

DROEGE & COMP.

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INTERNATIONAL MANAGEMENT CONSULTANTS

# „Maintenance Excellence“

Top-Management issue Maintenance  
From reactive troubleshooting to value creation management

International press conference  
Dr. Stefan Frings

Munich, June 26th, 2007

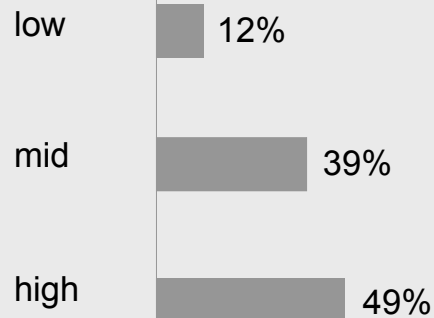
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# D&C-Survey: Cost pressure and significant saving potentials

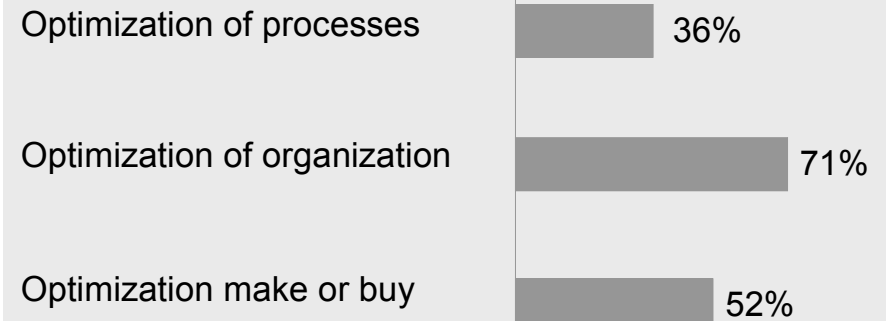
Results of maintenance survey

## Cost pressure within maintenance



90% of companies feel mid or high cost pressure within maintenance

## Levers for improvement identified



Process optimization, organization and make or buy are regarded as essential levers for improvement

