EHRHARDT+PARTNER

A comprehensive view of logistics

A supply chain execution system – the ERP for the logistics sector

Every organization looking for a suitable software solution for managing their logistics will need to answer the question of their own requirements. Different systems will be recommended depending on the complexity of the tasks. In addition to adding a logistics module to an existing ERP system, implementing a stand-alone warehouse management system is another popular path to improving logistical performance. However, in an era of constantly increasing pressure on company logistics, it is no longer sufficient to just consider the separate processes inside the warehouse. Therefore, a third solution or supply chain execution system (SES), is playing an increasingly important role. These are comprehensive systems for the control and optimization of all logistics processes. One example of such a system is LFS from Ehrhardt + Partner (E+P).

Logistics has evolved into its own discipline and now finds itself at the core of any trading and manufacturing company. For many businesses, the efficiency of the logistics chain makes or breaks their success. To a large degree, the tasks logistics is expected to fulfill depend on the respective industry, with seasonal fluctuations and the ability to continuously deliver a wide variety of items further increasing its complexity. The textile, beverage distribution, and spare parts sectors are only a few of the examples and in these sectors competition between companies is becoming increasingly fierce. Retail demands direct delivery and e-commerce has been growing exponentially for years. By implication delivery periods will need to be shortened, meaning that every single logistics process needs to be optimized: inside and outside the warehouse.

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ERP as the standard – where does logistics fit in?

If the ERP system being used is of a low complexity, a logistics module can be added to it. For more complex requirements software solutions from logistics specialists are often the better choice. In order to assess the degree of complexity, companies need to determine the importance they place on item availability and reliable delivery. Since warehouse management is closely linked to client expectations, these, too, play an important role. Putaway/retrieval or picking processes often need to be changed. Increased requirements in terms of logistics arise especially in distribution companies. The complexity increases with the level of goods throughput and item variety. At the same time, companies need to react to client requirements in a flexible manner and realize that logistics is much more than an add-on to their ERP universe. Although ERP systems are the standard when it comes to the cross-functional support and organization of all company business processes, this is not the case for logistics. Via a common data pool they combine cross-functional modules for materials management, production, sales, research and development, plant management, HR and finance and accounting. Additional modules are required for incorporating logistics into the ERP world; however, these modules quickly reach their limits. They are embedded into existing IT and logistics ecosystems, and need to exchange data with already integrated systems by means of interfaces. If the logistical requirements are not precisely defined right from the start, this often turns out to be a costly and uncertain exercise. This is where the professionals step in.

SES for cross-functional logistics management

For more complex requirements, expanding an ERP system proves insufficient. Even traditional warehouse management systems quickly reach their limits due to ever decreasing delivery periods, such as just-in-time delivery. To optimize logistics, then, companies need to look beyond the boundaries of their warehouse. The production and transportation of their goods will also need to be controlled more efficiently. SES come into play when the comprehensive optimization of logistics processes is required.

SES stands for Supply Chain Execution System – a system that considers much more than just the supply chain. With SES solutions, it is no longer only the management of the warehouse but also the transportation of the goods to the warehouse as well as to the end consumer that is being monitored and controlled. Another crucial benefit is that suppliers have in-depth expertise in the area of logistics as well as vast industry experience. Therefore, supply chain execution systems are designed to avoid process changes being programmed but to enable users to set their own parameters. After the installation of an SES, companies can generally work for a long time without any changes and set up processes based wholly on their own requirements. This also applies when other sites are to be connected. SES grow with the company and contribute to the international expansion of companies over the long term, thus ensuring investment certainty. The structure of SES differ significantly from ERP systems in that due to their core tasks they always operate based on document-flows. In logistics, however, the decisive factor is the capture of movement data. SES are specifically customized to logistics processes and therefore operate based on movements. They capture the physical processes and document the movements of goods.

