

Does IT matter? – The Challenges of IT-Management for European Universities

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Agenda



1 Framework for IT-Management

Overview

2 Strategic Impact of Information Technology

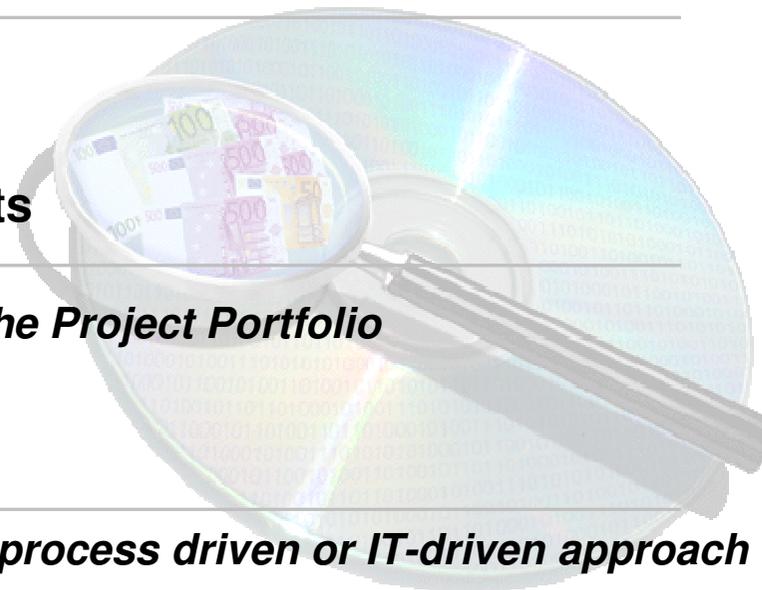
The presidents view on IT

3 Identifying the relevant IT-Projects

The View of the CIO - Managing the Project Portfolio

4 Implementation Strategy

The view of the project manager - process driven or IT-driven approach



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Our Understanding of IT

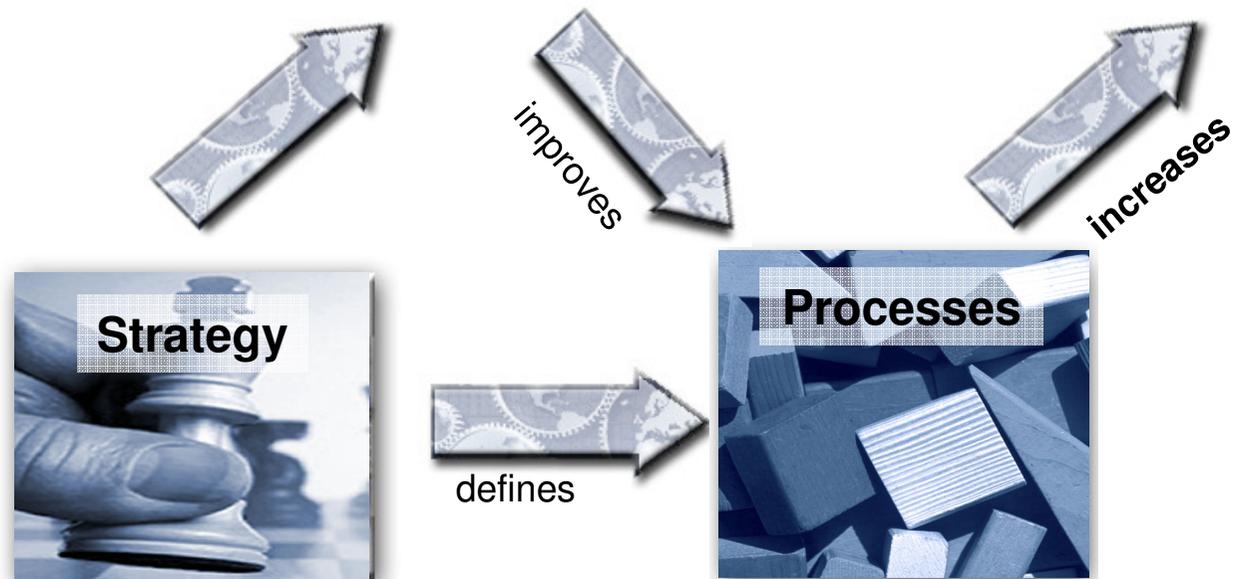


Understanding

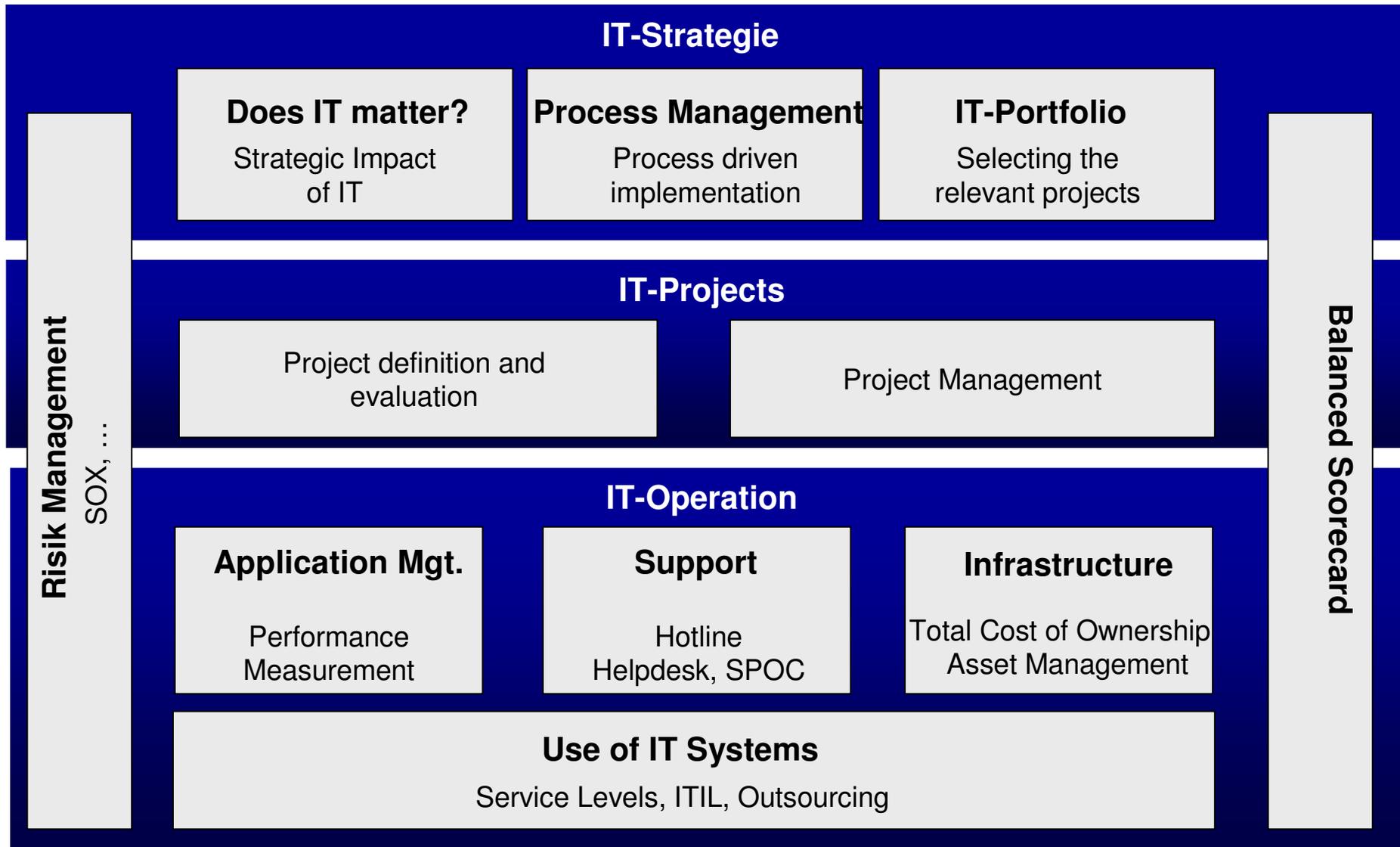


Processes are the basis for success!

IT is an enabler for process improvement



Framework for IT-Management



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What is IT?



IT is a Commodity

I use IT ... as denoting all the technology – hardware and software – used to storage, process and transport information in digital form. ... The meaning of IT does not encompass the information itself or the talent of the people using the technology.

Carr (HBS) 2004

IT is a strategic instrument

IT is one of six key assets (human, financial, physical, intellectual property, relationships and IT) that must be governed to create value.

IT is an essential ingredient for business competitiveness.

Weill, Ross (MIT) 2004

The strategic impact of IT depends on...



... Chances and Risk for the Organization

Chances of IT in Higher Education



Better Quality of Education



E-Learning

**Student support systems –
Campus Management**

E-Collaboration of students

Lower Cost of Processes



**Lower cost in support
processes**

More money for core processes

Automated work flows

Better Research Quality



Research is data processing!

Simulation and calculation systems

Better documentation of results

Higher attractiveness for scientists!

