

Carrefour France Optimizes Supply Chain with SymphonyAI Retail CPG

Case Study



Table of Contents

1. About Carrefour Group	3
2. Strategic Objectives	3
3. Business Challenge.....	4
4. Solution	4
5. Project Approach.....	4
6. Results/Value.....	8
7. Customer Next Steps	9



1. About Carrefour Group

With a multi-format network of some 13,000 stores in more than 9 countries, the Carrefour Group is one of the world's leading food retailers. The Group recorded revenue of €81.3 billion in 2021. It has more than 320,000 employees who help to make Carrefour the world leader in the food transition for everyone, giving everybody access to high-quality affordable food every day, accessible everywhere. Overall, there are more than 500,000 people working under the Carrefour brand worldwide.

The SymphonyAI GOLD Warehouse Replenishment & Instant Insight implementation initiative was undertaken by Carrefour France.

2. Strategic Objectives

As part of an overall effort to gain better efficiency and agility, Carrefour is focused on automating repetitive tasks that have little value-add, freeing up skilled team members to focus on more strategic priorities. It was in this context that Carrefour France sought to develop a more flexible, agile supply chain approach through:

- Improved processes and strengthening the skills of people involved in those processes
- Improving tools to optimize costs and ensure more consistent supply availability with reduced inventory-on-hand requirements
- Deepening supplier relationships while optimizing supply parameters and reliability.



3. Business Challenge

The key element to the transition for more automation in supply chain-related flows includes next-generation technology that enables proactive, planned supply plans rather than being reactive to changing market and shopper behaviors. Carrefour also sought to strengthen collaboration with its entire ecosystem so its partners could also move from reactive to proactive engagement. This global approach enabled replacing its legacy tool - based on a large mainframe system that had become obsolete and had limited maintenance options - with a more modern, scalable solution.

4. Solution

In selecting SymphonyAI GOLD Warehouse Replenishment and Instant Insights, Carrefour turned to a seasoned well-established partner who could provide a data-centric solution that could be integrated into other business systems and implemented relatively easily and quickly. Carrefour France also wanted a much faster, higher-performing system with advanced functionality.

The mantra of the project has been “zero gaps” approach. In concrete terms, there was particular attention to functions during the evaluation and in the rare cases where gaps were identified, SymphonyAI’s team worked to close those gaps in a timeframe that did not adversely impact the project schedule. During this phase, Carrefour implemented a rigorous process for evaluating change requests, which has significantly contributed to meeting originally targeted deadlines while achieving planned benefits.

The selection of GOLD Warehouse Replenishment & Instant Insight was made in compliance with a "zero gaps" principal. In concrete terms, particular attention was paid to the functional coverage of the tools during the call for tenders and a strict process made it possible not to have to carry out any changes in the project phase. Finally, this principle has largely contributed to meeting the deadlines initially planned as well as to achieving the expected gains.

SANDRINE RESSAYRE, DSI Merchandising and Supply Chain, Carrefour France

5. Project Approach

For the first few months, the dedicated joint project team undertook a design/build/test approach to align the system with user and IT requirements. The next phase involved two parallel test runs, followed by phased implementation throughout the next several months.

The project focused on multiple defined change management goals:



- Set up initial “power users” dedicated for the duration of the project. These users were selected to develop expertise, gain key knowledge that they could then transmit to their colleagues, and become reference contacts for their peers as adoption rollout proceeded. They were to be involved from the design phase in the project, describe the current-state v. desired state processes, and remain deeply involved throughout the pilot phase.
- Assign a dedicated team from SymphonyAI to remain on-site during the pilot phase and into the beginning of broader deployment to ensure easy access to systems expertise, guide the overall team to best practices, and accelerate successful adoption.
- Conduct regularly scheduled Stand Up meetings to jointly identify issues or roadblocks and assign team members to resolve those issues within a set timeframe. These meetings also helped build strong team cohesion and communications.
- Allocate up-front resources to ensure robust data integration with a data lake to support a scalable cloud-based architecture.
- Optimize the planning in parallel with a series of design workshops
- Involve the IT team on an ongoing basis, including giving them regular access to the lines of business involved with the supply chain project.
- Conduct a double run in the pilot phase to validate processes, identify any disconnects and make technical and functional adjustments as needed.

The project management team remained focused throughout the life of the project, with executive oversight of time management, governance and communications.

With a detailed project plan in place and proactive outreach to regional directors in the decentralized Carrefour procurement organization, the project proceeded on schedule and was positively received. The project focused on dry fast-moving consumer goods and dairy products and was comprehensive in scope, involving 70 procurement team members, 16 managers and 9 site logistics directors. The extensive supply chain infrastructure is based on around twenty stocked warehouses with high and low turnover, each managing between 7000 and 18,000 different SKUs, as well as warehouses dedicated to brewery products with 3,000 SKUs, and freezer warehouses with more than 2000 SKUs. In total, more than 1,400 suppliers were scheduled to be transitioned into the new system.

