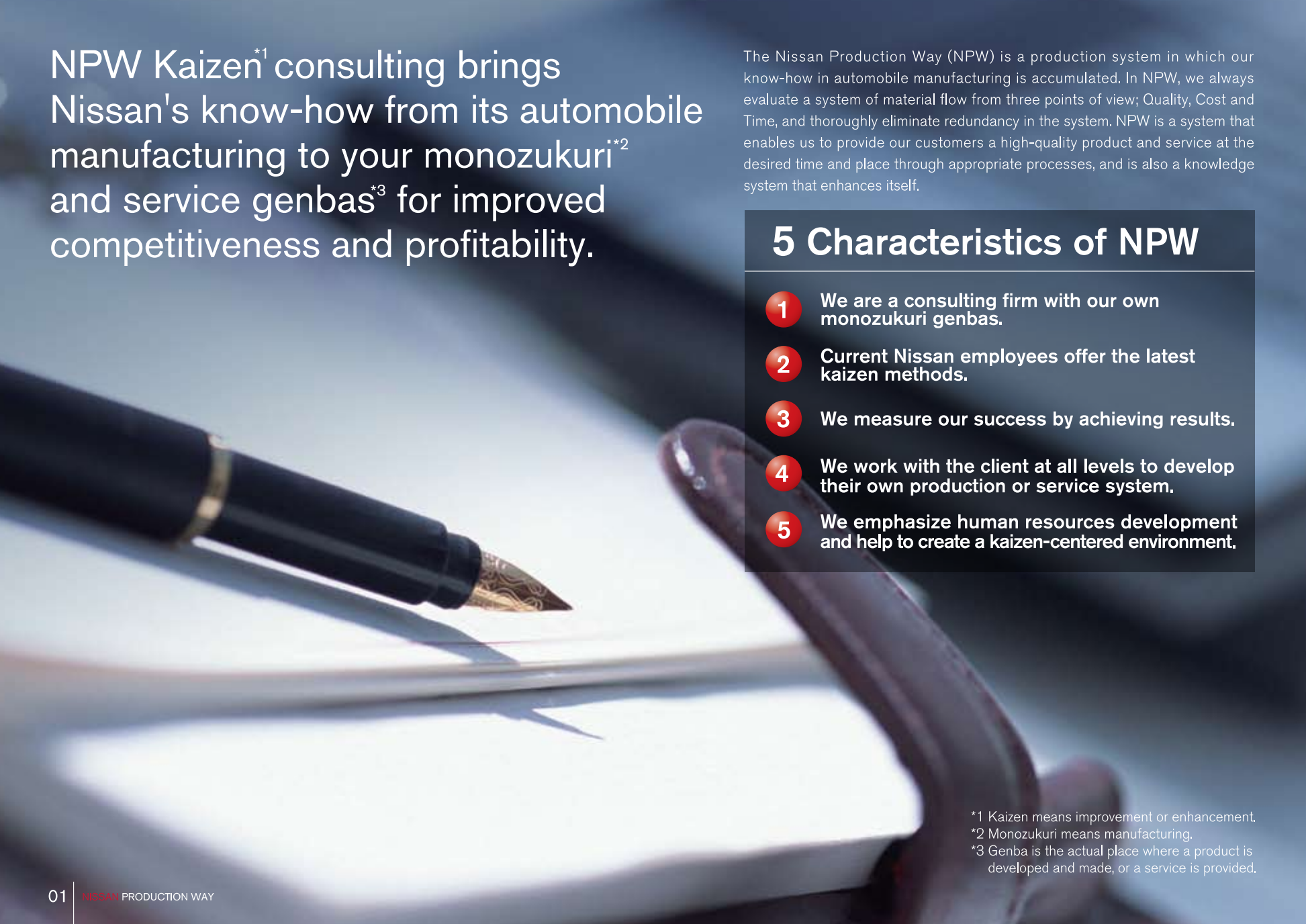


Consulting System for Continuous Genba Improvement

———— Nissan Production Way (NPW); Evolving Kaizen Methods that Supported Nissan's Revival ————

Changing People, Changing the Company



A close-up photograph of a fountain pen with a gold nib and a pair of glasses resting on a white surface. The background is a blurred blue and white gradient.

