

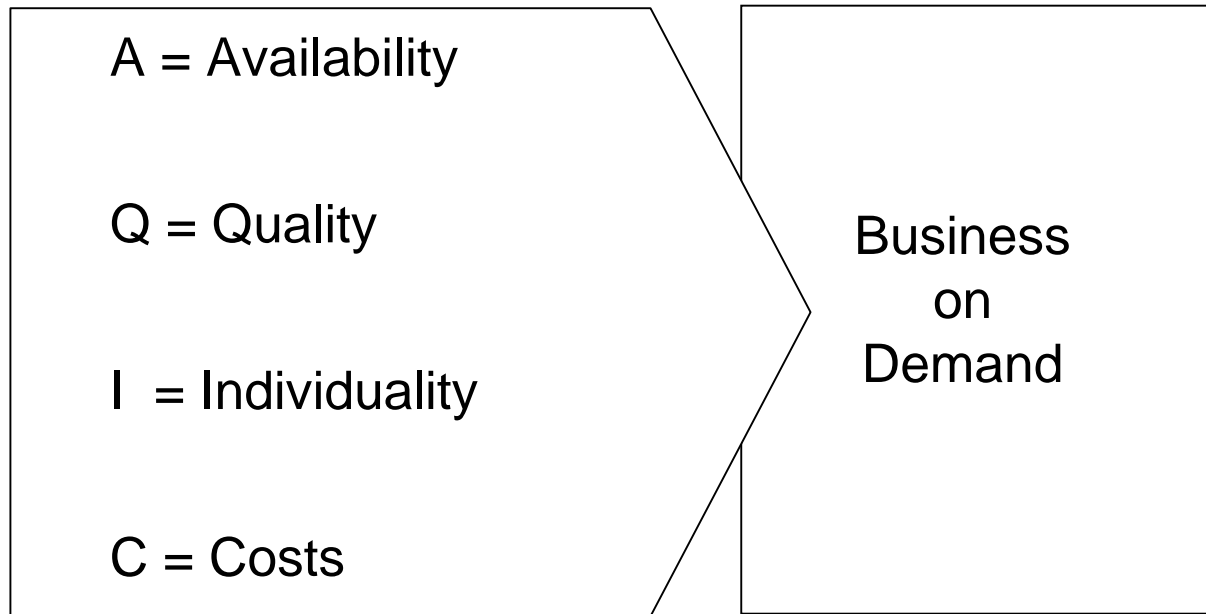
LEAN ADMINISTRATION

Industrializing Business Processes

we mobilize your company

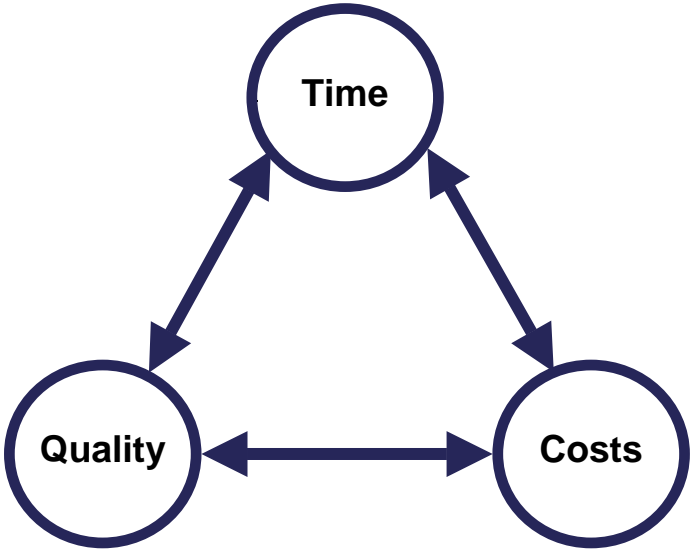
THE FUTURE CHALLENGE

THE FOUR COMPETITIVE FACTORS OF BUSINESS ON DEMAND

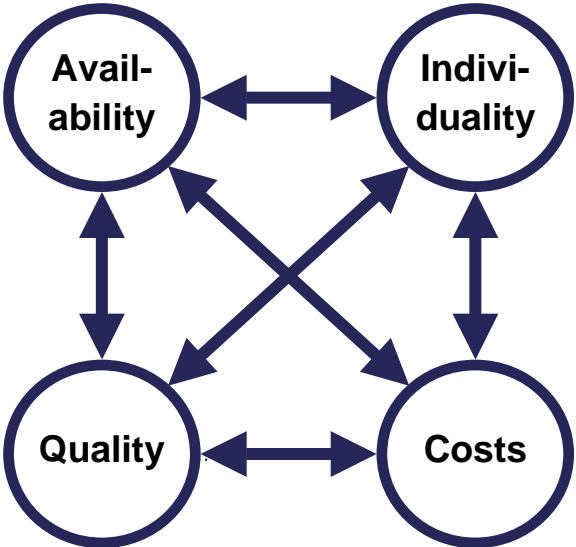
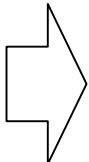


THE FUTURE CHALLENGE

OPTIMIZING ALL FOUR COMPETITIVE FACTORS AT ONCE

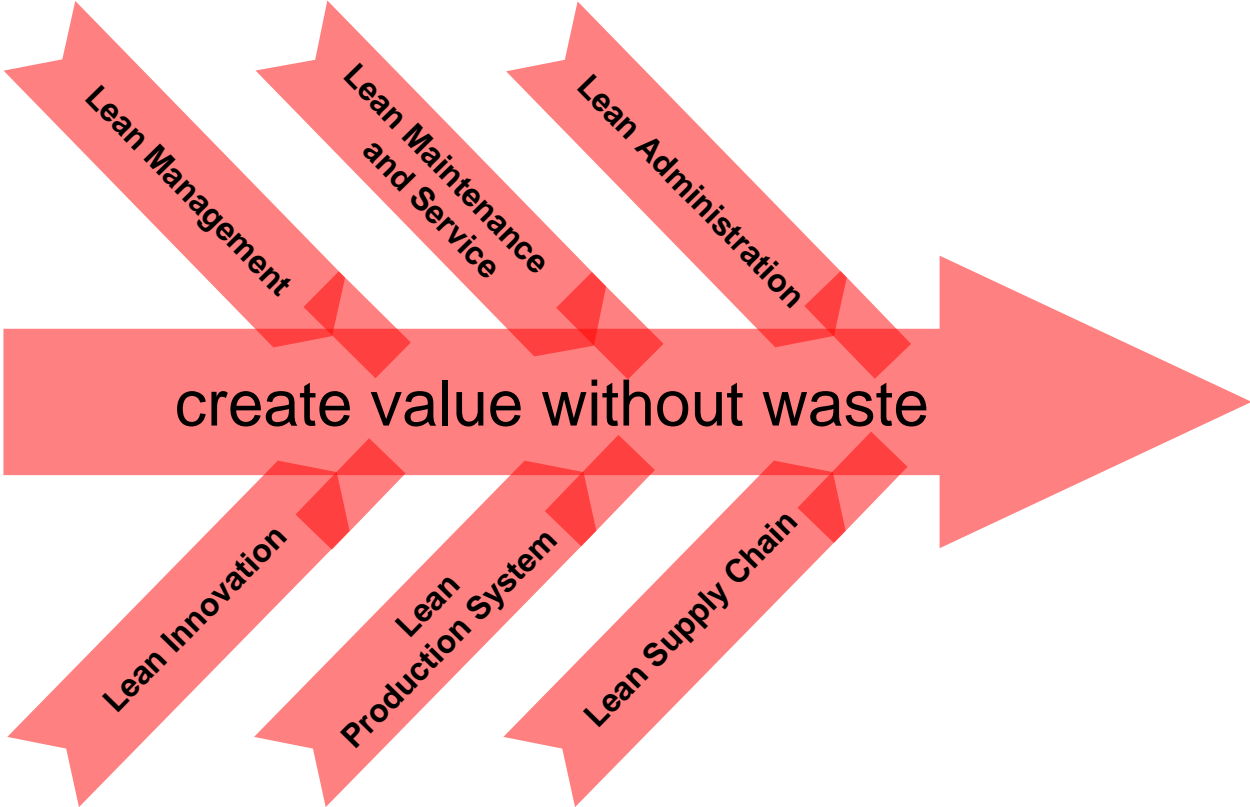


Yesterday



Today

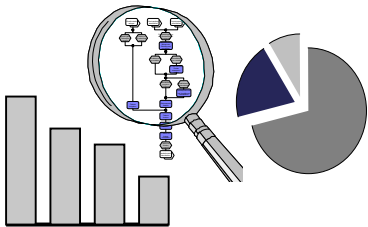
LEAN THINKING – THE LEAN BUSINESS SYSTEM



Lean Administration

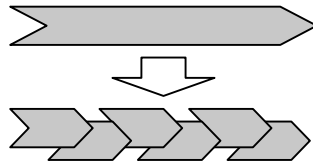
Lean Administration – The Method

Analysis



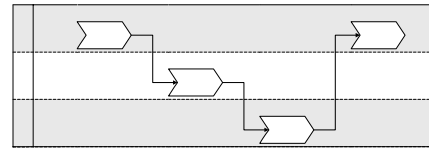
- Establishing a business model
- Organization analysis
- Value flow analysis
- Order structure analysis
- Process analysis
- Activity structure analysis
- Cost structure analysis
- Starting to implement immediate measures