Improved International Networking



Video Conferencing

**E-Collaboration of students
and researchers**

**Allways connected
research communities**

IT-Risk in Higher Education



Portfolio-Risik



Waste of money for irrelevant IT-Systems

Late implementation of relevant Systems

Lack of evaluation

Operation-Risik



Missing IT-Security

No financial benefit

High Cost in IT_Departement

Unexpectedly high down-times

Not compatible with other IT-systems

Project-Risik



Insufficient personnel resources

Neglect of the documentation

shift of milestones

Mistakes in change management

Outsourcing-Risik

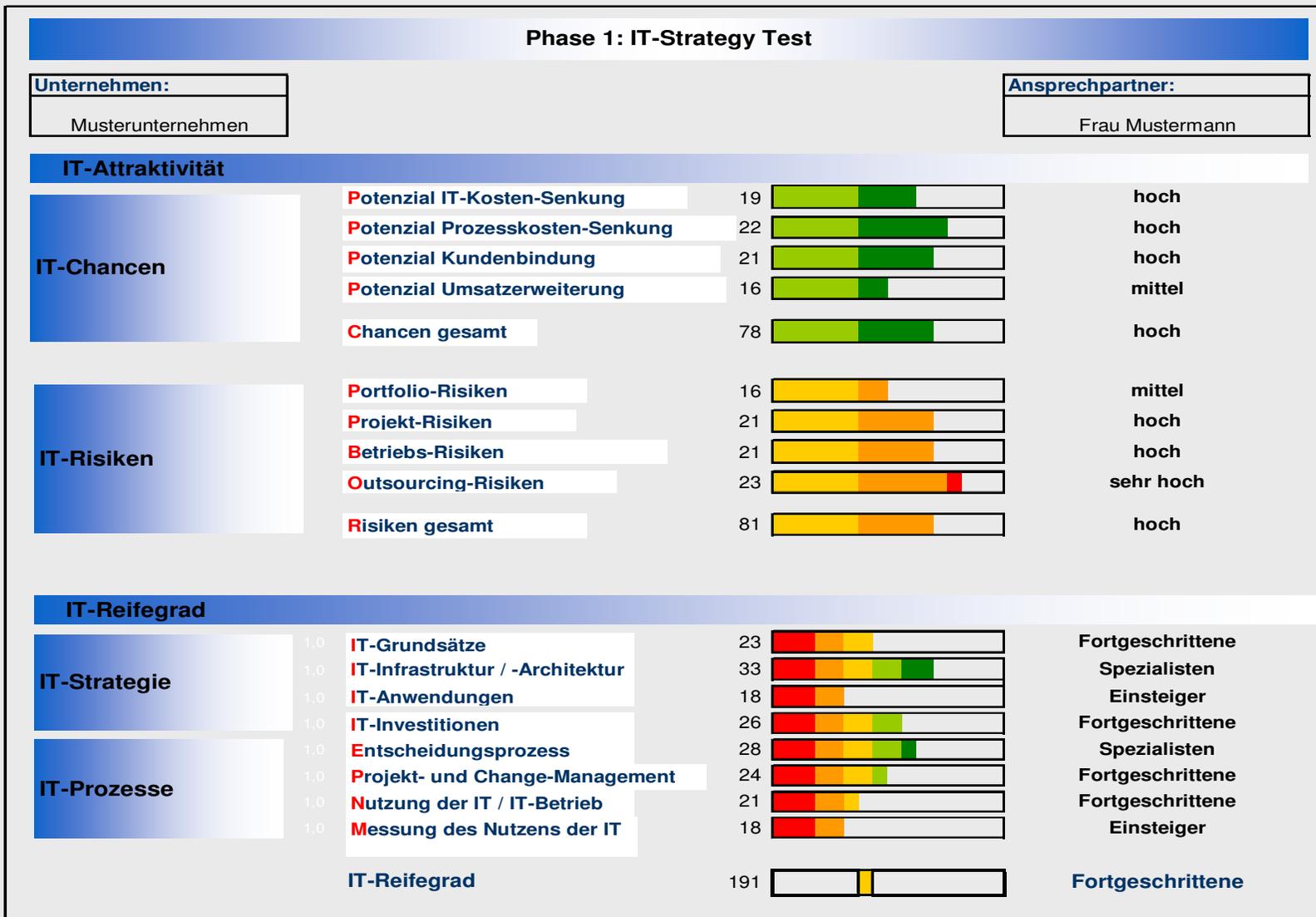


Dependence on the outsourcing partner

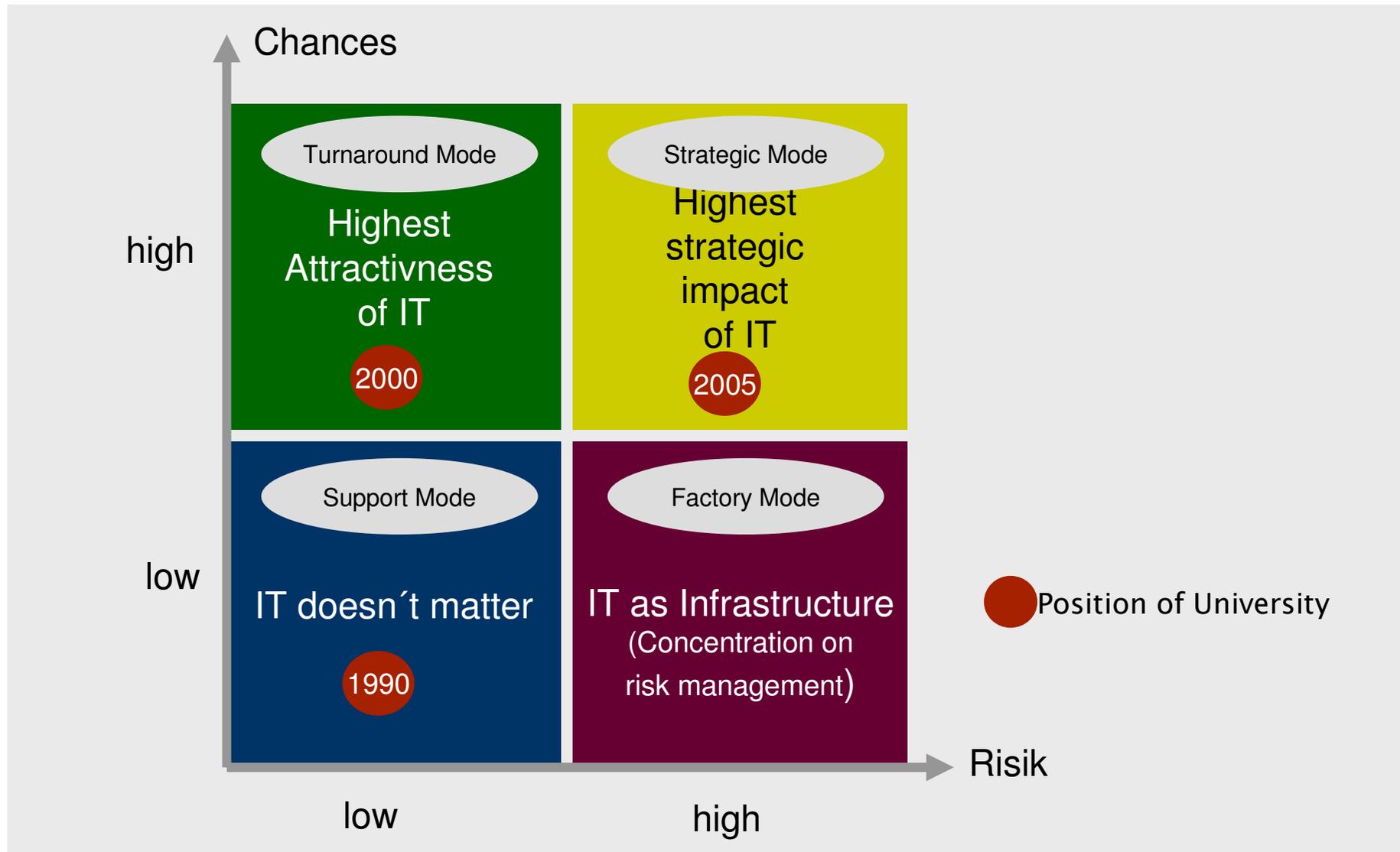
No effective contractual sanction mechanisms during default