NPW Kaizen^{*1} consulting brings Nissan's know-how from its automobile manufacturing to your monozukuri^{*2} and service genbas^{*3} for improved competitiveness and profitability.

The Nissan Production Way (NPW) is a production system in which our know-how in automobile manufacturing is accumulated. In NPW, we always evaluate a system of material flow from three points of view; Quality, Cost and Time, and thoroughly eliminate redundancy in the system. NPW is a system that enables us to provide our customers a high-quality product and service at the desired time and place through appropriate processes, and is also a knowledge system that enhances itself.

5 Characteristics of NPW

- 1 We are a consulting firm with our own monozukuri genbas.
- 2 Current Nissan employees offer the latest kaizen methods.
- 3 We measure our success by achieving results.
- 4 We work with the client at all levels to develop their own production or service system.
- 5 We emphasize human resources development and help to create a kaizen-centered environment.

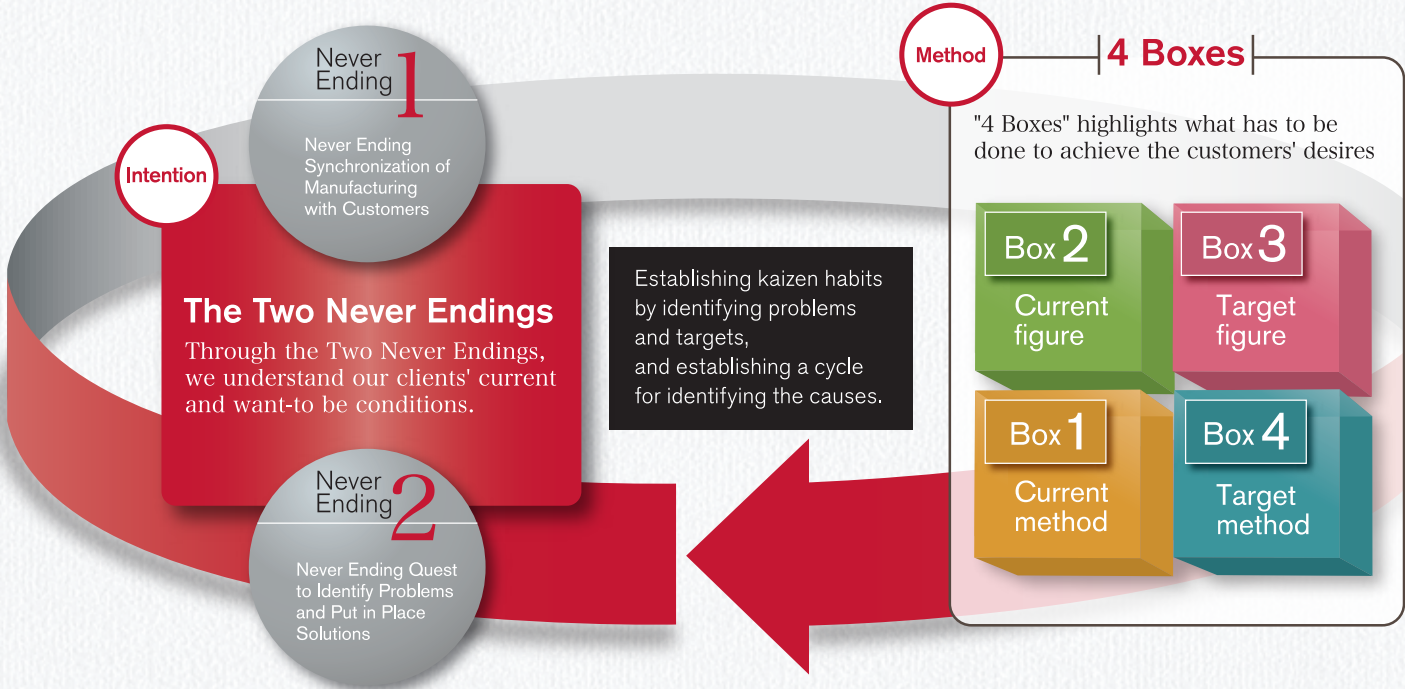
*1 Kaizen means improvement or enhancement.

*2 Monozukuri means manufacturing.

*3 Genba is the actual place where a product is developed and made, or a service is provided.

