Logistics management

Insight in our competencies

Inbound/outbound logistics (supply chains) and in-house company logistics are the building blocks of successful logistics management. We have extensive consulting, planning, implementation and practical competency in these fields. For instance, not only are we able to support our clients during the development phase of a new product, plant or a logistics zones, we can also implement efficiency enhancement measures to optimise logistics during ongoing operations. Among other things, we plan the complete supply and provisioning logistics during the rollout of new series within the product development process (PDP) or can switch to new supply and transport concepts during ongoing operations, including just-in-time (JiT) and just-in-sequence (JiS). Support during the selection of logistics service providers and the logistical qualification of suppliers complete our range of competencies

Insight in current topics

Intralogistics in an age of Industry 4.0

The line back principle should be applied to the optimisation of in-plant logistics (intralogistics). Material deployment must be planned with minimised inventory days based on a production division optimised according to lean production criteria. Order picking, for instance using a supermarket concept, and transport based on tugger train concepts or automated guided vehicles (AGV) must be synchronised with material provisioning. Today, many automated and self-controlling process solutions can be used for these process components especially. Following fully automatic order picking, the container or transport frame can also be filled automatically and then brought to its necessary destination by AGV without manual intervention. The integration of information and material flow solutions for replenishment and transport control is today an elementary part of modern intralogistics.

Big data analytics – the basis for optimised logistics

Until now, large volumes of data have been considered a tiresome waste product or necessary evil during the analysis phase of efficiency enhancement projects. Now, though, the so-called data gold can be used to perform regular and above all systematic logistics optimisations with the right, highly efficient data tools (special BI software solutions) and the downstream analysis and planning programs. Applications for transport and container utilisation, route optimisation, intralogistics and inventory optimisation are currently available. Standard interfaces ensure integration within ERP, WMS and TM systems. User-friendly front ends and preconfigured reports permit cockpit-style operation. With our "Analytics as a Service (AaaS)" toolsets, we offer customers the opportunity and service to identify dormant potential and define measures for improvements. Standardised logistic checks are a good starting point for clients interested in logistics optimisation.

Flexible, tool-based methodology for line-side and supply planning

Given the substantial number of item numbers and significant part variance, consistent planning of the complete provisioning and supply logistics – from the supplier to the assembly lines – is a major challenge. High volume fluctuations in the product types for assembly – for instance on highly flexible engine assembly lines – merely aggravate this complexity. The logistical quantity structure (LQS), starting point of any planning, struggles with continuous change and therefore requires flexible adaptation of the line-side presentation system, the material flow, i.e. tugger train concepts, order picking in the supermarket or warehouse, as well as the supplier's inbound delivery models. We have created a tool solution that supports planners by providing preconfigured and parameterised MTM values for the efficient management of this and equivalent planning tasks. The tool enables convenient modelling and standardised analysis of a broad variety of principles for material provisioning, part picking or in tugger train supply.

Competencies of ebp-consulting – A selection

We possess the expertise and experience to translate your requirements into customized logistical solutions. In doing so, we apply the methods of lean logistics and enrich the project with our extensive knowledge of technical equipment for transport and warehousing.

1. Supply processes
- Definition and assessment of delivery concepts/supply methods for inbound part consignments (including JiS, JiT, VMI, warehouse)
- Assessment of supplier locations
- Planning of the procurement network and the inbound/outbound supply processes
- Synchronisation of the supply processes with the line-side presentation principles at the point of use
- Definition of call-off and control systems
- Introduction of JiT/JiS supply chains and supplier Kanban

- Emergency concepts to safeguard series production
- Coordination of start-up and phase-out control
- Planning of supply processes for CKD/SKD volumes (supply centres or direct deliveries)
- Introduction of C-part management

2. Line-side presentation and material flow
- Definition of parts presentation principles
- Line-side and line-feeding planning based on the line back approach
- Planning and selection of parts presentation equipment using the proprietary ebp tool
- Introduction of Kanban
- Planning of supermarkets for order picking of small parts and shopping cart/sets using a variety of technologies (including pick-by-light, pick-by-voice or sequencers)
- Planning and introduction of tugger trains and automated guided vehicles (AGV)
- Use of an analysis tool for the optimisation of in-house transports and traffic systems

3. Containers and packaging
- Strategic and operative container management
- Packaging and container planning
- Optimisation of load carriers and package density
- Procurement of pre-series and series containers
- Container identification by barcode and RFID
- Selection of CKD/SKD-compliant containers and packaging

4. Transport and logistics services
- Design and optimisation of transport networks
- Route planning and simulation
- Contract optimisation during use of external service providers (ESP)
- Benchmarking of transport/freight costs
- Cargo hold optimisation
- Planning of hub concepts, e.g. cross-docking
- Introduction of milk runs and guided retrieval
- Green logistics, implementation of CO_2-optimised transport concepts
- Preparation and implementation of tenders
- Selection and assessment of logistics service providers

5. Logistics centre processes and structures
- Definition of strategies for logistics centres and warehouses
- Inventory optimisation and stock management in the warehouse
- Optimisation of processes in the logistics centre, hubs and warehouse
- Optimisation of order picking processes and technologies
- Optimisation of warehouse control
- Outsourcing of warehouse logistics
- Tendering of warehouse and logistics services to service providers (ELP, 3PL)

6. Logistical supplier management
- Logistical evaluation and assessment of suppliers
- Supplier qualification and auditing; JiF enabling with the Fit in JiS methodology
- Supply chain quality assessments and action management (SCQ)
- Logistics analysis according to the GMMOG method
- Switching suppliers to new delivery and transport concepts
- Support in inbound management

7. Lean Logistics principles
- Conducting of value stream analysis and design for the material flows at the plant or logistics centre
- Implementation of lean production principles throughout logistics according to the line back principle
- Implementation of automated materials handling and order picking equipment
- Digitisation of logistics through the introduction of cutting-edge information and communications technology
- Introduction of logistical indicator systems

8. Big data analytics
- Analytics as a Service (AaaS); implementation of regular data analyses to identify potential optimisation within logistics
- Optimisation of inbound transports in regard to utilisation of transport vehicles, containers and pallets
- Inventory optimisation through the application of preconfigured inventory optimisation tools

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