**Integrated optimization of maintenance is an essential part of top management agendas**

# Initial situation shows need for action for top management

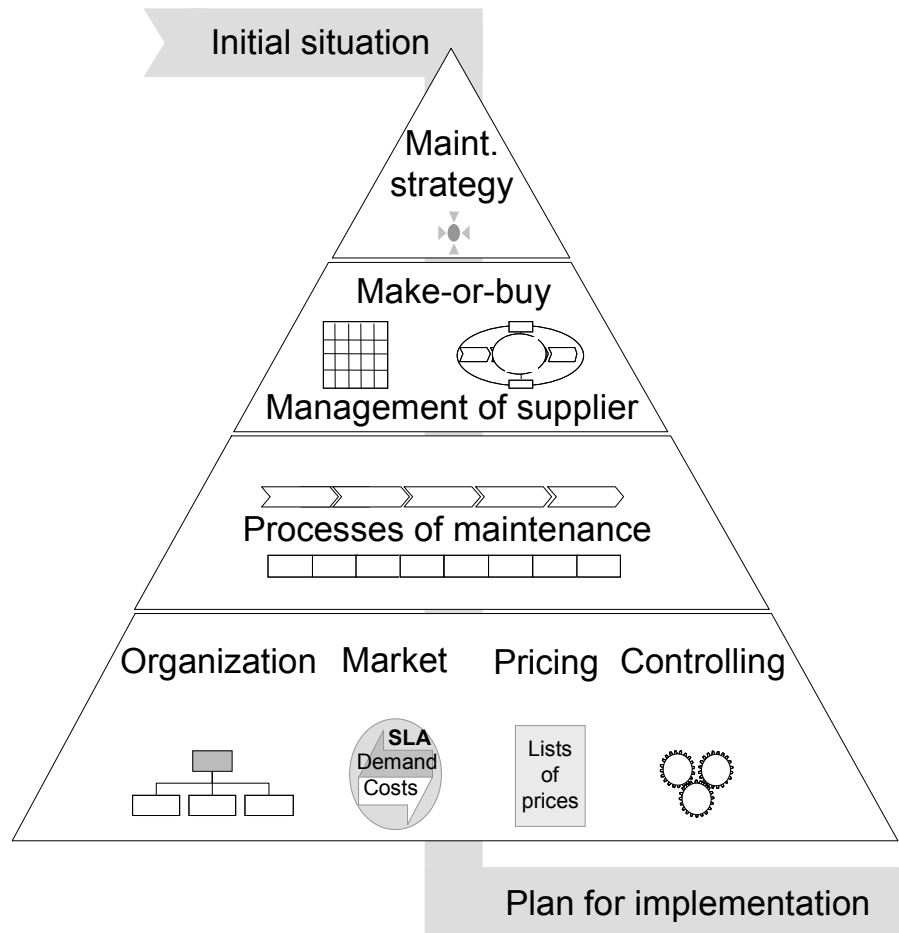
Initial situation in maintenance



# Main levers for improvement identified in survey

Overview of process and main levers

## Top down-process of optimization



## Results of maintenance survey

### Maintenance strategy

► „Equipment based maintenance strategies is a main lever for cost reduction“

### Degree of vertical integration

► „Make or buy strategy should not be based on short term optimization“

### Organization

► „Level of centralization and decentralization has to be defined individually“

### Processes

► „Integrated optimization of maintenance processes“

### Management

► „Management of maintenance by implementation of market principles“

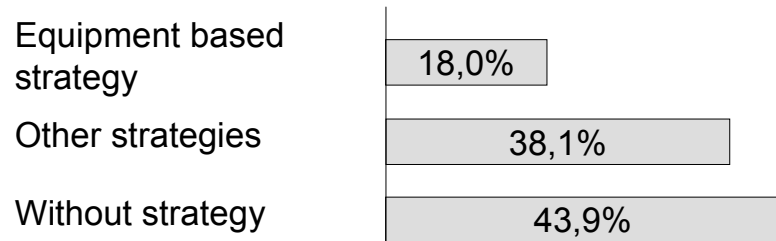
### Controlling

► „Improvement of maintenance controlling and leadership“

# Equipment based maintenance strategies as a main lever for improvement

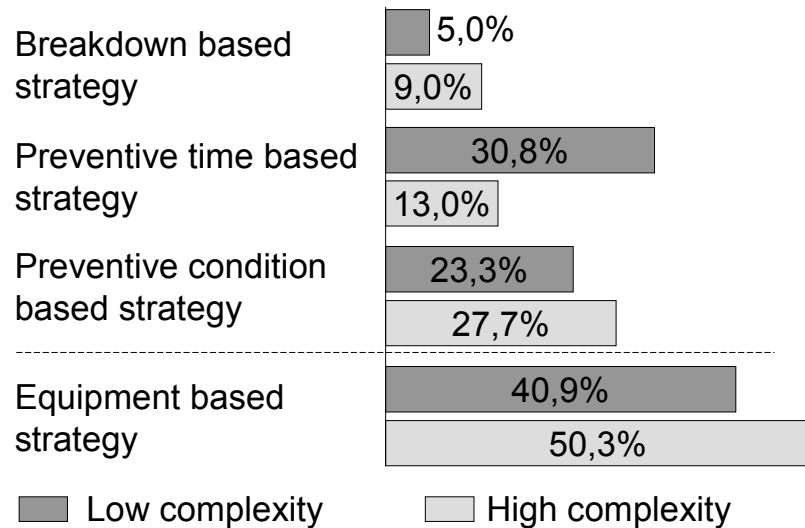
Survey results concerning maintenance strategy

## Statistical distribution of companies concerning maintenance strategy



- Only 18% of the companies are following an equipment based maintenance strategy
- Nearly 44% of the companies have no verbalized maintenance strategy