Establishing kaizen habits through Intention and Method

A company may succeed in strengthening its genba or addressing challenges temporarily with advice from professional consultants. However, in a period of upheaval like today, a company is constantly faced with new challenges. Therefore, consulting is pointless if the company cannot handle new crises and challenges and continue to improve its genba on its own. Our goal is to establish kaizen habits. This requires consultants to have the strong intention to continuously foresee the future with the client and calls for appropriate kaizen methods based on professional knowledge. With "the Two Never Ending" intentions aimed at synchronization with customers and identifying problems, and "4 Boxes" method of highlighting the want-to-be condition and strategies to be taken, we share the problems and visions of our clients and aim to establish a continuous kaizen cycle at the client's genbas.





Sharing problems and targets with the client through the Two Never Endings.

Two Never Endings

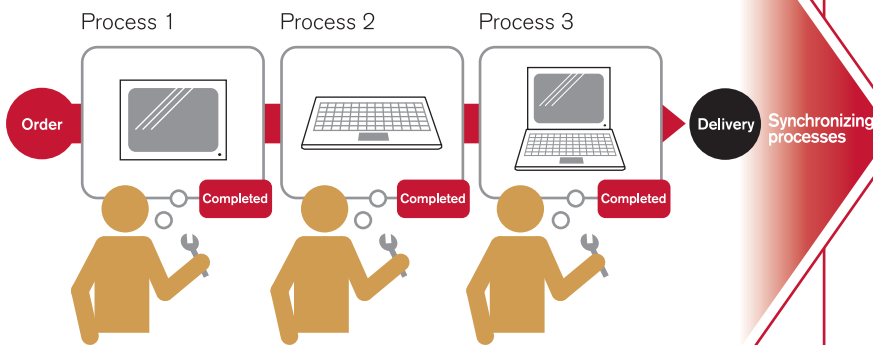
1

Never Ending Synchronization, "Douki", of Manufacturing with Customers

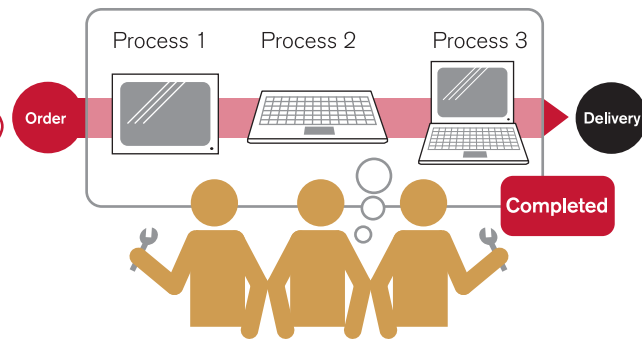
Understand the material flow, and pursue the simplest and the most optimized process

Any monozukuri and service process has a start and an end, and there is a process, or a flow of operations. We call the flow "michinori". "Douki" is a production system for optimizing and simplifying the michinori of the monozukuri or service as a whole, by understanding what is best, not only for each individual process, but for the fore-and-aft process and the customers.

Each process is self-centered.



A line is totally optimized through synchronization



"Never Ending Synchronization of Manufacturing with Customers"
and "Never Ending Quest to Identify Problems and Put in Place Solutions"
The Two Never Endings represent our strong intention to
continuously pursue customer satisfaction.

Two Never Endings

2

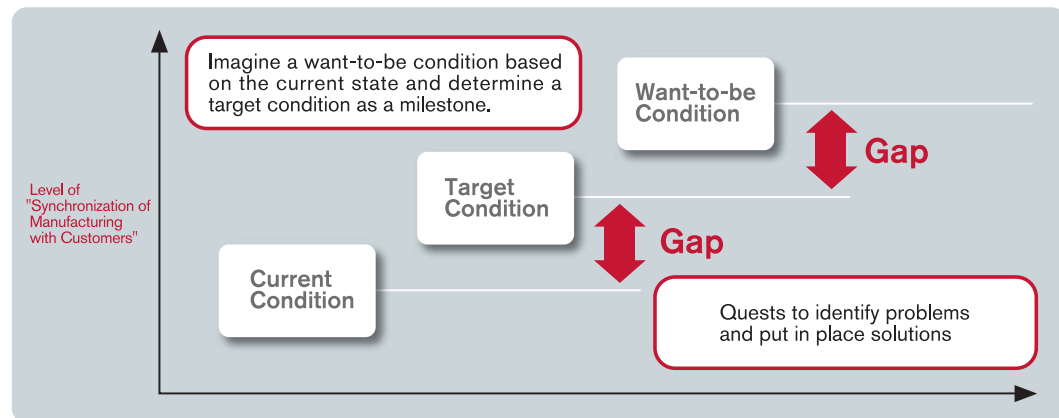
Never Ending Quest to Identify Problems and Put in Place Solutions

