



# »Service Excellence with Product-Related Services« — Bridging the Gap between Product and Service Development

RESER Conference 2008  
»New horizons for the role and production of services«  
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Fraunhofer Institute for Industrial Engineering IAO



# Profile of IAO

[www.iao.fraunhofer.de](http://www.iao.fraunhofer.de)



- **Founded:** 1981
- **Director:** Prof. Dr.-Ing. Dr.-Ing. E.h. Dieter Spath
- **Budget:** 24 million Euros,  
of which 38% from industry contracts
- **Staff :** 202 employees,  
185 student assistants



# Agenda

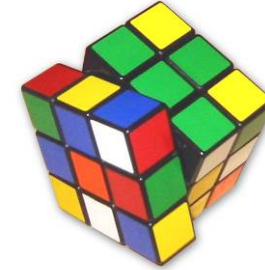
## Challenges and observations

Service Engineering and ServLab

Service Excellence

Conclusion

# Challenges for companies in mature industry branches



- **Strong force to rationalization**

Simplification of production processes in shops and offices to improve efficiency.

- **Consistently driven market penetration and intensive branding**

Exploration of new business areas.  
Creation of a brand identity for products.



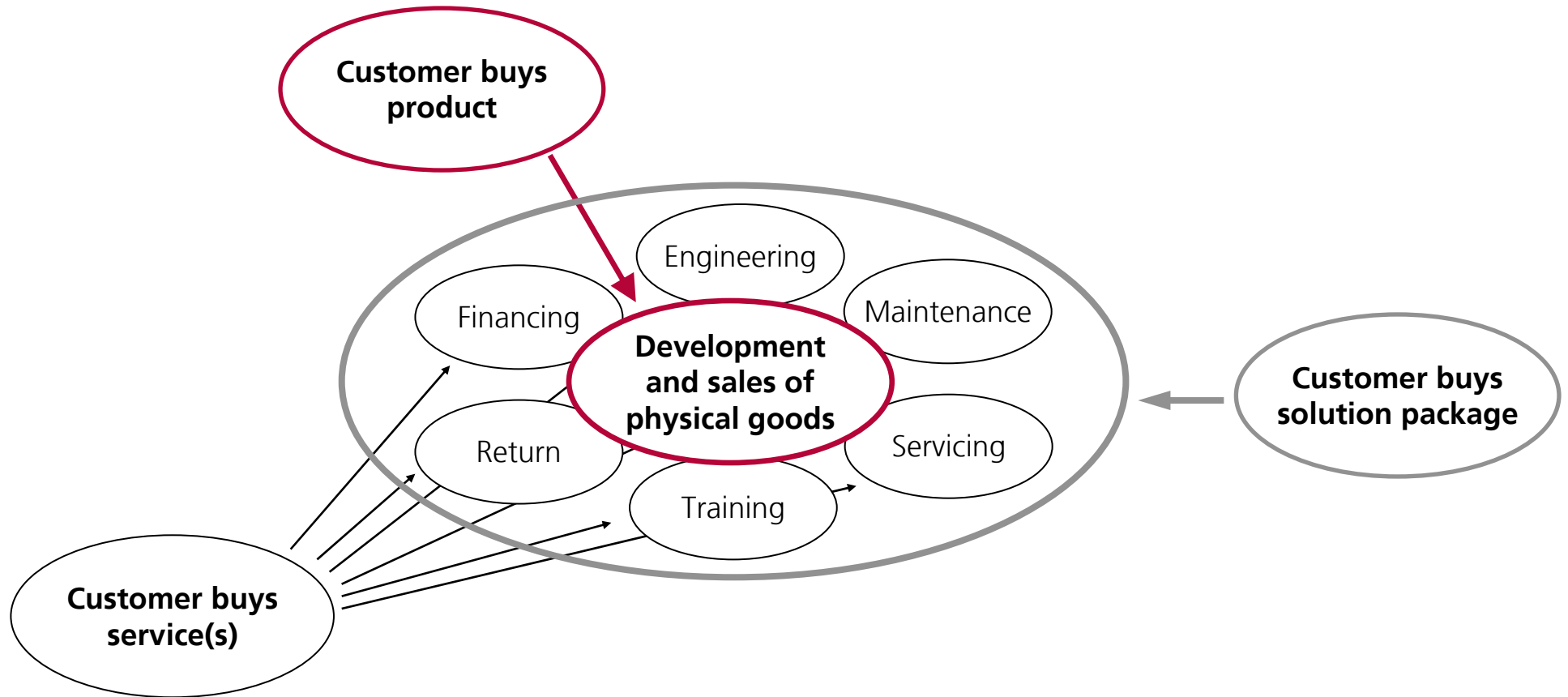
„Branding is about getting your prospects to see you as the only solution to their problem“ (Rob Frankel).

