

Continuous Improvement: Kaizen Events

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The Journey to Reliability, Resilience and Security

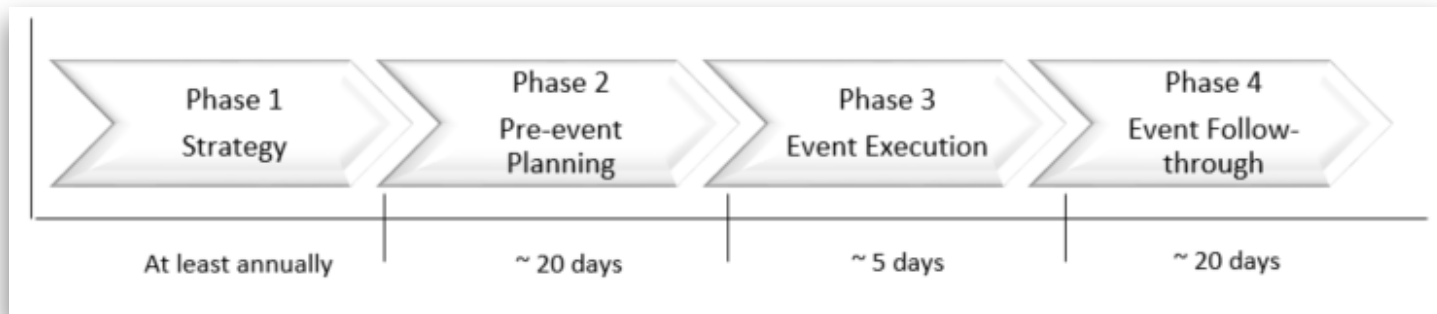
"Coming together is a beginning. Keeping together is progress. Working together is success." – Henry Ford

RF is your partner as we work together to continuously improve the Bulk Power System. While there are many facilitation methods for this journey, this article will walk through how Kaizens can be used. Kaizen is the Japanese term for continuous improvement. "In a simple definition, one can say that Kaizen activities aim to improve all functions of the business, through small steps, involving all employees. It is a collective effort that makes the process more efficient, effective, manageable, and adaptable."¹

Planning a Kaizen Event

A Kaizen event provides structure for successful improvement. It is of the utmost importance that the event owner, also referred to in this article as a sponsor, works hand-in-hand with both the facilitator and someone who is directly involved with the system being improved. If possible, the event owner, facilitator and subject matter expert should all be different people.

There are four overarching phases of a Kaizen event. The following diagram reproduced from the Kaizen Event Fieldbook illustrates the key phases with a typical timeline for those phases:



The fieldbook referenced at the end of this article details each of the phases. Before getting started, it's important to know that there are times when Kaizen events are appropriate and times when they are not. The fieldbook also has a flowchart in Fig. 4-1² that helps determine if a Kaizen event should or should not be utilized.

¹Abdulmouti, Ind Eng Manage 2018, 7:2

²Mark R. Hamel, "Kaizen Event Fieldbook" Figure 4-1, pg. 71

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Kaizen Event Examples

An experienced CI and Kaizen facilitator here at RF provided examples of good and bad events he has experienced over the years.

The Good – A large project at a company involved reducing cost due to over spending by millions of dollars. Once the Kaizen facilitator helped the team delve into the situation, it came down to one software development process. It involved all stakeholders who worked to solve the problem at hand and implemented a plan that saved the company millions.

The Bad – During a Value Stream Mapping (VSM)³ event, the facilitator encountered a sponsor who had already made up their mind on the outcome based on their vision. In these types of situations, the sponsor may be an executive or senior leader, and others in the room typically do not push back because they feel somewhat bullied into the predefined outcome.

The sponsor took control of the event and seemed to “put on a show” in order to say they involved everyone in the decision (but they really did not). The sponsor took total control and disagreed with reports without offering an explanation. Golden Rule: If decision makers already have a decided upon solution, don't have a Kaizen!

Power Industry Kaizen

In the electric utility industry, improvements may result from various “forms” of Kaizen events. However, the infrastructure is typically hierarchal, versus a more modern, self-organized manufacturing assembly line. “In environments where the product is difficult to see, the workforce is often disconnected from both internal and external customers, measurement has not been the norm, and significant waste exists.”⁴

Power companies implement improvements in office or offsite meetings. These are usually productive meetings for change, but when you consider labor unions and non-union members, it's challenging to get the right people in the room. The more diverse the stakeholders, the better the event. The “old school” mentality is to have the workers do it, which may not be diverse enough if you are trying to blend new, external ideas and innovation. Most modern problems are complex system problems.

Performing VSM in our industry can be very useful as a tool for Kaizen events, but you should use caution when “leaning out”, or trimming down, a process that has critical steps for success. Like Kaizen events, there are cases where VSM may not work well in the power industry; for example, when human life is at stake. Lean Kaizen reduces waste in a process, but if not used correctly, it can reduce safety and resilience. For example, it may trim out critical Human Performance steps.

Critique of Kaizen Events

Prior to Kaizen events in corporate settings, there was usually an office or offsite meeting to discuss ways to improve on a specific problem where a leader would “make the hard call” for the team. It was a carryover of top-down organizational management. In the spirit of Kaizen, it is critical that personnel directly involved with the work takes place are included (i.e., going to the GEMBA)⁵.

However in some cases this is not practical, so although “going to GEMBA” is a recommended best practice, it should be used with caution and when situations may cause safety concerns. You should try to involve the workers' direct supervisors or others with first-hand knowledge of the tasks and challenges.

³Value stream mapping is a flowchart method to illustrate, analyze and improve the steps required to deliver a product or service. Source: <https://www.lucidchart.com/pages/value-stream-mapping>

⁴Martin, Osterling (2007): “The Kaizen Event Planner”

⁵According to Masaaki Imai, GEMBA is defined as “the place where things happen”, “GEMBA Kaizen”, Pg. 13

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Another critique of Kaizen events is in the scoping of the engagement with the sponsor, especially if the sponsor makes it too constrained. The challenge is to reduce or remove the constraints (e.g., money, time, resources, etc.) as much as possible when setting up the event. If there are constraints, such as the team is given one hour to figure out a complicated issue, there's a good chance that the sponsor already has an idea of what they want the end goal to look like, violating the golden rule of Kaizen.

In Closing

Kaizen events are effective when used properly, taking into consideration all the applicable factors and ensuring all stakeholders are involved in the event to come up with a solution to the problem.

RF has a wealth of knowledge and experience on performing Kaizen events, including trained and certified facilitators who can help drive improvements with the challenges you may be facing. We encourage our Entities to utilize this free service.

Lastly, the following are some Kaizen Event references to look into:

- Abdulmouti H, Benefits of Kaizen to Business Excellence: Evidence from a Case Study, 2018
- Mark R. Hammel "Kaizen Event Fieldbook," 2010
- Masaaki Imai, "GEMBA Kaizen, A commonsense approach to a continuous improvement strategy," 2nd edition, 2012
- Liker and Franz, "The Toyota Way to Continuous Improvement," 2011
- Pagell, Dibrell, Veltri, and Maxwell, "Is an Efficacious Operation a Safe Operation: The Role of Operational Practices in Worker Safety Outcomes," IEEE TEMS, August 2014

Special thanks to Kaizen event and CI facilitator Carl Dister, Manager, Innovation & Continuous Improvement at RF for contributing to this article. If you have any questions or interest in our Kaizen and Facilitation services, please contact Entity Engagement.