The project had multiple focus areas:

Automatic validation.

Historically, only 20-40% of the lines on an auto-generated order were accurate, while 60 to 80% of the lines required customization and modification. Since GOLD Warehouse Replenishment is able to build orders that take into account multiple constraints including bracket discounts, multi-picks, and rounding, it eliminated most of the need to manually adjust orders.



Today reliability of proposed orders is confirmed and more than 70% of orders are validated without modification. Some orders are even automatically validated by the solution, meaning the planner does not need to see the order prior to its transmission to the supplier. With strong sponsorship from management in the procurement team to make the transition, the project was quickly a success even as earlier attempts to make changes in order processes met with failure.

Each replenishment planner has embraced automatic validation at their own paces, which should allow Carrefour to achieve order reliability of up to 80%. The supply of very high-volume products such as toilet paper and bottled water is not compatible today with a fixed load plan and requires an assessment of each order by the team.

Optimization

Adopting GOLD Warehouse Replenishment has enabled optimization of a complete truckload as well as multi-part pickups within a truckload that were not available before. In addition, GOLD Warehouse Replenishment & Instant Insight enables calculation of optimal safety stock levels according to the quality of the forecast and the level of supplier service, whereas the previous approach method was based solely on a fixed parameter at the supplier level.

Thanks to the more precise information, planners can choose to accept an inventory increase from suppliers if the financial impact is positive, or they can choose to negotiate with the supplier to reduce the volume constraints imposed.



In addition, GOLD Warehouse Replenishment allows Carrefour France replenishment planners to consolidate promotional with permanent inventory orders to better optimize inventory flows.

Improved Capacity Planning

Carrefour France now has the ability to generate supply plans that span several weeks, with the ability to forecast peak loads and smooth supply availability, especially for products on promotion.

Automated controls prioritize receipts according to their likelihood of supply rupture, significantly reducing stock-out risks.

Attaining Financial and Business Objectives

The stock stratification enables the team to quickly home in on potential problems and collaborate with suppliers to find practical solutions.

The ability to visualize projected inventory levels allows the finance department to better plan and manage financial performance. Thanks to have more relevant data, suppliers also can more easily define action plans in advance particularly for promotions and alcoholic beverages.

The visualization, dashboard and reporting tools are highly appreciated by management, who can easily visualize trends and identify areas for improvement via inventory stratification. Today the tool is used by the supply chain department and supply chain management control.



The implementation of SymphonyAI GOLD Warehouse Replenishment has made it possible to automate ordering tasks and thus free up time to reinvest in high added-value tasks such as performance analysis and development of deeper relations with suppliers. For example, thanks to the inventory stratification, GOLD Instant Insight allows us not only to identify the potential for inventory optimization but also to visualize their medium-term projection.

FRANCK NOEL-FONTANA, Director of Food Provisioning, Carrefour France



6. Results/Value

Carrefour has seen significant improvement in productivity for the planning team thanks to reduced time on manual, repetitive processes and increased time on strategic tasks such as supplier relations and KPI analysis. The time freed up for analysis makes it possible to identify alerts more quickly and implement action plans with supplier partners.

Major Project Plan Milestones

Design/build/test	April 2018 - March 2019
Double run	May 2019 - June 2019
Begin execution in waves of go-live deployments across 46 warehouses	July 2019
Pilot	8 July 2019
Deployment	September 2019 – May 2020

Increased Agility in the Face of the Pandemic

In times of increased supply chain disruptions created by successive waves of the COVID pandemic, GOLD Warehouse Replenishment & Instant Insight has enabled Carrefour France to collaborate with its suppliers to help limit the impact of shortages by offering suppliers the options of suspending the supply of an item and to avoid deliveries of trucks with a low fill rate.

GOLD also allows Carrefour to customize its supply choices in order to preserve the interests of a brand by:

- managing item alerts based on store format-specific attributes
- defining safety stocks based on target service levels

Overstock Optimization

The GOLD Warehouse Replenishment system has enabled a significant reduction in overstocks, and to maintain compliance with target product rotations.

Positive supplier reception

The benefit of the GOLD Warehouse Replenishment & Instant Insight system extends beyond Carrefour itself to its suppliers, who appreciate the increased efficiencies and collaboration with Carrefour France procurement team members. Discrepancies between actual replenishment and the agreed-on objectives are regularly shared to enable Carrefour and its vendors to define a plan of action.



7. Customer Next Steps

To get to their automatic validation targets, Carrefour France and SymphonyAI Retail CPG plan to work on certain alerts which are no longer useful and which may generate unnecessary order changes.



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