- **Installation of customer loyalty creating services**

Customer loyalty does not come as a standard feature. It requires custom tailored services that meet individual requirements.

- **Ongoing integration of new technologies**

# Observation 1: Services are part of the solution



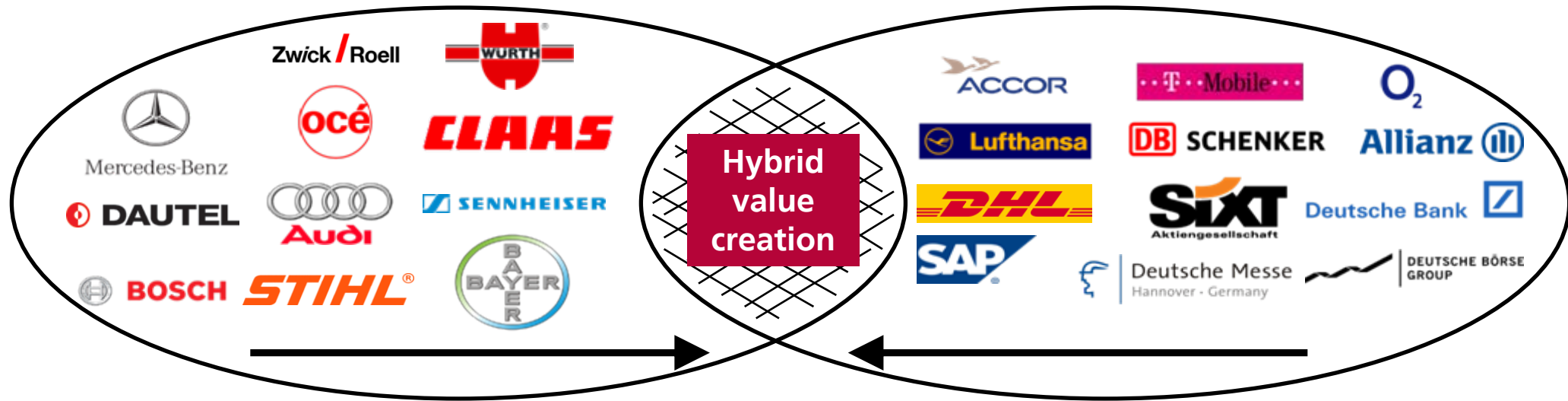
## Observation 2: New technologies as drivers for new services

- Technical innovations support everyday life in increasing amounts
- New technologies (e.g. RFID, UMTS, Web 2.0) are only beneficial and profitable by additional services
- Innovations in the technology sector as well as the services sector influence each other positively



*RFID usage in logistics*

# Observation 3: Manufacturing is learning from service and vice versa



## What can be learned from manufacturing:

- Branding & marketing
- Systematic product engineering, R&D
- Creation of rational and efficient processes
- Standardization, modularization
- Global value creation chains

## What can be learned from services:

- Customer satisfaction, customer loyalty
- Efficient usage of data and information flows
- Creation of new business models
- Creation of service oriented company images
- Intercultural management

# Agenda

Challenges and observations

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# Typical challenges in creating new services

