

## Management Outlook



# WMS Market 2002

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*The WMS market in the Benelux has been highly volatile in recent years. Many vendors have attempted to conquer a market position. Only a minority have been successful. The market reports a declining demand for packages. Is this due to the current economic situation or has the market become saturated? How can vendors survive these times? This is a behind the scenes look at a difficult market.*

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It is the nightmare of every logistical manager. With supreme effort, a wonderful WMS has been implemented and subsequently the vendor stops his activities. In the best case scenario the package is still supported for several years, but the extra features that were promised, will probably never come.

Such a scenario certainly is not an exception. Several newcomers expected to find gold in the Benelux with its unparalleled warehouse density. Among the gold diggers were many foreign suppliers that were already successful in their home market. Several came over as a company, others tried it via an implementation partner. Furthermore, we saw local software houses who developed a new package for a specific customer and tried to market it as a standard system. Finally, there were the vendors of closely related systems such as ERP, TMS and material handling control systems that saw good opportunities for cross-selling by expanding the package with WMS functions.

Let us first have a look at the numbers.

Table 1 shows the packages that have been actively marketed in the Benelux since 1996. Starting point for this are the 75 WMS packages that have been evaluated in the surveys of Berenschot, Cap Gemini Ernst & Young and PricewaterhouseCoopers since 1996.

Out of these, a massive 29 packages (39%) are not offered anymore in the Benelux. These are the drop-outs in table 1. Several of these packages are still successful in other parts of the world; others do not exist anymore. Sixteen packages (21%) are only offered on the side. This is the group of *followers*. The vendors no longer see WMS as a core business and focus their attention on other activities. The package is still supported, but further development is limited or non-existent. What remains is a group of thirty vendors (40%) that are actively competing with each other. Within this group we see twelve packages with still incomplete functionality or less than ten customers in the Benelux. These are the *challengers*. Of the remaining eighteen

*leaders*, eleven were already active in 1996. This once again illustrates how difficult it is to gain a firm foothold.

Compared to the ERP market, companies are small (typically less than forty employees) and have limited implementation experience (usually less than forty customers). The number of vendors that are active globally can be counted on one hand: Marc Global Systems, EXE Technologies, LIS, Manhattan Associates and Swisslog. Also, there are relatively few active implementation partners in the Benelux.

We analyse this remarkable market according to the following five success factors for WMS vendors:

1. Functionally complete package
2. State-of-the-art technology
3. Excellent implementation capabilities
4. Considerable customer base
5. Professional organisation

### Functionally Complete Package

A vendor develops a WMS mainly by including new customer requirements in the standard package. Therefore, it is essential that the new functionality is designed such that on the one hand it can easily be configured for as many customers in its target group, while on the other hand the software may not be overburdened with functionality that is hardly used (See section *Standard or Customisation?*). To establish this, the vendor must have a clear vision on the logistical developments in its target market.

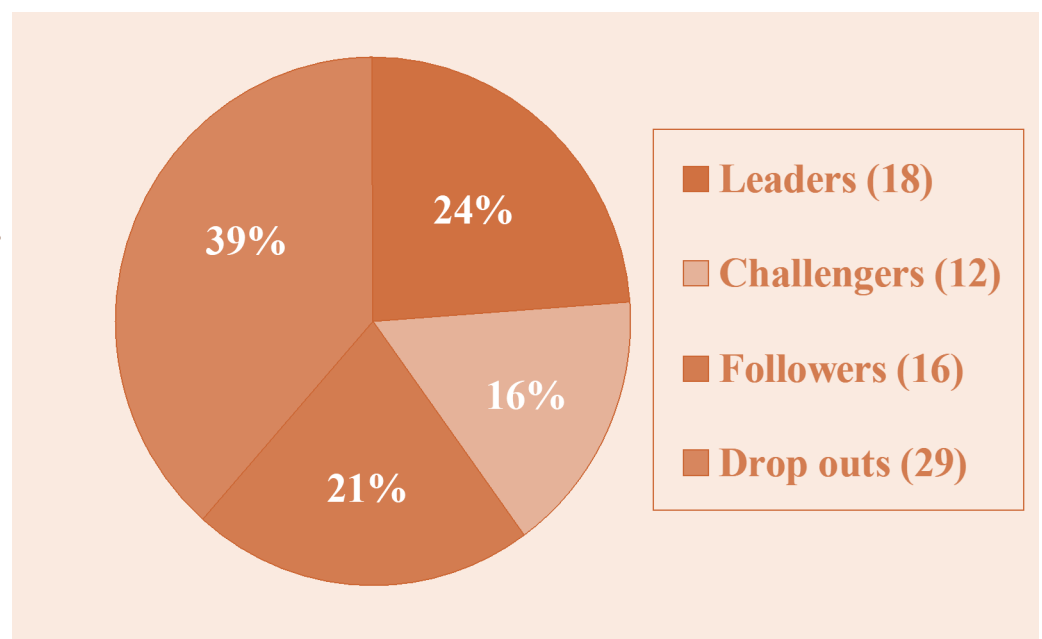


Table 1. Current status of WMS packages active in the Benelux after 1996.