Modularization



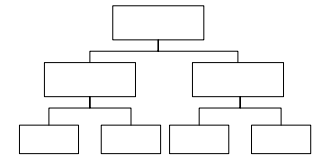
- Module definition
- Module optimization
- Standardization
- Describing and standardizing interfaces

Integration



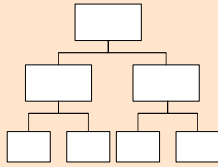
- Defining the product creation process
- Assigning and integrating the modules into the processes

Implementation



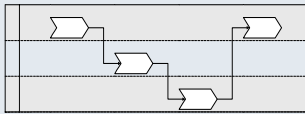
- Capacity adjustment
- Implementing the processes
- Organization adjustment
- Introducing process cost management
- Introducing CIP

Elements of the Analysis



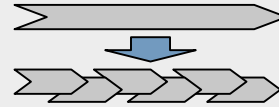
Organizational analysis

- ❑ Purpose of the organization
- ❑ Core competency
- ❑ Business model



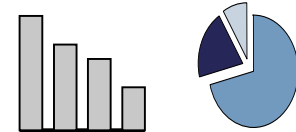
Value flow analysis

- ❑ Recording the details of main and partial processes, levels of activity, and throughput times
- ❑ Identifying problems and areas of waste



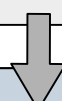
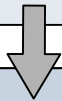
Activity structure analysis

- ❑ Defining functions and duties
- ❑ Categorizing these into core, secondary, and organizational activities
- ❑ Identifying improvement potentials



Orders / activity structure

- ❑ Recording and cataloging the order and quantitative framework



Actual process costs

- ❑ Transparency about the cost structure with respect to cost inflators and causes

List of corrective measures

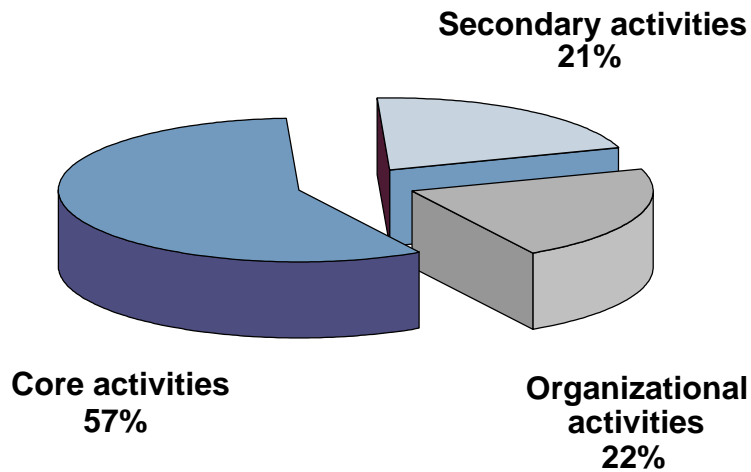
- ❑ Immediate, medium- and long-range optimization measures

Lean Administration – Activity Structure Analysis

Aufgabenbereiche
Kerntätigkeiten
Angebote submittieren
Ausschreibungen durchführen
Bauf und Reservierungen anlegen
Bestellungen anlegen
Bieter- u. Vergabeverhandlungen durchführen
Einzelvertragsdaten pflegen
Fachliche Beratung der Bedarfsträger
Geltendmachung von Gewährleistungsansprüchen
Kreditorenstammdaten pflegen
Leistungserfassung durchführen
Lieferantenauswahl
Lieferantenbeurteilung durchführen
Marktbeobachtungen / Kontakte pflegen
Rahmenvertragsstammdaten pflegen
Rechnungsbearbeitung
Vertragsabschluss u. -erteilung, -kündigung durchführen
Vertragsklärung
WA-Buchungen durchführen
WE-Buchungen durchführen
Nebentätigkeiten
Betreuung der AZUBI
Fahrtzeiten
Hilfestellungen bei PC/Softwareproblemen
Hilfestellungen für Assistenten
Klären SAP-Systemprobleme
Lehrgänge/Seminare
Materialstammdaten pflegen
SAP-Unterweisungen
Sonstige Sitzung (mit BR, mit Drittkunden, Baubesprechungen, etc.)
Stammdatenpflege (Infosatz anlegen)
Systempflege für andere Bereiche (z.B. Obligobeseitigung für CO, etc.)
Zuarbeit für andere Bereiche
organisatorische Tätigkeiten
Allg. Bürotätigkeiten (bestellen von Material, Aktenablage,Arbeitszeittabelle, Posteingang)
Bearbeiten von Outlook (Nachrichten lesen,bearbeiten, sortieren, speichern, ausdrucken)
Teambesprechungen

- Defining functions and duties on the basis of job descriptions and process analyses
- Defining the standard procedures, e.g. meetings, handling e-mail, training
- Determining core, secondary, and organizational activities

○ K= Core activity ● N= Secondary activity ○ O= Organizational activity



The analysis shows:

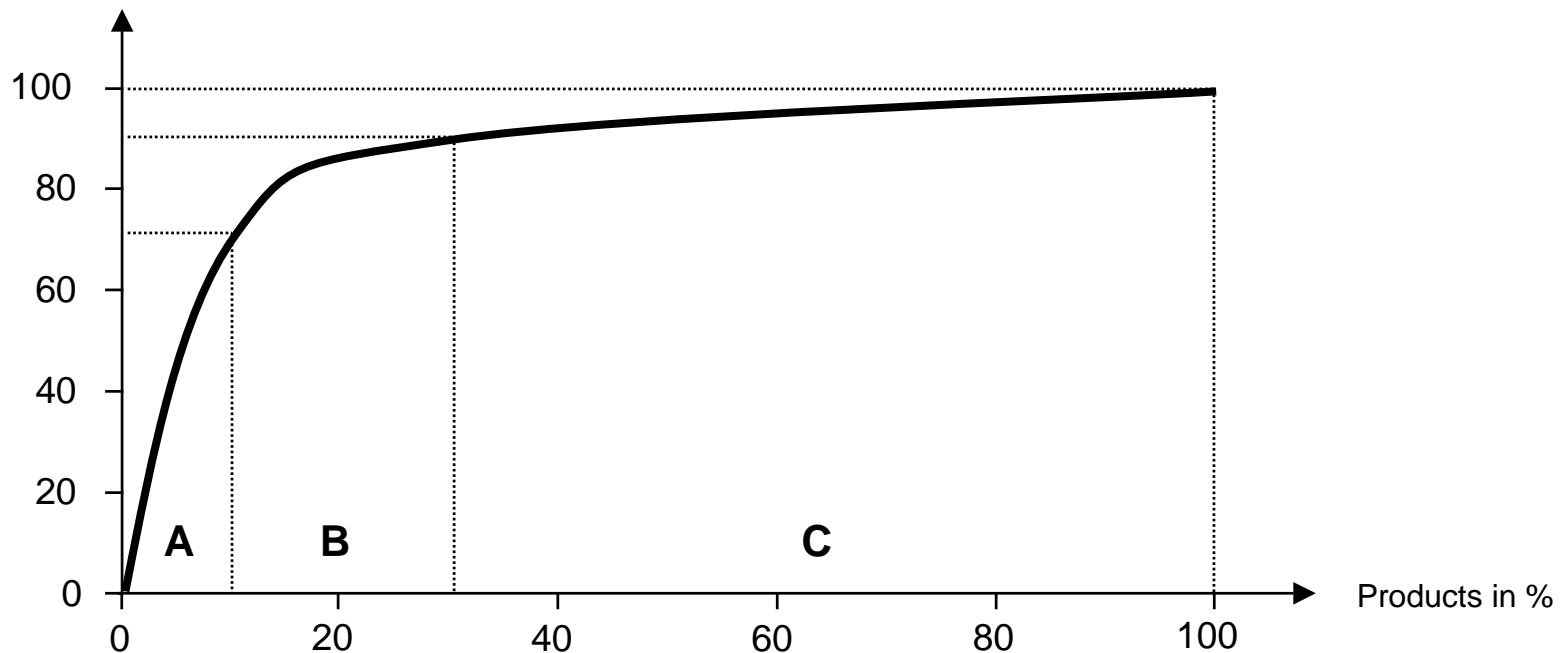
- ❑ Distribution according to core, secondary, and organizational activities
- ❑ Activities and their process times
- ❑ Potential for improvement – particularly for secondary and organizational activities

Lean Administration – Order Structure Analysis

ABC analysis

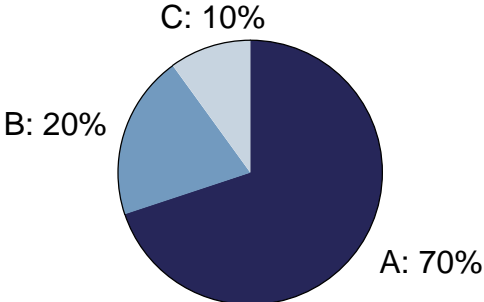
- ❑ The greatest savings and benefits are produced by orders that are the most important to the company.
- ❑ ABC analysis is a good tool for finding the order frequency to determine which orders these are.