## Link between maintenance strategy and complexity of equipment

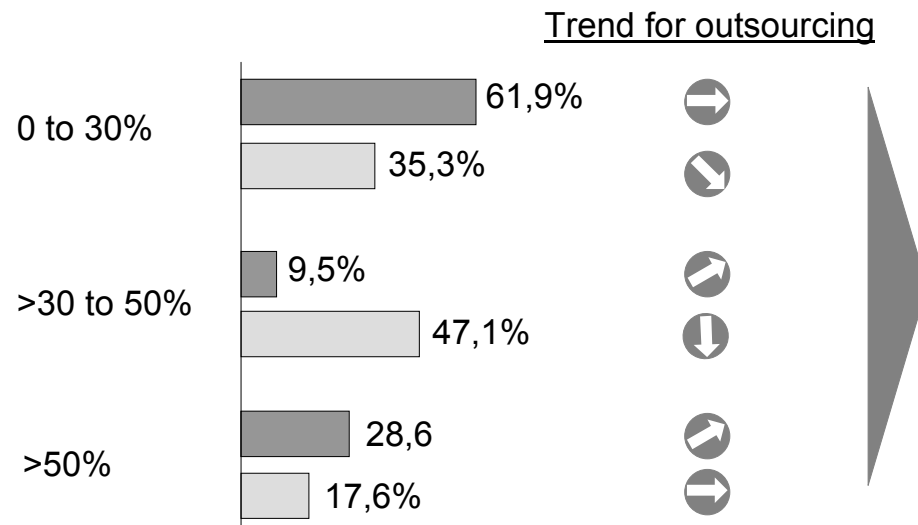


- Less importance of breakdown based strategies
- With increasing complexity preventive strategies become more important
- Condition based strategies preferred by higher degree of complexity
- Significant tendency for equipment based strategy for complex equipment structure

# Make or buy strategy should not be based on short term optimization

Survey results concerning make or buy

## Degree of maintenance provided by third parties<sup>1)</sup>



- Clear positioning of companies with successful maintenance organization
- A “stuck in the middle” position is typical for companies with high maintenance factor
- Trend for insourcing in companies with high maintenance factor

■ Low maintenance factor<sup>2)</sup>

■ High maintenance factor<sup>2)</sup>

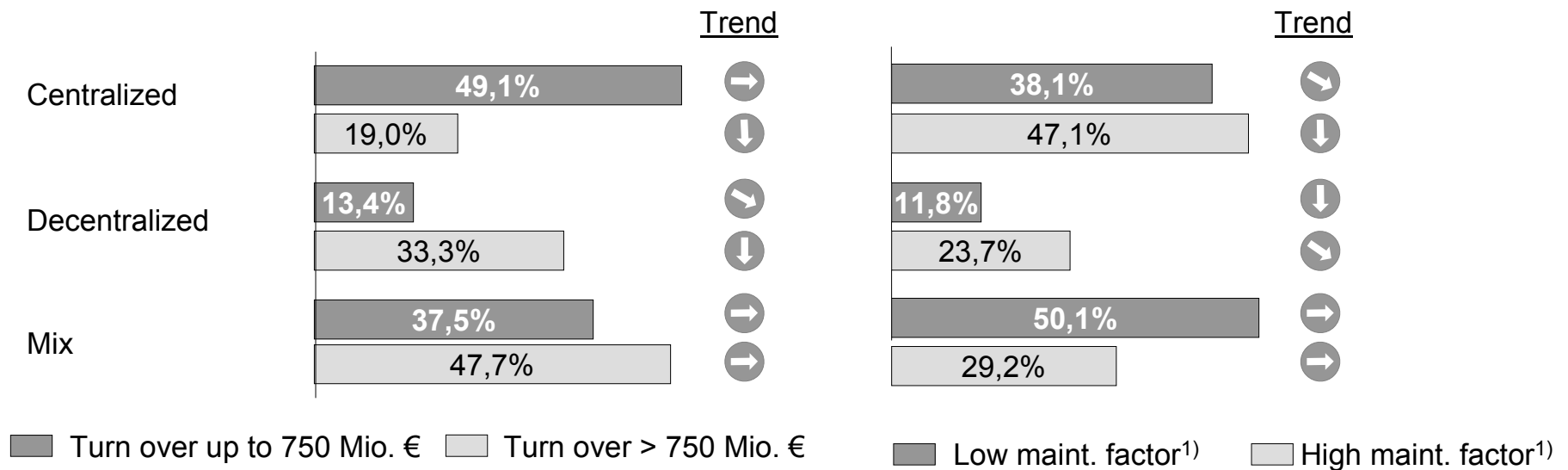
<sup>1</sup> Rest without information <sup>2)</sup> Low maintenance factor < 2%; High Maintenance factor > 6%

Source: Droege & Comp.