lack of systematic  
innovation management

lack of adequate  
organizational structures

complexity of hybrid  
products and service  
bundles

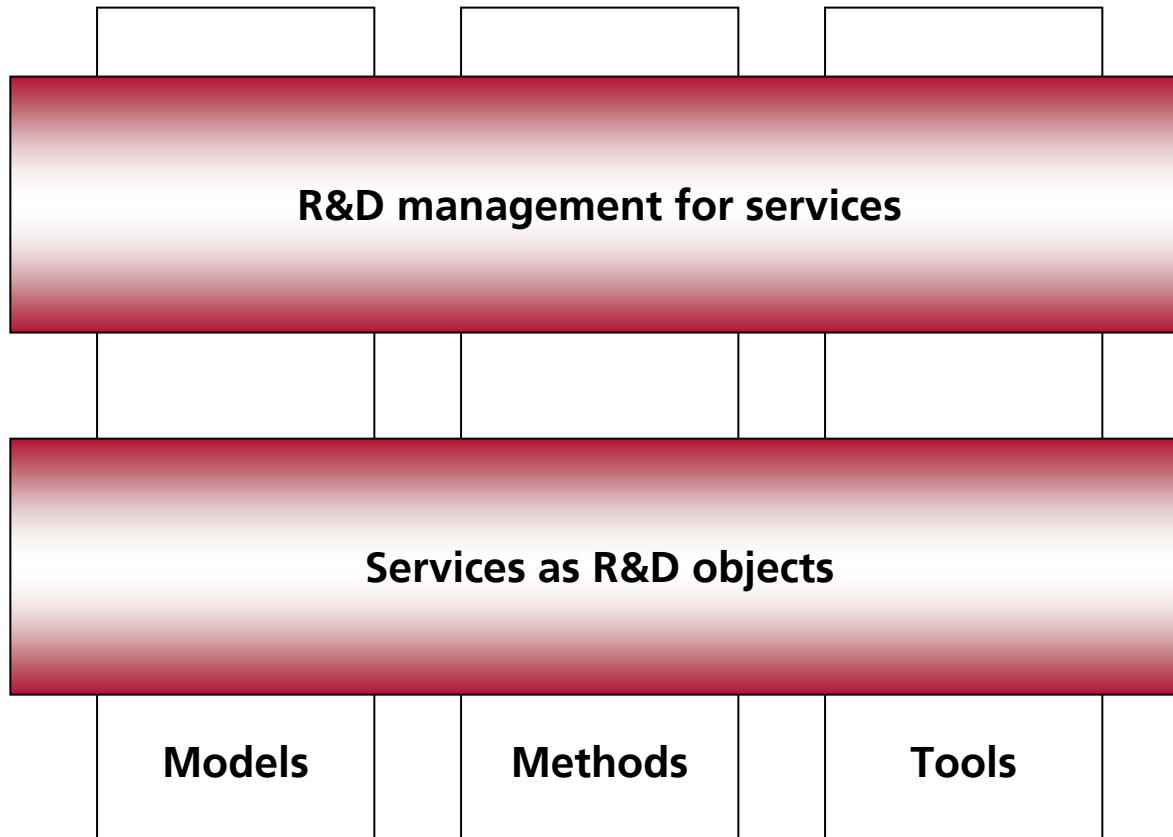
lack of  
qualified staff and  
service mentality

lack of integrated tools  
to support the development process

lack of suitable  
models and methods

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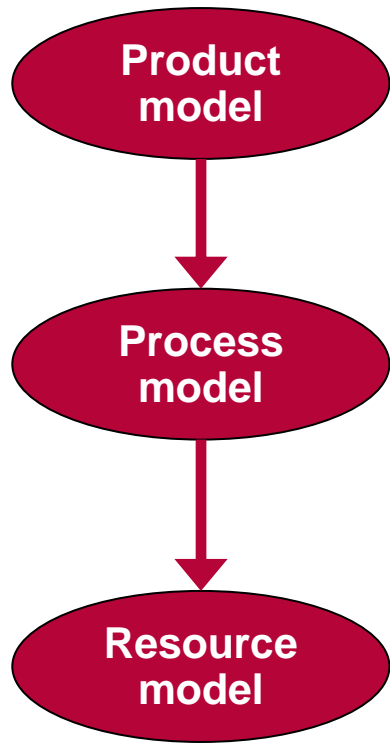
# Service Engineering – foundation for excellent services



– Service Engineering is concerned with the systematic development and design of service products using suitable models, methods, and tools.

– The goal is to transfer innovative ideas into successful services.

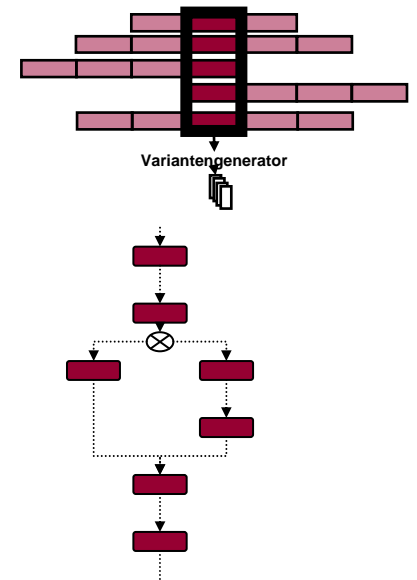
# Engineering approach for services



A product model describes, **what** a service delivers (description of the service, data models, service modules)

