

Why with us? Lean Management – Logistics & Production

### Your success is our goal

#### Our services and value propositions

**Our experts** provide their logistical and technical know-how.

Holistic solutions are tailored to your customer's needs.

**Profound experience** characterizes our services.

#### **Proven methods**

ensure your project success from concept to implementation.

**ETH Zurich, our direct contact** to leading research and teaching.

#### **Our principles**

### Interdisciplinary approach

during the whole process and on every topic up to realization.

#### **Future-oriented & creative solutions**

are realized in intensive cooperation with our customers and their teams.

**Careful handling** in all projects we are entrusted with.

Economic necessities and human concerns are reconciled.

We support your projects **neutral and independently**.

### **Satisfied client selection**





SIEMENS











## Experience from 800 Consulting Projects Over 280 Satisfied Clients



Dr. Peter Acél, CEO



Roland Renggli, Senior Manager



Daniele Lardi, Manager



**Prof. Heinz Müller,** Senior Consultant



**Dr. Noëlle Jufer,** Partner



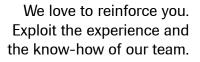
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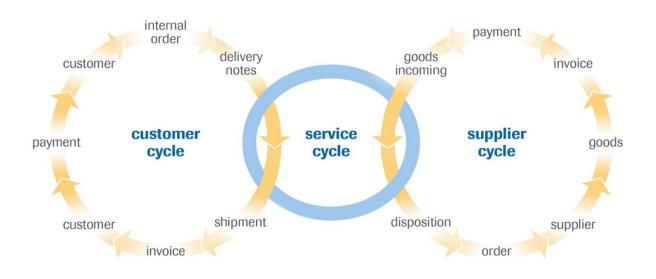


Ralf Grammel, Manager



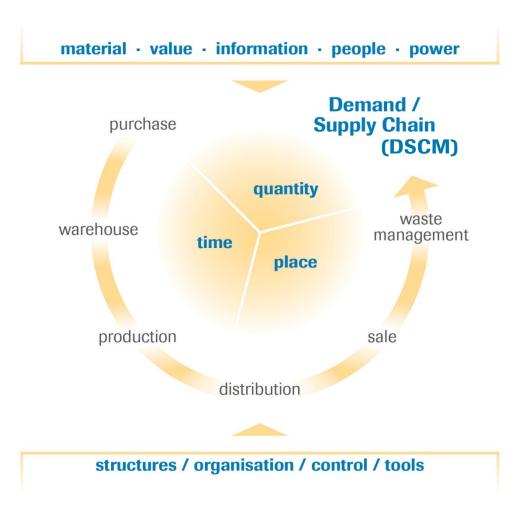
Prof. Dr. Urs Meyer, Partner

# **Supply Chain Management** From Conception to Implementation



- **Design** of all business processes and of their optimization
- Logistics of supplier management
- Guaranteed success due to international project experience and sound practical knowledge
- Increased profitability within procurement logistics, warehouse optimization and operational planning
- Help people help themselves approach based on involving all employees
- Implementation support

Logistik Management Your Value Creation



- Logistics check strengths and weakness analysis, detected potential and action plan
- **Dynamic modelling** process and material flow simulation
- Distribution of goods
  customer focus from order to cash
- Process optimization lead time reduction, in- and outsourcing concepts
- Removal of bottlenecks inventory reduction, transparency
- Implementation support

# Lean Management

**Consistent Reduction of Waste** 

### slim, flexible and perfect

process oriented organization	flow, tact & pull	responsibility
goals & KPI's	stable processes	shop floor management
standardization	synchronized control	CIP: continuous improvement

increase the qualifications of employees

- Exploit relevant potentials over the whole supply and value chain
- Achieve considerable savings in time, space and money
- Focus on optimal process design along the entire value stream
- Establish high flexibility as key to success
- Implement lean production and optimal material flow
- Adapt to lean culture lean administration, lean logistics and lean production

### Paradigm Shift: Pull Instead of Push Current & Novel Logistics Strategies

In today's industries, the push principle (MTS: Make to Stock) is widely applied. In this context, large stocks of material and intermediate goods are pushed into production. This aims at maximum use of staff and equipment. The pull principle in contrast, aligns production towards optimal fulfillment of customer's demand (MTO: Make to Order).