# Level of centralization and decentralization has to be defined individually

Survey results concerning organizational trends

## Dominant organizational solutions dependent on size of company and maintenance factor



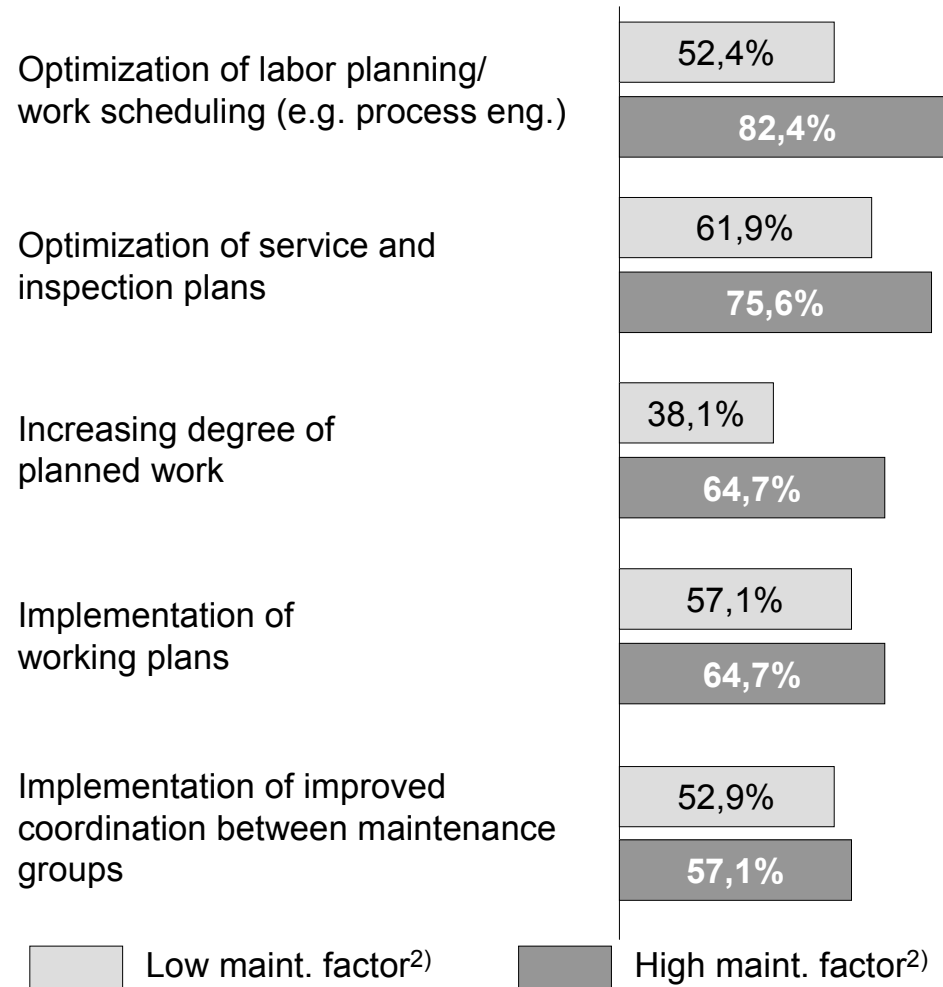
In small and mid sizes companies domination of central maintenance organization  
 In larger companies mix between central and decentralized organization predominant  
 Tendency for decentralization

<sup>1</sup> Low maintenance factor < 2%; High Maintenance factor > 6%  
 Source: Droege & Comp.

# Integrated optimization of maintenance processes

Survey results concerning maintenance processes

## Process optimization - need for action<sup>1)</sup>



- In general high need for optimizing processes
- A major quick-win is normally the optimization of service and inspection plans

1 Different answers possible

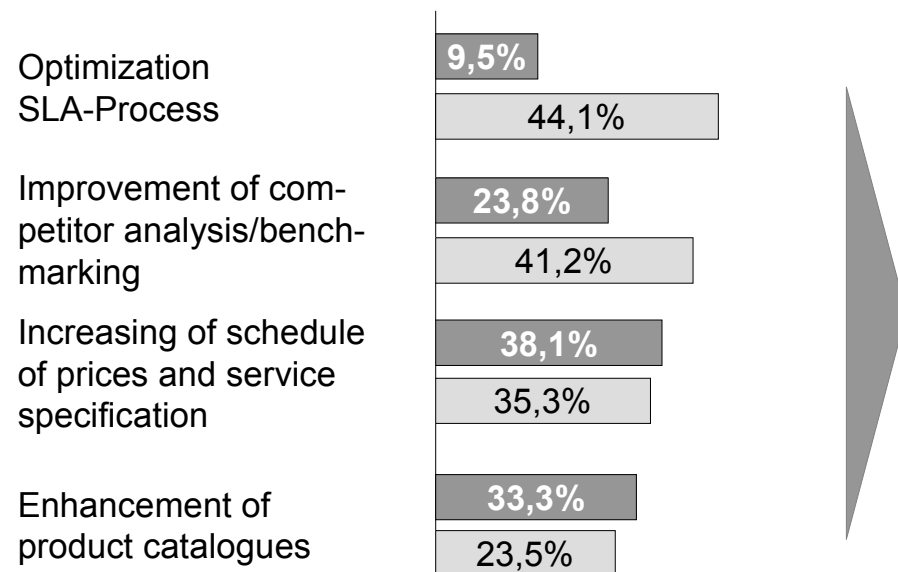
2 Low maintenance factor < 2%; High Maintenance factor > 6%