Order frequency in %

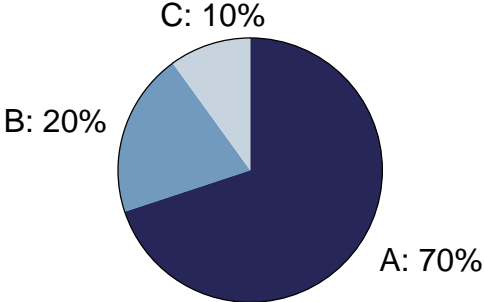


Lean Administration – Order Structure Analysis

ABC analysis



Value proportions



Quantitative proportions

A products: High-quality orders that are sold in large quantities and/or that have a particularly high demand over a predefined period of time

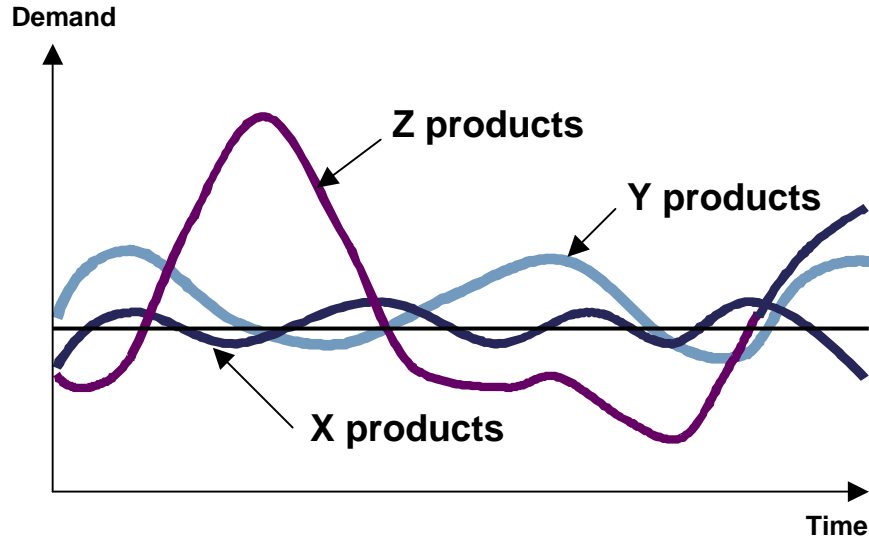
B products: Orders with a demand level and value within the medium range:

C products: Orders that are sold very infrequently or that have a high proportion of small parts:

➔ **The ABC analysis helps identify the orders with the largest potential for modularization**

Lean Administration – Order Structure Analysis

XYZ analysis



- ❑ XYZ analysis of ordered products/ services is the basis for identifying temporal – especially seasonal – variation
- ❑ XYZ analysis identifies products with a high degree of standardization

➔ **The XYZ analysis identifies standardization potential**

Lean Administration – Quick Results

Immediate measures

Maßnahmenliste Aufbaustufe - KFM- Stand: 10.02.03											
Maßnahme aus Projektstrukturplan	Arbeitspaket	Erfüllung				Verantwort- lich	Termin			Bemerkung / Begründung	
		20%	50%	75%	100%		Anfang	Ende-Soll	Ende-Ist		
Produktstellungsprozesse mit Modulen beschreiben	Teilprozess 'Anmietverträge anlegen' beschreiben	x	x	x	x	100%	Hr. Meier	15.01.03	30.01.03	28.01.02	
Produktstellungsprozesse mit Modulen beschreiben	Teilprozess 'Vermietverträge anlegen' beschreiben	x	x	x	x	100%	Fr. Müller	15.01.03	30.01.03	10.02.03	
Produktstellungsprozesse mit Modulen beschreiben	Teilprozess 'Vertrags- anpassungen'	x	x			50%	Fr. Schulz	01.02.03	15.02.03		
Produktstellungsprozesse mit Modulen beschreiben	Teilprozess 'Wirtschaftsplan erstellen' beschreiben					0%	Hr. Hofer	01.02.03	15.02.03		
Produktstellungsprozesse mit Modulen beschreiben	...					0%					

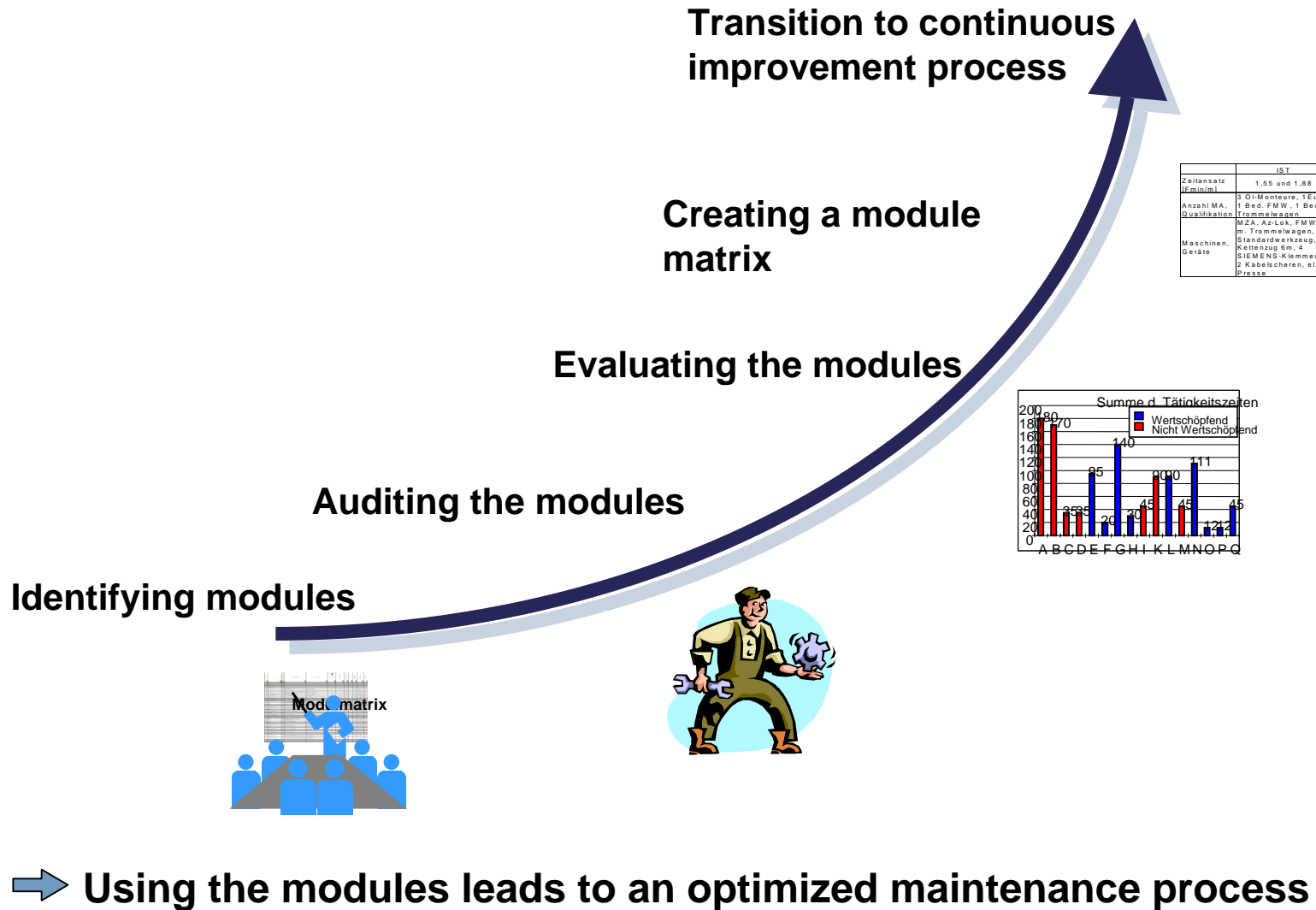
To be optimized during the analysis phase:

- Realizing potential improvements that can be quickly achieved
- Sensitizing employees to any waste in the process

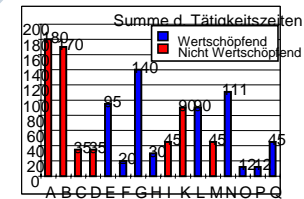
➔ The first money soon returns for reinvestment in the project

Optimization Phase

Modularization Process



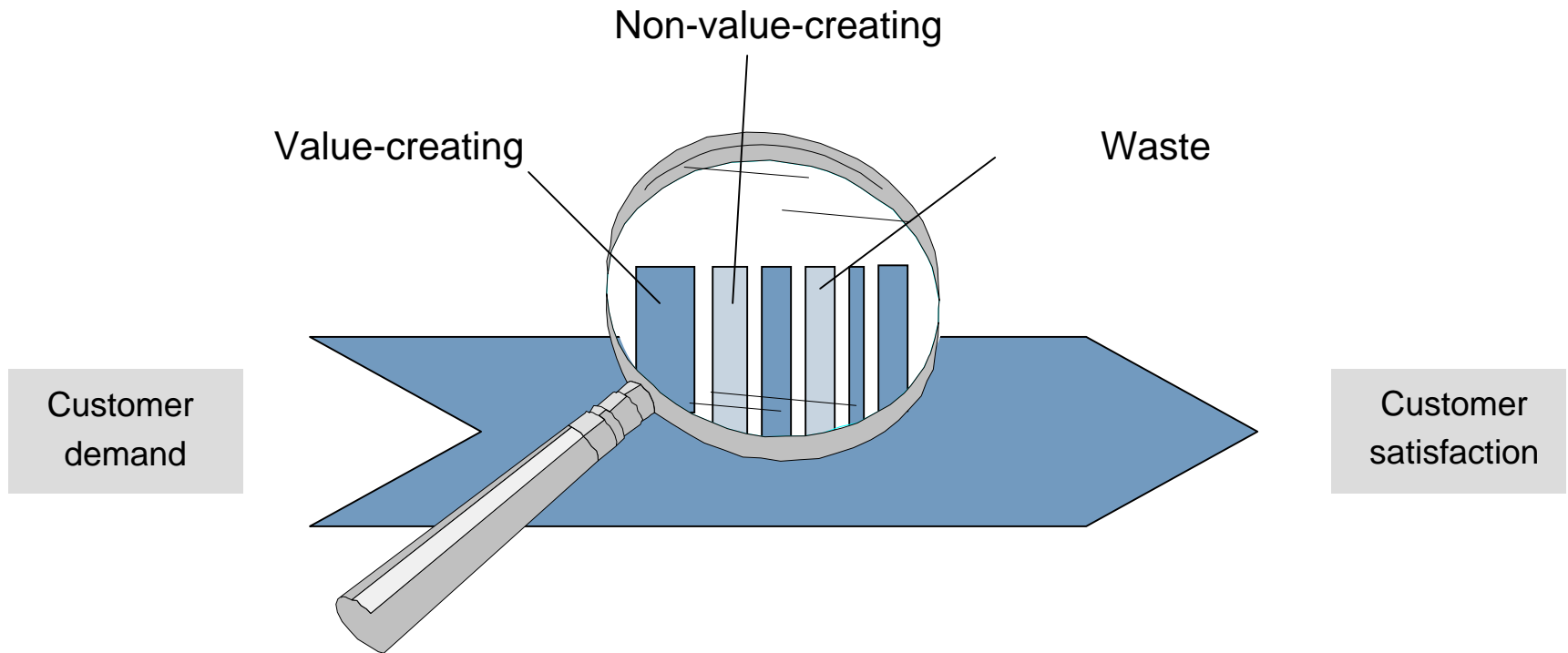
	IST	SOLL
Zeitanzahl (Eum/m)	1,55 und 1,88	1,55
Anzahl MA	3 OI-Monteur, 1 EuP 1 Bed. FMW, 1 Bed. Frommelwagen	3 OI-Monteur, 1 EuP 1 Bed. FMW, 1 Bed. Frommelwagen
Maschinen, Geräte	MZA, Az-Lok, FMW m, Trommelwagen, Standardwerkzeug, Kettenzug 6m, 4 SIEMENS-Klemmen, 2 Kabelscheren, el. Presse	MZA, Az-Lok, FMW m, Trommelwagen, Standardwerkzeug, Kettenzug 6m, 4 SIEMENS-Klemmen, 2 Kabelscheren, el. Presse



➔ Using the modules leads to an optimized maintenance process

Lean Administration – The Approach to Modularization

Classifying processes

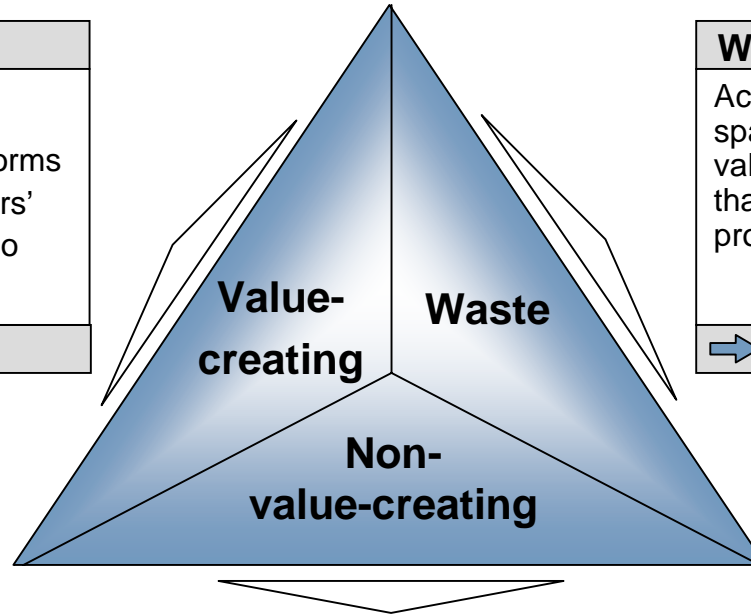


➔ **All activities in producing products or performing services can be classified according to their contribution to value creation**

Lean Administration – The Approach to Modularization

Optimizing activity levels

Value-creating activities
Any activity that takes materials or information and converts or transforms them in a way that meets customers' needs and that the customer is also willing to pay for.
➔ Optimize!



Waste
Activities, processes, time, materials, space, etc., that do not increase the value of the product or service and that are not needed for the system or process.
➔ Eliminate!

Non-value-creating
Any activity that is needed due to the systems or processes in use today but that does not contribute any value to the product or service or to customer satisfaction.
➔ Reduce!

➔ Exploiting potential at the activity level increases efficiency

Structuring – Modularization

What are process modules?

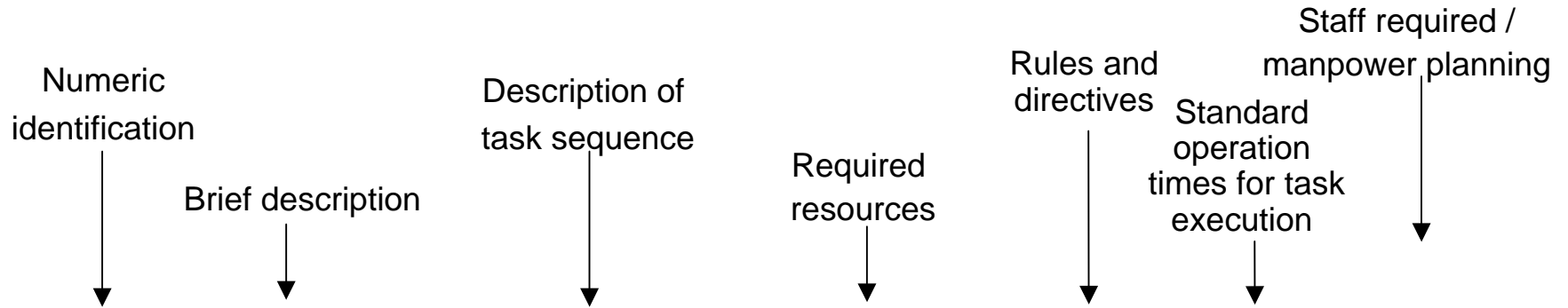
- Process modules are standardized subprocesses
- They include several related activities
- They can be used in several product creation processes
- Process modules include
 1. Job instructions/assistance
 2. Process times
 3. Manpower needed
 4. Qualification requirements
 5. Aids (equipment, material, documentation)

What do process modules provide?

