

# Lean Service Summit Europe 2004

Optimizing the Contractor Management

at

Eisenbahn und Häfen GmbH

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## Services

### Rail:

- Management of plant and connecting rail networks
- Planning and implementation of rail-bound traffic on public infrastructure

### Ports:

- Transshipment and storage of mass goods and piece goods
- Quality control, commissioning, distribution

### Engineering:

- Planning, construction, and maintenance of technical plant and equipment
- Repair of locomotives and railway cars (including refurbishment of components)



## Key Data/Figures

### Infrastructure and Equipment:

- 500 km track
- 1550 track points
- 100 engines/locomotives
- 2000 freight cars
- 15 cranes/loading bridges
- 2 port tugboats

### Performance:

- 72.8 million t transported via plant railroads
- 395.0 million tkm plant railroads
- 8.6 million t transported via public rail networks
- 22.3 million t transshipped



## Current Situation

### Division of duties in infrastructure maintenance

#### Handled internally

- Inspections
- Planning for maintenance/construction activities
- Providing materials
- Monitoring realization

#### Outsourced

- Track laying and construction
- Welding
- Clearing points
- Signal equipment work
- Electrical repair
- Track points cleaning



## Analyzing the Current Situation

### Strengths

- Flexible use of outsourcing and subcontracting
- Quick response to problems
- Good budget monitoring

