

Decision Making Guide

WMS

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Executive Summary



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Warehouse activities and management have changed immensely in the last few years.

For warehouses to fulfill their new strategic role, they must be managed by a warehouse management system (WMS) that integrates both the latest practices and the latest technology.

However, the WMS solution that you choose must -contribute to breaking down the silos in your supply chain. By choosing a solution that adapts to any IT ecosystem, you can leverage your warehouse operations to coordinate the rest of the links in your supply chain, thereby achieving overall optimization.

The benefits of next-generation warehouse management systems are many.

How then can you make sure you make the right choice of solution? The right solution is the one that meets your short-term needs while leaving room for your company to leverage new opportunities in the medium term.

By including relevant decision criteria in the selection process of your future warehouse management system, you can compare solutions objectively.

This is even more necessary as new distribution models for WMS solutions are developed, which can complicate matters for generalists who may not know where to start.

Key decision criteria are naturally focused on the software itself, including scope of features, modularity, level of standardization, user friendliness, cost, and compatibility with other IT systems.

However, in addition to the quality of the software, you also need to consider the vendor's ability to manage the implementation. Therefore, you also need to consider additional criteria such as the vendor's company culture and methodology, as well as the ability to provide ongoing maintenance and effective and timely support once the software has been rolled out.

In summary, a structured approach is essential to the success of your WMS project, as it must enable future users to integrate the changes that inevitably come with evolving methods of warehouse operation. It is for this reason that it is crucial to integrate your teams into the project as early as possible.



Introduction

Within a global business context, companies are working with warehouses that are ever further afield. When this final link in the supply chain fails, customers are directly impacted. Therefore, customer satisfaction depends mainly on the performance of warehouses.

In addition, new modes of consumption have profoundly changed warehouse operations and activities. Warehouses must be quicker, more reactive, more productive, and error-free.

The IT solutions that logistics platforms offer have naturally adapted to these changes. Although the initial purpose of a warehouse management system was to replace all paper and pencil tasks, the breadth of features of the newest generation of WMS solutions has expanded over the last few years, creating a competitive environment for warehouses.

Choosing the right WMS solution is highly strategic. There are a high number of vendors in the market. All of them offer basic features, such as locating articles in a warehouse or managing the basic slotting of inventory.

However, the added value is no longer to be found here. What needs to be assessed now are features for flow optimization (i.e., merchandise, equipment, and operators) and modules for integrating with the company's supply chain ecosystem.

More concretely, a WMS must facilitate warehouse reactivity and agility by aligning with sales, in terms of product availability, and ensuring the company fulfills its customer promises.

The WMS must drive companies towards making progress and provide quick responses to their new needs. It goes without saying that in addition to the technical performance of a WMS, you also need to consider the solution provider's ability to carry out a project over the long term.

As such, this e-book aims to help professionals choose their ultimate solution by providing:

- A brief overview of the market (Chapter 1)
 - A description of the traditional range of features that a WMS offers (Chapter 2) and the benefits that a company can expect to gain by implementing them (Chapter 3)
 - A detailed checklist of the main criteria to consider enabling decision-makers to perform their research objectively (Chapter 4)
 - A structured approach to facilitate the selection of a WMS solution tailored to a company's objectives (Chapter 5)
- We hope that this e-book provides you with the tools and information that you need to move forward with your project.



The Warehouse Management Solutions Market

CHAPTER I

Key ideas in the chapter

- The vast majority of companies are equipped with warehouse management solutions
- Even so, the market remains dynamic due to new opportunities for optimization
- Some companies use specific solutions developed in-house or a specialized ERP module
- Although these two approaches may seem advantageous, the latest advanced WMS solutions have taken the lead by offering more flexibility and agility as a company meets current and ever-evolving customer requirements

Although the WMS market is mature—almost 67% of US companies today are equipped with this solution—it remains very active. Changes in the types of activities performed in warehouses today are forcing many companies to consider replacing their outdated solutions.