Dig deep and highlight hidden problems

We often encounter negative factors, such as work inefficiency and unstableness in product quality, as we seek never ending douki with customers. We see these factors as our kaizen opportunities, and proactively identify them and put in place solutions instead of simply ignoring them. We call this process "Never Ending Quest to Identify Problems and Put in Place Solutions." By continuing this quest, processes and work are improved.

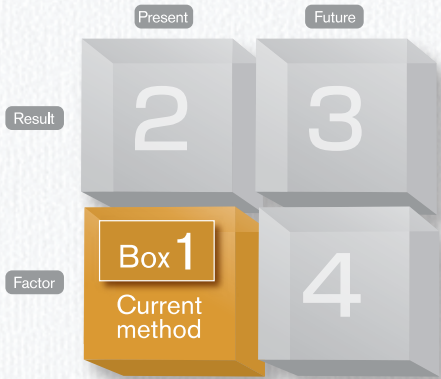
Never Ending and Constantly Improving Reformation

Once you envision a want-to-be condition and target condition, after comprehending current condition, you will see the gaps between them. "Never Ending Quest to Identify Problems and Put in Place Solutions" is about continuously making improvements by filling these gaps.



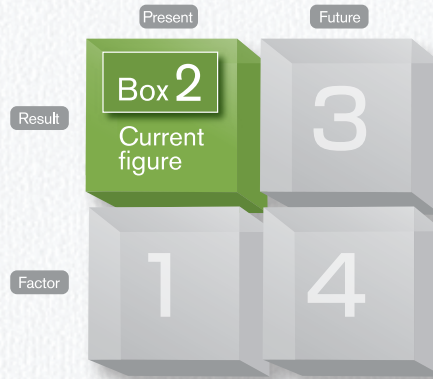


Establishing continuous kaizen cycle with "4 Boxes"



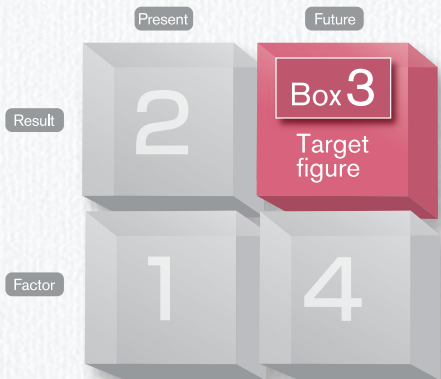
Identifying current method

The first step is to investigate and comprehend the current method accurately; what we actually deliver and how we do it.



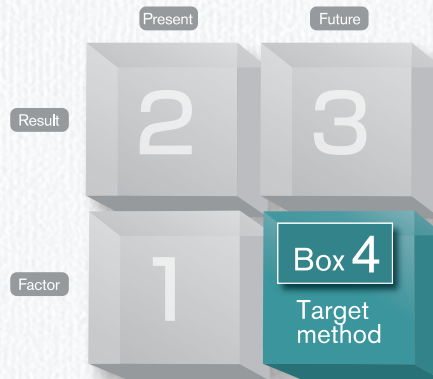
Revealing the target by understanding the current figures.

The second step is to understand the quantitative figures made as a result of the current method and understand the genba standard objectively.



Setting target figures that reflect a company's managerial visions.

The third step is to set concrete target figures for a want-to-be condition. Once we have the current figures in Box 2, we figure out how far we want to improve them.



Establishing the target method to achieve target figures.