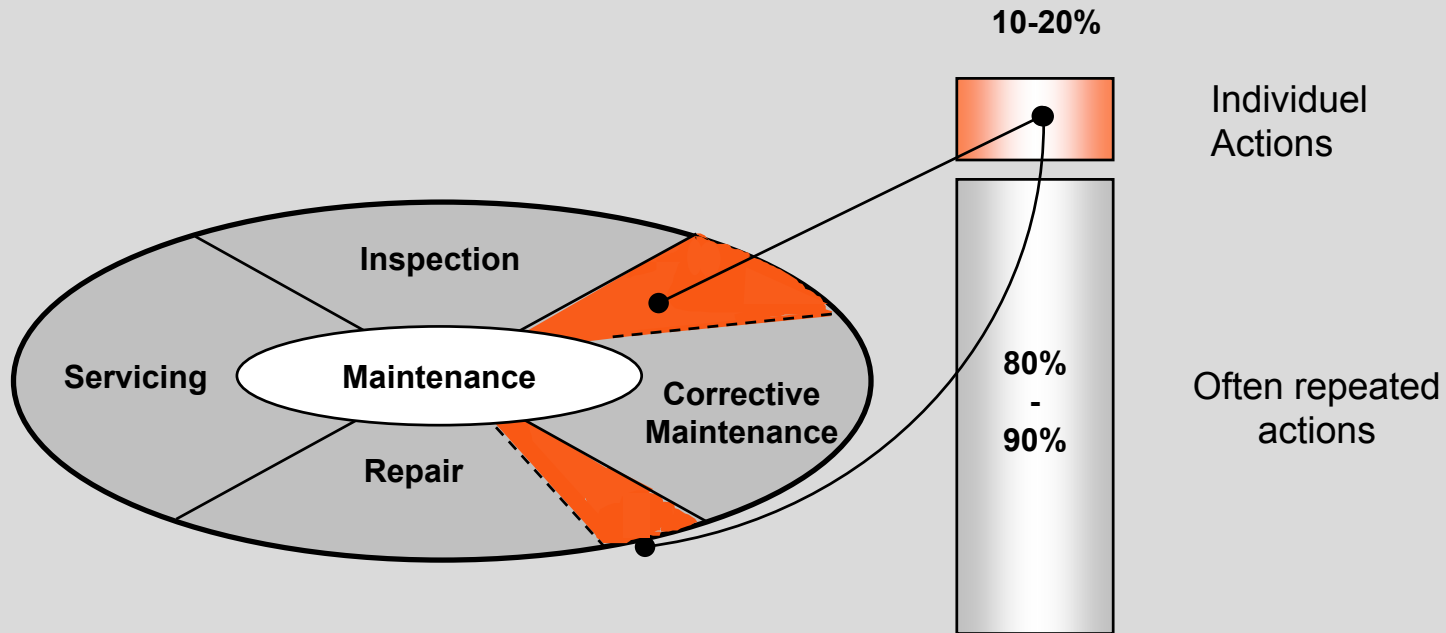
### Weaknesses

- Work to be performed is not completely covered in service specifications
- Orders for firms have lee-way for performance/invoicing
- No systematic monitoring of fault clearing and poor documentation by subcontractors
- Planning of orders and capacity are insufficient (repair work determined by events)
- IT in use is not customized to meet the needs of maintenance
- State of infrastructure is not generally known due to many system breaks.



# Contractor Management

## Basic idea



**Standardization of servicing processes of a repetitive nature**



# Optimizing the Contractor Management

## Measures taken

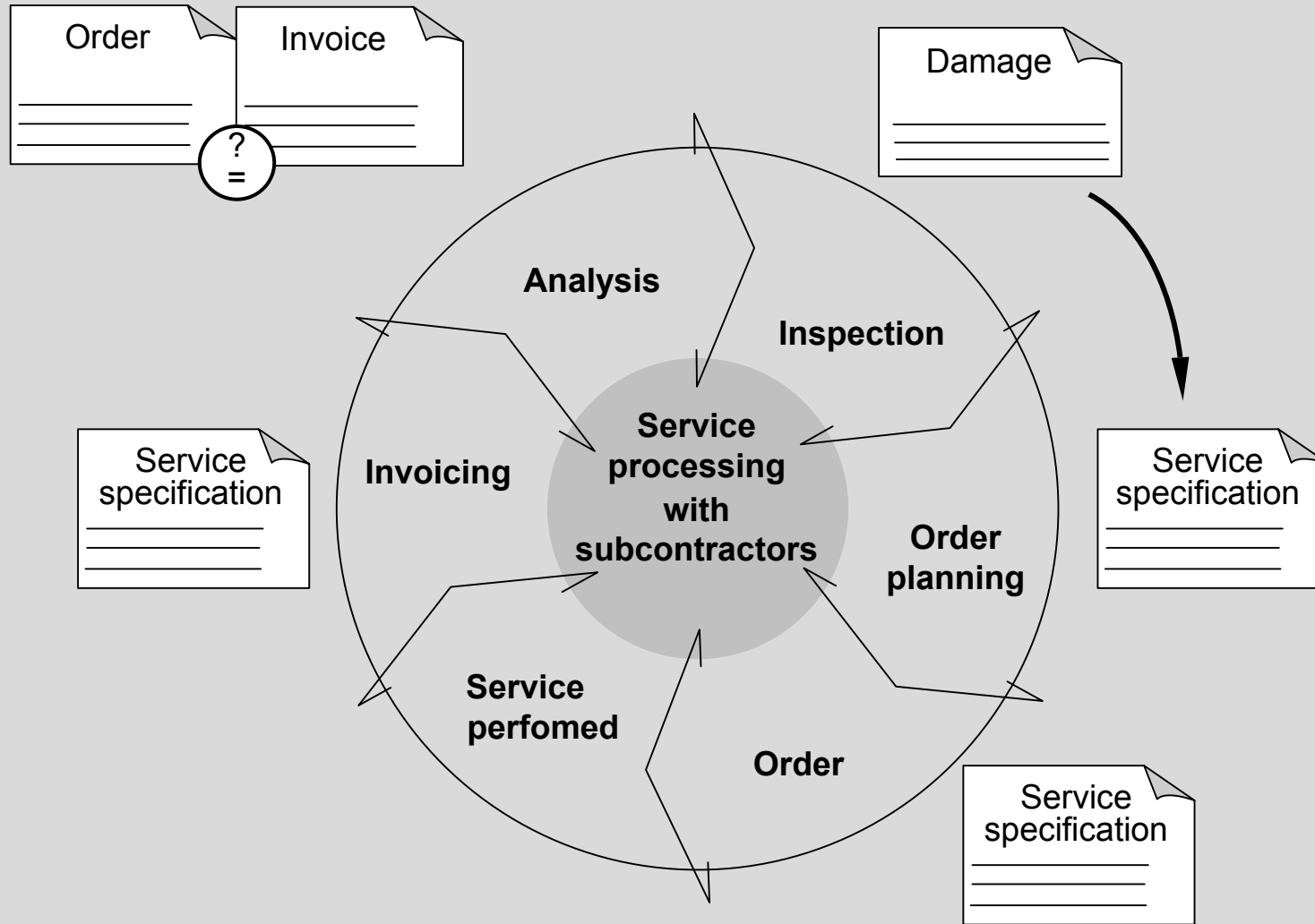
- Adaptation of the business processes
- Reorganization of servicing and establishment of a maintenance management system
  - Revising the service specifications
  - Establishment of a management system for clearing faults
  - Customizing the IT system

