

Less paper yields greater productivity at Unilever Mexico

Food processor leverages mobile solution in pursuit of World Class Manufacturing status

Candela Palacios knew she had a challenge. She had recently been promoted to manage the spreads and dressings lines at Unilever Mexico's factory in Tultitlán, north of Mexico City. Within the scope of a global mandate in Unilever to boost productivity, increase efficiency and preserve procedural intellectual property by going paperless in its manufacturing operations, Palacios saw an opportunity to take the company's spreads and dressings production to the next level in its pursuit of World Class Manufacturing.

She perceived that a mobile solution that combined procedures with real-time communications could help the company's on-the-go workers reduce the cycle time of core procedures as well as bring new, seasonal employees up to speed more quickly—all while preserving product quality and safety.

Palacios shared what she wanted to do with her manager, Factory Director Jaime Urquidi. And after reviewing a number of solutions, they settled on the Parsable mobile collaboration and workflow platform because of its unique support of structured procedures, inline collaboration and simple end-user authoring on any device.

"As a factory director at Unilever, my job is to get the whole plant focused on delivering on the brand promises of Unilever by delivering excellent products at affordable prices safely," Urquidi says. "I am naturally competitive, and I want our plant to be an exemplar, not just at Unilever but in our industry. This means operating faster, safer, and more efficiently."



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The new platform helped Unilever streamline procedures with workflow that clarified who needed to take each next action. It delivered training in context for work that needed to be performed, which meant that they could shorten the time that valuable, senior personnel needed to shadow new employees. It provided a universal, real-time communication platform that brought front-office tools like text, audio, photos and video to the factory floor. It was also cost effective, running on consumer smart phones and tablets that could be protected in inexpensive durable cases.

The new platform was intended to help the company deliver improvements in four key areas:

- *Reduced startup/shutdown and changeover time*—When the large production lines are running, several employees could be idle waiting for production to continue. Parsable would help change the hand-off time between people by prompting the next person in a start-up shutdown or changeover sequence to reduce the lag time between steps. It would further empower newer workers with the



A mobile collaboration and workflow platform for the company's on-the-go workers has helped shorten production transitions, boosting overall equipment effectiveness (OEE) by 4% in the process.

knowledge at their fingertips to do the job right and much faster than they would have done without this support.

- *Digitized operations*—Reducing paper meant that processes could be better understood by all, non-value adding work could be eliminated, and more precise analysis of human tasks could be undertaken to further optimize operations.
- *Reduced rate of repeat cleanings*—Food safety in a food manufacturing facility ultimately comes down to clean, pathogen-free ingredients, a clean work area, and excellent hygiene practices. The Tultitlán plant had been relying on post inspection of line cleaning to catch any anomalies, but Palacios wanted to bring more of the expertise inherent in work-area inspection to the process of cleaning itself. By tightening the procedures with clear steps workers need to commit to, they could increase line uptime and dramatically reduce repeat cleanings. They could also ensure that visual evidence was recorded, proving that the job was done right.
- *Reduced transcription time*—Another important benefit of digitalization was that workers would no longer have to enter paper-based forms into company systems. The impact of eliminating this time-consuming non-operational work was deemed so valuable, that it was specifically called out as an additional goal. The team also envisioned running key operational reports more frequently because re-inputting data will no longer be a burden.

DOCUMENTED SUCCESS

The scope of the initial rollout was to enable operations of the spreads and dressings plant that Palacios manages at Tultitlán, including safety and quality procedures. Provided that went well, the Parsable platform would then be rolled out to the ice cream plant and to maintenance functions. As the spreads and dressings facility quickly found success, rollout is now underway in both these areas.

At this time, all safety and quality procedures for spreads and dressings manufacture are paperless, accounting for 85% of the procedures in the facility. This approach has all but eliminated transcription time as few paper forms remain in the operation.

Procedures have a way of growing over time and a paper-based medium encourages longer prose and more explanation. When authors are focused on netting out what needs to be done, they get the essence of what's important. Procedures are now 56% more succinct than before, and this reduction has translated into clearer instructions that are easier to follow.



“What began as a project to digitize our procedures is now bringing about a complete cultural change.” Calenda Palacios (left) and Jaime Urquidi are leading a digital transformation at Unilever’s Tultitlán facility north of Mexico City.

In factory efficiency analysis, Overall Equipment Effectiveness (OEE) is one of the most important metrics of a modern factory. The 4% improvement gained starting from a relatively strong baseline is a huge overall change in the effective utilization of equipment.

Further, the factories now capture more than 30,000 net new data points a day for the work performed by people in the factory. This is enabling new forms of workforce reporting and analysis that will provide a second wave of benefits to the factory through continuous improvement.

While time-to-value was very short on the first deployment, it has continued to decrease in subsequent implementations as the team becomes even more familiar with authoring procedures in the platform, training employees, and deploying devices. The first implementation time of 12 weeks had dropped to six weeks by the team’s third effort.

While the work has not fully been completed on all lines, the Tultitlán facility is on track to achieve a 50% reduction in start-up, shutdown, and changeover times. This will result in several more hours of factory uptime every week, dramatically increasing output.

Other positive outcomes include access to all batch

data through a single, streamlined report, making it easier to understand what is going on and to make decisions. The team also reports a renewed sense of purpose for everyone at Tultitlán. The Parsable platform is creating new excitement for the task of stewarding the product quality and consistency of some of the world’s greatest brands like Hellmann’s mayonnaise or Magnum ice cream bars and a better connection with the important task of always keeping these products safe for Mexican consumers.

Interestingly, the deployment of the Parsable platform and the tablets it runs on, is also seen as recognition that management is listening to employee input and wants employees to have access to the latest technology they see in the front office to be able to do their jobs effectively.

“What began as a project to digitize our procedures is now an effort that is bringing about a complete cultural change,” Palacios says. “We are now an ‘always on’ culture where everyone is on the same page about what needs to happen next and our goals of high output, safety and quality are now built into the fabric of how we work.” □