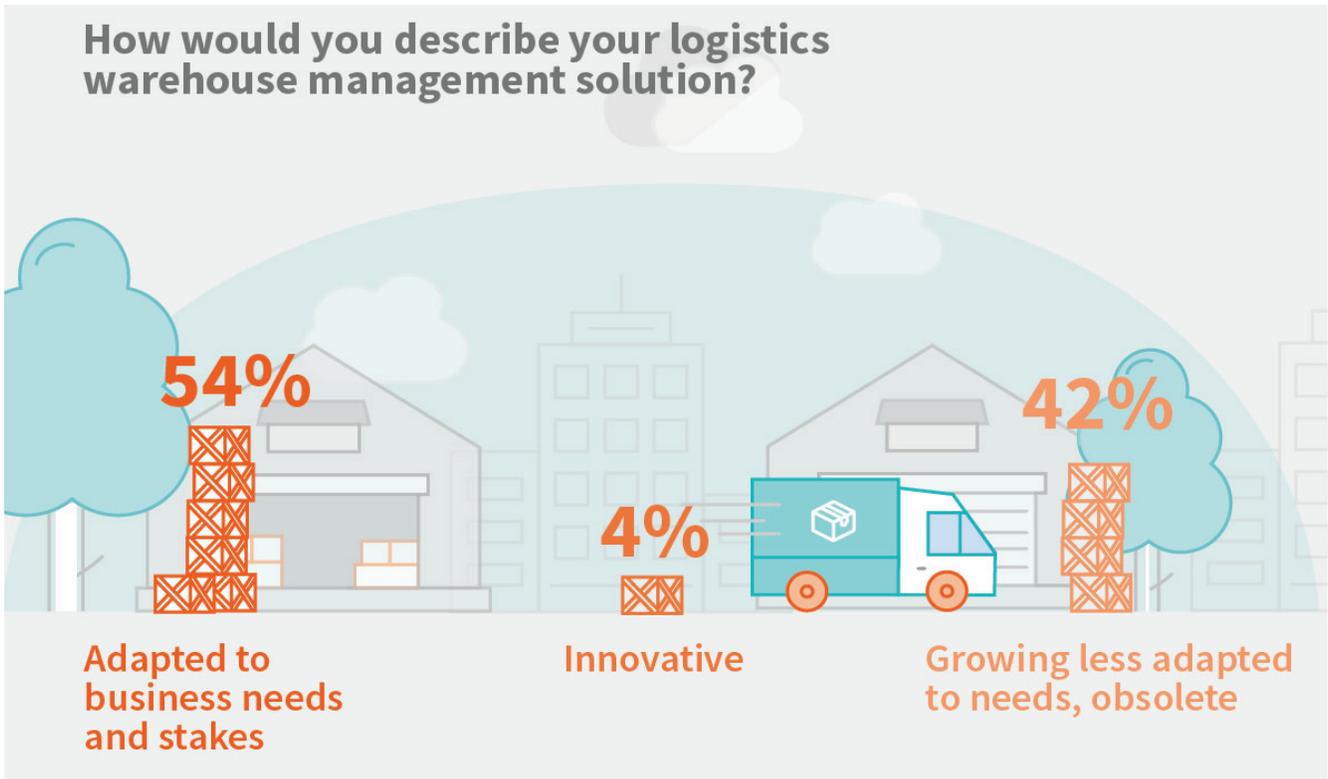
WMS: A Market in Renewal

Today the market is experiencing growth as a result of companies seeking to renew their warehouse management solutions and implement systems that will allow them to better adapt to the new activities of their warehouses.

A study carried out by software vendor Generix Group on the status of WMS solutions revealed that 58% of companies surveyed had been equipped with a warehouse management solution for over 5 years. For 38% of them, this solution had even been in place for over 10 years.

In this same study, 42% of companies felt that their current WMS was increasingly less tailored to their needs. Only 41% of them did not plan on renewing their existing solution. The indecisive companies feared that changing systems would be too complicated.

However, the development of advanced WMS solutions and flexible deployment approaches can ease a large part of these fears. We will explore this more thoroughly a bit later.



Alternatives to WMS

Today, one of every five companies still does not use a WMS to manage and optimize its warehouse. An in-house solution or an ERP module is generally used in these cases. Why would these solutions be used instead of a WMS?

WMS vs in-house solutions

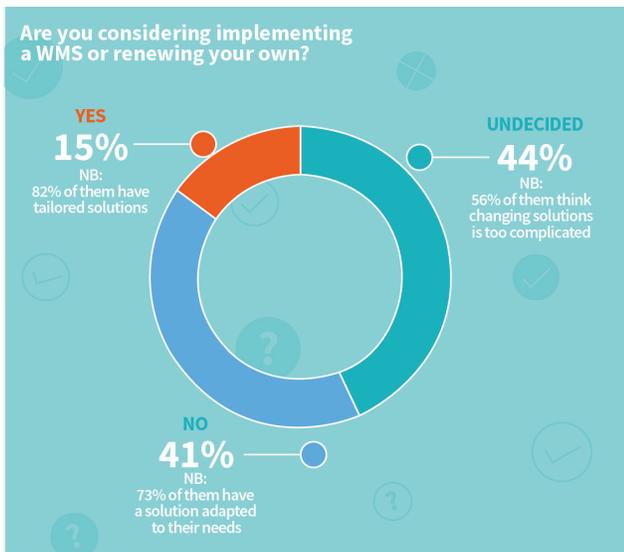
The advantage of a solution developed in-house is that, by default, it is custom-designed to meet the needs of a given warehouse and automate its processes. However, the main limitation is that the company’s needs change, and the gap widens over time between what the system provides and what the company expects.

Moreover, companies using a custom WMS solution will not be able to reap, to a certain extent, the benefits of best practices in the warehouse management sector. On the other hand, packaged software solutions will offer you

more features as time goes by and can help your company align better with industry best practices.

Using a solution developed in-house requires intense IT management, including all the risks that it entails: outdated skills, obsolescence of older programming





languages, and inability to adapt to the changes in the company's IT ecosystem (e.g., operating systems).

Although, in the short term, upgrading an in-house solution rather than changing over to a WMS on the market may seem like the more competitive option, this reasoning is misleading. New costs must be covered each time activities, or processes change. A solution that is too personalized will create instability. This phenomenon has also been demonstrated by the Generix Group study mentioned above: 82% of companies seeking to renew their existing solution have a custom setup in place.

However, by shifting to an advanced WMS, deployed on-site or via software as a Service (SaaS), companies can rely on a solution that will adapt over time to evolving customer and business requirements.

If your company opts for a SaaS approach, payment for the solution is based on a pay-per-use approach with all fees included (i.e., usage, hosting, maintenance, updates, etc.). It is an all-encompassing service that you essentially rent (as a more tax-efficient operating expense (OPEX)). As such, your IT departments no longer must worry about architecture, hosting, or application maintenance.

Furthermore, SaaS-based WMS solutions can be deployed quickly, with no need for installation on your company's machines. Everything is done over an internet connection.

