



## CASE STUDY | Graphic Packaging - Lean Deployment

### Graphic Packaging harnesses rapid-improvement events to dramatically cut costs

#### The Challenge

Graphic Packaging International is one of the world's largest producers of packaging solutions. The company's manufacturing facility in Bristol, England, has 216 employees and specializes in manufacturing packaging solutions for the food and beverage industry.

Graphic Packaging's management identified a series of performance issues at the Bristol plant: the manufacturing process was unable to meet peak customer demand without incurring overtime costs, while inefficiencies were resulting in the significant waste of raw materials, unnecessarily high inventories and customer satisfaction concerns.

#### The Solution

Graphic Packaging in Bristol turned to BMGI to help them navigate a facility-wide Lean journey. After a series of exploratory meetings, a team of cross-functional Graphic Packaging employees, facilitated by BMGI consultants, mapped the manufacturing process from end-to-end during a four-day workshop that identified, quantified and prioritized improvement opportunities. One priority the team uncovered was a downstream gluing process that caused costly bottlenecks and required overtime to keep the overall process running at a rate that could satisfy customer demand.

The team was able to identify more than 50 improvement opportunities representing estimated total savings of over €430,000. Ten opportunities were ultimately targeted for Lean action, and improvement teams were then formed and trained to conduct the signature component of any Lean project: the rapid-improvement event.

Three events were run using BMGI's rapid-improvement methodology that maximizes the return on Lean projects. These events were conducted with the machine operators and became the first

time that this group had been allowed to provide its perspectives on the production process in a formal environment. Not only did this exercise identify key areas for improvement, but it also marked the beginning of a dramatic shift in the culture of the organization. For the first time the workforce felt valued, involved and empowered, and this alone had a profound impact on the results achieved.

Among the most effective initiatives to come out of the events was a Total Preventative Maintenance procedure that adjusted machine components that were out of alignment, replaced worn parts and developed a long-term maintenance schedule.

*"BMGI helped us in three critical areas: we dramatically reduced waste and cost; we transformed the speed of our manufacturing processes; and ultimately we improved the experience we are able to offer our customers."*

— Jeff Goold, UK Site European  
— Manufacturing Director

#### Results

The results for the ongoing Lean transformation have been spectacular. Overall, the three rapid-improvement events have resulted in hard savings of €175,000 per year, representing a 3:1 return on investment. The assignment increased productivity by 90 percent, enabling peak customer demand to be met with ease and a significant reduction in overtime. Work-in-process was reduced from 240 pallettes to 50 pallettes - an €80,000 one-time gain - and the process can now produce 9,000 cartons per hour compared to 5,300 before Graphic Packaging engaged BMGI.

Perhaps most importantly, the initiative has broken down internal barriers resulting in a common desire for positive change and continuous improvement.



**GRAPHIC PACKAGING**

#### Summary

##### Industry

Packaging

##### Worldwide Annual Revenues

€ 3 Billion+

##### Worldwide Employees

15,000

##### Program Goals

- ▶ Improve on-time delivery for customers.
- ▶ Reduce operating costs by eliminating waste and improving quality.

##### What the Future Holds

Graphic Packaging International will continue and expand its Lean effort, running additional rapid-improvement events at its Bristol facility. In addition, the GPI production facility in Igualada, Spain launched a Lean journey in 2009 using the same approach that proved so successful in the UK. Later, a third European plant will begin the Lean effort in Masnieres, France. BMGI will use its global footprint and local language capabilities to continue driving global results through localized execution.

*"By involving everyone in the process the results have become absolutely sustainable. Even in its infancy this exercise proved to be incredibly powerful. The willingness to move forward is remarkable and more beneficial than anything we have ever implemented before. Employees on the shop floor are now driving themselves and have adopted a proactive, 'can-do attitude.'"*

— Kevin Brown, Finishing Area  
— Production Manager