- Transparency
- Measurability
- Quality improvement
- Comprehensibility
- Flexibility in the processes
- Structured approach
- Clearly defined input and output
- Clear allocation of responsibilities
- Description of the resources used
- Unambiguous definition of interfaces

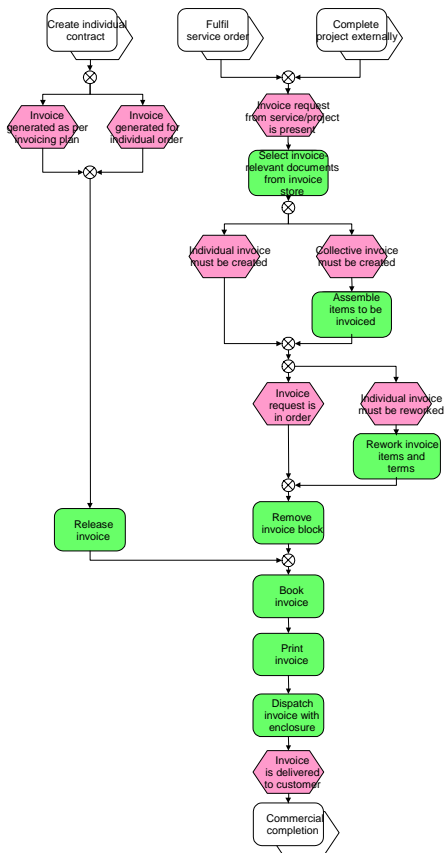
➔ **Customized product creation processes can be represented by standardized modules**

Module Matrix



Modulnummer	Modul	Modulinhalt	Maschinen, Geräte, zusätzliches Personal	Mitgeltende Unterlagen	Modulzeit/Einheit in Fh/Einheit (Format hh:mm:ss)	Anzahl Mitarbeiter bzw. Maschinen, MINDEST Qualifikation
Fb In 1.1.	Prüfungen der Gleisgeometrie					
Fb In 1.1.1.	Prüfung mit Gleismeßfahrzeug OMWE			DS 820 01 15 Ril 821. 2001		1. Bezl Fb
Fb In 1.1.2.	Prüfung mit Gleismeßfahrzeug OMW			DS 820 01 15 Ril 821. 2001		1. Bezl Fb
Fb In 1.1.3.	Prüfung mit Gleismeßfahrzeug GMTZ			DS 820 01 15 Ril 821. 2001		1. Bezl Fb
Fb In 1.1.4.	Handmessung					
Fb In 1.1.4.1.	Längshöhe in Gleisen und Weichen mit Gleisvermarkung	Messen der Längshöhe in Bezug auf Gleisvermarkungspunkte mit optischem Visiergerät einschließlich Anschreibung der Bezugspunkte und deren Dokumentation vor Ort	Gleisüberhöhungsmesser, Nivelliergerät, Visiergerät, CEMAFER- bzw. BRIESEMEISTER-Messlatte oder Geodimeter , Bandmaß, (Sakra/Sipo entsprechend der örtlichen Rahmenbedingungen)	DS 820 01/ 03 Ril 820 / 821/ 824	00:00:10 Fh/m/Gleis	2 MA (1 M Fb, 1 Bua)
Fb In 1.1.4.2.	Längshöhe in Gleisen und Weichen ohne Gleisvermarkung	Messen der Längshöhe mit optischem Visiergerät durch Festlegung von Hochpunkten einschließlich Anschreibung der Bezugspunkte und deren Dokumentation vor Ort	Gleisüberhöhungsmesser, Visiergerät, Bandmaß, (Sakra/Sipo entsprechend der örtlichen Rahmenbedingungen)	DS 820 01/ 03 Ril 820 / 821/ 824	00:00:08 Fh/m/Gleis	2 MA (1 M Fb, 1 Bua)

Process module before



➔ High complexity

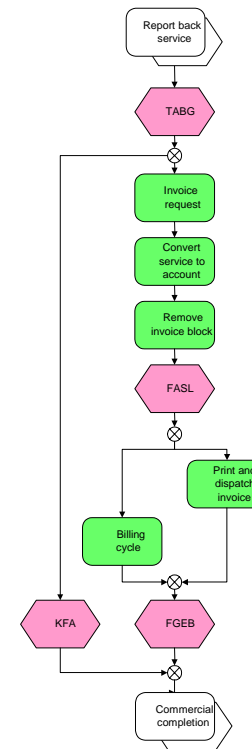
Throughput time approx.
10 days

Interfaces within
module = 3

Offices involved = 3

Individual activities = 8

Process module after



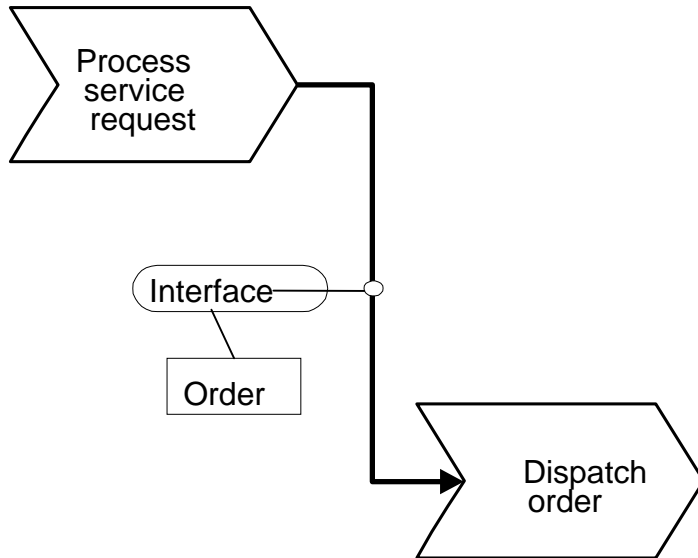
➔ Low complexity

Throughput time
approx. 3 days

Interfaces within
module = 0

Offices involved = 1

Individual activities = 5



Process interfaces

- ❑ Are specified by process modules
- ❑ Exchange data between modules
- ❑ Define data quality, volume, and transfer format
- ❑ Lay down clear agreements between customer and supplier concerning data quality
- ❑ Describe the internal and external customer-supplier relations
- ❑ Define complaint and escalation levels.

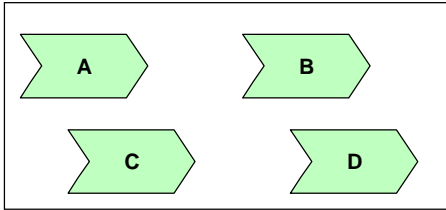
➔ **Consistent interface standardization reduces difficulties in information and material flows while simplifying quality assurance for the processes**

Lean Administration – Modularization Approach

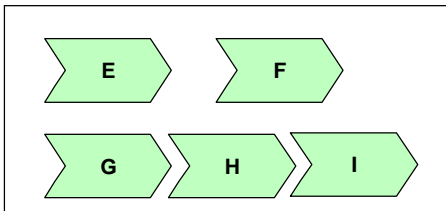
Integrating the modules into a product creation process