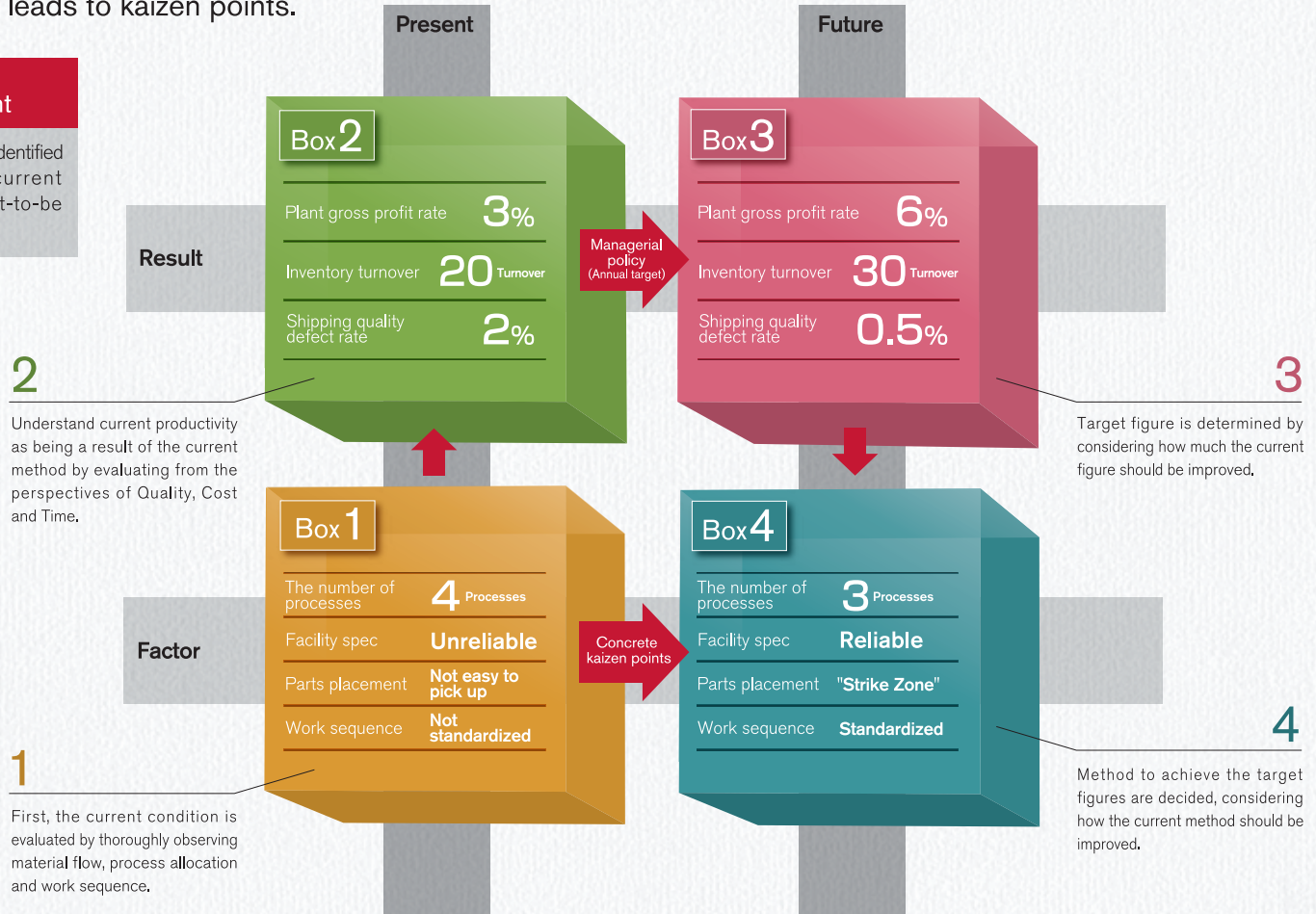
The last step is to carefully draw up a concrete action plan to achieve the target figures and then implement kaizen activities if improvements are needed.

We utilize "4 Boxes" to achieve want-to-be condition. Using the two perspectives, "present and future" and "factor and result," we determine a want-to-be condition from the current condition. Once we achieve a want-to-be condition, a new want-to-be condition is determined. The cycle of improvement using "4 Boxes" is repeated continuously.