Insolvency of the partner

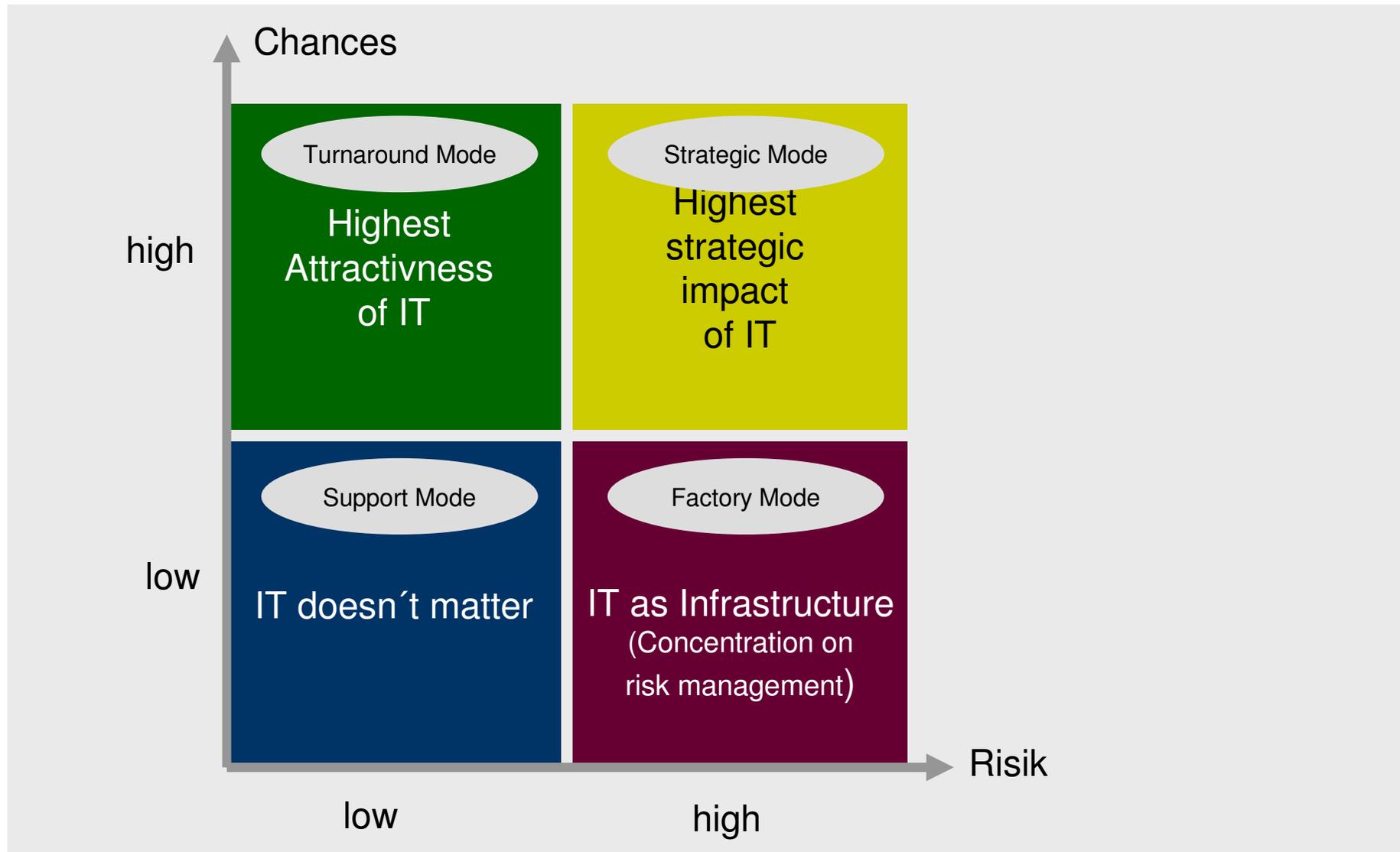
IT-Strategy-Test – Profile



Strategic IT-Matrix – external View



Strategic IT-Matrix – external View



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Managing the Project-Portfolio