## Objectives

- Reducing the costs of outsourcing and subcontracting
- Lowering supervisory/direction costs
- Lowering the internal processing costs
- Increasing quality in services performed
- More transparency in creating services and simpler controlling

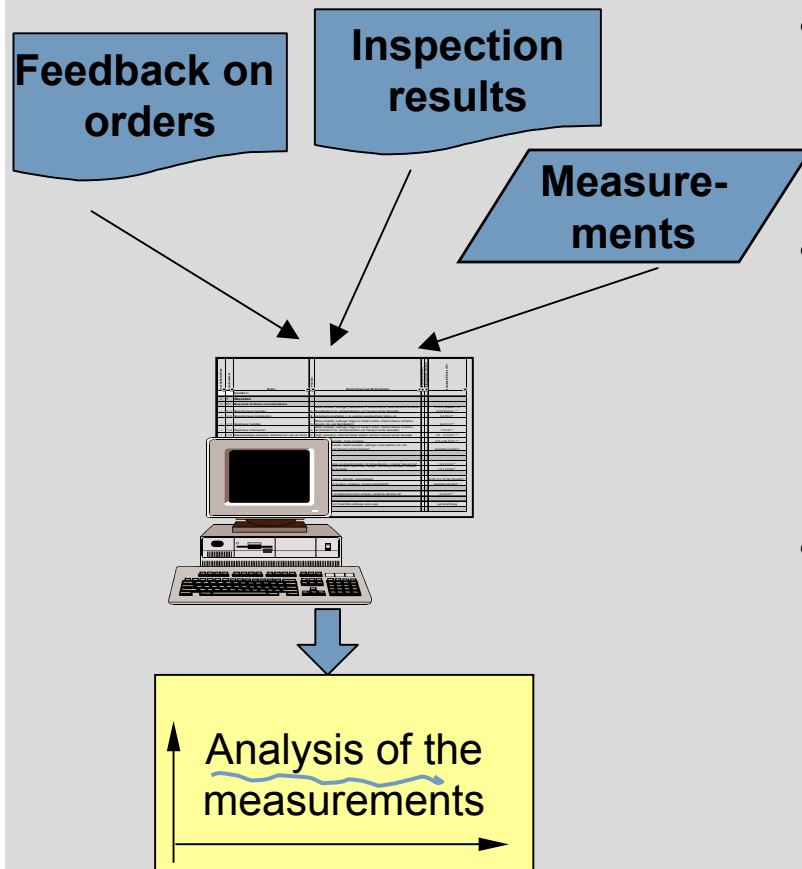


# Business Process



# Establishment of a Maintenance Management System

## Status report



- Definition of evaluation benchmarks
  - Objectively recording the status
  - Classifying equipment components
- Derivation of relevant measurement values
  - Establishing measurement cycles
  - Registration of the values found
  - Establishing equipment history
- Integration of the status monitoring into the activities
  - Inspection
  - Repairs
  - Fault clearance

