of waste is a practical concept for making processes flow, thus it becomes a primary focus of continuous improvement. Waste elimination is a powerful supporting principle because it is easily understood by everyone associated with a value stream, compared to the complex concepts and computations often associated with cost per unit, cost variances, statistical variability and other complex metrics. Focusing on the elimination of waste will consistently drive appropriate behavior, while the wrong focus can frequently become a barrier to improvement, large inventory write-downs, fire sales or scrap.

One way to view waste is that it is anything that slows or interrupts the continuous flow of value to customers. In the end, identifying and eliminating waste is a concept that effectively engages the entire organization in the continuous improvement effort.
No Defect Passed Forward

This concept is essential for operational excellence from many different points of view. From a leader’s perspective, it requires great courage to stop the process long enough to understand the root cause and take counter-measures that prevent the process from reoccurring. For the leader, this often means trading any short-term loss for substantial long-term gain. From a manager’s perspective, systems must be in place to ensure that any result that varies from the standard, even slightly, creates an expectation of and support for immediate action. This is often called “swarming.” From an associate’s point of view, “no defect passed forward” requires a mind-set of ownership and accountability. If standards are clearly defined, every person should know what good is. Leaders and managers should role model then create the conditions for associates to develop the mind-set of personal integrity; meaning, that no one would ever knowingly or willingly forward the outcome of their value contribution to someone else if it contained the slightest variation from the standard.

This supporting concept feeds the mind-set and tools of continuous improvement and creates the conditions for seeking perfection. It is possible to achieve perfection in the application of this concept.

Integrate Improvement with Work

As the migration toward a principle-based culture occurs, the activities and approaches for continuous improvement become a part of the everyday work of every employee in an organization. Associates become “scientists” who continually assess the current state of their processes and pursue a better future state that will enhance the value (or eliminate the waste) and thus pursue perfection. Each person in an organization performs daily work. When improvement is integrated with work, each person accepts responsibility for improvement of the daily work processes. Executives are responsible for improving strategy-setting processes or perhaps resource-alignment processes. They are primarily responsible to deploy mission-critical strategy and metrics down into the organization such that every person not only has a clear line of sight to what matters the most but are also motivated by the mission in a way that creates a compelling case for improvement.

Managers are responsible for improving quality systems, or performance development systems or value stream flow. Line workers are responsible for improving their cycle times, or quality of work or yields. Integrating improvement with work is more than assigning responsibility. It entails the creation of standardized work that defines systems for improvement.
Rely on Data and Facts

Dr. Shingo emphasized the importance of being data-driven in the pursuit of continuous improvement. He frequently shared examples of specific situations where data was collected, but it was not the correct data or the data wasn't actually being used in the improvement process. Finally, he was adamant that the understanding of the actual process be so detailed that when implementing a change in the process, the improvement, as evidenced by the data, could be predicted. Thus, reconciliation is required between the predicted results and the actual results, making the improvement process truly data-driven. The principle is that when data is treated loosely or imprecisely, there is a tendency to leave potential improvement on the table or, even worse, to not achieve any improvement at all.

BEHAVIORAL INDICATOR EXAMPLES

- Successes gained and shared from failures
- Use of standard work is monitored for compliance
- Everyone does improvement as part of the work, not an extra activity
- Flow is made visual
- Everyone is trained in a structured scientific approach to problem solving, and coaching is ongoing
- Go and observe is exemplified as part of leader standard work
- Everyone receives training on how to collect data by going to where the work happens
- When abnormal conditions occur they are quickly made visual and reacted to
- Inventory is constantly minimized and seen as waste, not an asset
- There is direct/real-time feedback from the customer

To learn more about the second dimension, attend a CONTINUOUS IMPROVEMENT workshop. Visit http://shingo.org/education for workshop dates and locations.
ENTERPRISE ALIGNMENT

The preceding sections have described the first two dimensions of the Shingo Model regarding people and processes. This third dimension describes the principles regarding the purpose of an organization. To achieve enterprise excellence, an organization must effectively align every value stream.

THINK SYSTEMICALLY

By understanding the relationships and interconnectedness within a system, people can make better decisions and improvements that align with desired outcomes.

CREATE CONSTANCY OF PURPOSE

An unwavering clarity of why the organization exists, where it is going, and how it will get there enables people to align their actions, as well as to innovate, adapt and take risks with greater confidence.

“Business and human endeavors are systems...we tend to focus on snapshots of isolated parts of the system and wonder why our deepest problems never get solved.”

