

White Paper



Selecting an ideal location
for a logistics center –
much more than simply
using tools!

A statement from the perspective
of Dr. Klaus-Peter Jung, Miebach Consulting

“During the past few years many customers have focused on using tools for modelling their network issues.”

Introduction

Location projects are often the focus of attention in everyday consulting work. Projects dealing with the optimization of mostly distribution networks experience a comeback in supply chain engineering in almost predictable time intervals. The EU liberalization of the internal market at the beginning of the 90s initiated the first wave of network optimization projects in the consulting sector. About ten years later, the opening of the Central and Eastern Europe markets caused a second wave and we are currently experiencing a third wave of projects basically focused on auditing the structures that have meanwhile become outdated.

What all projects have in common is the object of determining the optimal location and number of sites as well as the distribution of inventory within the network in order to meet market service expectations at minimum costs. Especially during the past few years many customers have focused on using tools for modelling their network issues.



Dr. Klaus-Peter Jung,
Member of the Management Board
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Use and selection of tools for location selection

During first discussions many customers ask for a tool that will support them in their network structure and location selection projects – unfortunately often before the actual task is clarified. There are without a doubt a lot of varied tools available that can create with more or less effort a more or less useful illustration of the customer's existing structures and processes. It should be made clear that there are different parameters,

as shown in the illustration below, which influence the tool selection. And as so often in life, one single tool cannot be the solution for every problem. This is why Miebach Consulting uses six different tools in order to solve network issues – always customized to the individual requirements and needs of the customer.

Available tools

EM Plant / Simulation
Logistics Designer
X-Cargo
LLamasoft SC Guru
MPower Networks
Excel-solver
Etc.

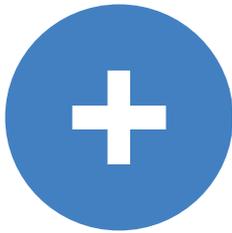
Know-how
Data availability
Time frame
Resources

Requirements

Strategic planning vs. operational controlling
Quickly implemented, only little time, data and monetary funds required
Can be adapted flexibly/parameterizable
Different scenarios that can be specified during the project

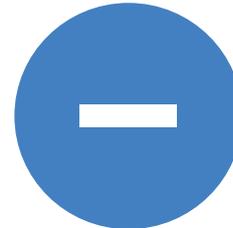
We recommend using a tool that requires only little modelling effort and has maximum flexibility.

Capabilities and limitations of software tools



What are tools capable of?

Almost every tool available on the market is capable of dealing with “simple” network optimizations to a satisfactory extent. Optimizing different warehouse levels (central, regional and local service warehouses) at one time is more difficult. Some applications try to solve this complexity with iterations while others need to run several sessions “manually”. Only a small number of tools are able to “automatically” optimize multistage networks by using appropriate algorithms. Most tools ultimately fail at the attempt to optimize both multistage warehouses and production allocation at the same time or when they’re attempting to distribute inventory dynamically over several warehouse levels.



What are tools incapable of?

Tools can be helpful in location selection projects, but they’re not of vital importance. This can be demonstrated by the following two arguments:

- Tools don’t specify a strategy. There are essential questions for location selection that need to be clarified before the use of a tool, since they are inputs and not results. These include for example the kind of service a customer needs, which kind of delivery times can achieve competitive advantages in which product ranges and which inventory strategy enables inventory optimization. There is no network optimization tool in the world that can find answers to these questions. This is why it is more important in a project to invest energy, time and money in finding answers to these strategic inputs rather than spending weeks on collecting data and modelling.
- Tools are ultimately auxiliaries that can support a planner in his calculations – but they are no substitute for experience and creativity nor can they interpret the results! They cannot determine useful and realistic alternatives, evaluate these alternatives considering risk or quality nor assess whether there will be implementation issues. This can only be done by an experienced expert.

Hence every project manager can be advised to not get dazzled by bright slides of tool presentations but to rather determine precisely how much expertise the team has.

Many tools don't consider essential criteria

The current tools are hardly able to model most of the essential criteria that need to be considered when selecting a location for a new site, such as:

- ! Local availability of logistics workers
- ! Local availability of logistics properties
- ! Access to transport networks, cut-off times, accessibility of entry points (hubs, airports, etc.)
- ! Regional taxes, tolls and non-tariff trade barriers
- ! Availability of transport capacities
- ! Dust pollution on the streets
- ! Regional weather and climatic conditions

The Rhein-Neckar area and Bor (CZ) already have a severe logistics workforce and properties shortage because many companies have moved there during the past ten years.

An optimal location selection requires far more than a tool and extensive collection and manipulation of data. Please feel free to contact us for further information regarding this topic and other issues.

Miebach Consulting: The Supply Chain Engineers

Miebach Group

The Miebach Consulting Group was founded in 1973 in Frankfurt, Germany by Dr. Joachim Miebach to provide supply chain consulting as well as engineering services in logistics and production for large and medium-sized companies on a global scale.

The experience we have gained over the last forty years and by implementing countless projects has helped us to develop a methodical approach to supply chain engineering. We design and develop network structures, processes and intralogistics along the supply chain. Strategy and technology are fully and equally taken into consideration as only integrating both elements will help develop an optimum result.

As consultancy partners, we deliver our services worldwide across twenty offices from Bangalore to Santiago de Chile. With approx. 350 employees Miebach is one of the leading global consultants for logistics and supply chain design.

Our global network of offices in key regions of Europe, North and South America and Asia ensures we can provide optimum and effective support to our international customers based on local background knowledge.

Expert knowledge

Over the last four decades, we have developed innovative logistics solutions, integrating the following competences which are key to an efficient and functional supply chain.

Miebach Consulting's strength is the ability to integrate these competences providing comprehensive solutions which exceed our customers' expectations. We design strategies, develop cost-effective feasible concepts, and determine IT solutions and technical equipment right down to the last detail. We take over responsibility and implement the solution we have developed. We also support customers during startup and fine-tune live operation. We believe that going the extra mile is the best way

to make our customers' vision work. Our continuous efforts in Research and Development often generate ground-breaking innovations.

Industry specialization

Miebach Consulting provides consultancy services to a broad range of industries. We believe that specialization is a must, in order to gain an exact understanding of our customers' specific requirements and processes. The exchange of expertise between industries also provides the perfect means to develop innovative and best in class solutions for our customers.

2017

- 24 offices worldwide
- 350 employees

Please feel free to contact us for further information.

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