**Project management
means:**



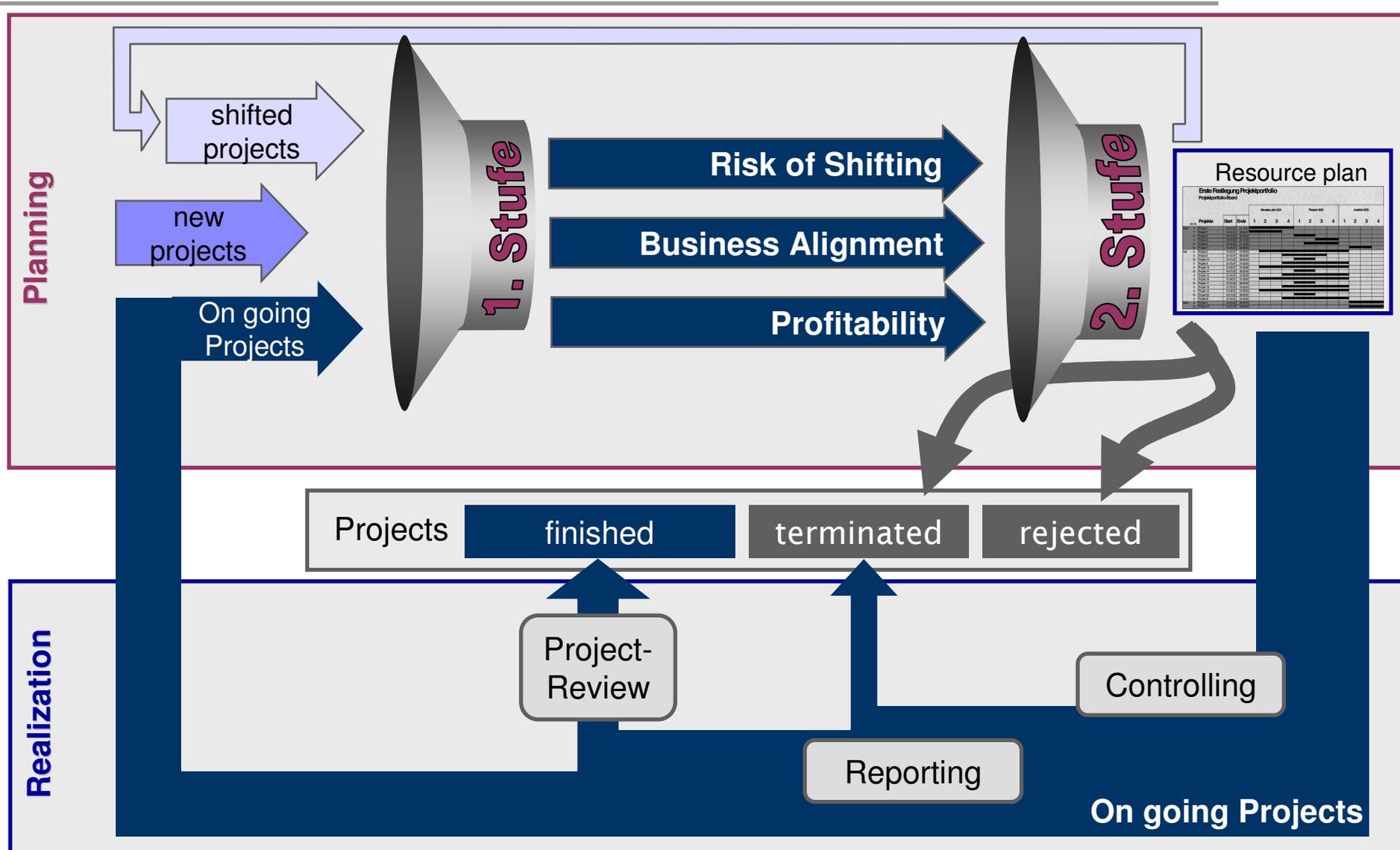
**„Efficient realization
of the selected projects“**

**Portfolio management
means:**



**„Selecting the really
relevant projects“**

Project Portfolio- Cycle



Benefits of the Project Portfolio



- **Business Alignment of the IT projects**

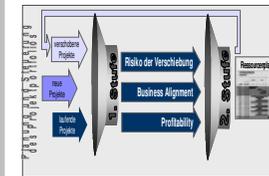
Stronger adjustment of the IT projects at the business goals

- **Standardized and objective decision making for new IT projects**

transparent evaluation parameters for the prioritization of IT projects

- **Effective use of limited resources (employees, budget)**

Selecting the IT-projects with the highest strategic and financial impact



MPM

Benefit

Standardization of the Project Request



IT-Projekt / Steckbrief

Projekttitel	Zeitplan
	Start
	Dauer

Projektüberblick

Kurzbeschreibung / Projektstruktur	Owner
	Sponsor
	Projektleiter

Budget freigegeben
Ja <input type="checkbox"/> Nein <input type="checkbox"/>

Wirtschaftlichkeit

Ressourcenbedarf	Net Present Value
Softwareentwicklung	
Zollsysteme	
Transportanwendungen	
Infrastruktur	
Kundenintegration	
	Capital Expenditure

Business Alignment

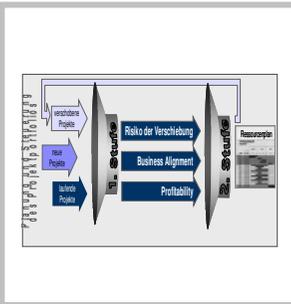
Betroffene BU	Kernprozess
Seefracht	Abwicklung
Luffracht	Kundenanbindung
Kontraktlogistik	Controlling
Landlogistik	Personal
Stabsbereich	Einkauf
crossover	