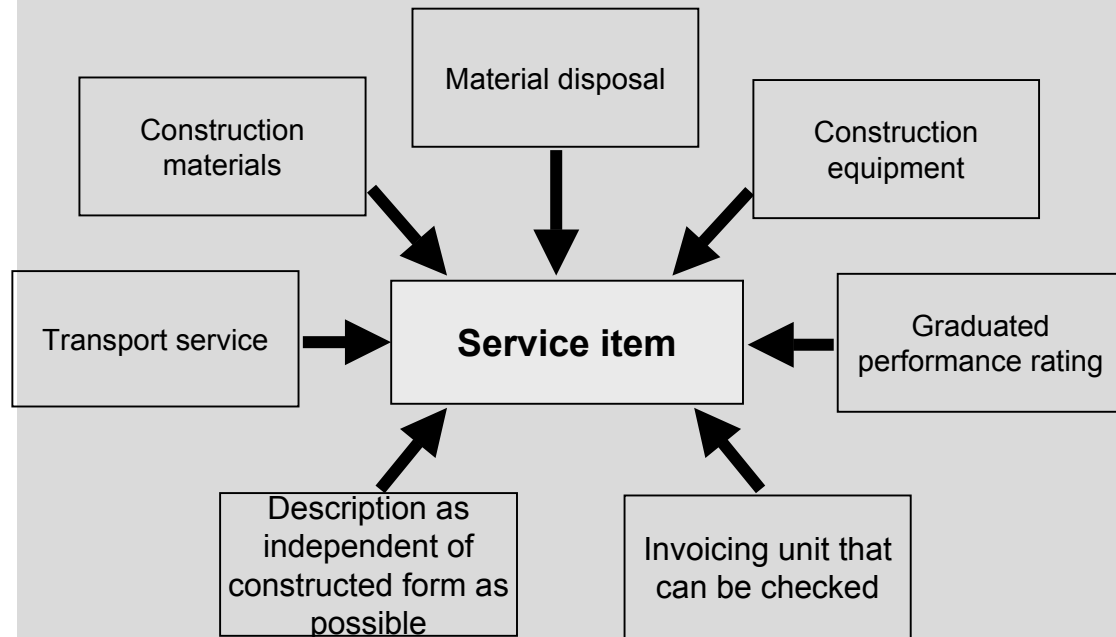


**Basis of periodic, status-oriented maintenance**



# Revising the Service Specifications

## Contents of a standard service specification



### Requirements :

- Complete description of core services to be rendered
- Calculable
- Contract security
- Managability

# Revising the Service Specifications

## Procedure

### Determining the activities

- Evaluating services performed over the past years
- Assessing the performed service for further use
- Prognosis for the expected performance

### Generating the service specification

- Summarizing services as overall items
- Clear description of activities required

### Revising the introductory notes

- Drafting introductory notes
- Adding related documents to the notes
- Legal examination of the introductory notes