— Peter Senge
SELECTED SUPPORTING CONCEPTS

See Reality

This is a very important concept. Most managers and leaders consider themselves quite capable of seeing the world around them and assessing the current situational realities. However, Dr. Shingo teaches that people can have blind spots created by long-held paradigms, experience, history, expectations, etc. Thus the practice of “go and observe” was developed based on the principle that reality needs to be perceived and understood based upon the five senses.

Most organizations create barriers that make it very difficult for people to see and tell the truth about what they see. A recently retired US senator wrote that having travelled on numerous trips with other political and military leaders to areas of serious world conflict, his greatest disappointment was that virtually all of their assessments of progress were greatly distorted from the actual data they observed.
Further, most organizations unintentionally build cultures that prevent the free flow of information that communicates an honest picture of reality. Max De Pree said, “The first responsibility of a leader is to define reality.” A leader must establish systems that make organizational performance and associate behavior transparent to all.

No leader can effectively lead without having a firm grasp of the current business realities.

Focus on Long Term

Jeffrey K. Liker highlights the principle of long-term focus, which provides a foundation of stability in the executive suite that can be achieved in no other way. When an organization creates a long-term focus, it is more likely that decisions will in fact pursue safety, quality, delivery and cost rather than just monthly or quarterly financial targets or bonus cut-offs. In conjunction with taking care of the short- and medium-term priorities, thinking in terms of 20- to 50-year legacy goals significantly reduces the tendencies for knee-jerk reactions to urgent pressures.

Align Systems

From the stakeholders’ perspective, the full potential is realized only when most critical aspects of an enterprise share a common platform of principles of operational excellence, management systems and tools. While it is expected that organizations develop some unique elements of their local culture, it is also expected that principles become a common, unifying part of each locale. Top-level leadership, staff and business processes should exemplify the same principles, systems and tools as do the operational components of the enterprise.

Align Behaviors with Performance

Ideal behavior drives long-term results. This happens when the systems are aligned with principles of operational excellence. Managers should help each person anchor their own personal values with these same principles. Personal values are what ultimately drive individual behaviors. Leaders are responsible for creating the environment and the process for people to evaluate the correctness of their own values relative to the performance results required of the organization.
One business set a goal to reduce customer complaints only to find that as they did, they began to lose valuable customers. The measure was driving behavior that made complaining such a painful experience that they just stopped calling. A better measure might have been to increase the number of complaints so that every single disappointment is given an opportunity to be resolved.

Policy Deployment

Policy deployment is a planning and implementation system, based on scientific thinking, employee involvement and respect for the individual. At the strategy level, policy deployment provides leadership with the necessary principles, systems and tools to carefully align key objectives and execution strategies while empowering the organization through cascading levels of detail to achieve those objectives. Because so many people are involved, clarity is critical. An aligned strategy helps keep everyone, literally, on the same (single) page and pointed in the same direction.

Standardized Daily Management

The concept of having some level of detailed work description for how to actually do daily work applies at all levels of the organization. Regardless of the perception among many leaders, their work can and should be organized into standard components.

Standard daily management creates a reference point from which continuous improvement can be based. Standard daily management can lead to greater process control, reduction in variability, improved quality and flexibility, stability (i.e. predictable outcomes), visibility of abnormalities, clear expectations and a platform for individual and organizational learning. Standard daily management enables creativity that is focused and controlled rather than ad hoc.

Leaders who follow and insist upon standard work send a clear message that they are serious and no one is above continuous improvement.
BEHAVIORAL INDICATOR EXAMPLES

- Everyone has a deep enough knowledge of the value stream to be able to understand processes upstream and downstream
- There is daily conversation about impact with internal and external customers
- Leaders and managers coach to ensure a clear connection between purpose and work being performed
- Goals are visual and understood; everyone knows if they are winning or losing
- Leaders hold to principles even during rough times
- Visits by leaders and managers to the place where work happens are frequent
• Associates are commonly sent to the customer site to understand how their product or service is used
• Customer expectations are clear and visual
• Improvement activities demonstrate a clear understanding of customer feedback received
• Measures are simple
• Measures are understood by all

To learn more about the third and fourth dimensions, attend the ENTERPRISE ALIGNMENT & RESULTS workshop. Visit http://shingo.org/education for workshop dates and locations.
RESULTS

The fourth and final dimension is Results. Great results are the outcome of following the principles that govern the results. The closer one emulates ideal behaviors, the closer they are to achieving enterprise excellence – consistently delivering ideal results to all stakeholders.

CREATE VALUE FOR THE CUSTOMER

Ultimately, value must be defined through the lens of what a customer wants and is willing to pay for. Organizations that fail to deliver both effectively and efficiently on this most fundamental outcome cannot be sustained over the long-term.

