

Identifying your

10

commandments

We left SCGM very enthusiastic and full of good ideas to implement. What happened in the last few weeks? Are they progressing in the implementation of the improvement activities? Are they facing obstacles? How are they dealing with the new working system, The SCGM Way? Director *Sandra Cadjenovic* gives us an update.

In September, the company launched a continuous improvement programme named The SCGM Way, tailored on its specific needs. As mentioned in the previous article, the project is divided into four phases. As of today, we are in the second phase, the Pilot Phase. As a first “exercise”, designed to let people in the company understand the approach to lean activities, we applied 5S all over the business. After one month we have the second S in place, so in almost every area of the company we have scrapped unnecessary items and now have a clear organisation of space. Naturally, there are some areas in which the activity is more visible and others where there is still room for improvement. During the Pilot phase, we have selected the assembly area and molding machines area to start with our improvement exercise.


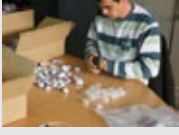
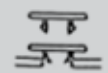


THE ASSEMBLY AREA

The starting situation is a really good example of what batch production means, with a clear idea of the waste that this kind of approach generates. For any kind of assembled product there is the habit of overproducing as much as possible in terms of subcomponents, with the aim to not let people be idle. However, this generates waste, in particular overstock, and not value-added activities, especially

SCGM Way

VALUE ADDED
ACTIVITIES vs. NON
VALUE ADDED
ACTIVITIES ANALYSIS

| | |
|--|--|
| Shopfloor: | Molded plastic production |
| Product: | Purple black adapter with electromotor |
| Activity name: | Motor preparation |
| Overall - Value Added Activities (VAA), s: | 4 s |
| Overall - Semi Value Added Activities (SVAA), s: | 0 s |
| Overall - Non Value Added Activities (NVAA), s: | 17 s |
| Overall calculated activity time per piece, s: | 21 s |
| Production time per piece (C/T), s: | ? (? pcs/h) |

| No | Activity name and description | Photography | Type | VAA's | SVAA's | NVAA's | Notice |
|----|--|--|---|-------|--------|--------|---|
| 1 | Bringing boxes with parts Parts are brought in boxes and spilled on table in unspecified quantity. Motors are delivered in boxes on pallets of 18 pieces, and are also spilled on the table. |  |  Transporting | 0 | 0 | 2 | During measurements, there were some extremes like a worker speaking on the phone or taking more time to deliver the boxes. |
| 2 | Shortening of electromotor wires Worker is scissor shortening ends of the wires and is leaving them on a pile. |  |  Cut the material | 1 | 0 | 5 | There were various ways in which workers were shortening wires, thus making the number of parts done sometimes hard to define. |
| 3 | Joining the motor with its top Motor is manually joined with the top |  |  Fitting | 1 | 0 | 2 | Difficulties can occur during the process of joining two parts and worker can be injured. Inadequate hands protection is applied. |
| 4 | Joining the motor with its mount Motor is manually joined with the mount |  |  Fitting | 2 | 0 | 7 | Difficulties can occur during the process of joining two parts and worker can be injured. Inadequate hands protection is applied. |
| 5 | Box packaging Prepared motors are packaged into boxes | |  Transferring | 0 | 0 | 0.5 | |
| 6 | Taking the loaded boxes away Previously loaded box with prepared motors is taken away to the warehouse. | |  Transporting | 0 | 0 | 0.5 | |

NVA
81%

VA
19%

transportation. Before considering any technical analysis, the most important point the company is focusing on is to ensure the assembly people understand the concepts of loss and waste. They simply do not see the waste around them. "We are working very hard, that we know," is a common sentence on the factory floor.

During the first meeting of the assembly team, made of five workers and one supervisor, together with the production manager and a consultant, people were asked to reorganise the assembly of one product. This product was previously assembled in several batch stations with a lead time of two days. Today, it is assembled in a new way: one piece flow,

with lead time of one minute and 30 seconds. The results may be outstanding, but this is only one activity that now needs to be engineered for standard production, maintained and extended to all the other products in the assembly department. More importantly, we have to convince people that our achievements are not the result of a magic trick but of a short analysis and of the elimination of waste. The problem is that they don't have the habit to see waste yet, so they are not ready to drive improvement as part of the targets of the whole project.

During the second meeting with the assembly group, a NVA (Not Value Added) analysis was performed, considering,



“ We have to convince people that our achievements are not the result of a magic trick but of a short analysis and of the elimination of waste! ”

explaining, and measuring the Value Added, Not Value Added, and Semi Value Added activities. This analysis was studied in depth and then shared with the assembly workers, in order to better focus their effort on the elimination of the NVA activities at first, or on the improvement of SVA activities or VA activities. The results of this first analysis are showed in the chart opposite.

As a conclusion on the assembly area, the remarkable fact is that the biggest effort the company is performing today is changing the way people are looking at the activities they perform, and the way we have chosen to do this is by working with management, the owners and the operators all together on the shop floor.

THE MOLDING MACHINES AREA

For this pilot area, the first activity we undertook was to set-up a data collection system focusing on OEE (Overall Equipment Effectiveness) and losses. The molding area consists of seven machines: three of them were chosen as model machines. The equipment has no automatic data collection, so operators were given a sheet on which they are collecting good parts produced, scrap and seven other types of losses. Even if the data collection process is still ongoing and operators are still making errors in collecting the information, the main loss highlighted in this first month is set-up.

Based on this analysis, a SMED activity was started and a first video analysis has been performed. The first impression is that, with the first small and low-cost changes, a 20% in average set-up time can be reduced in the first months of 2012. This is a target we have now set.

THE STEERING COMMITTEE

The very first issue that is emerging during steering committee meetings is the overall difficulty of getting people involved with the lean project, and giving them time to perform the tasks assigned, especially during a time in which the company is facing an increased turnover in manpower, the task of implementing an ERP system, new products development and new customers management. The main root cause that emerged during the meeting is that The SCGM Way is still considered, by some of the top managers, something more similar to an extra activity and a standard lean programme than to a core philosophy that has to grow within the company until it permeates its every part.

The roots are not strong enough yet. Based on this assumption, the team has worked on a brainstorming activity called the Ten commandments, through which the ten main precepts of SCGM were identified: each of them now has a person responsible for its development and circulation throughout the company by means of practical activities.

The main target of this activity is to start creating a common philosophy and culture on SCGM, which will later be infused in the activities and projects that are part of The SCGM Way.