

€50.000 saved each year by tackling just one problem

André Hoogervorst, head of production at two ENCI manufacturing sites is a proud user of OEE Toolkit. He and his team made great improvements by using OEE software. One of these will be outlined in this business case and has saved ENCI € 50.000 a year.

ENCI

ENCI is a company that works with the DMAIC methodology of Six Sigma to solve problems. The DMAIC method offers a good structure for ENCI to continuously improve their manufacturing facilities. They tackle problems by: defining, measuring, analyzing, improving and controlling the problem. Subsequently, the production problems are researched and tackled with Small Group Activities (SGA's).

Power to the operators

OEE Toolkit is essential in the process of detecting problems. The idles that take place in the cement production are registered in RemoteCollect and analyzed in OEE Toolkit. However, André Hoogervorst needs to add something very important to this fact. "The key of success are the operators. By involving the operators and (job) specialists in the process they feel valuable and useful and the process becomes more efficient and lean."

Sustainable continuous improvement with OEE Toolkit

OEE Toolkit registers, visualizes and assesses/ analyses the idle reasons of the production process. The idles are unveiled by the automatically generated (management) reports. In addition, the failures are sorted by frequency and length in the pareto-analyses. ENCI is using this type of analysis very often. By zooming in to the causes of the failures it can be determined if it is worthwhile to solve the problem. At ENCI they use the 80/20 rule. "A golden rule in the industry" according to Hoogervorst. "When you solve 20% of the (main) idles, you solve 80% of the problems. So it is very important to get the 20% clear."

Efficiency with Small Group Activities

A Root Cause Analysis (RCA) is made by the SGA team to gain more insight in the causes of the problem. Not only is the OEE Toolkit failure pareto of importance, also the impact on production –and maintenance costs are

About ENCI

ENCI, part of the HeidelbergCement-group produces blast furnace since 1931. The main raw material is the product "blast furnace slag" and comes from steel producer Tata steel. At the factory in IJmuiden the semi-finished products are supplied by ship en together with the blast furnace slag and other components grinded to cement. ENCI is using OEE Toolkit since 2008 to visualize losses.





considered before a prioritization is made of the root cause. Continuous Improvement Coordinator at ENCI, Emiel Bosch, points out that the power of the OEE methodology is that production effectiveness is based on facts and figures. “Many companies base decisions on gut feelings. With the results of OEE Toolkit it is easy to start SGA/ improvement projects.” Emiel tells us that specialists from various disciplines are involved in improvement projects. For instance the departments: planning, production and engineering. “The aim is to embed the SGA method all across the organization” explains Emiel Bosch.

“ *The key of success are the operators.* ”

Substantial savings

A ENCI practice example shows how the effective use of OEE Toolkit can lead to big structural savings.

This is how this case was tackled: The SGA team had identified that failures often occurred at the pneumatic discharge transport. One specific damper was the cause of this failure. In addition, the damper wore out quickly and the dampers were also not mounted properly in a lot of cases. Moreover, after the analysis it appeared that the location of the damper was not right. By relocating and mounting another type of damper the problems were solved and the failure has dropped down gigantically. Also because the dampers are now pre-mounted and put into stock so that the placement goes smoothly. Theoretically, €63.000 is saved on a yearly basis. In practice this amounts to a reduction of €50.000. And this is just one of the many examples.

Below the calculation: Two months prior to the modification the damper was changed eight times, to only one time the next two months afterwards. Below, the calculation of the cost savings of the seven dampers.

Amount of cement drums in the installation:	5
Total amount of dampers per installation:	7
Amount of dampers per two months:	$5 \times 7 = 35$
Amount of dampers on a yearly basis:	$35 \times 6 = 210$
Revision costs per damper:	€ 300
Amount of dampers on a yearly basis x revision costs per damper	$210 \times €300 = € 63.000$
Actual cost savings approx. €50.000 on yearly basis.	