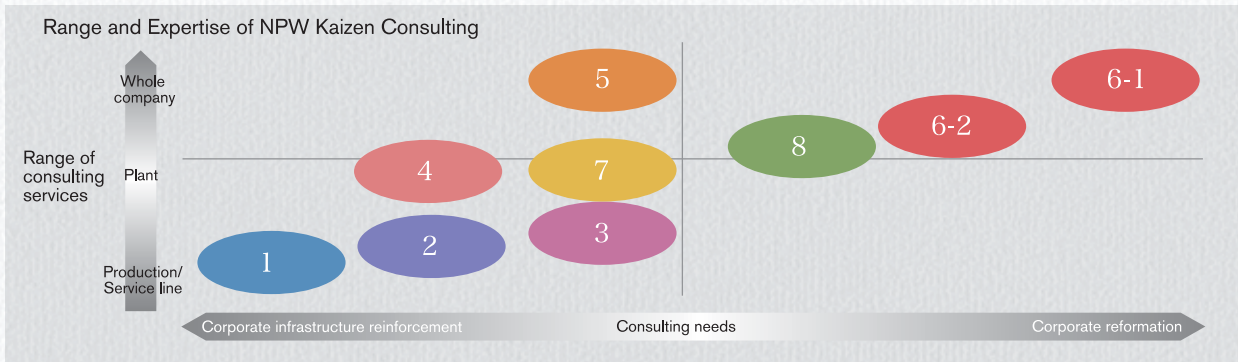
Quantification and visualization of the current method leads to kaizen points.

Case: Kaizen at an assembly plant

Concrete kaizen points were identified by comprehending the current method and drawing want-to-be condition using "4 Boxes".

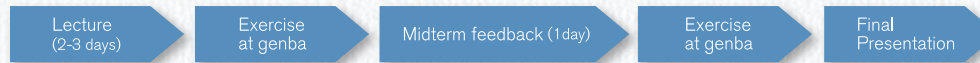


NPW Kaizen Consulting Menu



1 Training for Genba Managerial Skill Enhancement

This training is for genba managers and supervisors directly overseeing monozukuri to gain and enhance their management and problem solving skills.



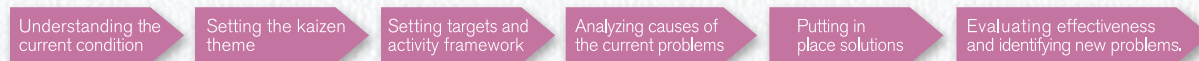
2 Training for Genba Managerial Skill Trainers

This training is for genba managers and supervisors directly overseeing monozukuri to become a trainer for others.



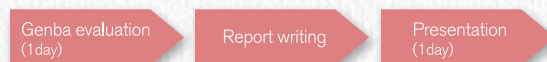
3 Genba Kaizen Trial Course

This is a trial course for clients to experience what changes can be made through kaizen by understanding their own problems and identifying the direction for kaizen activities.



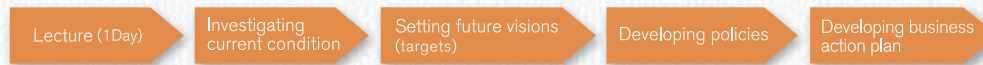
4 Genba Diagnosis Course

This course helps to determine the direction for kaizen activities through genba diagnosis.



5 Corporate Policy Development Course

This course helps to visualize a corporate direction that reflects top management decisions and to develop a concrete business action plan.

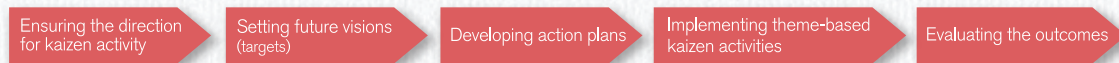


6 Plant Reformation Course

This course helps to review and reform the plant as a whole for improved competitiveness, profitability, and production system.

6-1 Production System Reformation

Reforms your genba and production system by reviewing the competitiveness and profitability of a plant or a production line.



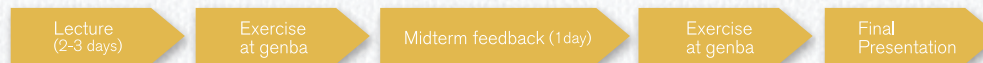
6-2 Long-Term Production System Reformation by Extension

Extend kaizen activities that were proved effective on a pilot line to other production lines and plants.