WMS vs ERP Module

The advantage of ERP modules intended for warehouse management is that they ensure native integration of logistics operations with the ERP's other features. Nevertheless, the feature sets offered by such solutions are generally quite limited and thus only tailored to warehouses with relatively traditional logistics activities.

An ERP module approach can quickly lead to problems when there are changes to warehouse activities or new technological opportunities present themselves.

Here, once again, advanced WMS solutions, with optional SaaS deployment, have many advantages over ERP modules. Their range of features is pervasive, and it is possible to choose which groups of features you wish to deploy on a modular basis.

This ensures that your future needs will be covered without having to change your solution. The next two chapters will present the range of features (traditional features and new benefits).

Furthermore, in SaaS mode, WMS solutions offer powerful integration capabilities with the IT systems of your company, comparable to those of an ERP. (This benefit often goes unnoticed.) WMS solutions in SaaS mode go even further. With the help of application programming interfaces (API) and web services, they are natively designed to dynamically communicate with other applications, whether in-house or outside the company.



The Traditional Range of WMS Features

CHAPTER II

In addition to ensuring that inventory is controlled as precisely as possible, the main reasons for using a WMS are to have better visibility of a company's supply chain activities, to prevent errors in order preparation, and to optimize resource and space utilization. Before delving into the benefits of an advanced WMS, let's take a quick look at the traditional features of a WMS.

Key ideas in the chapter

- The digitization of warehouses, initiated in the 1980s, has vastly increased the reliability of inventory and the execution of logistics operations
- The traditional features of a WMS include information on inventory and its location, the execution of operations, and the monitoring of warehouse activities
- However, companies working in dynamic and complex environments can now benefit from more advanced features and their related benefits

Management of items

An effective WMS solution must be able to provide, at any given time, an overview of the amounts of each item in the warehouse. The more accurate the information about items is, the better the warehouse runs. For example, data is used to calculate pre-packaging operations and shipment controls (see further down).

Management of slotting and inventory

A WMS should allow you to monitor and optimize the placement of items in a way that saves space and organizes storage locations based on product turnover rates. The result is more productive order processing.

Storage locations can be cataloged based on their characteristics (i.e., location in the warehouse, dimensions, maximum load, logistics group, etc.). Furthermore, storage locations can be static (the same SKUs are always stored in the same locations) or dynamic to optimize space and picking paths.

The WMS's storage management feature can optimize routes, in other words, the action of moving items from a source location to a destination location within the warehouse. To ensure optimal management of storage locations, this feature assigns a route to each article for each transfer request. This calculation considers the characteristics of storage locations as well as their availability.

As such, a WMS provides you with a clear vision of inventory levels for a given SKU and tells you where inventory is in the warehouse. A WMS will also enhance inventory tracking, enabling improved replenishment strategies, in addition to providing optimized order tracking for customers.

Order preparation

The goal of warehouse management is to fulfill orders while minimizing resources. Reducing empty loads is generally a golden rule in WMS. Various preparation methods (i.e., single order picking, wave picking, and batch picking) are used based on the nature of the order. The pre-packaging operation features are extremely useful as they allow you to minimize the number of times a product is handled. This will enhance the tracking of inventory, leading to optimized orders for clients and overall replenishment strategy improvements.

In certain cases, inbound packages are sent straight to pack stations where they are directed towards outbound orders (cross-docking).

Management of inbound and outbound packages

A WMS manages all the information for inbound and outbound merchandise and controls all associated internal operations.

Effective management of inbound products is fundamental as it allows you to enter items into the IT system and optimize processing.

The goal is to record and verify the conformity of inbound items, then to assign them a destination (e.g., storage, preparation, shipment, etc.). Generally, it's best to group them by shipment notices to manage inbound merchandise based on imported files.

The shipment feature then rounds out the order preparation process. It controls merchandise before it leaves the warehouse, and it manages the loading of transport.

Packages can be verified and assigned by scanning the barcode on each one.

Monitoring of warehouse activity

A WMS is also an integral tool for managing your warehouse. To do this, it needs to define and follow performance indicators and obtain statistics on operations and inventory levels.

This information is essential for setting up dashboards and management tools.



The Benefits of an Advanced WMS

CHAPTER III

In addition to the basic operating features offered by all WMS solutions on the market, next-generation or advanced WMS solutions also offer optimization features designed to improve warehouse productivity to turn it into a logistics production center. Used in on-premise or a SaaS model, they are capable of integrating changes in activity, especially when it comes to e-commerce.

Finally, they also make it possible to integrate the warehouse into the company's supply chain ecosystem.

These advanced features & benefits encourage companies already equipped with a WMS to seek out other solutions with higher added value.

Let's take a closer look at this.

Key ideas in the chapter

- Value-added benefits are pushing companies already equipped with a WMS to seek out a solution that can give them more flexibility, dexterity, and agility in meeting their customer and business needs
- These benefits include process and workflow features designed to boost warehouse productivity significantly
- Advanced WMS solutions, including SaaS-based ones, are specially designed with modularity, upgradeability, and responsiveness in mind
- They allow you to fully integrate your warehouse into the company's IT ecosystems for complete supply chain visibility

Adapt warehouse operations to changes in business activity and flows

As we mentioned in the introduction, warehouses have undergone significant change in recent years. Product transfer volumes are continually changing, and warehouses must provide new services with higher added value, especially when it comes to managing returns and packing. They must also respond to constant requests for enhanced responsiveness and performance. As such, many companies are seeing their activities change in terms of volumes.

The management of resources is at the heart of this matter. Next-generation or advanced WMS solutions allow you to calculate the number of resources and assign them to tasks based on an order portfolio.