“*A relentless barrage of ‘why’s’ is the best way to prepare your mind to pierce the clouded veil of thinking caused by the status quo. Use it often.”*

— Shigeo Shingo
SELECTED SUPPORTING CONCEPTS

Measure What Matters

Historically, measurement has been focused on management – what management needed to know to be able to plan, organize and control. Within a model where widespread involvement is essential for continuous improvement and consistent performance, it is important to define measures that matter to those who will use them. Therefore, line associates need different measures than leaders responsible for the overall enterprise. Many thought leaders on measurement have suggested the new measurements need to: 1) directly tie to strategic priorities – move the dial, 2) be simple and easy to capture, 3) give timely feedback that is tied to the cycle of work, and 4) drive improvement.

Measures that matter can be created throughout the organization to assure that everyone is focused on the appropriate strategic activities and driving continuous improvement that moves the whole enterprise ahead.
Who is the Customer?

The concept of customer satisfaction has evolved toward addition of customer loyalty, and even advocacy of the customer on behalf of the enterprise. Similarly, the contemporary view of the customer has evolved. Although the traditional view of customers as end users, or as a chain of immediate recipients of a product or service en route toward an end user, may be appropriate in some contexts, this view is often too narrow.

In the context of the Shingo Model, the concept of customers may be expanded to include multiple relevant stakeholders that may span the supply and value chains and beyond. This view will address the needs, wants and sensitivities of producers or providers; users, consumers, or recipients of products and services; and those directly or indirectly impacted by the manufacture, distribution, use, or provision of a product or service including individuals, civil society, policy makers and the natural environment. This view requires a balancing of stakeholder considerations and is consistent with increasing expectations that enterprises should be both socially and environmentally responsible.

Identify Cause-and-Effect Relationships

When someone wants to make a car go faster, they simply press more on the gas pedal. So, the “dial” is the speedometer. What moves the dial? Pressing on the gas pedal. Why does this work? Because there is a physical linkage from the pedal to the engine to the axle. There is a clear cause-and-effect relationship.

Organizations must follow the linkages to determine the cause-and-effect relationships and how goals can be achieved. This is the same concept as root-cause analysis but applied to creating value.

To learn more about the third and fourth dimensions, attend the ENTERPRISE ALIGNMENT & RESULTS workshop. Visit http://shingo.org/education for workshop dates and locations.

To learn how all dimensions work together to build a culture of enterprise excellence, attend the capstone workshop, BUILD EXCELLENCE. Visit http://shingo.org/education for workshop dates and locations.
SUMMARY

Operational excellence is the vision many organizations use to drive improvement. Real change is only possible when leaders understand the timeless principles of operational excellence and embed them in the organization’s culture. Leaders must drive principles and culture while the managers design and align systems to drive ideal principle-based behavior. Involvement of the entire organization—every team member—is essential for genuine, sustainable improvement.

“Kaizen means ongoing improvement involving everybody, without spending much money.”

— Masaaki Imai

Shigeo Shingo, 1988
SHINGO PRIZE

“It is no longer good enough to be good, we want to be great! The Shingo Guiding Principles, founded in logic and built over time, have assisted us in moving further towards operational excellence. As we adapted our site to align with these principles, we found ourselves doing things that just make sense. This is testament to the power of the principle-led approach.”

— Pat Kealy, Manager, Operations
Abbott Vascular Division Clonmel
2014 Shingo Prize Recipient

As an effective way to benchmark progress towards enterprise excellence, organizations throughout the world challenge for the Shingo Prize. Originating in 1988, the Shingo Prize has become the world's highest standard for operational excellence. This is in response to a systematic process of “raising the bar” beginning in 2008 after a deep study regarding the necessary components of creating a culture that is able to sustain improvements and consistently drive results. Focus shifted from an emphasis on tool and programmatic assessment toward a complete assessment of an organization’s culture. Volunteer Shingo examiners now focus on determining the degree to which the Shingo Guiding Principles are evident in the behavior of every employee. They observe behavior and determine the frequency, duration, intensity and scope of the desired principle-based behavior. They observe the degree to which leaders are focused on principles and culture, and managers are focused on aligning systems to drive ideal behaviors at all levels.

This focus is the most rigorous way to determine if an organization is fundamentally improving for the long-term or just going through the motions of another short-term initiative.
Recipients of Shingo recognition fall into three categories:

**SHINGO PRIZE**

The Shingo Prize is awarded to organizations that have robust key systems driving behavior close to ideal, as informed by the principles of operational excellence, and supported by strong key performance indicator and key behavioral indicator trends and levels. Shingo Prize recipients show the greatest potential for sustainability as measured by the frequency, intensity, duration, scope and role of the behaviors evident in the organizational culture.

