



Photo: Pia Nordlander/bildN

Without proper quality competence, the improvement work comes to nothing, says Karl Williams.

# It is crucial to have a good quality competence

In order to develop and maintain a profitable improvement culture, it is critical to have a broad and deep competence in quality and improvement management. Genuine understanding of this and knowledge in methodology such as statistical analysis is required. Just relying on common sense is not at all enough, says *Karl Williams*, who is Quality and Operation Excellence Manager at ABB Robotics Production in Västerås.

**AT THE VÄSTERÅS FACTORY**, more than 1,000 people work at designing, adapting and building industrial robots, primarily for the automotive industry, but for other industries as well. Throughout ABB, efforts are being made to develop quality competence. One goal is that 50 percent of the employees should be certified to run Plan-Do-Check-Act (PDCA) projects, or 4Q, as it is called within ABB.

## **Without quality competence, nothing happens**

Karl Williams's department is a central function within the Västerås plant. It coaches leaders, managers and quality

coordinators. Investing in genuine quality competence is of great importance, he says.

– It is crucial in order to be able to strategically establish and maintain an improvement culture. Many people think that this is only a matter of common sense, but if it were, all businesses would have high quality. Without good quality competence, the improvement work will drop dead sooner or later.

Karl Williams sees obvious effects when the improvement work is run in a competent way.

We get a higher yield in production and fewer complaints. We finalize more improvement projects that lead to lower

costs, and production is generally more profitable.

## **Persistence and competence of many**

According to Karl Williams, it is important that many people in an organization have quality competence. In addition to the strategic competence of quality managers and other quality professionals, all managers should have a basic quality training. This is necessary in order to create an understanding of what quality is really about.

– Within our production, every production coordinator has had quality training. They report to line managers

who must also have a basic training. Throughout the entire management organization, employees have undergone quality training. ABB is investing a lot in quality competence and I think this is the right way to go.

– Top management has understood that it is such skills that are needed throughout the organization if improvements are to be achieved, says Karl Williams.

In support of the improvement work within ABB, there are systems to identify opportunities and improve quality. There are also requirements to run improvement projects and report savings every year. What Williams considers important in order to succeed in this work is, besides competence, to maintain a long-term focus and not look for new methods over and over again. The ability to make fact-based decisions is also important and related to quality competence.

**“Statistical competence is like being able to see colors, after being color blind”**

– Within our quality organization, we invest a great deal in building deep competence in our area of knowledge. For external training I found Sandholm Associates training courses a few years ago, which have provided most of the external courses I attended. They have been crucial to the leadership and coaching role I have today.

Williams first attended a Sandholm Associates course on The Cost of Poor Quality, which became an eye opener. Later he also attended The Sandholm Associates Black Belt training and The Quality Manager course, among others. Several managers and colleagues are now also attending the Black Belt training. Something that Williams particularly emphasizes is the know-how in statistical analysis which is an important part of the Six Sigma methodology and the Black Belt education.

– After that training it feels as if I used to be color-blind and now suddenly see colors. It's about being able to analyze and see the relevant trends in statistics and data. In this important area, I think proper understanding only appears among those who have studied statistics. Therefore, it is important that more people acquire this competence.

Karl Williams gives an example of an improvement project that he is currently running where these skills are central. The project is about introducing statistical process control in a system test that includes many para-

meters and is done on each robot. A lot of data is gathered, and it is important to be able to use and understand these in the best way.

– I do not think that this kind of improvement project can be carried out without proper statistical competence.

**Investing in tailwind**

Competence development takes a long time, Williams points out. In the future, he and his colleagues will continue to focus on increasing the general competence in all quality areas, and on training new employees. He is also convinced that it is important to find a balance so that there will not be too much training when people are pressed for time. But here Williams also points out a general paradox.

– It is common for companies and organizations to understand the importance of quality and improvement work when they find themselves in any kind of crisis. But it is important to have the required strategic competence to coach and develop when having tailwind. When things are going well, that's when the biggest investments should be made, although it can be difficult to catch up right then. If organizations have built quality competence, they also have something to fall back on. Work becomes more structured and sustainable, with less ad hoc solutions.

Karl Williams began his career in quality within the US Navy, where he was a quality inspector of submarines. In the 90's he moved to Sweden and worked as a quality manager at Gunnebo and then continued his quality career within ABB. He has always looked for new knowledge in the area of quality skills and has attended many courses.

– You can never get too much competence in this area; you always learn something new and must never stand still. In training courses, you learn from other people's ideas, you get new, valuable contacts and larger networks, says Karl Williams.

In the development work within ABB Robotics, Sandholm Associates has contributed with several training courses, including Black Belt, Quality Manager courses and courses on process management and quality audit.