Advanced WMS solutions are also designed to guide company growth as well as changes in activities. Based on its scalability, an advanced WMS allows companies to expand their range of features by giving them the possibility to deploy only what they need at any given moment in time.

Optimize the management of omnichannel logistics

Many warehouses must simultaneously manage different workflow types based on very different management rules. Taking things beyond the traditional supply of shops with pallets, companies must now fulfill and deliver single orders coming in from e-commerce. A WMS must be able to combine these diametrically opposing workflow types and ensure that promises are kept. To achieve this, a WMS must enable a warehouse to respond to the new requirements presented below.

Greater agility, responsiveness, and visibility of logistics operations

Companies are now letting their customers make changes to their orders as late in the process as possible, including up until the moment their items are shipped from the warehouse.

At the same time, they are faced with fierce competition when it comes to product delivery times, and the repercussions of not being able to meet these constraints impact their operations.

Due to the demands of e-commerce, it is no longer possible to pick orders in a single daily wave. The opposite is true today, with multiple order picking waves required. Consequently, you must be able to establish more frequent cut-off times. Orders must be gradually integrated into the order of preparation operations, and the WMS must allow for dynamic optimization.

A WMS must also provide a warehouse with the agility it needs. An essential step in this direction is to make blind receiving possible for flows coming in from vendors. Being able to create SKUs in your WMS and use a declarative storage method is essential. The latter is a method for storing the same SKU in various locations to multiply options for pick paths.

As for returns, the solution needs to ensure quality control, sorting, and ongoing integration to maximize the number of products available for sale, even if this means intercepting inbound articles and directly assigning them to an order without going through the storage phase.

In e-commerce, merchandise generally goes directly from the warehouse to the customer. As such, errors cannot be corrected. Effective control features are thus key. A WMS must also ensure that orders are complete and that there are no errors in the size or color of items. Also, companies realize that they must assign new packaging tasks with higher added value.

Combine traditional order preparation with single item order preparation

In e-commerce, the percentage of single item orders is particularly high. To meet this challenge, warehouses tend to use automated systems and bin shelving racks.

A WMS must be able to combine an extensive range of preparation modes and automatically attribute the mode that best suits the contents of the orders and the delivery times established.

Let's take for example:

- The preparation of urgent, bulky orders for a single customer in the mass market retailer sector.
- The preparation of orders for multiple customers when volumes are moderate during base periods or when a business is in its launching phase, for example, for local shops.
- Single-piece picking in bulk and packing for high volumes of single-item orders (e-commerce). The sorting phase is thus eliminated.
- Multi-order picking in bulk with sorting and packing for orders with many SKUs. This method is particularly suited for processing orders during peak periods.
- Cross-docking and sorting for local shops and supercenters.

Fully leverage current changes in technology

Over the past few years, the warehouse sector has experienced a striking increase in automation. These automated systems are specially adapted for single-item preparation. The aim is for the WMS to integrate these systems and properly articulate with the WCS, the IT system in charge of controlling these systems. However, the world of warehouses is also heavily impacted by the proliferation of new and promising technologies. Here once again, they must be able to take advantage of the potential increases in productivity.

'Light' automated solutions, such as AGV and Goods to Man robotic picking systems, are being developed. Their advantages include greater ease of integration and exchange very similar to those already operated in voice-directed mode. In more traditional picking methods, in which operators walk to product storage locations, other technology is expected to emerge within the next few years. Examples include voice-directed systems, connected eyewear, and beacons and cameras for more precise tracking of operations.

With radio frequency (RF) communications combined with voice recognition, new man-machine interfaces with graphic touch displays (i.e., smartphones/tablets) continue to be developed. Furthermore, new opportunities will arise thanks to the use of artificial intelligence (AI) in warehouses: optimized order processing, triangulation, management of gates/docks, resource planning, assembly of complex pallets, etc.

Although the algorithms in question are nothing new, what is new is the capacity to process massive amounts of data, deployed in the cloud or on-premises, to enable virtually instant decision-making, which is what is expected of warehouse operations. Once again, to have the flexibility and agility to take advantage of these evolving efficiencies, you need to have a WMS that can grow and adapt quickly.

Benefit from precise traceability and enhanced control

With improved control over operations, warehouses can then provide more accurate and effective traceability to speed up queries and recalls. For this to be possible, a WMS must be able to support SSCC Serial Shipping Container Code (SSCC) data types, batch codes, dates, and different means for identifying items and formats (e.g., GTIN 128 barcodes, QR codes, RFID, Datamatrix, etc.).

Next-generation or advanced WMS solutions tell you exactly what is going on in your warehouse. This information is then stored, and all phases that raw materials, WIP, and finished items follow are available for use with third-party applications. A robust WMS will use this data to establish relevant indicators. Ideally, this can be managed remotely, regardless of the physical location of the user. This will enable team managers to have information and alerts in real-time without having to consult their computers. The aim is to reduce the time it takes for operators to understand problems so that they can act as quickly as possible.

Following these indicators can also be useful for reorganizing warehouse activities. For example, they can be used to assign tasks in the warehouse. If a delay occurs in order picking, you

can ask operators in charge of stocking merchandise to work on picking operations.

Fully integrate the warehouse into your ecosystem for complete visibility of the supply chain

The current approaches of today's expanded supply chain require breaking down the siloed methods of the past.

As such, warehouses must be viewed as a link in the supply chain and must be considered when managing the overall supply chain, as well as in conjunction with partners. For the sake of visibility, a WMS must be able to provide an overview of operations in progress on a given site — and not just once a day but in real-time. The idea is to be able to reassure your customers by giving them up-to-the-minute information about their orders.