Process modules

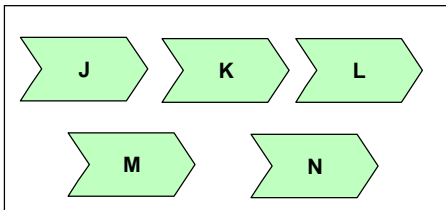
Department 1



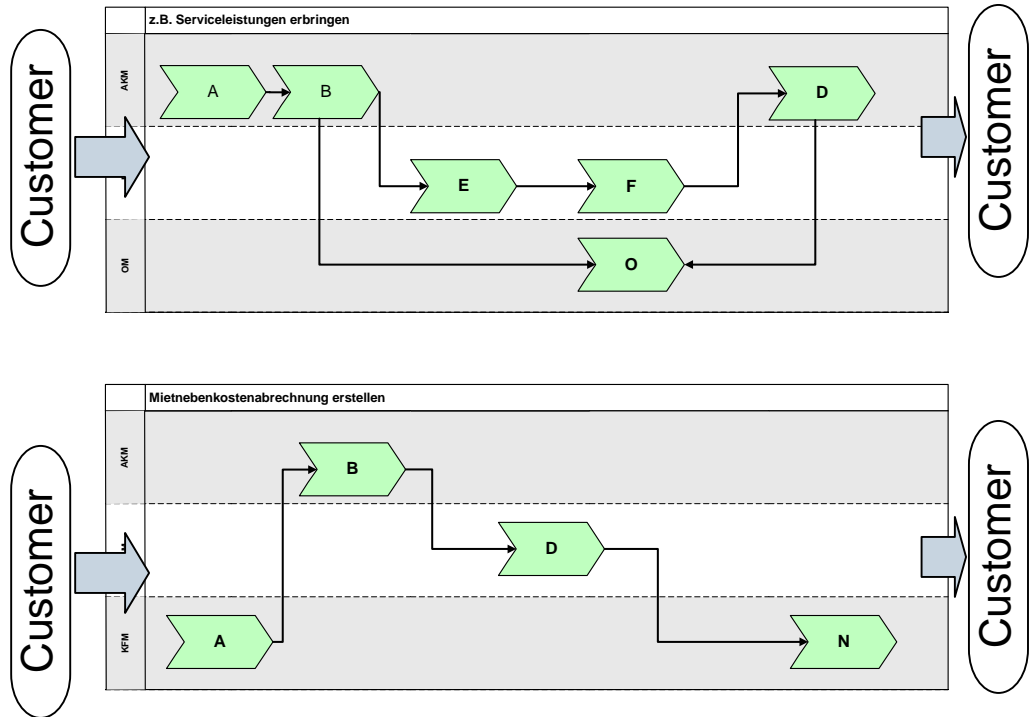
Department 2



Department 3



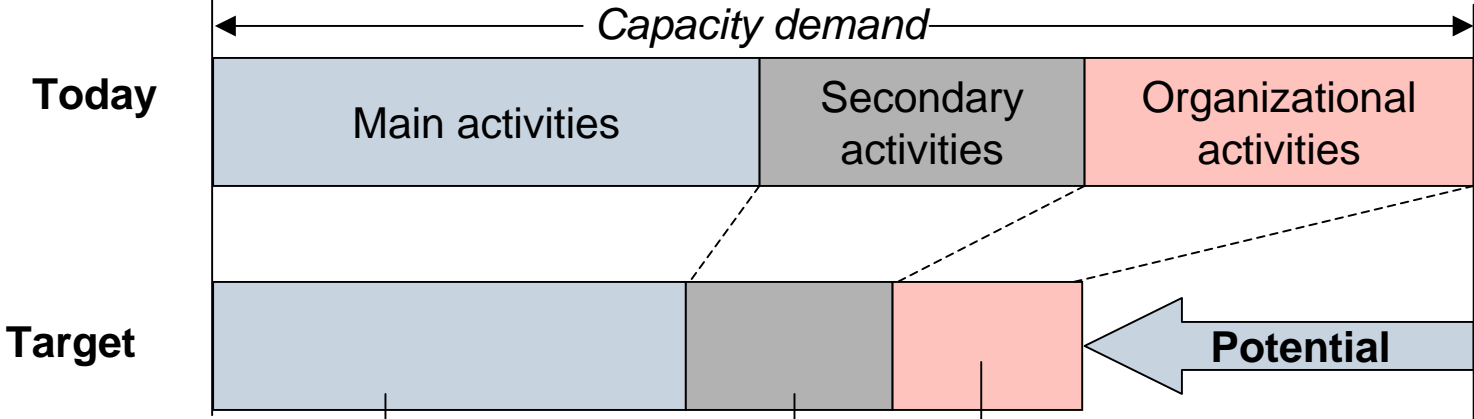
Product creation process



➔ Modules from the modularization phase serve as the basis for the product creation process

Optimizing the Organization on the Basis of Lean Processes

Increasing Potentials with Lean Processes



Optimizing individual processes

- Functional process optimization
- Standardization
- Optimization of the product creation process
- Improvement of system support
- Automation of individual procedures

Reducing to a necessary level

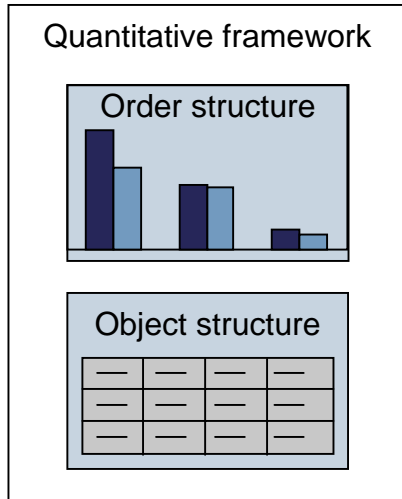
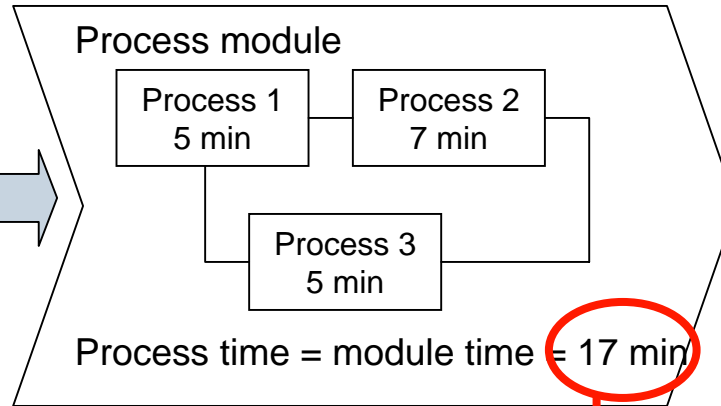
Avoiding waste

- Twice-performed activities
- Follow-up questions due to poor data quality
- etc.

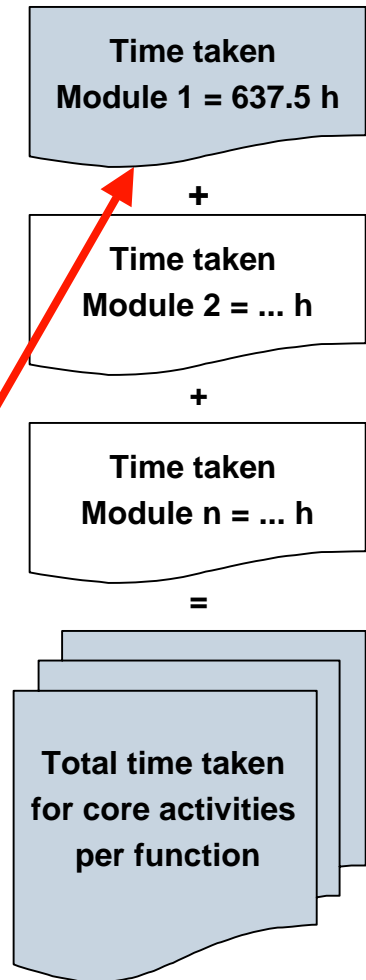
Calculating Capacity on a Modular Basis

Example

Activity Structure Analysis	
Core activity	
File a report	5 min
Open a CS order	7 min
Factor performance	5 min

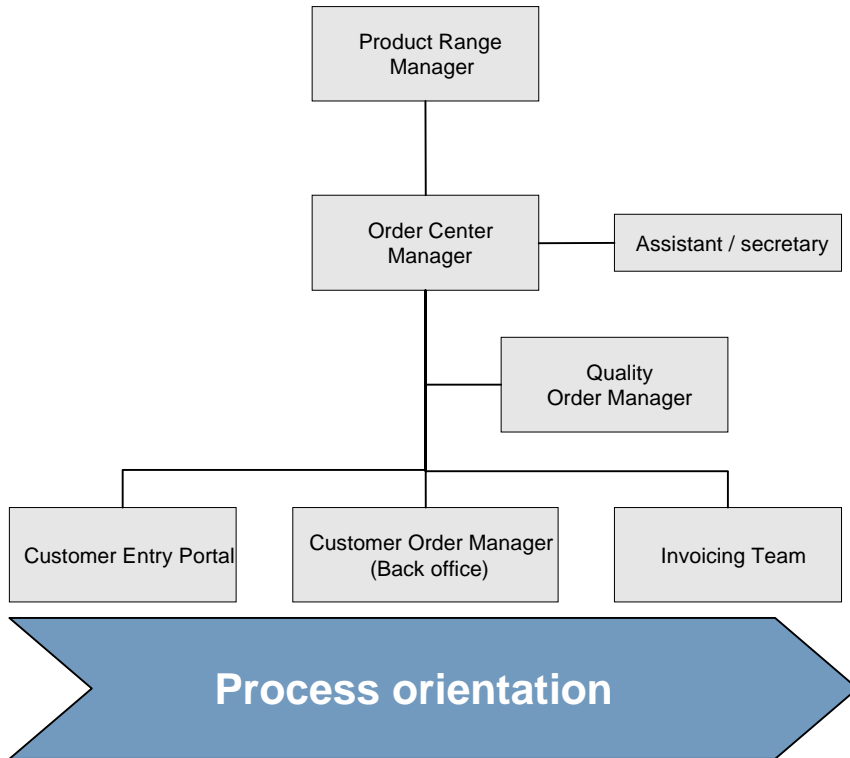


Module time 1	17 min
Business occurrences per month	3,000
Probability of the module in business occurrence	75%
Time taken per module and month	637.5 h



