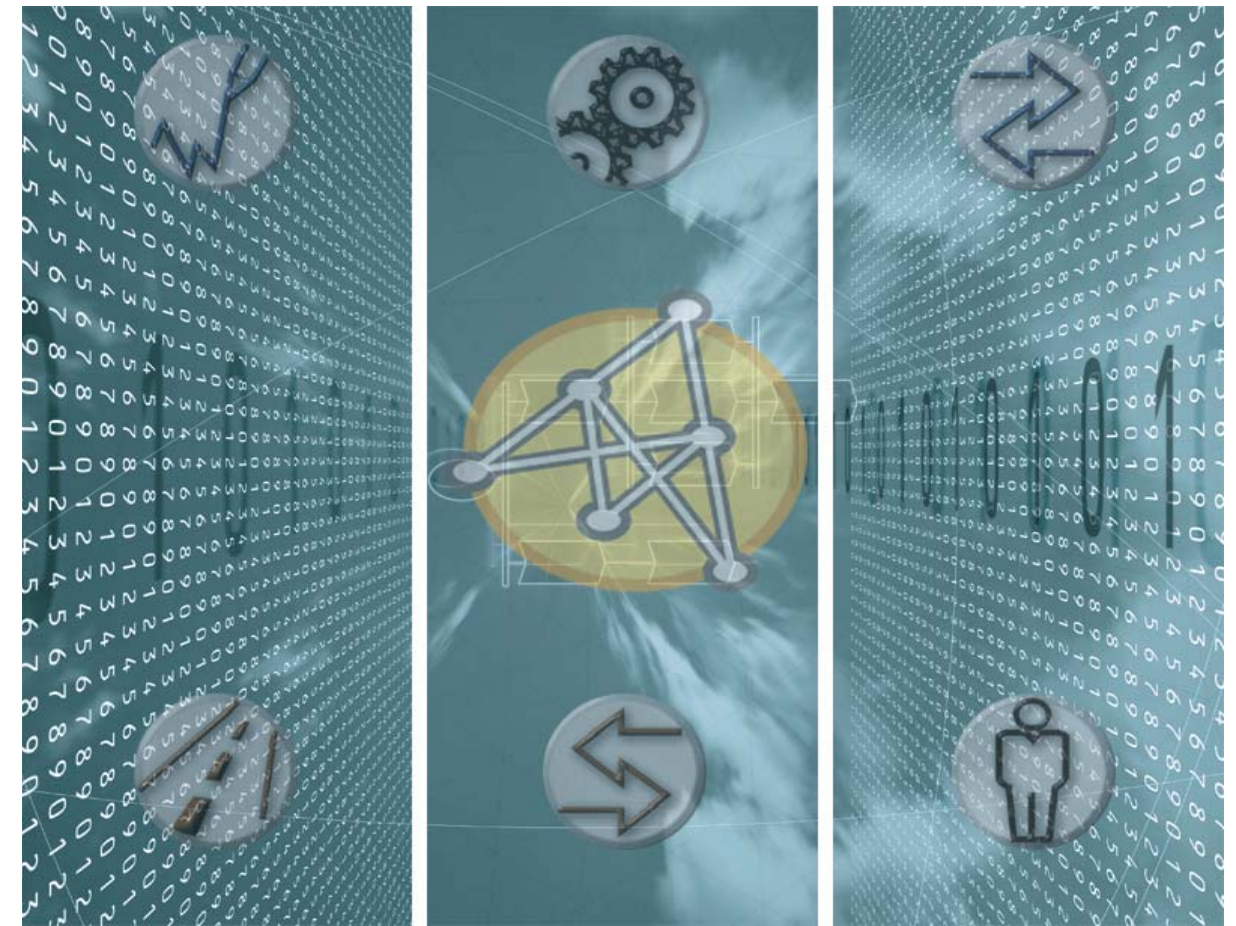




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Fraunhofer-Institute for
Materialflow und Logistics IML

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OTD-NET

Keeping an eye on the value added chain!

OTD  **NET**



Fraunhofer Institut
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und Logistik



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Our Approach

Problem

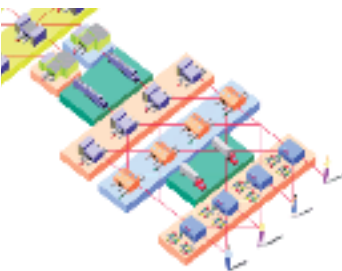


Today, the potential analysis, the improvement and restructuring of processes and organisational structures are essential success factors for every company. SCM is a key area that is often underestimated.

The complexity of SCM-processes and structures is enormous and is often even increased as various different players such as service providers, carriers, ship owner ect. are involved. Moreover, the SCM is influenced by many different areas of activity and organisation. The efficiency of a supply chains can be measured by:

- delivery times, service levels, inventory, utilisation
- and the resulting costs as well as the capital commitment.

Approach



With OTD-NET the Fraunhofer IML offers a tested approach for potential analyses and design of network structures and processes.

The simulation of the illustration of structures, processes and streams of goods in an extensive model that provi-

des all necessary key performance indicators (KPIs) for an evaluation is the key to success.