Source: Droege & Comp.

# Management of maintenance of by implementing market principles

Survey results concerning implementation of market principles

## Needs for action concerning further development of market principles<sup>1)</sup>



- Nearly 42% of the companies do not close Service Level Agreements
- In general high need for action concerning enhancement and improvement of market oriented maintenance management
- Although product catalogues are essential for improving transparency companies do not see need for action and improvement

Low maint. factor<sup>2)</sup>
 High maint. factor<sup>2)</sup>

1 Different answers possible

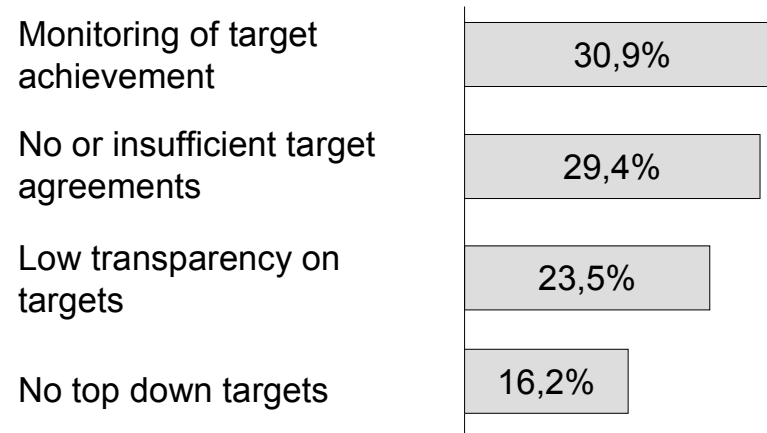
2 Low maintenance factor < 2%; High Maintenance factor > 6%

Source: Droege & Comp.

# Improvement of maintenance controlling and leadership

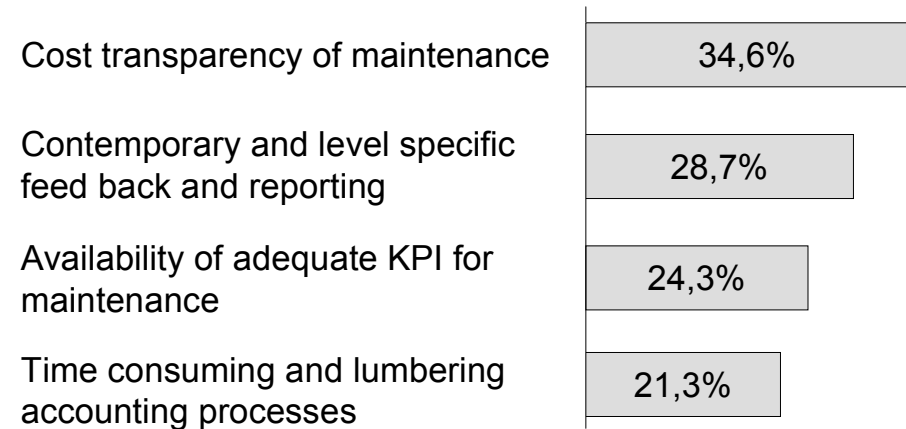
Survey results concerning leadership and controlling

## What are the main leadership weaknesses<sup>1)</sup>?



- Main problems in leadership are monitoring of target achievement insufficient target agreements
- Low transparency on targets is a problem in only 23,5% of the company
- In general low awareness of necessity for top down targets

## What are the main controlling weaknesses<sup>1)</sup>?



- Cost transparency is regarded as main weakness in maintenance controlling
- Contemporary and level specific feed back is in 30% a major controlling weakness

1 Different answers possible  
Source: Droege & Comp.

# What are significant levers for further improvement?

Impact of levers for improvement