SES – the ERP system for logistics

By implication this means that supply chain execution systems are the ERP for the logistics sector. From ordering through production and distribution of goods to their delivery – all relevant data from the entire supply chain are available transparently in one single system and are integrated with each other. One example of this is LFS from E+P which automatically optimizes all the processes from the entire order processing process. This affects staff, warehouse equipment and materials handling technologies, the transportation of goods, procurement and production as well as order management. All parties concerned have an overview of the relevant processes at all times. In such cases, ERP systems show ergonomic inefficiencies due to their extensive range of functions. Using the process-oriented flow sequence of the user-interface they move through the processes. The user configures the system autonomously and in the implementation of the system benefits from the experiences and the direct customer contacts of the provider. A customizable

user-interface is available for every user of the system, allowing them to view the information relevant to their process step at a glance. The excellent ergonomics of their user interface is one of the key success factors of SES. By using templates, implementing an SES system becomes significantly faster and easier. Consequently, the logistics experts handle the entire workflow of similar projects, only needing to then individually fine-tune the result. In contrast to ERP, where suppliers often leave the expansion to external consultancy firms, manufacturers of external SES solutions can quickly incorporate new customer requirements into their software. Today SES are also constantly available via apps. One example of this are the specific functionalities required by HGV drivers which ensure that they always receive the most up-to-date information from the warehouse system on their smartphone. Another crucial differentiator to the ERP system is that SES also operate as data collectors. In LFS this function is assumed by iBrowser which collects, analyzes and evaluates all the data produced in the warehouse. This means you can easily identify and implement any potential for optimization. Using SES as a comprehensive system also makes linking software and hardware easier as SES systems are designed in such a way as to quickly bring warehouse IT solutions and warehouse hardware together, right from the start.

A comprehensive view of logistics

In future viewing logistics as a mere add-on to the existing ERP system will no longer suffice. It will no longer be enough to only optimize the processes within a warehouse as comprehensive systems will be needed. SES solutions from specialized logistics providers have a wider functional scope. They integrate logistics over and above the confines of the warehouse and score highly with a process-oriented user interface and staging locations to all ERP systems. SES suppliers have many years' experience and extensive expertise in the implementation of such systems. Logistics within a company plays an increasingly important role. The movement focus of supply chain execution systems means that they will become essential for a comprehensive view.

Author contribution

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Photos:
1. Jens Heinrich, Chief Technology Officer, Ehrhardt + Partner Group
2. SES, such as the LFS Warehouse Management System, are the ERP systems of logistics
3. The LFS Warehouse Management System from Ehrhardt + Partner is the SES for the comprehensive management of logistics
4. Visualization of the EBL-Logistics Center (Ehrhardt + BOMAG Logistics). The LFS supply chain execution system LFS in use
5. Live insights into the EBL-Logistics Center.

Ehrhardt + Partner Group

The Ehrhardt + Partner Group (EPG) is one of the world's leading logistics experts and offers a comprehensive solution for all industries in the form of the LFS software suite. LFS as a supply chain execution system is currently in successful use across five continents and allows the entirety of logistics processes to be managed and controlled across all business units. E+P, the global group, was founded in 1987 and now employs upwards of 500 staff at 14 locations. More than 60,000 users the world over use the LFS system for their supply chain management. The features offered by the LFS software suite include everything you might need for comprehensive logistics management: the LFS.wms warehouse management system to manage and control your intralogistics, the LFS.mfc material flow calculator, and the LFS.tms transportation management solutions for efficient tour handling and planning and the LFS.iss international shipping systems to processing shipping logistics. Radio data transmission solutions, warehouse planning and consulting, private cloud and hosting services, and warehouse seminars conducted at the LFS.academy round out the list of comprehensive solutions provided by the E+P Group. Together with in-depth consulting services for warehouse technology, extensive expert knowledge in the area of warehouse logistics and reliable technical support: E+P is your one-stop solution provider. At present, more than 1,000 customers across all industries can be found on our list of references.

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