

Management Outlook



Warehouse Management Systems

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By means of a new WMS, managers hope to increase their productivity and perfect order rate, shorten their lead times, improve their provision of information and anticipate the latest trends (i.e. Internet). That is a significant difference compared to a few years ago when the most important motives were still the replacement of out-dated software, reducing maintenance costs or dealing with the millennium problem. In spite of good intentions at the start of the project, few businesses are able to realise these goals in real terms. This report explains the importance of streamlining the processes before purchasing a WMS.

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In stories about failed implementations, you hear time and again the same reasons for the failure. You can prevent such failures in a WMS project by following these five golden rules:

1. Aim for offensive goals
2. Streamline your process beforehand
3. Limit customisations on the WMS
4. Make a sound choice for a WMS
5. Make sure there is commitment within the organisation.

Offensive Goals

In the introduction we already mentioned several offensive goals in terms of productivity, service level, (management) information and innovation. If a company can realise these goals, a WMS implementation results in a considerable saving in costs. Furthermore, it can help you improve your competitive position, since reliable delivery, short lead times and a good provision of information are critical success factors, certainly in the New Economy. A study conducted by Berenschot in 2000 shows that in almost all situations a percentage of correct order-lines varying from 99.6% to 99.96% is feasible after the WMS implementation.

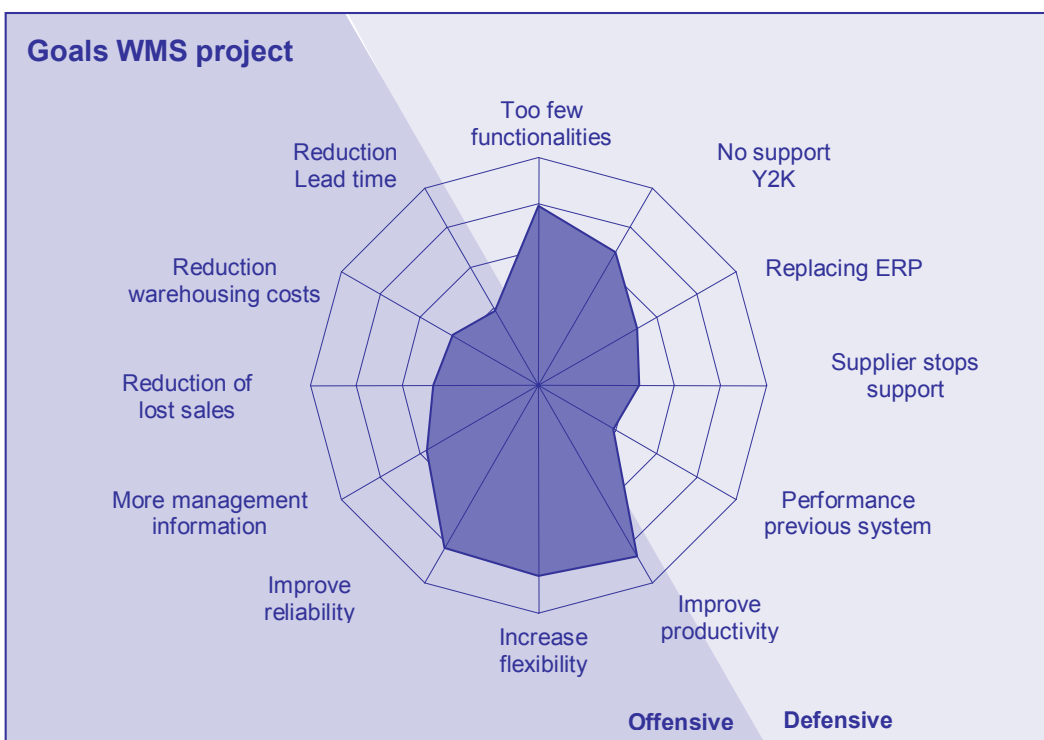
Offensive goals are the engine of the project. In the first place, a WMS implementation is a change project. You are not only going to be using another software package, but the method of working in the

warehouse will also change. After all, if you continue working in the same trusted manner, a new WMS will not improve the productivity. You make a profit by working efficiently or by streamlining the processes. The WMS is only an *enabler* here. In any case, you do not have to consider a complete business process redesign (BPR) during the streamlining of the warehouse processes. The racks generally stay in their place and order pickers keep order picking. The method of working does, however, change.

Streamline Processes

Streamlining warehouse processes serves two purposes in a WMS project. On the one hand, you optimise the efficiency and service levels, and on the other hand you try to fit the methods of working within the bounds of a standard WMS package.

The method of working has remained almost unchanged in a majority of the warehouses over the past decade. In this same period, the market demands and the assortment underwent considerable change. As a rule, managers have responded to this by bringing in more personnel, renting external storage space or devising another ‘temporary’ solution. A structural solution is often not possible because the current warehousing software fails to offer support for this. The introduction of a new WMS does offer this possibility, and you should take advantage of this.



The selected WMS needs to support the future ‘streamlined’ way of working. Therefore, it is necessary for you to streamline the processes before you decide to go with a supplier. This approach prevents you from discovering afterwards that another WMS would have been better suited to the plans.

Table 1. Goals WMS project.

Source: Berenschot © 2000.

The streamlining of processes can be accomplished in various ways. In this way, you can get rid of unnecessary buffers or, in some cases, add an extra one. In general, buffers cause delays in the flow. They take up room, they are source of mistakes, and lead to employees having to handle the merchandise an extra time. As a rule, you can also save by taking consecutive process steps together, whereby the intermediate buffers disappear. In other situations, it is sensible, however, to introduce or enlarge a buffer. This is the case when a wait results from the fact that consecutive steps are not correctly coordinated with each other. For that matter, the fact that a buffer becomes full does not automatically mean that you need to enlarge it. With a better control, it is quite possible to empty a buffer more quickly.