### **Current: Push (MTS)**

- Maximal use of men and machines is equated with optimal production
- Large amounts of work in process and storages
- High throughput times and lot sizes
- Extensive sales and production planning
- High stocks of finished goods to meet customer demand

### Alternative: Pull (MTO)

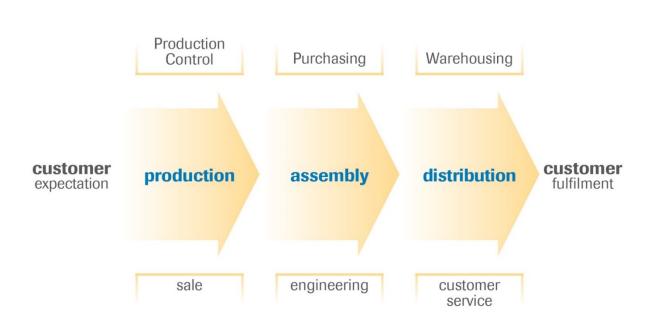
- Optimal production is equated with high flexibility and fast reaction on customer demand
- Small amounts of work in process and storages
- Small throughput times and lot sizes
- Transparent sales and production
  planning
- Meet customer demand directly from current output with minimum stocks (just-in-time principle)

### Conclusion

In current productions, a fundamental change in production strategy is not adequately supported by established planning methods and related planning systems. Nowadays markets demand highly individualized products pared with very fast delivery. This determines more and more the company's success and existence.

Employees should be enthusiastic about a paradigm shift towards pull production, since the resulting benefits and savings for the company are mainly achieved by reduction of inventories and throughput time and not by downsizing.

# **Production & Technology** Your Benefits



- Production check with potential analysis and economic feasibility study
- Production strategy and production concept
- Resource management
  increase in throughput
- Production technology including assembly- and packaging technology, workplace design, MTM
- Project management

- Increase in productivity
  setup time reduction
- Operation planning
  and factory planning, maintenance
- Product range optimization
  value analysis, standardization
- Value analysis Industrialization
- Implementation
  of new technologies
- Management ideas

Industry 4.0 A Reversal of Thinking

Industry 4.0 (Internet of Things / IoT) refers to a new type of value creation by combining recent information, communication, automation and manufacturing technologies. The newly emerged Cyber Physical Systems (CPS) enable revolutionary possibilities to implement extensively cross-linked and integrated solutions for plants, machines and work pieces. This supports efficiency enhancements beyond traditional lean management approaches and fosters optimization of control systems and man-machine interaction.

#### Improvements

Production of customized products no longer differs from small batch production.

Capital lockup decreases as a result of significant size reduction of buffers and warehouses.

Temporal and quantitative flexibility increases enormously.

The implementation of decentralized control strategies reduces complexity.

The possibilities of cyber physical systems have not yet been exhausted.

#### **Need for Action**

Problems are no longer hidden by stocks and time reserves. Therefore, a definition of priority areas is evident.

The reversal of the thinking rises fears in IT companies, AVOR / PS-employees and partly within (conservative) management.

Central ERP controls have become outdated.

In the future Internet of Things, a lot of real-time data is generated by sensors and used as a reflection of reality. Current ERP-based controls (see SAP) are largely incompatible with the basic idea of Industry 4.0.

#### «Industry 4.0 is not a ghost factory»

People and machines continue to work in the self-steering factory. The change of the way of thinking does not require deserted factories.

