

# PROTEINS: WHAT ARE THE CHALLENGES AND LOGISTICAL SOLUTIONS FOR THIS INDUSTRY?



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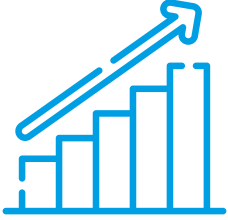


## INTRODUCTION

**The global average consumption of meat is 42.4 kg per person per year, with the usual leading producers being the United States, Brazil, the European Union and China. While world meat consumption is significant today, to the point of having tripled in half a century, the OECD has observed a relative stabilization in recent years. In question, environmental and health considerations but also changes in consumption and distribution patterns.**

The protein sector still has a bright future ahead of it, but it will need to adapt in the near future to cope with variations in consumption. To meet this challenge, it will become important to secure the margins generated by order, while meeting the growing demands of the increase in retail flows, issues of traceability and controlled temperatures.

# CHALLENGES AND REQUIREMENTS OF THE PROTEIN MARKET



The activity of agri-food manufacturers, and in particular those that manage meat production (proteins), has been marked for many years by strong growth in retail flows.

This can be explained primarily by the increase in the proportion of directly delivered parcels, whether from drive-through stores or supermarkets and hypermarkets, and by the growth of small point-of-sale formats. Associated with just-in-time flow logic, the growth of retail flows greatly complicates logistics operations in production output.

**Despite the relative slow-down in the production volumes, there is a permanent increase in the numbers of parcels sent. This trend is amplified by the continuous expansion of the available products, corresponding to consumers' demand to always have the widest possible range of choice.**

Meat producers must also meet the challenges of traceability, while the numerous palletizing plans required by the great diversity of end customers are all constraints that are difficult to reconcile with performance and increased responsiveness objectives. The preparation of meat trays also has its peculiarities, with the management of variable weights and marking operations (weighing, price labeling, private labels or promotional), the realization of which has a strong impact on productivity at the workstation. **System responsiveness and marking station ergonomics are thus a real challenge in the attempt to optimize the cost of these customization operations.**

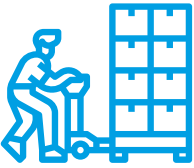
The accumulation of all these requirements, along with the criticality of these stakeholders' supply chain to feed a country without incurring interruption, especially in periods of health crises and national emergencies, leads many stakeholders to turn to automation solutions, taking the industrialization of their processes to a new level. In an environment of slow growth in domestic consumption and rising raw material costs, cost pressure is a strong incentive for supply chain rationalization and intralogistics optimization projects. Savoye supports several major meat production stakeholders in Europe and North America.



## WHAT ARE THE TYPICAL PROCESSES OF AN INDUSTRIAL LOGISTICS PLATFORM?



- temporary pallet storage on production output



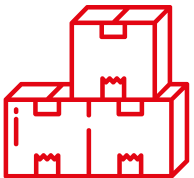
- depalletizing of product cartons or containers



- product carton or bin storage



- retail preparation including marking operations at the operator station according to the end customer



- storage of finalized and/or complete parcels



- pallet and roll constitution (for downtown store deliveries)

## WHAT TECHNOLOGIES CAN BE LEVERAGED TO ADDRESS PERFORMANCE AND RESPONSIVENESS ISSUES?



**Fed by depalletizing robots, Savoye's X-PTS shuttle offers an automated, high-flow storage solution that can operate in both positive and negative cold environments.**

They are able to adapt to mono-format, dual format and multi-format container contexts, for dimensions up to 820x620 mm (32.25 in x 24.5 in) and weights up to 55 kg (121.5 lb.) Using high-speed conveyors, these X-PTS aisles can serve both retail order preparation areas and palletizing areas.

### Retail preparation

**With respect to retail preparation, the goods-to-person stations allow all useful marking operations to be carried out under optimum performance and quality conditions, in manual or automatic mode.**