Lean Administration – Adjusting the Organization

Process-oriented order center example



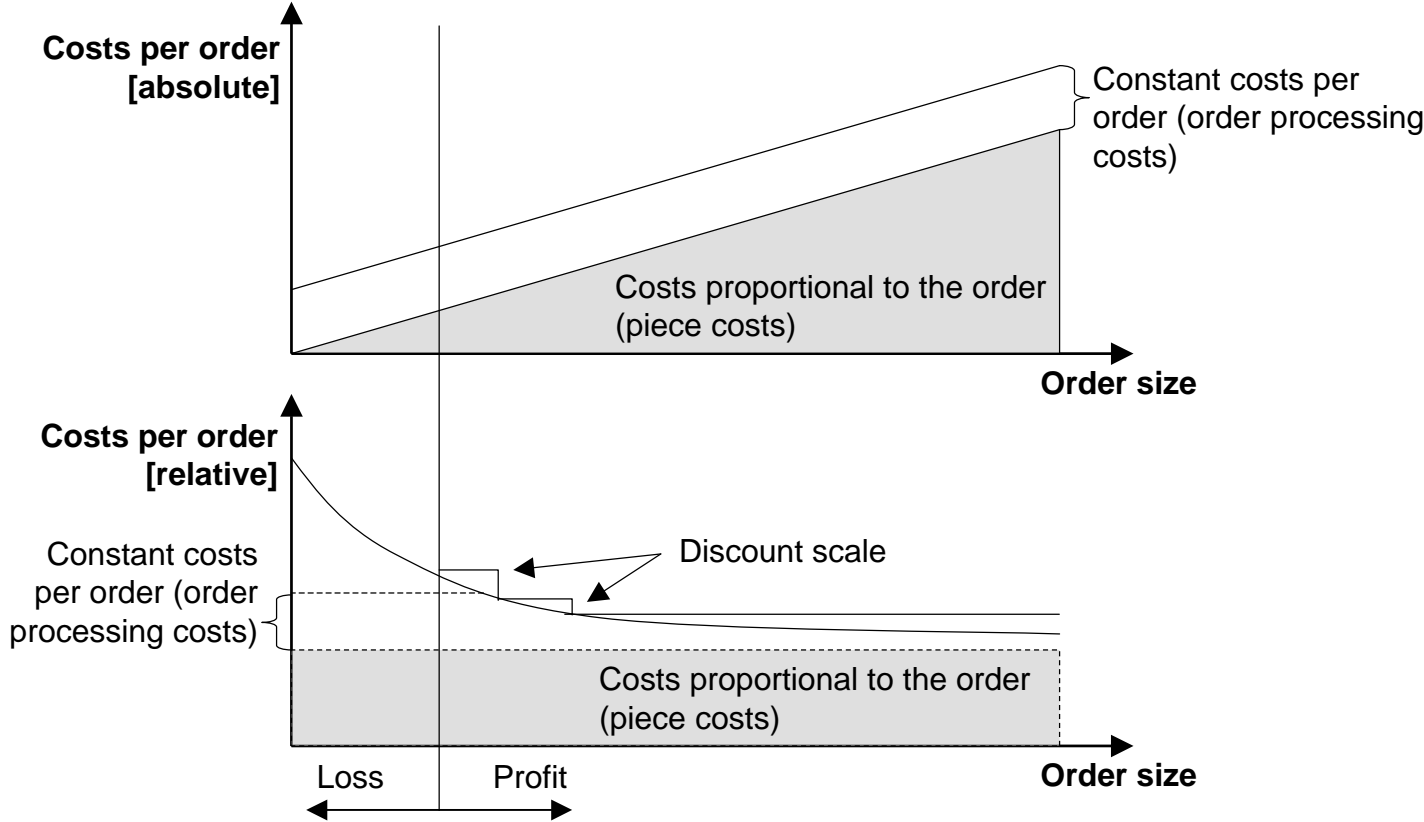
- ❑ Clearly defined responsibilities and duties along the order processing organization
- ❑ Process-oriented quality assurance
- ❑ Centralized order receiving
- ❑ Separate specialized and bulk businesses

➔ **Increasing process quality while simultaneously reducing throughput time; establishing a customer interface by providing a central customer entry portal**

Transparency through Process Cost Accounting

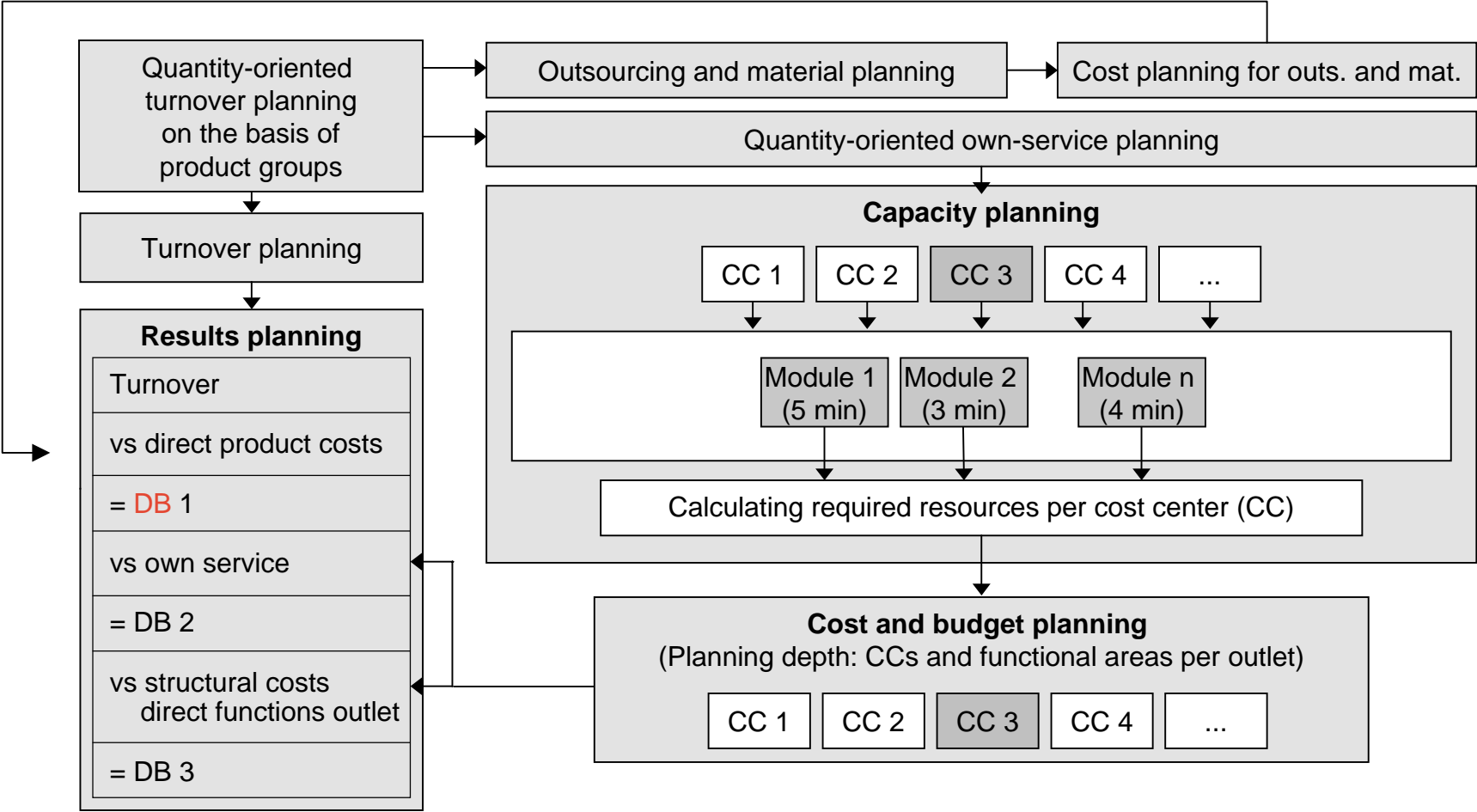
Lean Administration – Process Cost Accounting