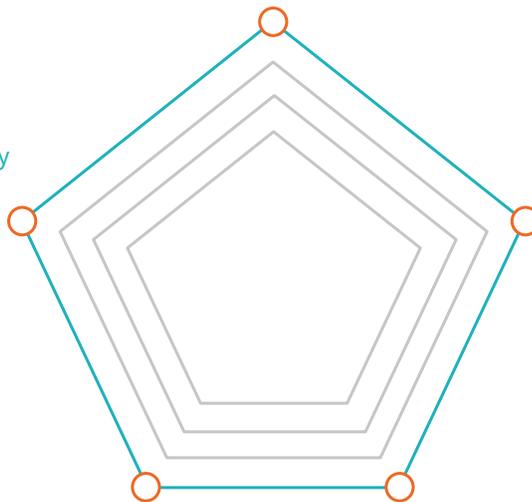
Adapt warehouse operations to changes in activity and flows

Fully integrate your warehouse into your ecosystem for complete visibility of your supply chain

Optimize the management of omnichannel logistics

Benefit from precise traceability and enhanced control

Fully benefit from current technological advances





Selection Criteria

CHAPTER IV

As discussed in the first chapter, companies will often use their WMS for ten years or more. However, during this time, company activities and the roles assigned to warehouses are bound to change drastically. Choosing the right WMS solution is thus a critical decision and will play a key role in helping companies keep the promises they make to their customers. The choice is not easy, especially since there is a plethora of WMS solutions available on the market. How can you choose the right solution that will turn your warehouse into a strategic advantage for your company?

This chapter aims to provide you with a list of decision criteria that you can use to be more objective in your analysis and evaluation.

The decision criteria are classified into two different categories:

- WMS Criteria
- Vendor Criteria

Key ideas in the chapter

- Basing your decision on objective criteria will make selecting your future WMS much easier
- Besides the essential criteria for the performance of the solution and its ability to make your company more competitive, you should also consider the ability of vendors to manage the project and its implementation
- The WMS vendor must convince future users of the benefits of adopting a standard solution over a custom one.

WMS Criteria

To fully leverage the benefits described in Chapter 2, you need to assess the performance of your short-listed solutions in various areas.

Reliability

A WMS is, above all, an operating system. Once the warehouse has been automated, operators can no longer work manually. An interruption in the system would, in fact make it impossible to process orders. From a business point of view, a standstill of just a few hours would be detrimental for any company. Given its importance, you want to choose a WMS solution that can manage your warehouse on an ongoing basis, every day of the year. To guarantee the reliability of the WMS, we strongly recommend that your vendor provides a Service Level Agreement (SLA). Customers should thoroughly assess how the service calculates performance indicators. As we can never be too careful, it's also essential to verify the processes that the provider implements in the event of downtime — for example, a mechanism for shifting onto a backup environment.

Extensive range of features

Although next-generation or advanced WMS solutions now offer many possibilities, we still need to seek out a solution with a broad range of features. This is the only way to deal with current and future challenges without having to develop specific customizations.

With the rise of e-commerce and omnichannel retailing, warehouses have evolved immensely over the past few years. This trend is expected to accelerate soon. As such, a WMS must be able to respond to new challenges effectively. That is why your company needs to make sure that the solution it chooses is up to speed with market developments. This is the only way to benefit from productivity innovations.

Let's look at, for example, why it would be advisable to choose a solution with the following features:

- Mobile access, essential for making decisions anywhere inside or

outside of the warehouse

- Automation control
- Transport data entry and interfacing with carrier stations to create labels and packing lists
- Yard management to synchronize operations with the arrivals and departures of carriers so that you can reduce wait times and measure performance
- Real-time visibility into warehouse performance data and metrics

Solution adoption

User acceptance of the solution is often the justification for the investment made and is crucial to ensuring that your project will be launched on the right track. However, you should ensure that the solution you choose can provide you with benefits above and beyond these initial needs. This point is fundamental, and we will come back to it in Chapter 5 (Structured Approach). If you don't clearly define your needs or are only focused on immediate benefits, you are more likely to choose the wrong solution.

Upgradeability of the solution

In Chapter 1 (The Warehouse Management Solutions Market), we saw that WMS solutions have an essential advantage over custom solutions: the ability to keep pace with the changes in a company's activities without having to undergo significant additional development. This means that you need to place a priority on finding a solution that can adapt to new company processes through configurations rather than through development.

A WMS must be able to integrate customer needs to prevent difficulties and delays in projects. The task is far from being impossible as warehouse processes are generally standardized within a company, much more so than transport operations.

Vendors achieve a level of standardization by making adaptations and improvements over projects and years of development.

Beyond standardization, a WMS must be compatible with systems already used in your warehouse and must be able to integrate

different types of technology for optimizing order picking operations (i.e., pick by voice, pick to light, etc.).

This last point is particularly crucial for companies combining their core sales channel with new channels used in e-commerce. In addition to traditional B2B activities such as supplying retail locations, your WMS must also be able to manage B2C activities, such as order picking for end-user customers.

User friendliness

In addition to upgradeability, future WMS users should consider another critical feature: user-friendliness. We are accustomed to having user-friendly IT apps with intuitive designs in our private lives. So warehouse operators expect the same level of comfort and simplicity from their business tools. User-friendliness can be assessed by doing a proof of concept (POC). See Chapter 5 (Structured Approach) for additional information.