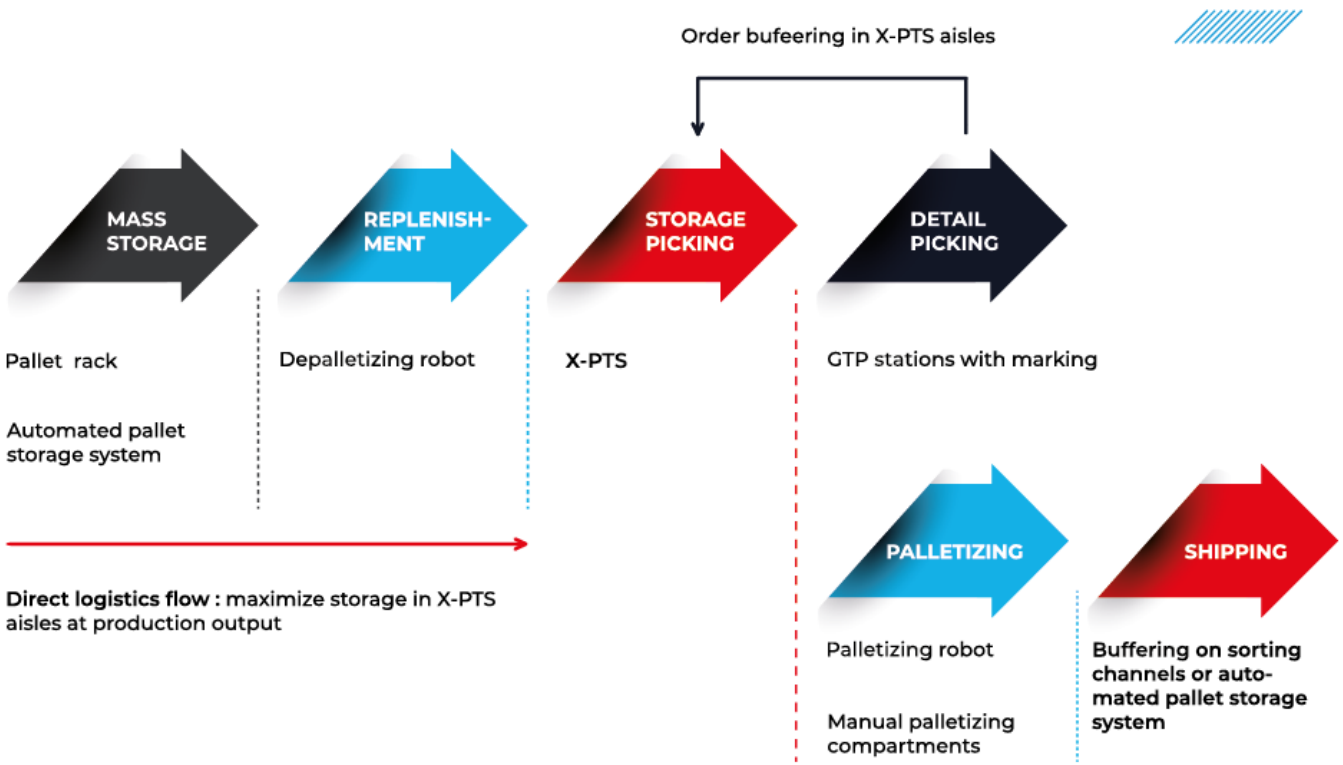
### Palletizing side

**On the palletizing side, robotic cells can process pallet configuration on a per parcel, per layer or per column basis. Where applicable, these cells are fed by buffer-sequencers to strictly sequence the parcels and thus respect the variety of palletizing plans imposed by the end customers.**

Additionally, it is entirely possible to implement automated pallet storage, combining temporary storage of pallets arriving from production and finalized pallets, before dispatch to the shipping docks.

# WHAT TECHNOLOGIES CAN BE LEVERAGED TO ADDRESS PERFORMANCE AND RESPONSIVENESS ISSUES?

Beyond the necessary and essential key technologies, Warehouse Control software plays an essential and crucial role. Being completely oriented towards compliance with carrier departures, Savoye's WaCS solution sequences the pallets to be created and optimizes equipment use, from shuttle movements to placement on the high-speed conveyor. Our methods and algorithms allow us to manage the composition of pallets in assigned (i.e. parcels already assigned to an order) or non-assigned parcel mode, while ensuring FiFo management, tracking both SSCC and batch numbers.



## WHAT ARE THE BENEFITS OF SUCH A SOLUTION?

This type of solution allows a so-called «mixed» solution to be managed with the same X-PTS aisles, i.e. it is capable of performing retail preparation palletizing by «mixing» the storage of bins produced and finalized packages. For this, it is essential that the Warehouse Control System knows how to intelligently manage the different use cases of a typical day:

**-Start-of-day storage** of single-reference bins leaving production

**-100% retail preparation activity** in the morning, with storage of prepared and completed parcels and gradual removal of emptied bins

**-Mixed activity in the middle of the day** with the end of retail preparation operations and the start of palletizing operations

**-100% palletizing activity in the afternoon** with X-PTS aisles emptied at the end of the day, ready to start the next day's activity



**Increased incoming goods**, replenishment, preparation and palletizing productivity serve to increase the margin generated per order. The overall process is considerably responsive, allowing production to occur as close as possible to carrier departures. The entire activity is fully optimized, thus making it possible to meet the constraints and challenges of the sector.

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## IN CONCLUSION

The logistical management of the protein sector cannot be improvised as it is governed by health standards and consumer requirements. While forecasts are focused on a significant reduction in global meat consumption, the challenge for the various stakeholders will be to secure margins through a modern and efficient logistics organization. It will therefore be necessary to entrust your automation project to an experienced player with solid references...



**SAVOYE:**

**BEST IN CLASS AUTOMATION**

**FOR YOUR LOGISTICS**

**AND SUPPLY CHAIN NEEDS**

### *ADVANCED TECHNOLOGIES*

#### **Order preparation of light loads**

X-PTS Goods-to-Person solution, smart conveyors, high-speed sorting systems, robotics

#### **Automation of shipping packaging**

JIVARO, e-JIVARO, PAC 600, lidding, cardboard wedging

#### **Automated storage of heavy loads**

MAGMATIC

### *ADVANCED SOFTWARE*

#### **Warehouse management and flows control**

OMS, WMS, WCS, TMS, EDI



### **KEY MARKETS - SPECIFIC EXPERTISE**

SAVOYE operates in key business sectors and has specific expertise in each area.

The SAVOYE service offer is built on high-level “professionspecific” expertise. We provide tailor-made solutions for every type of logistics warehouse, from the simplest to the most complex layouts.

**Retail logistics:** 3PLs, specialist distribution

**Multi-channel logistics:** retail, e-commerce, mail-order

**Industrial logistics:** food, health and pharmaceutical industry, industrial supplies