Risiken

Opportunitätsrisiken	sehr gering	sehr hoch	Begründung
legal, security, compliance necessity	1 2 3 4 5 6		
strategic and corporate guidelines	1 2 3 4 5 6		
customer pressure / competition	1 2 3 4 5 6		
technical or contractor forces	1 2 3 4 5 6		

Wirkung auf den Kundennutzen

Wirkung beim Endkunden	keinen Effekt	Begeisterung	Begründung
Das Projekt bewirkt bei unseren Kunden...	1 2 3 4 5 6		



MPM

Projekt-Skizze

Evaluation of the IT-Projects



IT Project Overall Score

% weighting

Business Alignment

Does the IT project focus on the right division and support the relevant process with focus on students and scientists needs?

% weighting

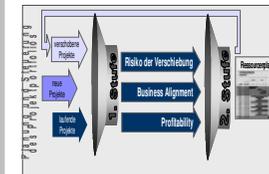
Opportunity Risk

What level of risk do we take, if we delay this project?

% weighting

Profitability

Estimate of cost reduction, sales increase and capital expenditure



MPM

Project-Evaluation

Evaluation of the IT-Projects - Case



IT Project Overall Score

%
weighting

Business Alignment

- influence on process optimization
- improvement of the satisfaction of the students
- increase of the research ability
- strategic impact - image

%
weighting

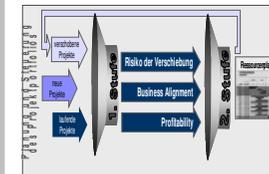
Shifting Risk

- legal, security, compliance necessity
- strategic and corporate guidelines
- political pressure
- technical or contractor forces

%
weighting

Profitability

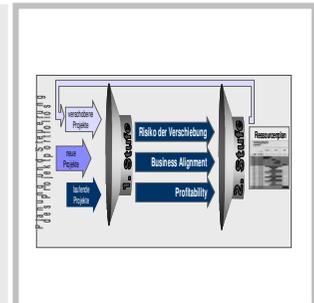
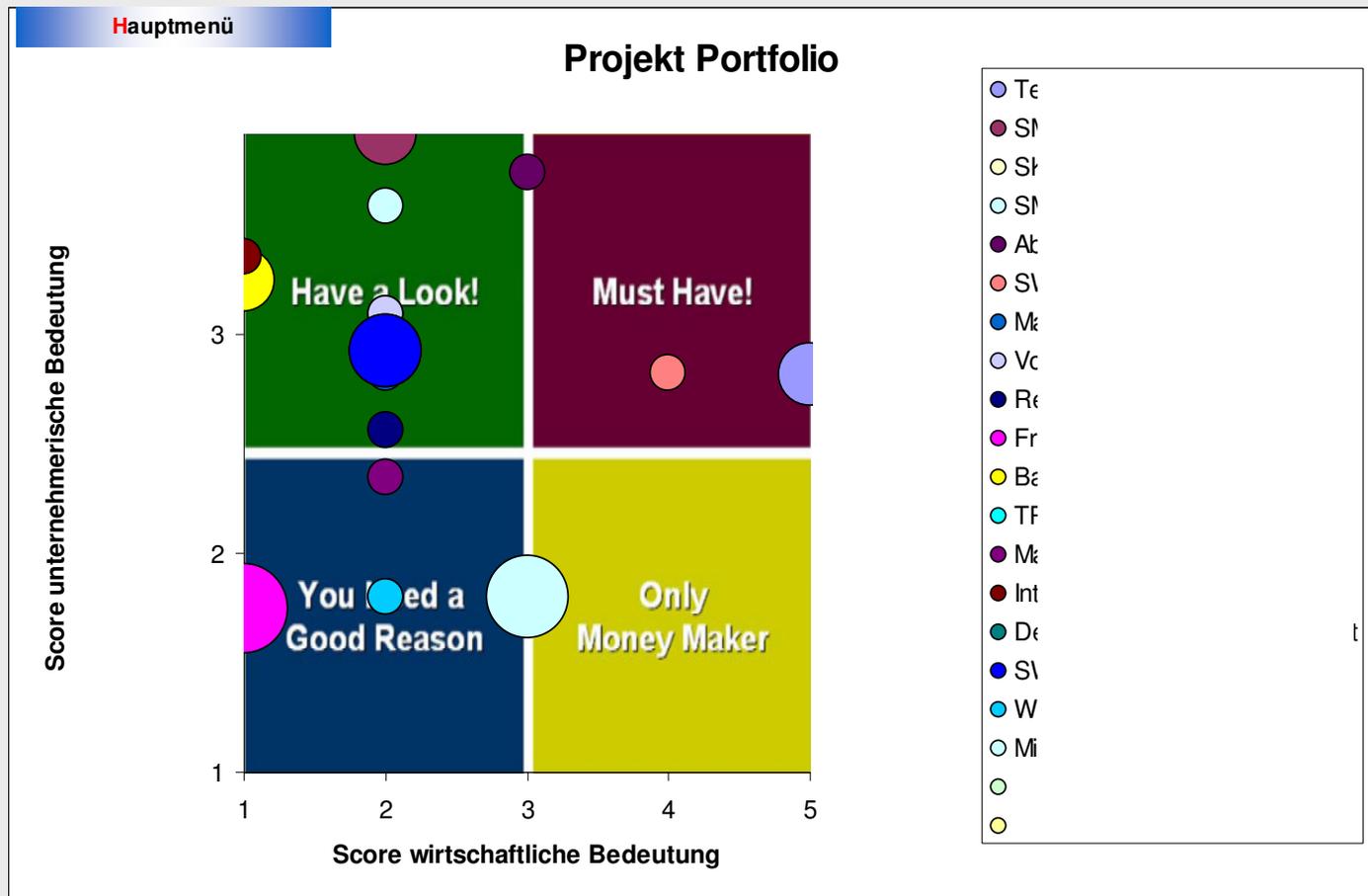
- financial benefit – cost reduction