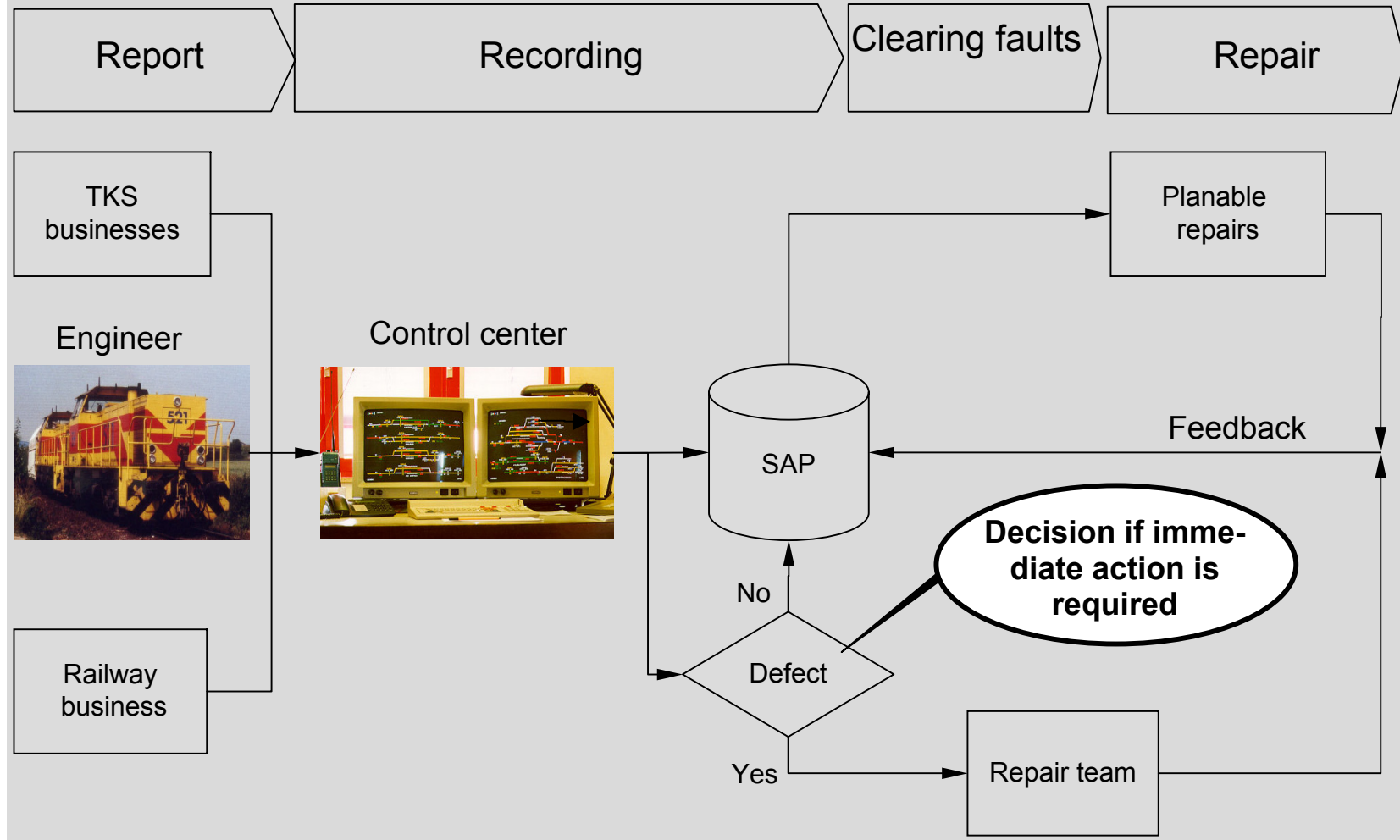
### Drafting documents for tender

- Drafting the quantitative framework
- Putting together the added documents to the tender documents