A process model describes, **how** a service is delivered (definition of process steps, definition of interfaces)

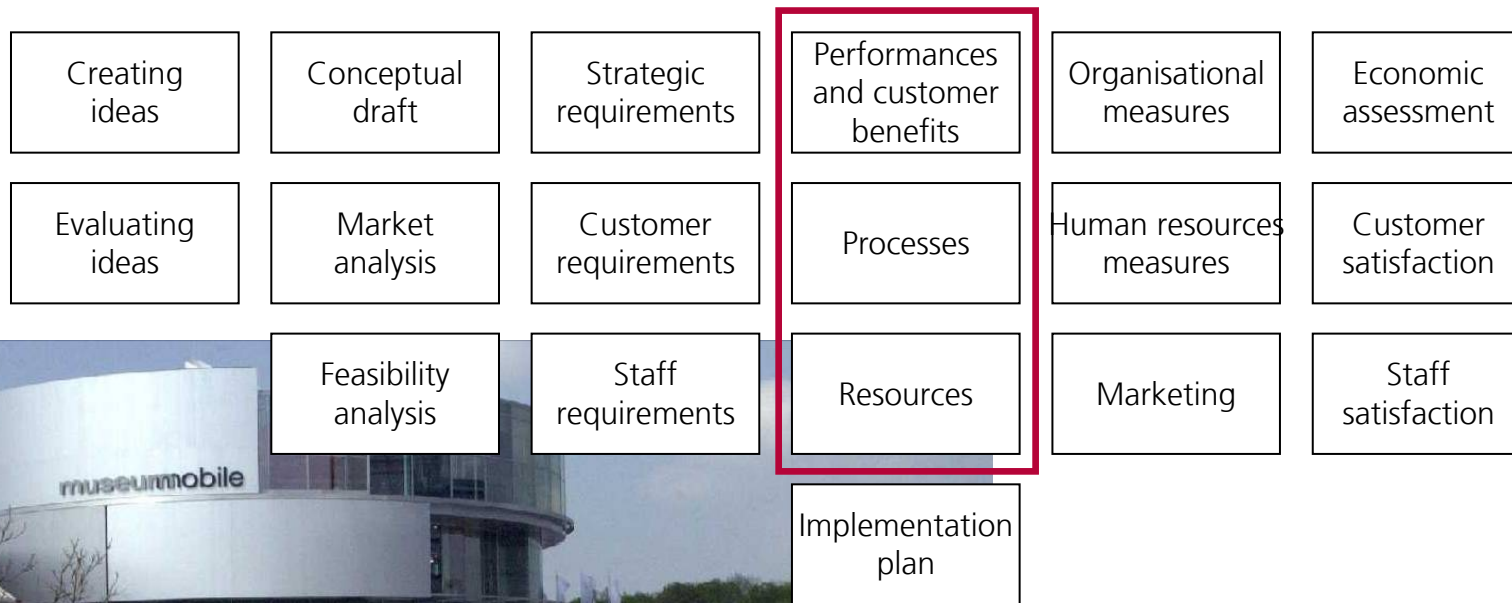
Resource models **plan the resources** needed for service delivery (staff, materials, IT infrastructure)



	Disponent	Flusskraft	Prüfungsleiter	Fluglotsen	Kaufm. Sachbearbeiter	Kfz-Mechaniker	Prüfungsbeauftragter	Reserve-Mitarbeiter	Kunde
Disposition	A	B		M					M
Kontrolle der Prüfausrüstung				M	A				
Fahrt zum Flughafen			M		A				
Abholung des Fahrzeugschlüssels					A				M
Reparatur des Fahrzeugs					A				
Probefahrt					A				
Zurückbringen des Schlüssels					A				M