**SHINGO SILVER MEDALLION**

The Shingo Silver Medallion is awarded to organizations that are well along the transformation path and heading in an appropriate direction as it relates to principles, systems, tools and results. Behaviors and measures show results from a focus on key systems. Significant progress has been made with respect to frequency, intensity, duration, scope and role of the behaviors evident in the organizational culture.

**SHINGO BRONZE MEDALLION**

The Shingo Bronze Medallion is awarded to organizations that are at the developmental stage as it relates to principles, systems, tools, and results. Behaviors and measures are identified and the organization is working toward stability in both. Progress is made with respect to frequency, intensity, duration, scope and role of the behaviors evident in the organizational culture.

Most organizations do not wait until they might qualify for the Shingo Prize to challenge but rather, use this progression as a way to guide their journey of continuous improvement. Many organizations do not intend to ever challenge for the Prize but use the Shingo Model as the highest standard of excellence in the world to which they can aspire.

If you are interested in challenging for the Shingo Prize, please visit http://shingo.org/challengefortheprize to download the Application Guidelines and the Application Form.

“*It’s the easiest thing in the world to argue logically that something is impossible. Much more difficult is to ask how something might be accomplished, to transcend its difficulties and to imagine how it might be made possible... go all out in pursuit of ways to do the impossible.*”

— Shigeo Shingo
OTHER EXECUTIVE OPPORTUNITIES

SHINGO STUDY TOURS

Shingo Study Tours let participants see organizational culture through the lens of the Shingo Model. See and experience first-hand what is at the heart of this continuous improvement model through a series of plant tours, workshops and peer networking.

Shingo Study Tours go to various destinations in the U.S., Ireland and others where participants visit organizations that have received a Shingo award. See the Shingo Model in practice and get great ideas of how to put it into practice at one's organization.

JAPAN STUDY TOURS

On the Japan Study Tour participants will see where the Lean movement got its start. Visit companies that demonstrate enterprise excellence in fundamentals such as 5S, visual management, problem solving, standardized work, quality at the source, safety, continuous flow, intelligent automation and more.

Learn more: shingo.org

PRIVATE STUDY TOURS

The Shingo Institute offers private study tours for groups of 12 or more in the U.S., Mexico, Brazil, Ireland and Denmark. The agenda can be customized for organizations. All tours include site visits to Shingo recipient companies as well as instruction from the Shingo Institute staff.

To schedule a private tour contact:

Mary Price at mary.price@usu.edu
THE SHINGO CONFERENCE

Each Spring the Shingo Institute hosts an international conference that brings together executives and continuous improvement leaders from around the world. This is where organizations that have challenged for the Prize and passed the rigorous process of Shing examination receive their award.

The Shingo Conference offers a selection of workshops, plant tours, keynote speakers and breakout sessions designed to provide ongoing knowledge, insights and experience for organizations in their pursuit of enterprise excellence. If you only attend one Shingo event, make it this one.

Learn more about the next conference:

shingo.org/events/international
SHINGO INSIGHT

Shingo Insight is the best method for measuring the degree to which an organization's culture is aligned to the principles of the Shingo Model. It is inexpensive enough to use yearly or more, and yields valuable data on the attitudes, beliefs and behaviors of people at all levels of a facility—i.e., the elements that comprise its organizational culture.

All employees at the facility anonymously fill out the online assessment (15-30 minutes). The survey instrument is specially designed to weed out various forms of bias and, most importantly, to let leaders know where the gaps are between where they want the organization's culture to be and where it actually is. Results of the survey are compiled and analyzed at the Shingo Institute and returned. The information can show what parts of an organization's culture needs work and what groups within the organization need it most.

Learn more details at shingo.org/insight.
Visit Shingo.org to join our e-mail list and receive the Shingo Institute newsletter. You’ll get useful articles, workshop schedules, event announcements, award notifications and more.
SHINGO EXECUTIVE ADVISORY BOARD

The Shingo Executive Advisory Board consists of outstanding leaders from a wide variety of organizations and industries who have established themselves in their careers as principle-centered leaders building cultures of excellence.

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M2 Global Inc.

