

Innovent Technologies

CEDAC Technique Drives Increase in On-time Delivery at Innovent



CASE STUDY:
CEDAC Methodology

WEBSITE:
www.innoventtech.com

INDUSTRY:
contract manufacturing,
engineering and
assembly services for
their high-mix low volume
product lines.

EMPLOYEE COUNT:
100-200

ABOUT Innovent Technologies

Since 1991 Innovent Technologies, of Peabody, Massachusetts has manufactured customized substrate handling products for the semiconductor, LED and solar industries. Serving some of the industry's leading companies, Innovent provides contract manufacturing, engineering and assembly services for high-mix, low volume product lines. The Peabody plant offers a full range of facilities for fabrication and manufacturing, logistics, cleanroom assembly and testing.

Innovent prides itself on offering engineering services that improve customers' designs, allowing for greater manufacturability, lower cost, and improved performance.

About the Engagement

Bob Elliott, GBMP Continuous Improvement Manager, worked with a team of Innovent employees, helping them to learn and apply a powerful visual technique for problem solving. In a management backed effort to raise on-time delivery levels, Bob trained and coached Innovent on CEDAC, or Cause and Effect Diagram with the Addition of Cards, a tool that helps groups systematically collect, analyze, and integrate information on quality and productivity problems. This highly participative method, developed by Dr. Ryuji Fukuda in the 1970's for Sumitomo Electric, is an extension of the simpler fishbone diagram, and gives employees and management a structured way to work together to gather facts and define causes of a problem, then generate, document and systematically test out related improvement ideas.

According to Innovent's VP/General Manager, John Flinn, "the CEDAC team had great results. The team started back in September of 2014 and we are now in our fourth month in a row of achieving our goal of 99%+ on-time delivery. It was an excellent job by everyone and I feel confident our high on-time delivery will remain a priority."

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Innovent's CEDAC diagram, dealing with on-time delivery. The team generated 67 different fact cards and 115 different improvement cards as part of the project.

For more information about Innovent please visit <http://www.innovent.com>

For more information about GBMP please visit www.gbmp.org

For more information on the CEDAC technique see GBMP's video CEDAC at www.shopgbmp.org or check our Dr. Ryuji Fukuda's book CEDAC.

STRATEGY AND GOALS

The CEDAC method offered a great way for Innovent employees to collaborate and explore the causes of missed deliveries. After briefly introducing the team to the CEDAC methodology, Bob had them begin by thinking about “why” they could not provide 100% on-time delivery. By starting with the desired end in mind (100% on-time delivery), they framed the issue from the customer’s perspective. After documenting many of the things that get in the way of this “ideal” condition, the team organized their thinking a bit more, coming to consensus on their CEDAC problem statement and grouping like facts and data on each bone of the modified fishbone diagram. Next they brainstormed improvement ideas for many of the issues uncovered, and then followed that stage of the CEDAC process with testing of their best ideas for increasing on time delivery.



Bob Elliott explained why this type of team activity is so powerful: “When we get a team together to work a problem using CEDAC and start them off thinking about the customer and the effect the customer wants, such as 100% on-time delivery, it immediately gives the group a common goal to work toward. Aspects of the method such as silent fact and improvement card writing give everyone on the team a voice, and sometimes a single “lone wolf” card can offer insight into the problem that was largely unknown to most. The visual aspect of a CEDAC diagram makes it easy to see like issues or common ideas, and the 3-dot idea assessment system we use offers a simple way to track the testing of improvement ideas and their impact on the CEDAC improvement measure. This team really embraced the method and demonstrated that systematic problem-solving through the CEDAC tool really works.”

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“Working with Lead King provides that additional benefit of human involvement in the process of building valuable lead lists.

It’s terrific working with smart people who adjust quickly and provide high quality leads, especially when our requirements are complicated.”

- Amanda Hitori,
Business Strategy Lead

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THE FINAL RESULTS



32% increase in conversions



60% increase in online mentions



180% increase in monthly revenue

In the end, with Lead King Nerd Spell made significant, sustainable improvements to its business strategy. Nerd Spell no longer conducts any in-house prospecting, which allows the Business Operations team to focus on higher-value tasks. A reliable source of high-quality leads has resulted in accelerated goals, and organizational changes that optimize new processes.