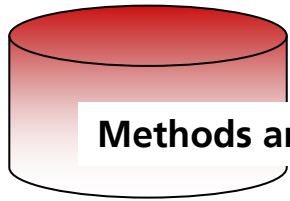
# Audi AG

## Services creation and development process

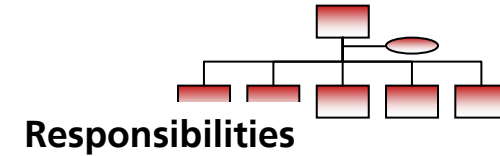
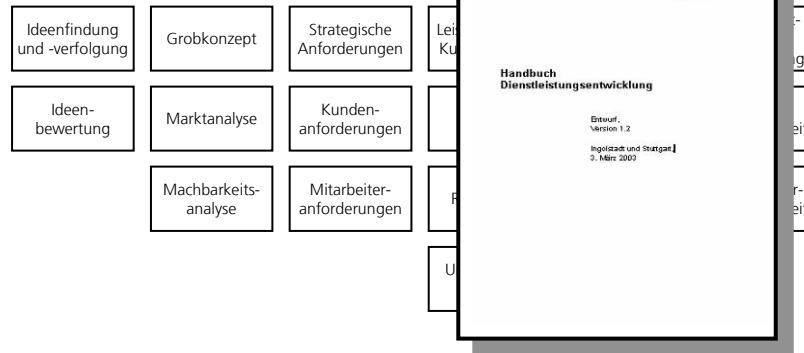
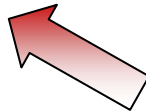


# Audi AG

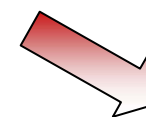
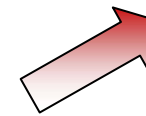
## Implementing the development process



Methods and tools



Responsibilities



Workshops and trainings

	Projektkommunikation (Schriftlich)	Projektkommunikation (Elektronisch)	Entsprechende mit Projektoren	Interne Veranstaltungen	Workshops für Auftraggeber	Workshops für Projektziele	Risikoprüfung	Projektcoaching	Beteiligung an IAO/RESER-Workshops
Vorstand	x								
Leiter IAS	x	x		x					
Leiter IAS-1									
Mitarbeiter IAS-1									
Mitarbeiter IAS									
Projektleiter		x							x
Projektteam									
Betriebsrat	x	x							

Internal marketing

# ServLab – development and testing of services

- Development and real-time testing of processes and solutions for practical usage
- Creation, testing, and optimization of methods, tools, and approaches for the development and management of services
- Boosting the exchange of information and experiences between involved companies



# ServLab – examples and future projects



Concept creation, simulation and testing of innovative check in



Design of consulting concepts for nursing homes



## ServLab Future:

- »Think Tank Service Innovation«
- Integration of business process modeling tools
- Development of tool sets
- Further enhancement of the simulation, e.g. scent pillars, sounds, etc.



Conception

Evaluation

Presentation

Discussion

Decision

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# Factors of service excellence