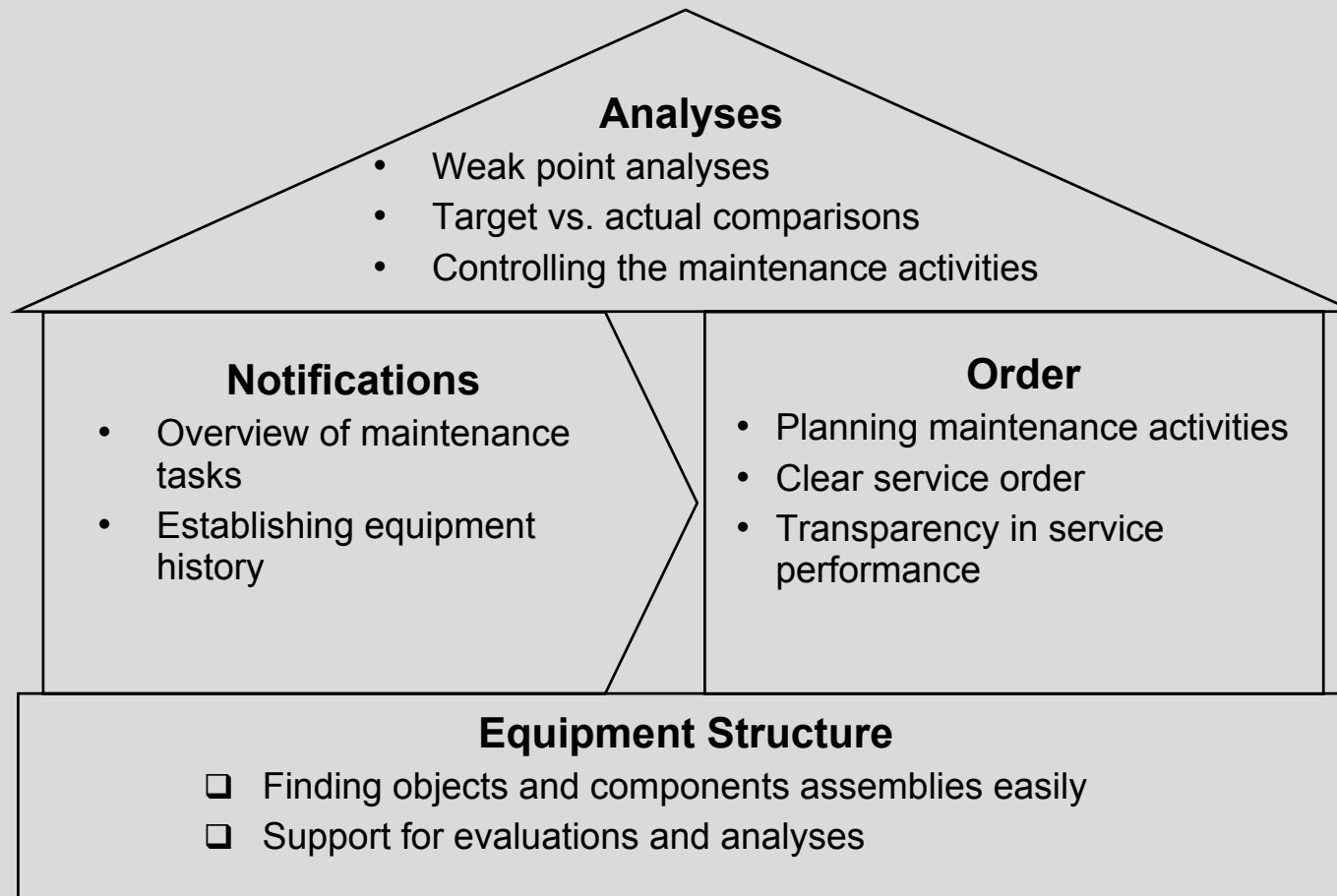
# Managing Repairs after Defects

## Optimized recording of defect source

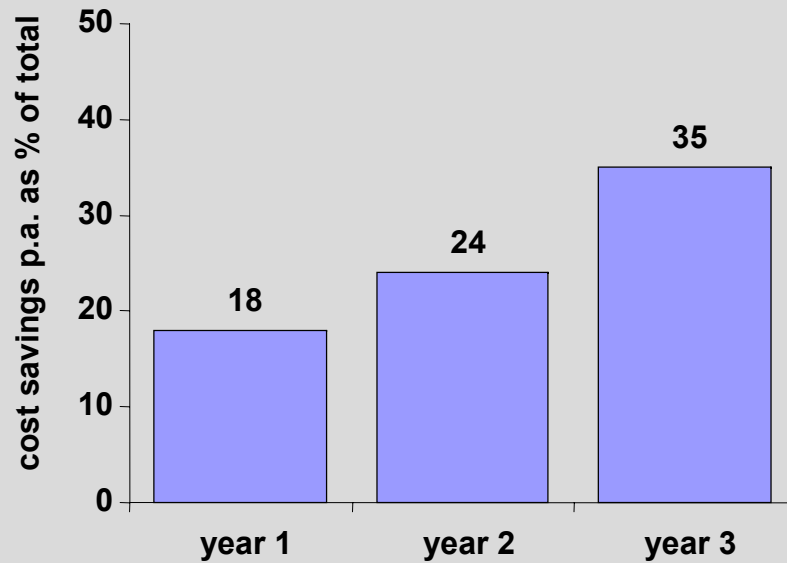


# Customizing the IT System (SAP R/3 PM)

## Required functions



# Results



| Measures                     |
|------------------------------|
| Business processes           |
| Service specifications       |
| Management of defect repairs |
| IT system use                |