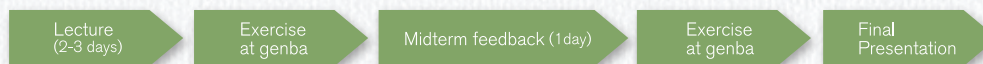
7 Genba Kaizen in Practice Course (Three-month)

Kaizen activity in workplaces is led by the clients themselves, by utilizing their human resources and existing kaizen skills. Consultants help in implementing kaizen by offering sound advice from our knowledge, expertise and skills.



8 Genba Kaizen in Practice Course (Six-month)

Consultants inculcate a kaizen mindset in the client and enhance their kaizen skills while leading kaizen activities.



NPW Kaizen Consulting Approach

PHASE 1

Share a concrete want-to-be condition with the client

Set genba indicators that reflect the client's managerial goals

Identify Future Vision and Set Target

- Evaluating managerial performance indicators
- Interviewing the executives and managers in charge to find out their intentions
- Sharing wide opinions about the range and the direction of kaizen activity

Identify Current Condition

- Checking performance indicators such as cost-profit rate
- Evaluating current production/service system

Set Genba Target and Develop Action Plan

- Breaking down managerial goals into kaizen targets at genba
- Developing a framework for kaizen through TQM^{*1}
- Setting targets and developing action plans for pilot activities.
- Implementing pilot kaizen activities and collecting the data (evidence)

*1 Total Quality Management (TQM) is a management method for breaking down management strategy, a common corporate goal, into kaizen targets at genba.

Example of NPW consulting area and themes

Area

- Casting/Forging
- Pressing
- Machining process
- Electric product manufacturing
- Plastic molding
- Food processing
- Medical institutions
- Restaurant
- Hotel
- Call center
- Day care center
- Automobile dealerships

Kaizen Theme

- Reformation of a production system based on a mid term business plan
- Evaluation and improvement of production line specifications based on managerial goals
- Cost reduction through productivity improvement
- Cash flow improvement by lead time reduction and inventory control
- Improvement of product marketability by reducing the lead time of product development
- Indirect manpower reduction by work efficiency improvement
- Improvement of customer satisfaction and productivity by JIT implementation
- Enhancement of customer satisfaction through thorough servicing and reduction of waiting time

PHASE 2

Implement genba kaizen

Implement OJT-style genba kaizen / TQM^{*1} management

Reform Genba

- Implementing genba kaizen for KPI fulfillment^{*2}
- Organizing kaizen methods to be extended elsewhere.

Review

- Reviewing kaizen methods
- Standardizing and systematizing kaizen methods

PHASE 3

Make kaizen habits

Establish PDCA cycle

Establish PDCA cycle

- Establishing PDCA cycle as system
- Break down into managerial indicators
- Development and deployment of human resources

^{*2} Key Performance Indicators (KPI) are the most important numerically-expressed indicators for evaluating performances.

NPW Consulting Case

Case 1

B plant, Auto components manufacturer

Plant gross profit rate **3%** ▶ **18%**

Inventory turnover **20 turnover** ▶ **37 turnover**

We evaluated across several process lines to understand the current condition and implemented kaizen to eliminate stagnation in the material flow. As a result, productivity was improved and the inventory was significantly reduced.

Case 2

Nissan Medical Center

Waiting time **29 min.** ▶ **12 min.**

Nissan Medical Center was faced with an issue of long waiting times. We succeeded in eliminating 60% of the waiting time by visualizing the line of medical examinees, changing appointment timings from hourly groups to individual 15 minute time slots, and creating and sharing a schedule chart of all examinees among doctors and nurses.

We, Nissan Motor Co., Ltd., create new value by utilizing our automotive industry experience and functional expertise in various industries.

Our challenge continues toward building an enriched society with our client companies.

Process from inquiry to consulting agreement

STEP 1

Interview by our consultants

Our consultants visit your company to interview your needs.

STEP 2

Genba visit and preliminary investigation by our consultants

After the interview, our consultants visit your genba (plant or service office) to investigate and interview your genba managers to find out specific needs for kaizen.

STEP 3

Presentation of consulting plan, duration and estimate

After genba investigation, our consultants will present a kaizen consulting plan to meet your needs and an estimate of the consulting fee.

STEP 4

Concluding consulting agreement and starting services

Upon mutual agreement on the content of the plan, a contract will be made and our consultants start services.

NISSAN MOTOR CO., LTD.

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