Some vendors attempt to achieve a good functional fit with limited functionality by selecting a specific target group. For some verticals such as third-party logistics or retail such a specialisation is rather successful. For many other target groups this approach has a limited shelf life. Vendors that aim exclusively at wholesale warehouses or specific product groups such as office supplies, chemicals or do-it-yourself products, find that vendors of packages with broad functionality quite easily enter their vertical.

The domain where the newcomers could still manifest themselves without being disturbed, was the market of small and uncomplicated warehouses. The vendors of the “top” packages never considered the requests from this segment and the newcomers gladly took advantage of this. Now that the market of the large warehouses becomes more and more saturated, these vendors are also focusing their attention on the small and medium-sized warehouses. By excluding complex functions and by pre-configuring several parameter settings, the packages can too be implemented at a competitive price in small warehouses. Marc Global Systems is the first to come on the market with such a trimmed down version.

Besides specialising in specific markets, we see that WMS vendors also try to distinguish themselves with special functions that go further than straightforward warehouse management.

Examples of additional functions are:

- Customs handling
- Invoicing of logistical services
- Order management
- Inventory management
- Tracking & tracing and alerts in the supply chain (supply chain event management)
- Management information
- Transport planning
- Complex capacity planning
- Slotting optimisation (analysis of the location assignment)
- Control of material handling equipment

These functions are usually housed in separate modules. The vendor has the choice to develop the additional module himself or co-operate with a partner company that has a specialised system. We also see many takeovers, where the specialised software is integrated in the portfolio of the WMS-vendor.

The segregation in modules offers customers the possibility to deploy the required functions

gradually. Furthermore, it is possible to combine the modules of different vendors. For instance, retailer Ahold recently selected the slotting module of Manhattan Associates as an addition to the WMS-package of IMI. Since it becomes easier to link systems, we may expect that enterprises will more and more opt for a combination of so-called best of breed systems instead of one integrated system.

## State-of-the-art Technology

The technological developments in ICT go at an unparalleled pace. Hence, it is not sufficient for a WMS vendor to keep up with the latest developments in logistics, he should also follow the developments in ICT.

At the beginning of the nineties we were satisfied with dull character-based screens. This user interface, however, is still applauded by many for its user friendly data entry abilities. Halfway through the nineties the more appealing graphical user interface took over the display screens. A number of vendors gradually rebuilt their existing WMS into this new look. Other vendors threw their old system overboard and built (or bought) a completely new system. With considerable effort all functionality was redeveloped. This not only made the system more modern, it also made it more flexible to use since a large historical load of seldom used options could be left out.

The latest trend is the user interface via a web browser. This user interface has as its prime benefit that anyone with a PC, browser and password can have access to the WMS. For example, this enables suppliers and recipients of a logistical company to follow their shipments in the WMS via the internet. It also allows the vendor to offer his system as an application server provider (ASP). The user neither has to purchase the software nor the server. Instead he gets a subscription and uses the system via the internet.

Besides the user interface, vendors have to keep up with developments in operating systems, hardware platforms, databases, communication protocols and programming languages. It follows from practical experience that a package has a theoretical life cycle of approximately seven years. The first two years the package is under development. The next three years it has mature functionality and a state-of-the-art technology. In the sixth and seventh year, the system begins to age and it becomes increasingly difficult to sell the system. It is a challenge to breakthrough this cycle by modernising the system in time.

## Standard or Customisation?

In a standard package a specific method of working can be configured via parameter settings. If the method of working differs considerably from the available functionality and cannot be configured, then it is necessary to write customised software. Customisation has a number of disadvantages. It is expensive and makes the implementation more complicated. Customisations contain more programming errors than standard software and thus require extensive testing, which increases timescales and risks. In almost all projects that have gone badly in recent years, this can be attributed to an abundance of customisations.

The most important disadvantage of customisation is that it is no longer standard software. The user encounters this problem when he wants to upgrade the software to a new release after several years. This may be desirable because the new version has a few interesting features or because the technology of the current version has become outdated. For the standard software the vendor guarantees that the current functions are also supported in a new version. This is comparable to the possibility of opening an old Word document in a new version of MS Word. For customisations this guarantee does not hold. Customisations have to be refitted in the standard software and the combination needs to be tested extensively. For implementations with a large number of customisation days it is therefore almost impossible to upgrade the software. Currently, we see an emerging replacement market with users of highly customised systems doing a system selection again, rather than upgrading the current system. In these cases, implementing a new package does not require significantly more effort than upgrading the heavily customised current package.