MPM

Project-Evaluation

IT-Project Portfolio (Case)



MPM

Portfolio Analysis

Excel Prototype – Project Portfolio



Microsoft Excel - MPM_Tool_KN_V9.XLS

salesforce.com

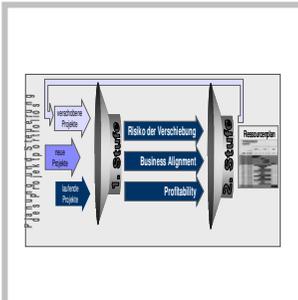
IT-Controlling

Projekt-Priorisierung und Ressourcen-Check

Analyse	Multi-Projekt-Management	Ergebnisse
Grunddaten		MPM IT Ranking & Szeanrio Selector
IT-Kernprozess-Check		Projekt-Portfolio TOP 20 absolut
IT-Multi-Projektinventur		Projekt-Portfolio TOP 20 relativ
IT-Multi-Projekt-Bewertung		Ressourcen Analyse
Plausibilität		
Einzelscore-Vergleich		

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Hauptmenu / Hilfe / Grunddaten / Ressourcenangebot / Prozessbedeutung / IT Projektinventur / IT Projektbewert



MPM

Tool

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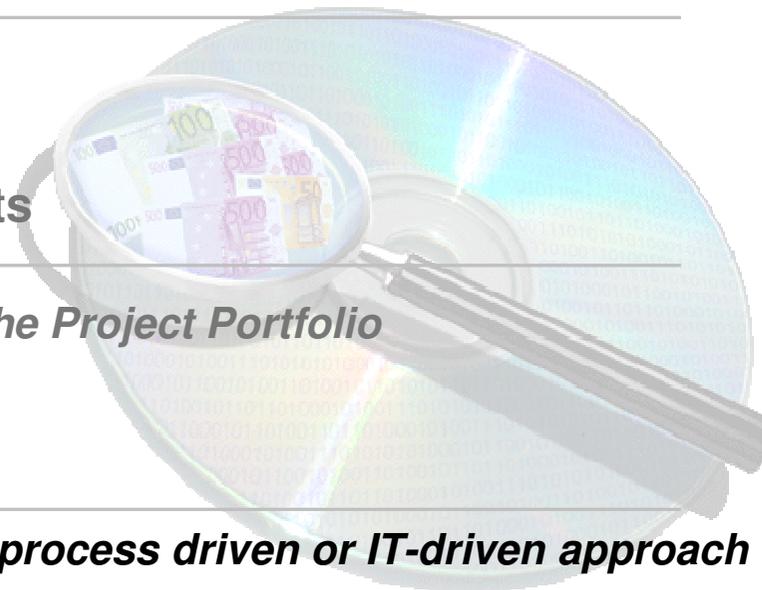
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Two different approaches to IT-Implementation