The WMS solution should also support customization to meet specific esthetic requirements such as color, logos and other information. These same customizations should carry over to customer-facing documents : bills of lading, packing slips, labels, etc.)

Operating cost of the solution

The cost of the WMS solution is naturally an important criterion, although it tends to fade into the background when we talk about the extended capabilities of a WMS.

Aside from the cost of the software, it would be wise to carry out a detailed comparison of the costs you will have to cover (i.e., infrastructure, maintenance, version upgrades, etc.) for its operation. This is particularly true when you are comparing solutions that run in different modes, such as on-premise licensed software vs. SaaS.

In SaaS mode, companies pay what they use, and the rest of the costs (i.e., subscription, maintenance, updates, etc.) are included already. In this scenario, you can think of it as renting an all-inclusive service whose maintenance is pooled among the different customers.

When you are comparing licensed and SaaS-based solutions, make sure you take into account the same detailed criteria, otherwise, your comparison might not be relevant. Also, don't forget to assess the costs of using a WMS over a certain period of time. A more robust and streamlined WMS will allow operators more time to focus on more important matters, processing more orders with fewer errors, which all leads to enhanced productivity and improved profitability.

Capacity to integrate the warehouse into your existing IT ecosystem

Not only does a WMS have to recover data from the ERP, but it must also interact with other elements in the IT ecosystem to provide you with the visibility that you need.

A WMS must be able to provide an overview of all operations underway in your warehouse, not just once a day but in real-time, to give your customers up-to-the-minute information about their orders.

With their standardized interfaces (APIs) for exchanging data, SaaS-based solutions are particularly nimble and integrate easily into existing IT ecosystems.

Distribution model

SaaS-based solutions and pay-per-use are ideal for companies with fluctuating activity levels (i.e., vigorous growth, seasonality, etc.). You can also free up your IT department from having to manage architecture and hosting. You subscribe to a service, and the vendor provides you with the level of performance promised, often established within the framework of an SLA. Finally, the solution can be quickly deployed, with no need for installation on your company's machines.

Therefore, the WMS you choose should offer the possibility of being run in SaaS mode.

Vendor Criteria

Aside from WMS performance, you should keep in mind that implementing a solution is a real project that requires guidance

from the vendor who can assist your company throughout the implementation phase and the lifespan of the system.

Below are a few criteria that you should consider when comparing vendors.

Profile

A vendor's experience and stability are generally proof of its ability to provide a long-lasting solution.

Years of experience, financial stability, the quantity and quality of customer references, and the level of expertise in a given sector of activity are all relevant criteria.

Only by carrying out multiple projects can a vendor build its experience and have enough hindsight to build out best practices and perfect its methods.

As such, give priority to those vendors that can offer their prospects real-world examples of how their solutions work in the operations of their current customers. You will then be able to get feedback on a given WMS from the operators and managers who are currently using it.

Other solutions from the vendor

Different vendor profiles exist. Some are 100% specialized in WMS, while others offer solutions across the entire supply chain.

By choosing a provider that offers a broad range of solutions, you will be able to cover all your supply chain needs with the same vendor.

Let's take, for example, a manufacturing execution system MES and collaborative replenishment which interact with warehousing operations:

- An MES manages simple to very complex manufacturing processes and workflows, including managing materials on multiple production lines, such as made-to-order, discreet assembly, batch processes. Data is synchronized in real-time to the WMS, which also feeds real-time information to the ERP, providing complete visibility of stored and consumed inventory

throughout your organization.

- Synchronizing the flow of information, materials, and resources is vital to today's manufacturing environment. Time and motion are measured on the shop floor to ensure that work is being executed in the most efficient way possible and that raw materials—via a configurable platform that adapts to the business without custom code—are tracked throughout the process.
- The system optimizes movements of goods and enables complete control and visibility over raw materials, work in progress, and finished goods, throughout the manufacturing process. All transactions are performed using RF-enabled handheld mobile devices, ensuring real-time execution and data capture.
- Collaborative replenishment supports a multitude of pooling models, including shared supply management (SSM), vendor managed inventory (VMI), upstream SSM, sales location SSM, pooling or pooled supply management, multi-pick, multidrop, advanced or consignment stock, consolidation centers, and massive flow handling. It needs to take full advantage of the most recent technological innovations, including cloud, mobility, big data, analytical software, and operation automation, as well as coming advances in artificial intelligence.

Methodology/project management

When in talks with a vendor during the selection process, make sure to obtain detailed information about their project implementation methodology and the profiles of the teams in charge of implementation. Also, check the quality of deliverables provided by the vendor.

Project management should cover configuration, testing, deployment, maintenance, and support phases.

More specifically, if your company decides to place a priority on standardizing its processes, it's wise to explain why and to 'sell' the benefits of this approach to your teams. The ability of a vendor to offer effective implementation methods determines whether users will fully accept the solution and optimize its use.

To ensure the success of this kind of project, you need to convince all the parties involved of its benefits and its method of implementation. Communication and precise control are, therefore, critical. This is the only way to ensure that the benefits you expect become a reality.

Culture

Wherever possible, give priority to vendors that have a culture that is similar to that of your company and your future users. The vendor must be able to provide your company with resources—above and beyond just everyday skills—that will be able to understand and meet your team’s expectations.

You should also consider the ability of the vendor/integrator to deploy, if necessary, on a regional, national, or even international scale, with all the specific local elements that such a deployment entails (i.e., language, work methods, customs, etc.).

Once the solution has been implemented, this doesn’t mean that the WMS vendor should stop providing assistance. The vendor needs to ensure application availability, an effective hotline service, and regular updates. The benefits of the solution should not gradually fade away over time, and new technological opportunities need to be continually integrated.