Product calculation



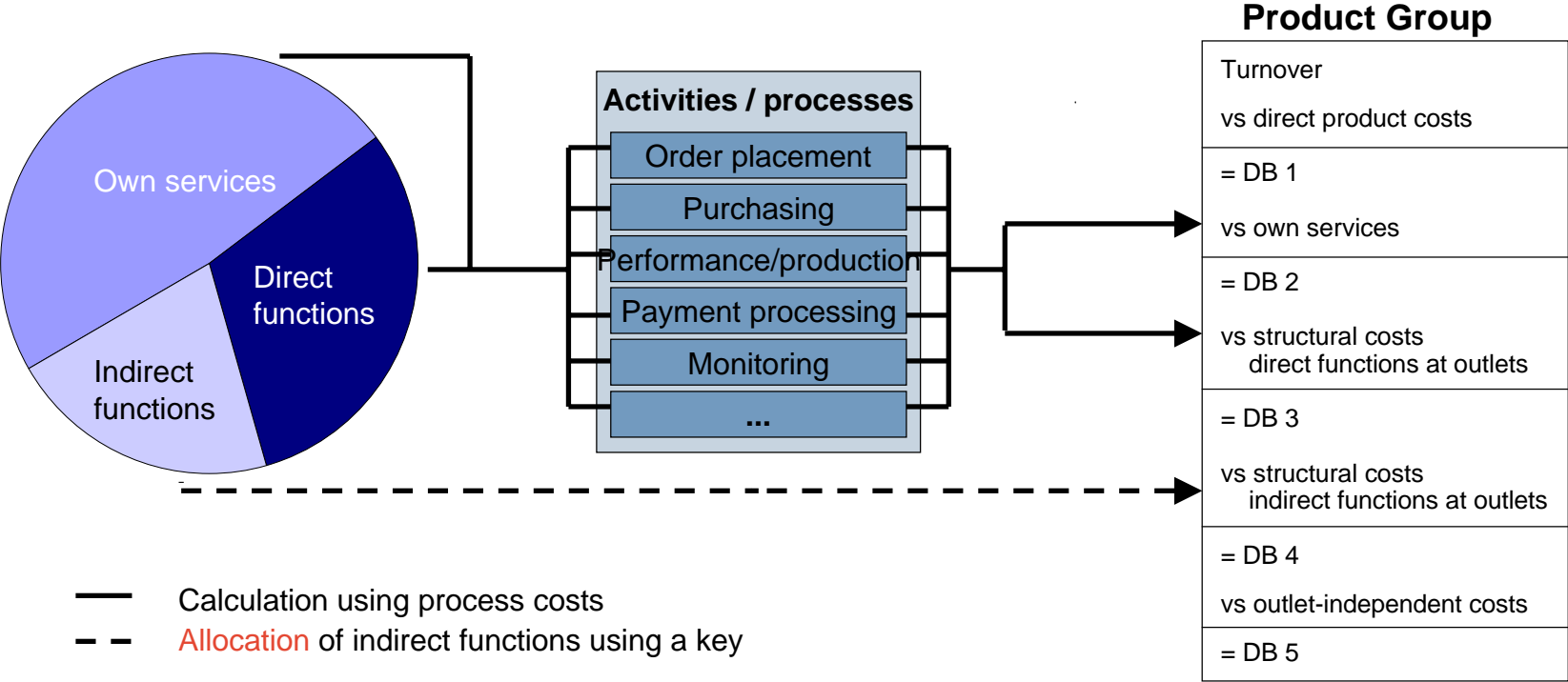
➔ Taking complexity and degression effects into consideration

Lean Administration – Fixed Cost Management



➔ **Quantity and service (performance/production)-related budget planning based on process costs**

Lean Administration – Results Accounting



➔ Cause-related cost accounting by reducing **allocation**

Lean Administration as an Instrument of Control for Management

Lean Administration – Benefits for Management

Transparency, calculation and planning reliability, monitoring

Controlling / auditing

Controlling on the basis of key process data

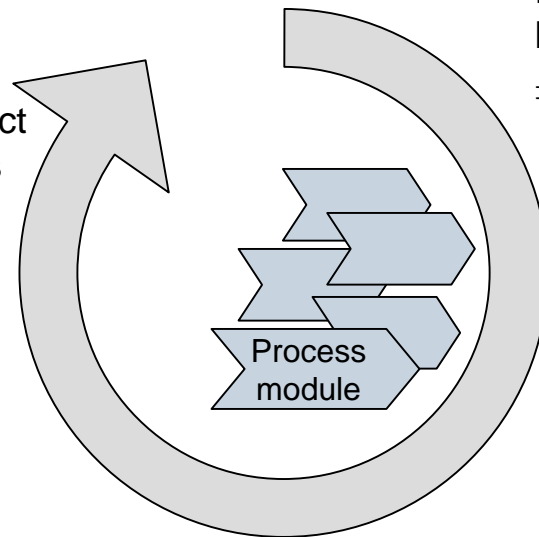
⇒ High transparency with respect to deviations and their causes

Order processing

Processes tailored to customers are handled using standardized process modules

⇒ Despite unavoidable complexity due to greater standardization

⇒ Creates a greater potential for streamlining



Offer phase

Dovetailing the product and process landscape with Sales and Calculation

⇒ Reliable calculation on the basis of modules

Planning phase of the order

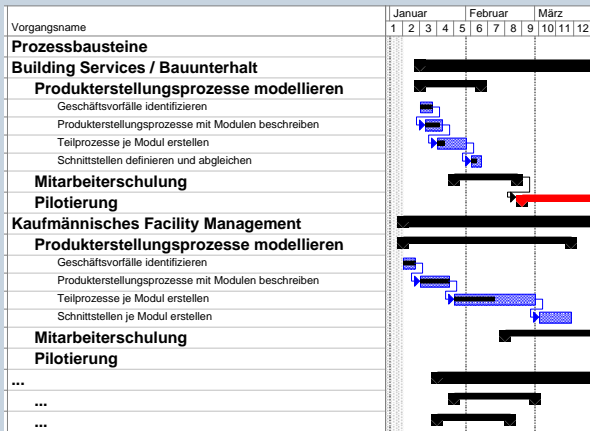
Capacity planning using modules and planned turnover figures

⇒ Reliable result and budget planning

Implementation

Lean Administration – Implementation

Project structure plan



➔ Transparency in structures and scheduling for all subprojects

➔ Permanent transparency about measures and project success

Plan of measures

Maßnahmenliste Aufbaustäbe - KFM- Stand: 10.02.03											
Maßnahme aus Projektstrukturplan	Arbeitspaket	Erfüllung				Verantwortlich	Termin			Bemerkung / Begründung	
		25%	50%	75%	100%		Anfang	Ende-Soll	Ende-Ist		
Produktstellungsprozesse mit Modulen beschreiben	Teilprozess 'Anmietverträge anlegen' beschreiben	x	x	x	x	100%	Hr. Meier	15.01.03	30.01.03	28.01.02	
Produktstellungsprozesse mit Modulen beschreiben	Teilprozess 'Vermietverträge anlegen' beschreiben	x	x	x	x	100%	Fr. Müller	15.01.03	30.01.03	10.02.03	
Produktstellungsprozesse mit Modulen beschreiben	Teilprozess 'Vertragsanpassungen'	x	x			50%	Fr. Schutz	01.02.03	15.02.03		
Produktstellungsprozesse mit Modulen beschreiben	Teilprozess 'Wirtschaftsplan erstellen' beschreiben					0%	Hr. Hofer	01.02.03	15.02.03		
Produktstellungsprozesse mit Modulen beschreiben	...					0%					

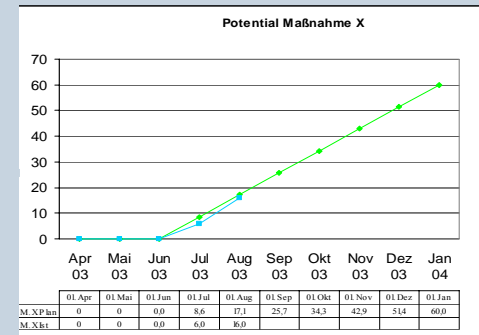
➔ Detailed measures per subproject

Effects of the measures

Kurzbeschreibung Maßnahme	Kostensparnis p. a. (Bruttoeffekt)				Gegenläufige Kosten	geplanter gesamt z Realis im ersten Jahr nach Realisierung (ca.)
	Personal-kosten	Sach-kosten	IT-Kosten	Gesamt		
Kundenmeldungen nicht mehr in BD annehmen	274 T€	90 T€	0 T€	364 T€	0 €	351 T€
Faktura für Standardprodukte automatisieren	343 T€	113 T€	0 T€	456 T€	1.000 €	441 T€
Meldungen an Kunden automatisieren	32 T€	11 T€	0 T€	43 T€	1.000 €	40 T€
Auftragsbuch systemtechnisch realisieren	9 T€	3 T€	0 T€	12 T€	1.000 €	10 T€
Ausweitung Eisenerfrage	13 T€	4 T€	0 T€	17 T€	0 €	17 T€
Einrichten Qualitätsfunktion im AKM	0 T€	0 T€	0 T€	0 T€	60.000 €	-60 T€
Auftrags- und Kundenmanagement neu organisieren	724 T€	238 T€	0 T€	963 T€	0 €	931 T€

➔ Evaluating the measures

Project success acc.



➔ Understanding the potentials realized



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Some pages which were shown
at the Lean Service Summit 2004 are not
published in this documentation.
These documents included dates from
customers and were not released.
Please do not hesitate to contact us
for questions and further information.