

# Unpacking Complexity: Puls8 Replan Simplifies Snack Production

## INTRODUCTION

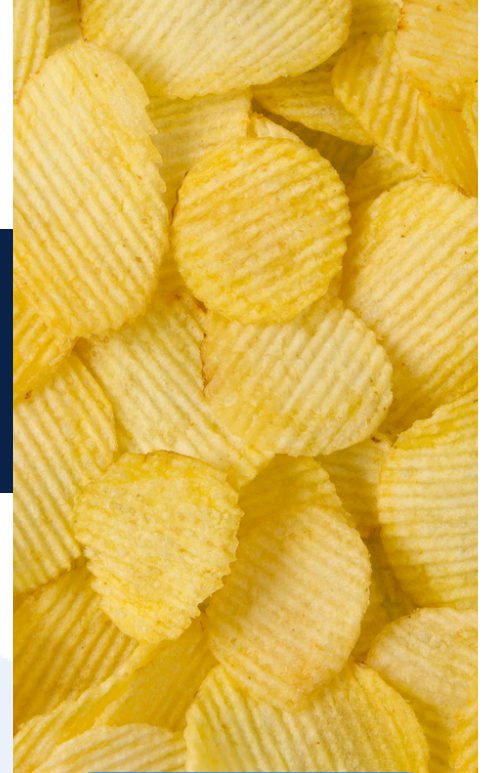
Company A (name withheld for confidentiality) is one of the world's leading snack manufacturers, operating across Europe and Globally with a broad portfolio of well-known brands. With highly complex multi-step production processes and an expanding product range, the company faced mounting challenges in aligning production with demand—resulting in difficulties managing inventory, synchronizing outputs, and ensuring the right products were made at the right time. To maintain its enviable on-shelf availability while meeting rising customer expectations, Company A partnered with Demand Chain AI to leverage their Puls8 Replan solution to bring greater precision, automation, and control to its planning processes.

## CHALLENGES

The company's existing production planning setup relied heavily on manual workarounds despite investments in enterprise and planning systems. Core challenges included:

- **Complex Multi-Step Production:** Multi-pack products required precise synchronization of fryers, seasoning, bagging, and packing—each with unique run lengths, minimum lot sizes, and interdependencies.
- **Manual Planning Limitations:** Weekly and daily schedules were built manually, limiting visibility beyond the near term and creating inefficiencies in production and materials planning.
- **Inventory & Shelf-Life Risks:** To buffer against uncertainty, planners often carried excess stock, leading to higher obsolescence risk in a category where freshness is critical.
- **Material Planning Instability:** Lack of stable mid- to long-term plans made it difficult to ensure the right packaging materials were available at the right time.

The result was a process that was time-intensive, difficult to optimize, and unable to consistently align production, inventory, and demand.



### AT A GLANCE:

#### CHALLENGES

- Complex multi-step production
- Limited planning visibility
- Long changeover times between flavors
- Excess stock, obsolescence

#### BENEFITS

- Automated manual planning
- Extended demand visibility
- Improved material planning
- Control over planned inventory



## PULS8 REPLAN'S SOLUTION

To address these issues, Demand Chain AI deployed Puls8 Replan in a pilot covering six production lines, 300 resources, and 500 SKUs. A digital twin of the production environment was built to capture machine-level constraints, lot size requirements, and material dependencies.

Key capabilities demonstrated included:

Automated Production Planning	Scenario Planning	Minimum Lot Size Optimization	MRP Stabilization
Generating a 16-week optimized plan automatically that replaced labor-intensive manual scheduling.	Testing the impact of downtime, asset additions, or demand surges (e.g., promotions) on the production plan.	Ensuring constraints at each production stage were respected while aligning output to demand and inventory targets	Providing reliable inputs for raw and packaging material planning to improve service levels and reduce waste.

## RESULTS

Through the pilot, Company A achieved:

- **Automated planning:** A previously manual, time-intensive process was fully automated, freeing planners to focus on higher-value tasks.
- **Extended visibility:** Greater confidence in plans across the entire demand horizon, beyond just the near-term.
- **Better materials alignment:** More accurate and stable packaging material planning, reducing risk of shortages or excess stock.



**Automated  
planning**



**Extended  
visibility**



**Better materials  
alignment**

## KEY TAKEAWAYS

- **Manual planning automated** with a 16-week optimized process
- **End-to-end visibility extended**, improving confidence in decisions
- **Stable materials planning** ensured the right packaging at the right time.
- **Scenario modeling enabled rapid evaluation** of downtime, promotions, and asset changes.

## CONCLUSION

By implementing Puls8 Replan, Company A has taken a major step forward in modernizing its planning process. The solution proved capable of handling highly complex, multi-step snack production while improving accuracy, stability, and efficiency.

Building on the success of this pilot, the company is now preparing for an expanded deployment in one of its most complex production areas in Europe. With Demand Chain AI's expertise and Puls8 Replan's intelligent algorithms, Company A is on track to unlock greater agility, reduce waste, and strengthen its ability to serve customers at scale.

 **DEMAND CHAIN AI**  
SOLUTIONS

**Demand Chain AI** brings deep expertise in Consumer Packaged Goods, particularly Food & Beverage, with over 1,500 years of combined experience. We deliver practical solutions in supply chain planning and forecasting.

**Puls8 Intelligent Planning Solutions** provide end-to-end, data-driven technology, enabling seamless operations, precision forecasting, and smarter decision-making.

By combining industry expertise with innovative solutions, we help businesses drive efficiency, improve agility, and achieve sustainable growth in a dynamic marketplace.

Learn more at [www.demandchainai.com](http://www.demandchainai.com)