Another Method of Working

Coordinating processes is, in any case, an important point of interest during streamlining. A good example is the coordination of the replenishment of the forward stock with the progress of the order picking. If an order picker arrives at a location where there is too little stock, he cannot execute his pick, which leads to a delay. If, on the other hand, a product is replenished ahead of time, either two locations are being occupied for a long time (assuming products are at flexible pick locations) or a lot of merchandise must be transferred between pallets (if products are at fixed pick locations). However, a WMS with intelligent control rules can ensure that the order picking and the replenishment are well coordinated with each other. Radio frequencing (RF) scanners are necessary for this so that the WMS can immediately follow the employees' progress.

In some cases it is wise to switch over to a completely different method of working. The best-known example is to pick orders in batches rather than one by one. You can also add a new process step during the streamlining. This can be cross-docking or merge-in-transit, for example. During cross-docking, merchandise is no longer stored but goes through to an outbound dock after receipt, possibly via an in-between buffer. With merge-in-transit, merchandise from several shipments is efficiently combined in an in-between buffer into one order that is then sent in its entirety.

A suitable approach for streamlining your process is, first of all, to delineate and describe your processes in detail. Doing this will quickly make it clear where any bottlenecks are and the discussion will remain accurate. Furthermore, it is important to collect figures about the process. You can decide on the most efficient method of working only after you know how often an activity is carried out and within which lead time.

Limit customisations

Streamlining the process not only creates more efficiency and a higher level of service, but it also helps to limit customisations. In many warehouses, a specific method of working has been maintained from 'way back when', but that method is not supported by a standard WMS. Therefore, it is important to check if you can adjust your method of working to the WMS.

In the day-to-day practice, we encounter many companies that still have customisations in order to be able to maintain their trusted method of working. Later, these companies regret this choice. Customisations generally take longer than was

To what extent are basic assumptions defined at the start of the implementation?

Goals of the WMS implementation	81,3%
Improvements to be realised by the WMS implementation	62,5%
Logistical concept	33,0%
Organisational impact / changes in tasks and procedures	50,0%
Information flow diagram	31,3%
Data model	53,3%
Prototype / simulatie van de gewenste werkwijze	62,5%
IT structure	75,0%

Table 2. Basic assumptions WMS implementation.

Bron: Berenschot © 2000.

When do companies streamline the processes?

Streamlining before implementation	33.0%
Streamlining during implementation	62.0%
Streamlining after implementation	50.0%
No streamlining	14.0%

Table 3. Streamlining processes.

Source: Berenschot © 2000.

thought and demand a great deal of testing. Moreover, it is expensive and not supported in the system's following release, which means that the problem is a recurrent one.

Businesses should thus make themselves more open to the possibilities the WMS package offers. On the other hand, WMS suppliers let themselves be too easily persuaded to write customisations. Obviously, this is a source of income for the supplier. Furthermore, the WMS suppliers are usually more at home with IT than with logistics. That is why they have the natural inclination to look for solutions earlier in IT than in the logistics. Nevertheless, the supplier understands more and more that customisations cause significant risk factors in the projects.

It is essential that you hold on to the design concept after the implementation has started. Many companies deviate from that concept during the project, and this leads to an irreversible delay and

extra costs. The project turns into an unguided projectile that will never hit its target. Still, in spite of an outstanding preparation, if you happen to run into changes during the project, it is often wise to postpone them until afterwards. Naturally, you can consider implementing small adjustments right away.

Agreements with the Supplier

You can select a WMS supplier after streamlining the process. Here, it is necessary that you meticulously record what the suppliers offer during the selection. Things that you do not record beforehand can suddenly produce additional work during the implementation. As long as a contract has not been signed—and certainly as long as several parties are in the race—suppliers will want to offer something extra. Therefore, the more requirements you put on the table during the preparation, the better you will be able to control the budget in the end.

What is more important in a project?

Functionality package	More important than	Experience project leader
Commitment shop floor	More important than	Commitment top management
Definition improvements up-front	More important than	Identification and realisation of improvements after implementation
Management of change	Slightly more important than	Improvement of the business processes
Configuration by own employees	More important than	Configuration by external consultants
Experience project manager with implementations	More important than	Experience project manager with the line of business
Contribution own people	More important than	Contribution external consultants

Table 4. Most important aspects in a WMS project.

Source: Berenschot © 2000.

Further, you should certainly ask the supplier to give a demonstration of its package on the basis of a business scenario your company puts together. In this business scenario you describe the critical and complex activities in the warehouse. A business scenario quickly makes clear what the package can and cannot do. Naturally, when selecting you should look at more than just the functionality of the package. Points such as implementation capability (is the supplier capable of getting the WMS started quickly), software structure, vision of the supplier, references and maintenance also play a role.

Project Organisation

There has already been written a great deal about the management of these projects. In the past, WMS implementations were often underestimated. It is important that two or three employees be made available for the project. Keep the motivation of the employees high and celebrate the successes achieved. Earlier, I remarked that a WMS implementation is a change project. In general, employees are not waiting for changes. After all, the old method of working always functioned just fine. It is therefore important to point to the offensive goals that confirm the necessity for change.

Jeroen van den Berg Consulting is a consulting firm specialised in warehouse and supply chain management. For more information you can contact us at the underneath address or via our web site.

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