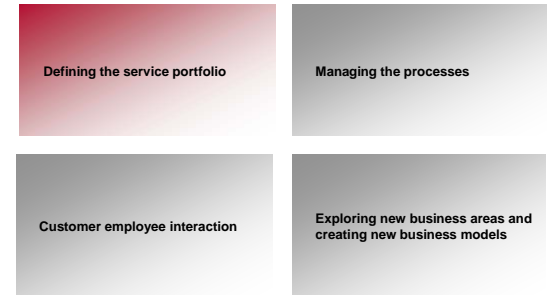
**Defining the service portfolio**

**Managing the processes**

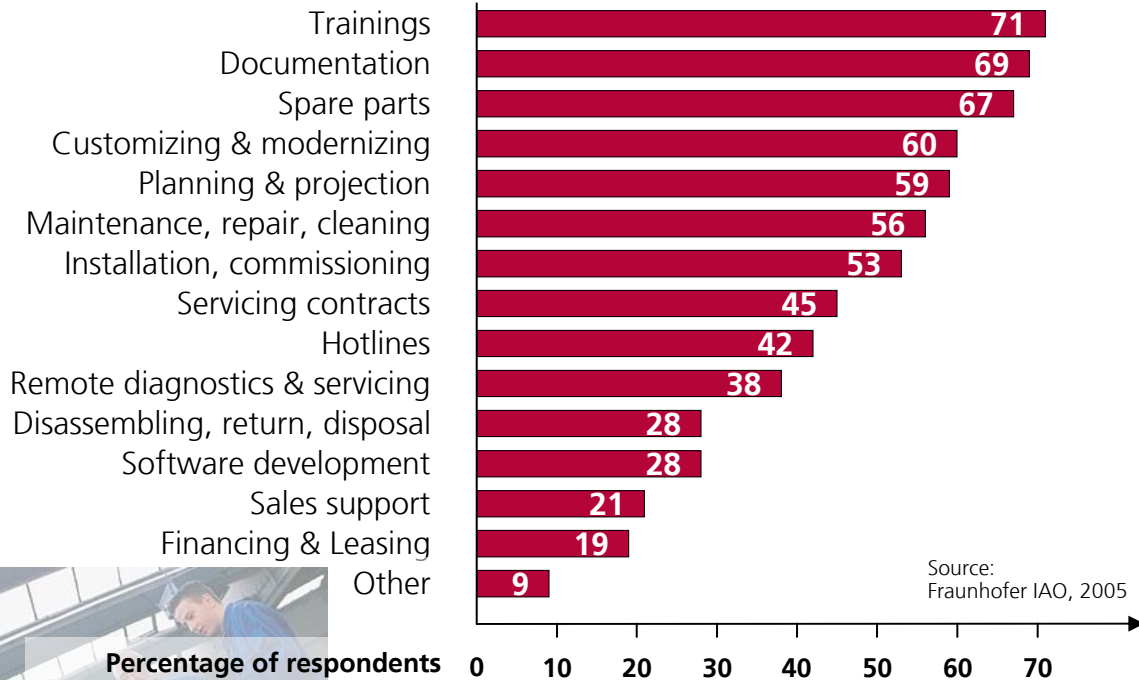
**Customer employee interaction**

**Exploring new business areas and  
creating new business models**

# Defining the service portfolio



Companies offer a broad spectrum of product-related services.



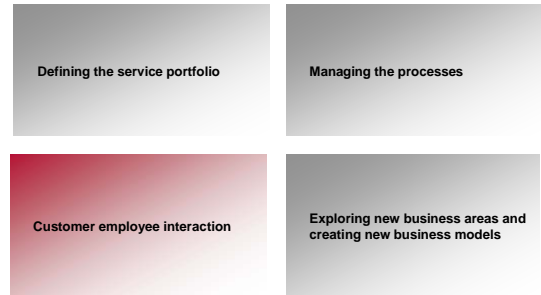
## Challenges:

- **Documentation** of already existing services to create transparency
- **Structuring** of the services to create a portfolio that appeals to the customer
- **Pricing** of the services
- **Marketing** and communications for the services





# Customer employee interaction



Customers need to be addressed in appropriate ways

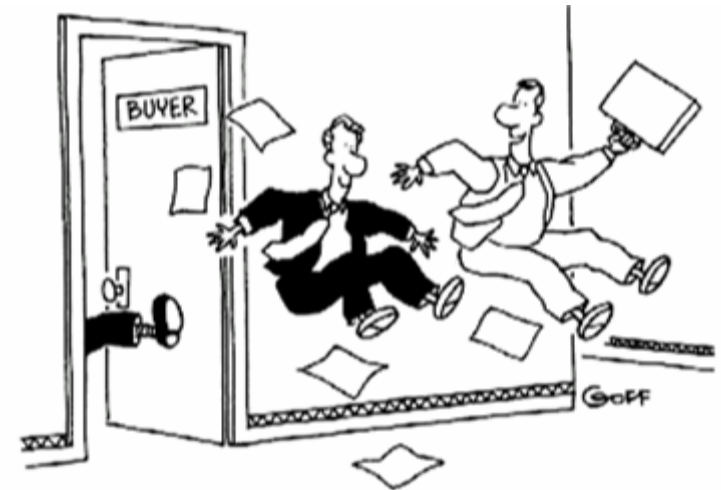
## Multi channel interaction:

- Face to face
- Online
- Machines
- Mobile media
- Call centers



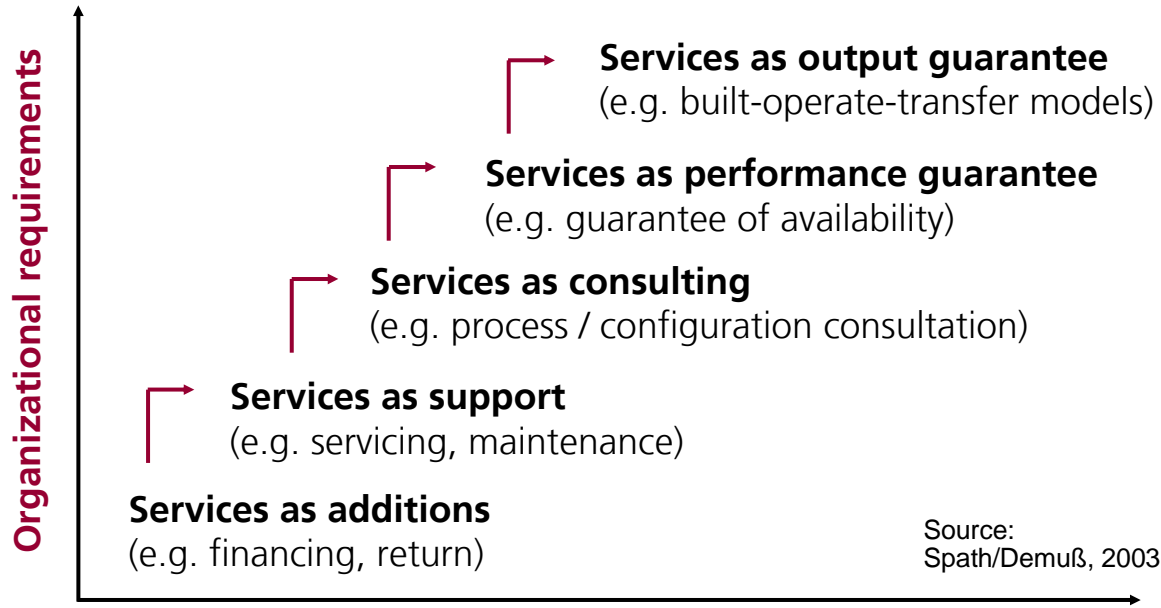
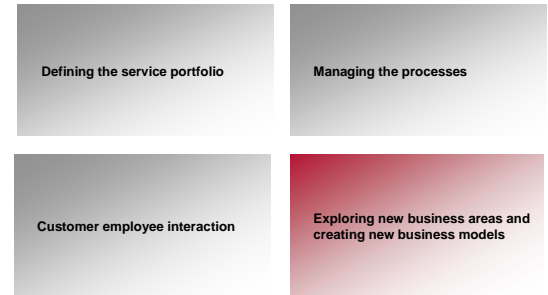
## Requirements for efficient interaction in services:

- Professionalism
- Authenticity
- Spontaneity
- Empathy



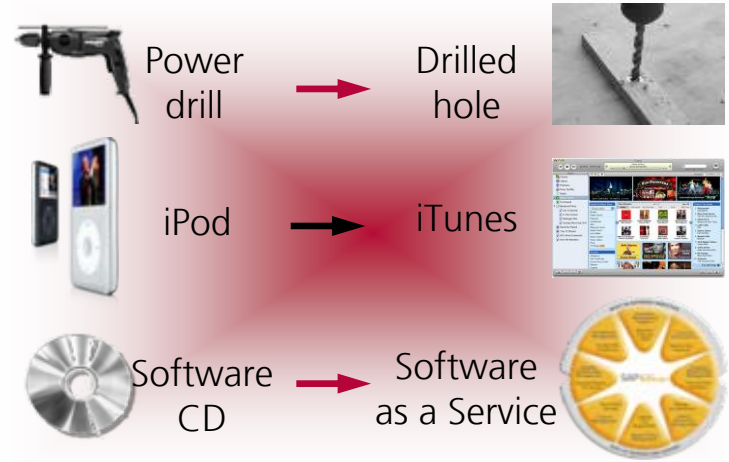
»I have a good feeling about this.  
He kicks us a shorter distance every time«.

# Exploring new business areas and creating new business models



Source: Spath/Demuß, 2003

## From product ... to solution



Depth of integrations of physical goods and services

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# Achieving success with excellent services

1

## Engineering Know how

- Simulation and testing of services
- Integration of technology development and service development
- **Requirement:**  
**Closer integration of engineering disciplines**

2

## Multidisciplinary Approach

- Customer interaction
- Service aesthetics
- **Requirement:**  
**New knowledge creation**

3

## Interplay of Theory and Practice

- Supporting services' R&D in companies
- Establishing innovation networks with SMEs
- **Requirement:**  
**Funding of Applied Services Research**

4

## International Cooperation

- Raising the profile of European research
- Building an international community
- **Requirement:**  
**Creating international Service Research Networks**

»Products are platforms for Services  
and Services are platforms for Emotions.«



Bo Edvardsson, 2006  
(Service Research Center  
Department of Business  
and Economics  
Karlstad University)

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**Service  
development**



**Service  
management**

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