- The degree of detail is almost unlimited: for the first time even a complexity of several thousand relations and several million distribution units can be controlled safely and performantly.

The model does not only include the physical processes, but besides SCM-strategies (VMI, Milkrun, Cross Docking ect.) and planning approaches (requirements and capacity management) it also makes any detailed illustration of the product structure possible. The integration of these factors that are relevant for planning finally creates a realistic system load. Every single product can be traced by every illustrated transfer point on the map:

distribution channels and relations: arrival time, waiting time, transport requirements, loading time, type of transport, transfer time

- warehouse or buffer: incoming and outgoing goods, services
- count points in the production and procurement processes

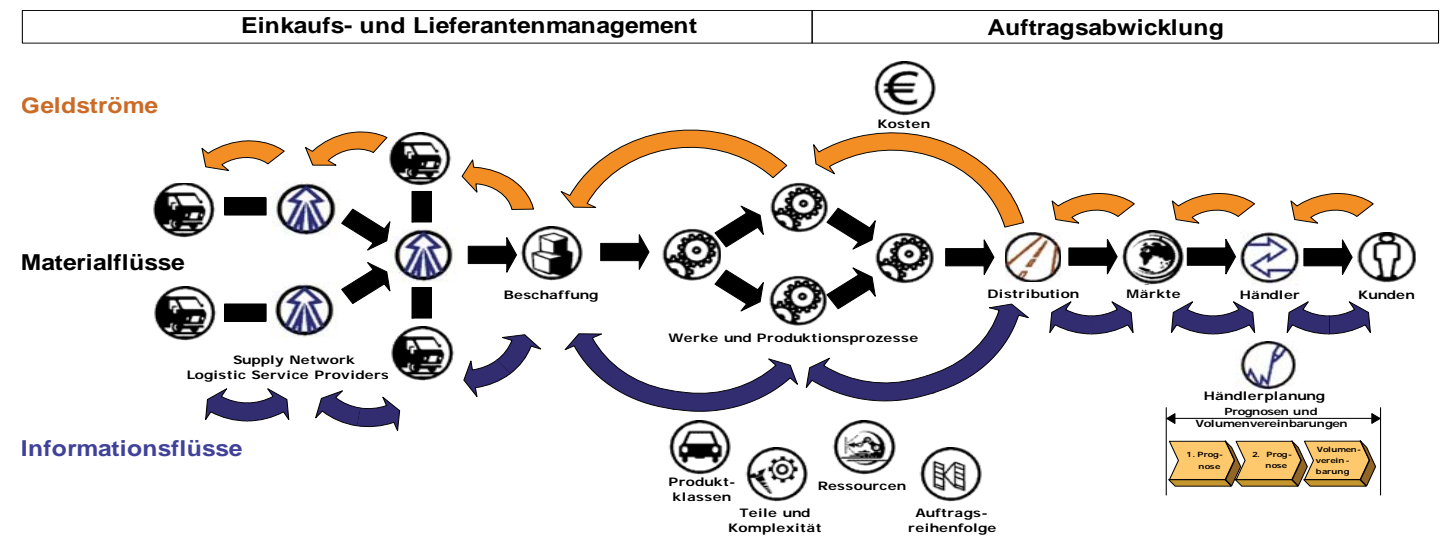
Your Benefit

Your benefits

The benefits lie in the dynamic validation of process and structure alternatives under real system loads.

- Maximizing process and cost transparency
- Dynamic bottleneck analyses
- Detecting cost drivers, connections and critical processes, procedures, parts
- Connecting to operative systems via XML-interfaces

- Supporting investment decisions and guaranteeing for an optimal capital expenditure
- Ideal design of the processes within a logistic chain and creation of a structure at optimal costs
- Analysing distribution scenarios as detailed as you wish and KPI-based evaluation
- Combining application with optimization models (e.g. DISMOD) to validate the determined structural alternatives for changing process loads



Service Overview

Planning and Modelling Value-Added Networks

OTD-Net enables the illustration and simulation of value-added networks including all involved information, capital and material flows on a very high, realistic level of detail. Consequently, company-spanning processes and structures can be analysed, supply concepts can be validated, inventory strategies can be deduced and varying requirement data and capacity availability can be studied.

Requirement, inventory and capacity management

With OTD-NET different BMK and sourcing strategies can be modelled and their applicability for different process alternatives can be validated. In addition, different warehouse strategies can be used and availability studies can be conducted with realistic load data.

Validating disposition strategies with system load

Depending on the disposition strategy parts are ordered and finished pro-

ducts are dispatched. OTD-NET makes it possible to illustrate new or adapted disposition strategies and to validate in different requirement and/or bottleneck scenarios. The insights gained from such scenario studies help to model the process more robust and to avoid bottleneck situations.

Planning distribution and procurement networks

OTD-NET allows for the illustration of transport networks as detailed as you wish including warehouse locations and distribution centres. This is made possible by standardised model elements which enable a flexible modelling of distribution structures, real timetables, transport times (given or calculated), alternative means of transport including rules and realistic disruption effects. As a result planned distribution structures can be modelled in detail and can be validated under realistic system load.

Assistant Systems

OTD-NET is an open architecture which serves as basis for operative planning and assistant systems. Don't hesitate to contact us!