For this reason, deploying a WMS in SaaS mode will largely facilitate your company’s tasks. In this scenario, you rent a service from the vendor, who is tasked with ensuring that the system operates to its full potential.

As an added plus, it might also be interesting to see if the vendor offers a catalog of additional services (e.g., training, KPI consulting, etc.).

Ongoing assistance

<h1>Selection Criteria</h1>	
<h2>SOLUTION</h2>	<h2>VENDOR</h2>
<ul style="list-style-type: none"> • Reliability • Extensive range of features • Modular solution • Adaptability and level of standardization • User-friendliness • Total operating cost (TCO) of the solution • Integration into existing IT ecosystems • Distribution model 	<ul style="list-style-type: none"> • Profile (i.e., social and financial stability, sector-specific experience, etc.) • Other solutions offered by the vendor • Methodology and project management • Company culture • Ability to provide ongoing assistance post-implementation



Structured Approach

CHAPTER V

Even if the benefits of implementing a next-generation or advanced WMS are significant, you still need to make sure that you choose a suitable solution. Basing your choice on the different decision criteria presented in the previous chapter is useful.

One of the main criteria is the ability of the WMS vendor to offer and apply an effective project management methodology.

In the process of choosing your future WMS, your company's teams will also naturally apply a structured approach. The next chapter will describe the main elements of this approach.

Key ideas in the chapter

- By applying a structured approach, you will ensure your comparison of solutions remains objective and is adapted to your objectives.
- Drafting specifications during the selection phase is critical.
- The specifications must differentiate what is essential from what is not while identifying the potential needs of the warehouse over the medium and long term.
- The sales offer is just a part of what your company should analyze when comparing solutions.
- Discussions with the vendor, customer feedback, and tests are all very instructive when it comes to painting a picture of how the ultimate solution will be able to achieve your company's objectives.

Defining the scope

Given that the types of logistical flows being processed, and the tasks attributed to warehouses are changing, defining the scope of action for the future solution is a challenge. You should ensure that the needs addressed by the WMS are not limited to short-term expectations. Even though establishing priorities will facilitate and broadly accelerate the selection and implementation phases of the solution, you also need to make sure that you list your needs over the medium and long term and that the vendors you are comparing will be able to respond to them with the range of features that their solutions offer. If you focus only on immediate benefits, you are more likely to make the wrong decision.

It is easier and less costly to activate a feature in a WMS that is already interfaced with an ERP than to purchase a new application. For this reason, the solution must also be able to address future needs.

As such, you might think about obtaining assistance from an external consultant who can establish the current and future scope that your solution should cover.

Preparation and adoption of the approach

Successful adoption of the WMS solution starts from the selection phase. By integrating future users of the WMS as early on as possible, at the time that needs are established, you can better ensure their acceptance of the solution. This point is essential when replacing a custom solution with more standardized WMS features.

Drafting of specifications

Defining needs and writing them down as specifications are key stages. The idea is to consider real needs and especially those not covered by your existing solution. Don't forget to define the constraints, target processes, and project organization.

If specifications are incomplete, you may be forced to take on additional services during the implementation to cover the processes that weren't described ahead of time.

The danger lies in letting yourself become influenced by WMS vendors that have been asked to give presentations. If they are not confronted with a list of needs, your company may find itself satisfied for the time being. However, the day the project has an impact on operations in the warehouse is the day you will start to see problems. You will identify processes that may have seemed to correspond to the standard approach of the tool, but that will require development time when unforeseen constraints come up. All these specific elements must be laid out in the specifications.

By doing this, the vendor will be able to understand your expectations and offer a tailored plan. Any gaps with the standard solution can be measured, and any needs for development estimated ahead of time.

Lastly, rather than just expressing your company expectations in terms of software solutions in your specifications, write down the business objectives that you have identified and the benefits that you expect, making sure to differentiate between what is a 'must-have' vs. a 'nice to have'.

In short, you should create your specifications without focusing on classifying information systems. This is even truer with SaaS-based solutions given that the technical architecture approach to applications no longer serves a purpose. A vendor's job is then to offer the modules that meet these needs.

Creating a return on investment report

Along with the specifications, you should also create a return on investment (ROI) report. This will become an in-house reference once the project has been launched. During

turbulent times, which can occur in any project, you can refer to them and be reminded of the objectives of implementing the solution. In this document, describe the benefits that the WMS should provide your company and how it will contribute to the company’s growth strategy. Once these documents have been drafted, you can then base your comparison of solutions on objective information.

Selecting vendors

The vendor selection phase of the project aims to short-list not only those solutions that cover the needs identified in the specifications but also to respond to the criteria set forth in Chapter 4 (Selection Criteria).

Consulting vendors

Consulting with vendors should not be limited to merely receiving specifications. It should entail numerous meetings, presentations, demos, a proof of concept (POC), visits to existing customers, etc. There are several points to validate and so the quality of this phase is quite important. It will save a lot of time later in the project.

We recommend that before meeting with vendors that you create an assessment matrix with various criteria that you can use to objectively compare solutions and vendors. This matrix will also bring together the different parties involved in the project to discuss around a common framework.

To accurately compare net costs, you might find it useful to have the vendors fill out a price chart that will help you make comparisons objectively.

Organizing visits to existing customers

Visits to existing customers will help you assess how the system is used in a real-life situation and to obtain feedback from other organizations about the benefits and user-friendliness of the proposed solution.