### **Organizational Management** Competent Experts



- Company check with potential and weak point analysis, measures
- Business Process Optimization (BPR) strategic and operational corporation development
- Increasing profitability yield optimization, cost management

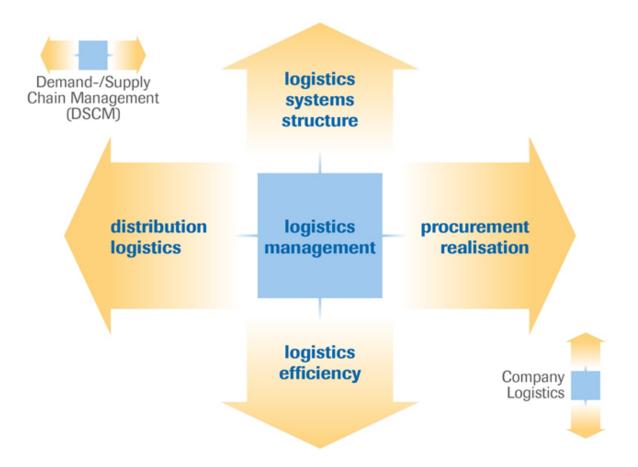
- Profitability calculation
  and investment appraisal
- Site evaluation
  feasibility study and benchmarking
- Professional training in project management and logistics
- Moderation
  coaching, temporary management
- Implementation support

**Change Management** Change & New Processes



- Projects lead to a cultural change
- · Successful lean-projects require professional change management
- · Structured approach to ensure a successful outcome

## **Integrated Business Processes** Your Competitive Advantage



- Logistics management
  holistic logistics strategy
- Distribution logistics definition of delivery quality and distribution
- Procurement logistics
  supplier relationship management
- Logistics system
  integration of the different
  business activities
- Logistics optimization
  lead time and cost reduction,
  controlling, quality
- Implementation support

# Methods & Tool-Box Effectiveness and Efficiency

#### solution

A&P pyramid tools & methods

stock analysis (LAGAN) process mapping (PROMAP) computersimulation

project management after BWI methodology organisation team leadership

systems eningeering after BWI™ targeting solution test selection

task

LLP PERLOG DUPONT NUV LEANAD PROFAN

#### business management

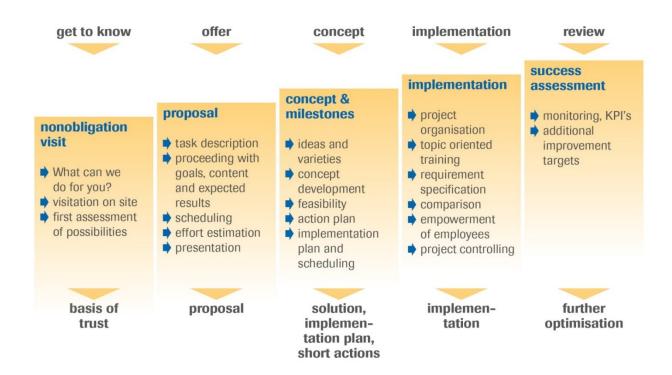
PROMAP BCP PROMT SE AENEIS PROME ABC/XYZ KAIZEN PUSh/Pull SWOT VMI

logistics management

SPEED BESEN WS PROGAME NWA RME SPEDAN SIMLATION LAYPLAN LAGAN PROZAN(MTM) WURI PERSONAL-EINSATZ KVP

operational logistics (technical, economic)

## **General Approach** A Proven Concept



DR.ACÉL & PARTNER AG is an official successor company of the Center for Industrial Management (BWI) at ETH Zurich.

# **Come and visit us!** Your Consultancy in Zurich





### Bern / Basel (A3)

- Direction Chur
- Exit highway at Ausfahrt Zurich
- Turn right into *Aargauerstrasse,* Entrance "Engrosmarkt"

### **Zürich City**

- Direction Bern / Basel
- Track Pfingstweidstrasse
- At "Otto Fischer" turn left into Aargauerstrasse, Entrance "Engrosmarkt"



### **Airport Zürich Unique**

- Train: Lines S2 or S16 to Zürich Hauptbahnhof
- Train: Lines S3, S9 or S12 to Bahnhof Altstetten

### Zürich Hauptbahnhof

• Tram 4, direction *Bahnhof Altstetten Nord* to *Aargauerstrasse* 

### We are happy to welcome you at our place.

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We are looking forward to meeting you personally!