

# ANALYSIS AND SELECTION OF A WAREHOUSE MANAGEMENT SYSTEM AT LGI

## Fraunhofer-Institut für Materialfluss und Logistik IML

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### Short description

The fast and flexible provision of individual customer solutions in contract logistics places high demands on the IT infrastructure. Logistics Group International (LGI) has increasingly developed a powerful but complex and high-maintenance and maintenance-intensive IT landscape. In cooperation with the Fraunhofer Institute for Material Flow and Logistics IML, the central component of this landscape - the Warehouse Management System that had been developed and deployed in-house until then - was analyzed for existing and future requirements. The result of the analysis (WMS Scan) made it clear that further service improvements could be realized by migrating to a new system solution. can be realized. For the implementation Fraunhofer IML was commissioned with the the development and tendering of a concept concept (WMS Consulting). In order to prepare the subsequent decision situation decision situation, the consultants analyzed the the offers received and converted them them into a comparable form. In addition presentations were coordinated and



moderated by Fraunhofer IML coordinated and moderated the presentations.

### Company

The Logistics Group International GmbH has been a steadily growing contract logistics contract logistics provider in the industrial environment. Today, LGI is one of the top 10 contract logistics German contract logistics companies. At 31 locations across Europe, 2,300 employees turnkey logistics concepts into reality. logistics concepts into reality. With a total storage area of 632,000 m<sup>2</sup> and specialization in the automotive, electronics, industrial industrial and health care sectors, the Logistics Group International achieved sales achieved sales of around 263 million euros.

In the field of industrial contract logistics, the company sees itself as a logistics service



provider that is characterized on the one hand by a high level of responsiveness to customer requirements and on the other hand by fast, flexible and customized customer solutions. Based on long-standing customer relationships, LGI delivers logistics solutions for complex tasks at a high level of quality. The company's headquarters are located in Böblingen.

### **Objective**

The main objective of the two projects WMS Scan and WMS Consulting was to reduce the complexity of the existing IT landscape, to map current and future requirements and to select a suitable Warehouse Management System.

### **Analysis**

In this phase, the Warehouse Management System in use was compared with the solutions available on the market. The WMS Database of the Team warehouse logistics of Fraunhofer IML at <http://www.warehouse-logistics.com> was used as a starting point. In the world's largest database of this kind, WMS providers deposit the functional performance profiles of their systems and have this information validated annually by Fraunhofer IML.

In order to match LGI's system with this database, the functional performance profile of LGI's system was also validated. The perspectives of the users, clients or industry were jointly developed in the form

of a requirements profile, which was finally compared with the performance profiles of the database.

The result showed strengths, weaknesses and development potential of the existing WMS in relation to more than 90 Warehouse Management Systems stored in the database.

### **Concept**

In this phase, the information from the analysis was processed and existing as well as future requirements were formally summarized in a requirements specification. Following the functional approach, an additional on-site process survey was carried out. The result of this phase was the development of the basis for the invitation to tender.

### **Competitive bidding**

In order to be able to select suitable WMS providers for the tender, the consultants prepared relevant information (e.g. reference descriptions) in advance. Subsequently, the tender documents were sent to the participants selected by LGI. During the preparation of the tender, Fraunhofer IML was the first point of contact for queries of a general and content-related nature. This also included coordinating the dates of the warehouse inspections in consultation with LGI. The offers received after the end of the tendering process were reviewed for completeness, worked through and transferred into a comparable form.

Missing content was requested. In a subsequent workshop, the suppliers who were to be given the opportunity to present their offer were selected. The presentations were coordinated and moderated by the IML consultants. At the end of this phase, all the impressions gathered were summarized and documented in the form of a final report.

### **Result**

In summary, the Fraunhofer IML work steps yielded the following results:

- Capture and evaluation of the functional performance of an existing WMS on the basis of a worldwide unique database
- Recording of process-related and functional requirements for a future WMS by an experienced team of WMS experts
- preparation of Tender documents
- Elaboration of a list of providers whose WMSs meet the specified requirements
- Scheduling coordination and clarification content-related queries
- Analysis and transfer of the offers into a comparable form and Subsequent request for missing content
- Preparation and moderation of presentation of offers
- Decision preparation through Documentation of a final report