It is a big challenge for WMS developers to keep a standard package with all its functions up-to-date. Consequently, there are vendors that only support a version for a limited time. After this period the user is obliged to upgrade to the new version. We believe that a vendor should support a version for at least four to five years from its release. A user should take the decision to go to a new version in its own company's interest, not that of the vendor. A period of five years usually suffices, since the logistics within a warehouse change considerably during such a time and it is generally recommended to upgrade for logistical reasons anyway.

Not everyone has foreseen this. In 1998 and 1999 the WMS market was *booming*. Many vendors then tried to implement as many systems as possible. The structural development of the WMS received little attention. Now that the competition has emerged once again, these vendors notice that they have fallen behind. For a number of vendors it is now a question of whether they have caught up in time.

### Excellent Implementation Capabilities

Beside expanding the functionality and modernising the technology, we also see product development aimed at simplifying the implementation of the systems. Traditionally vendors needed a programming effort to link the various components of their code. This requires technical knowledge of the package. Since these skills are hard to learn, it was a major growth obstacle for the vendor.

Now we see that vendors modify their package so that the right method of working can be configured with simple parameter settings. New consultants can easily learn this way of implementing,

especially if it is supported by a balanced implementation approach. It also reduces the required implementation time and decreases the complexity of the project and thus the risks. Furthermore, it enables vendors to outsource projects to implementation partners, which increases their implementation capacity considerably.

The complexity of a WMS implementation is still largely determined in the preparatory study when the business processes are translated into the standard functionality of the package. A fluent translation reduces the level of customisation and increases the eventual efficiency of the warehouse processes. This requires logistical expertise, extensive system knowledge and, last but not least, consulting skills. Beware of inexperienced consultants. In particular, we regularly encounter consultants with little experience when using implementation partners.

### Considerable Customer Base

Vendors need successful references to convince potential customers of their implementation skills and the broad applicability of their system.

Moreover the customer base is an important source of inspiration. Many vendors have a user group that directs the focus of the product development.

Furthermore, the customer base is the mainstay of the business of many vendors because of the continuous flow of income from maintenance, upgrades, modifications and extensions of the installed systems as well as selling additional modules. This means that the vendors are not directly threatened in their existence if they acquire few new customers. Hence, the real survival of the fittest will take place in the replacement market (See section *Standard or Customisation?*).

The importance that potential customers give to references differs. For instance, MaxFoodmarket, the webgrocer who delivers the groceries within two hours at home, selected the WMS of Inther for its critical logistical operation. Inther was at that time a young enterprise with a limited number of references. Another example is Kingfield Heath, an English distributor of office supplies. The central distribution centre in Leicester may be characterised by its high degree of mechanisation with cranes, roller conveyors and sorters. Kingfield Heath chose the Dutch ICL (nowadays Fujitsu Services) over several English competitors mainly due to its proven experience with the connection to the various material handling systems in the DC. Both implementations were successful.

## Professional Organisation

WMS-implementations are not always successful. The WMS vendor is faced by the difficult task of convincing a potential customer that he will execute the project well. Clearly, potential customers consider the functionality of the package and the many references. But they also expect that the vendor gives a decent and trustworthy impression with glossy promotion material, a representative office, an informative website and a convincing sales pitch. Moreover, during the sales process, he must reply correctly and in particular listen carefully to the problems of the potential customer and show that he understands them.

Professionalism does not stop after the sales process. The implementation, maintenance and support should be professional too. The entire organisation must be dedicated to provide service of a constant high level, not just incidentally when the customer really is in need.

## What will the Future bring?

We have seen many drop outs and newcomers in the Benelux in the past six years. The WMS market is small with relatively speaking a large number of suppliers, so the revenues remain limited for many companies. The vendors, however, have to invest to keep the system up-to-date with the latest developments in logistics and ICT. To sponsor this, an extensive (international) customer base is required. Hence, we expect that more vendors will disappear. The number of successful newcomers will remain limited now that the big boys start to concern themselves with the market of small warehouses.

The packages get a broader standard functionality that reduces the functional differences between the packages. Aiming for a specific target group will generate insufficient revenues. The main competitive edge for the future will be the ease of implementation. A swift and simple implementation reduces the risks and decreases the impact on the warehouse organisation. Moreover, a vendor can do more implementations in the same time, which will generate extra revenues and accelerated growth of the customer base.

Another viable strategy is to broaden the portfolio



Figure 2. Kingfield Heath chooses an experienced WMS vendor.

with non-warehousing functions such as transportation planning, order management, customs handling, et cetera. This provides good opportunities for cross-selling and the vendor is not just depending on the WMS revenues. However, the question arises whether the attention of the vendor is not diluted, which will slow down the development of the individual components.

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