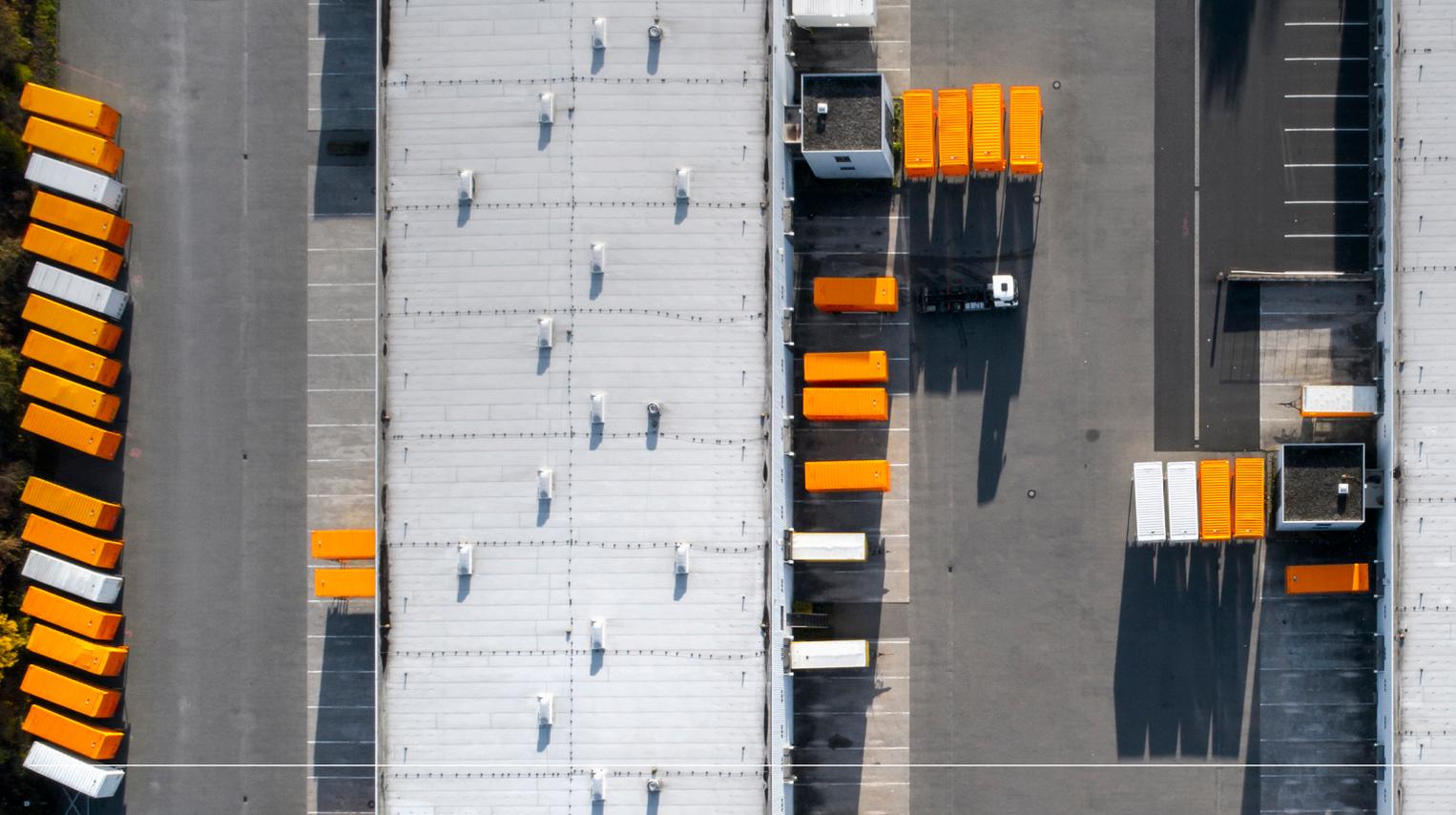
Try to find customers that use the same features that your company needs and that have similar activities/ constraints.

So, you’ve made up your mind. What happens next?

Once you have selected a WMS solution and vendor, the main risks will have to do with seeing the project through. Although the vendor, where also an integrator of its WMS, is used to carrying out these types of projects, things might be more complicated for your company. Make sure to free up resources from their regular tasks so they can be used in the project for however long is needed. Obtaining commitment from management is also key.

Finally, ensuring that future users accept the change means involving them in the process from the very beginning, when needs are being defined, and not solely during implementation. Communication and training should be your guiding principles.





Conclusion

Managing warehouse logistics operations without an IT system is no longer conceivable. As such, you need to ensure that the solution you choose can adapt to changes to your company's activities in terms of volumes and flow types to be processed. Otherwise, you risk falling behind your competitors.

With the capacity to go beyond just the simple execution of operations, warehouse management systems are now elements that provide your company with a competitive edge and, when used to their fullest potential, they allow you to reach new levels of performance.

To achieve this, however, you need to set your sights on next-generation or advanced WMS solutions that offer modularity and scalability.

Implementing a solution based on a SaaS model provides several advantages. By not having to worry about the technical aspects of deploying and maintaining the solution, your company can focus on its business processes, while benefiting from the upgrades and improvements provided to each of the vendor's customers. This also ensures that you align yourself with best practices in the sector. As we have already mentioned, choosing the right WMS solution is not an easy task.

Using relevant assessment criteria and applying a structured approach will make your decision-making process much easier. In addition to ensuring that you make the right choice that is suited to your objectives, it is essential to carefully approach this phase of the project because it will determine the success of the next phase: implementation of the solution that you selected.



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