

Operational Excellence

- Cost-savings of €1.3million+
- 70% reduction in backorders
- Increased yearly capacity by 575,000 litres/year

The Background

Our client, based in Germany, is part of the leading global supplier of liquid and powder coatings. Their goal was to ensure a reproduceable, sustainable operating system that would yield provable results, and could be spread out globally within just a few years.

Project7 [P7] were selected as the preferred support provider because of their known ability to involve people in projects, aligning with the P7 principle of "People + Process = Performance".

With many ongoing acquisitions, it was important to the client to have a common operating system that could be used to align new sites with the existing sites.

Our clients site in Germany was chosen as the pilot site, as it is the largest of all their manufacturing sites, accounting for approximately a quarter of their yearly income.

"Since the project, people are taking more responsibility. Operators now come and ask, 'what are the last 2 backorders?' The teamwork has improved. The operators point out something that is not working and then we get on it. There are always ideas coming up that I had not imagined. The operators approach with new angles – this is what I find is the best with Operational Excellence Programme. It feels like more shoulders are carrying the load. Project7 supported us all the way. We received praise, and at the same time were also reminded when something could be made better. I am personally thankful for this."

O.T, Cell Leader – Paint Manufacturing, Germany





Challenges

Both onsite and on a global level, there were two main challenges: to demonstrate that the Operational Excellence Programme would work, both to the people within the site and as proof of concept to other manufacturing sites globally; and to cope with increasing demand from the Germany site.

On a local level, paint volume needed to be significantly increased using only the existing time, people and production lines. In total, 2000 tonnes of additional paint needed to be produced annually, approximately a 20% increase in production.

Additionally, the process for setting priorities in production planning was unnecessarily complicated, and workplace organisation had unclear responsibilities and was failing follow-up assessments.

Key to the Clients Operational Excellence Programme was the focus on engaging people using structured processes, such as problem-solving at the basest levels, to improve processes and overall performance.

The AOE system emphasises the use of three basic methods:

- Daily Tiered Visual Performance Management [TVPM]
- 3C problem solving – Concern, Containment and Countermeasure
- Leadership Standard Work

Additional tools and methods were also employed, including scrum meetings to drive continuous improvement, and lean tools such as Quick Changeover, Overall Equipment Effectiveness, 5S Workplace Organisation, autonomous maintenance and VSM.



Solutions

On a site level, the pilot implementation was started in one of the Paint production cells, Paint 4, at level 1. Next, The Operational Excellence Programme was employed at level 2 with the Tiered Visual Performance Meeting with the production manager and the leader of the pilot area. Once the basics of the Operational Excellence Programme were in place in Paint 4, the team worked on ensuring their sustainability in the pilot area, and to agree the right concept was in place before rolling out to the rest of the plant.

Once this proven sustainability was in place, the roll-out of Operational Excellence Programme to the rest of production, and later to support functions such as Maintenance, was continued.

For the pilot implementation, a 5-day diagnostics workshop was conducted at the German site. The focus was chosen to be Paint 4, which delivers activators, thinners and clear coats. This area had previous exposure to prior production systems, and needed an increase in volume of nearly 20%.

It was later identified that the 5-day workshop could have been carried out in less time, however, this timeframe allowed the client to gain thorough insights into production flow – away from an otherwise busy daily routine.

The workshop enabled the set-up of clear Key Performance Indicators [KPIs] and brainstorming sessions which gave focus to important priorities and potential issues. This ensured problems could be resolved before escalation, while improved communications between teams encourages a greater sense of team morale.

Impact on Performance

As a result of support from P7, more than 1000 improvement opportunities were identified by the teams involved, while more than 40 financially-calculable quickwins were found.

The Client has since benefitted from;

- €1.3million+ in cost-savings
- 70% reduction in backorders
- Improved Puttie manufacturing process
- Weekly production targets exceeded
- Improved team culture
- Reduced downtime and cycle time; leading to OEE improvements across multiple cells

Now the Operational Excellence Programme is in place, there are:

- 25 Level 1 – 3 boards with daily meeting introduced
- Daily problem solving meetings for all major categories [SQDIC+P]
- Commitment and ownership by all involved employees

The TVPM structure allows for consecutive meetings from the shop floor level to the site management level within just a few hours, which was especially useful for speeding up the clients processes. This means that the client is now able to support the increased demand.

Pilot area, Paint 4:

Working with Operational Excellence Programme in the pilot area has resulted in a **19.3% increase in volume** compared to the year before.

On the bottleneck line in Paint 4:



85% reduction in weekly downtime



Annual capacity increased by **575,000 litres/year**



€90,000 annual savings in prevention of weekend overtime



70% reduction in backorders within 5 weeks of on-time deliveries