Gary Peterson  
Executive VP of Supply Chain  
O.C. Tanner Company

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Executive VP/Chief Talent Enterprise Services Officer  
Liberty Mutual Insurance

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Helen Zak  
President & COO  
TheDaCare Center for Healthcare Value

Steve Moore  
Former General Manager  
Barnes Aerospace Ogden
RECENT SHINGO PRIZE RECIPIENTS

SHINGO PRIZE

Awarded in 2017
Ball Beverage Packaging Europe, Naro Fominsk Ends
Naro Fominsk, Russia

Awarded in 2016
Boston Scientific Cork - Cork, Ireland
Rexam Beverage Can Americas Querétaro
Querétaro, México

Awarded in 2015
Abbott Diagnostics Longford - Longford, Ireland
Envases Universales Rexam de Centroamerica S.A.
Amatitlan, Guatemala

Awarded in 2014
NewsUK - Newsprinters Ltd. - Holytown,
Motherwell, UK
Barnes Aerospace OEM Strategic Business
Ogden, Utah, USA
DePuy Synthes Ireland - Cork, Ireland
Abbott Vascular Clonmel - Tipperary, Ireland

Awarded in 2012
Ethicon Inc. - Juarez, Chihuahua, Mexico
Rexam Beverage Can, Águas Claras Can - Águas
Claras, Rio Grande do Sul/Viamão, Brazil

To view a full list of recipients:
shingo.org/awards
RECENT SHINGO RECIPIENTS

SILVER MEDALLION

Awarded in 2016
Hospira Limited, a Pfizer Company - Haina, San Cristobal, Dominican Republic
Meda Rottapharm Ltd, a Mylan company - Dublin, Ireland

Awarded in 2015
Commonwealth Bank of Australia - Sydney, Australia

Awarded in 2014
Rexam Beverage South America, Jacareí - Jacareí, São Paulo, Brazil
PyMPSA Plásticos y Materias Primas - Guadalajara, Jalisco, Mexico
Rexam Healthcare, Neuenburg - Neuenburg am Rhein, Germany
Rexam Beverage Can, Enzesfeld - Enzesfeld, Vienna, Austria
Boston Scientific, Maple Grove - Maple Grove, Minnesota, USA
Vale Europe Ltd., Clydach Refinery - Clydach, Swansea, UK

BRONZE MEDALLION

Awarded in 2017
Land Apparel S.A. - Puerto Cortés, Honduras
Letterkenny Army Depot, Patriot Launcher New Build Program Chambersburg, Pennsylvania, USA

Awarded in 2015
Lake Region Medical - New Ross, Wexford, Ireland
Boston Scientific, Costa Rica - El Coyol, Alajuela, Costa Rica
Carestream Health, Yokneam - Yokneam, Israel

Awarded in 2014
Lundbeck Pharmaceuticals Italy S.p.A. - Padova, Italy
Vistaprint Deer Park Australia - Derrimut, Victoria, Australia
Corporation Steris Canada - Québec, QC, Canada
Autoliv (China) Inflator Co., Ltd. - Shanghai, China
Rexam Beverage Can South America, Rio de Janeiro - Rio de Janeiro, Brazil
PUBLICATION AWARD

The Shingo Publication Award recognizes and promotes writing that has had a significant impact and advances the body of knowledge regarding operational excellence. Submissions for this award either contribute substantial new knowledge and understanding of operational excellence, or offer a significant extension of existing knowledge and understanding of operational excellence. The types of accepted submissions include: (1) books or monographs, (2) published articles, (3) case studies and (4) applied publications/multimedia programs.

Awarded in 2017

*The Toyota Way to Service Excellence*, Jeffrey K. Liker and Karyn Ross

Awarded in 2016

*2 Second Lean*, Paul Aker

*Achieving Safe Health Care*, Jan Compton

*Building the Fit Organization*, Daniel Markovitz

*Card-Based Control Systems for a Lean Work Design*, Matthias Thürer, Mark Stevenson and Charles Protzman

*Developing Lean Leaders*, Jeffrey K. Liker

*The GBMP Management Engagement DVD Series*, Bruce Hamilton

*How to Do a Gemba Walk*, Michael Bremer

*Lean-Driven Innovation*, Norbert Majerus

*The Lean Farm*, Ben Hartman

*Lean for the Long Term*, William H. Baker, Jr. & Kenneth Rolfes

*Management on the Mend*, John Toussaint

RESEARCH AWARD

**New in 2017:**

The Shingo Research Award recognizes and promotes research and writing that advances the body of knowledge regarding operational excellence. Submissions for this award either contribute substantial new knowledge and understanding of operational excellence, or offer a significant extension of existing knowledge and understanding of operational excellence. The types of accepted submissions include: (1) books or monographs, (2) published articles and (3) case studies.
The Shingo Institute is part of the Jon M. Huntsman School of Business at Utah State University and named after Japanese industrial engineer Shigeo Shingo.