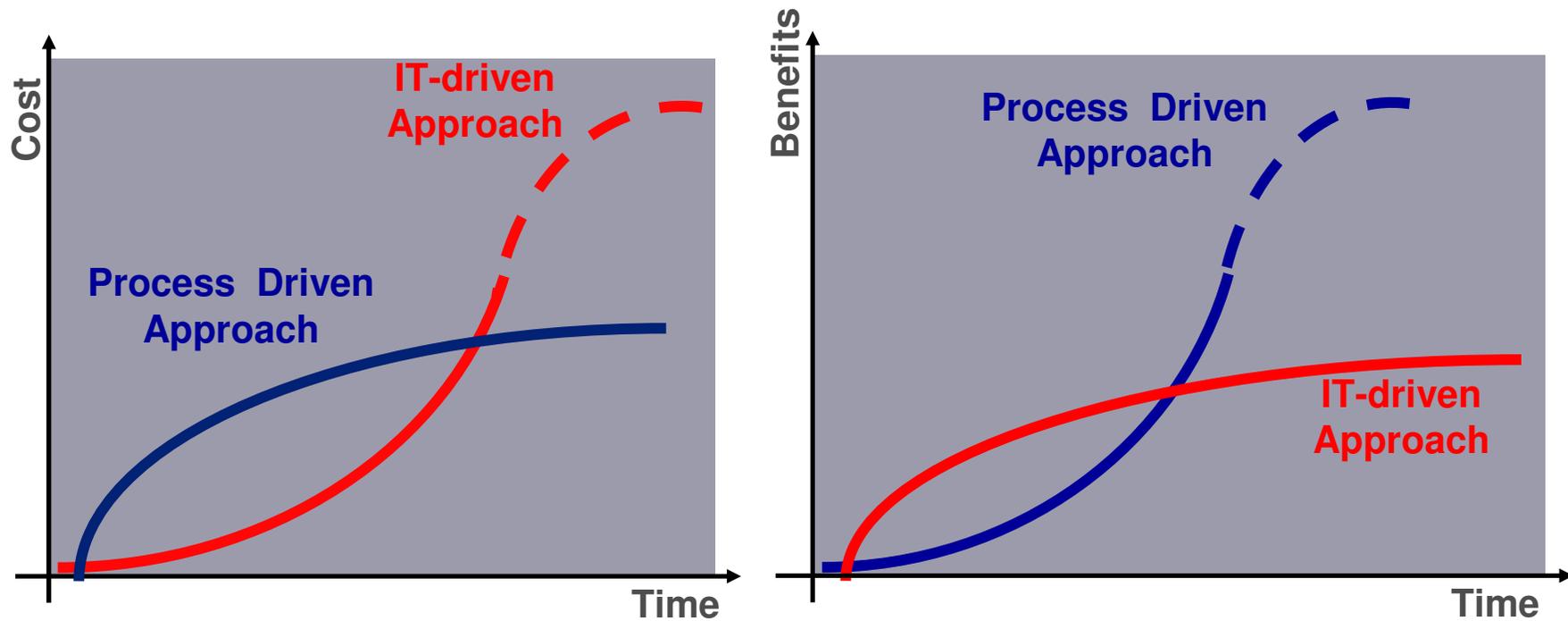
IT-driven Approach



Process Driven Approach

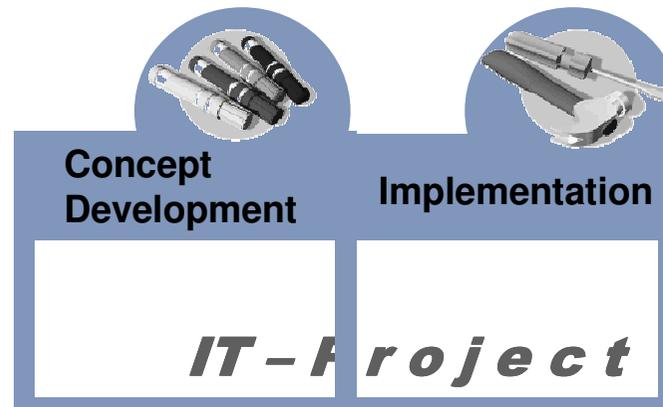


Comparison of Cost and Benefits



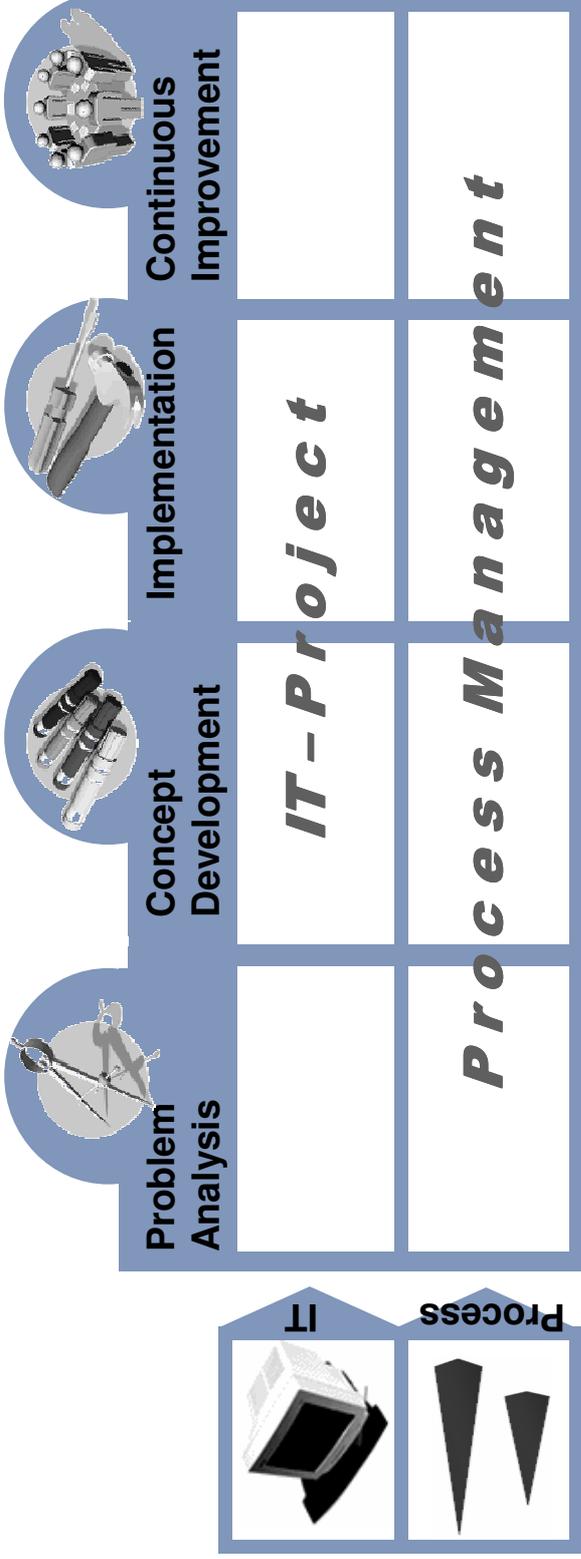
**After the first year:
Process driven approach leads to lower cost and higher benefits**

A traditional IT-Project



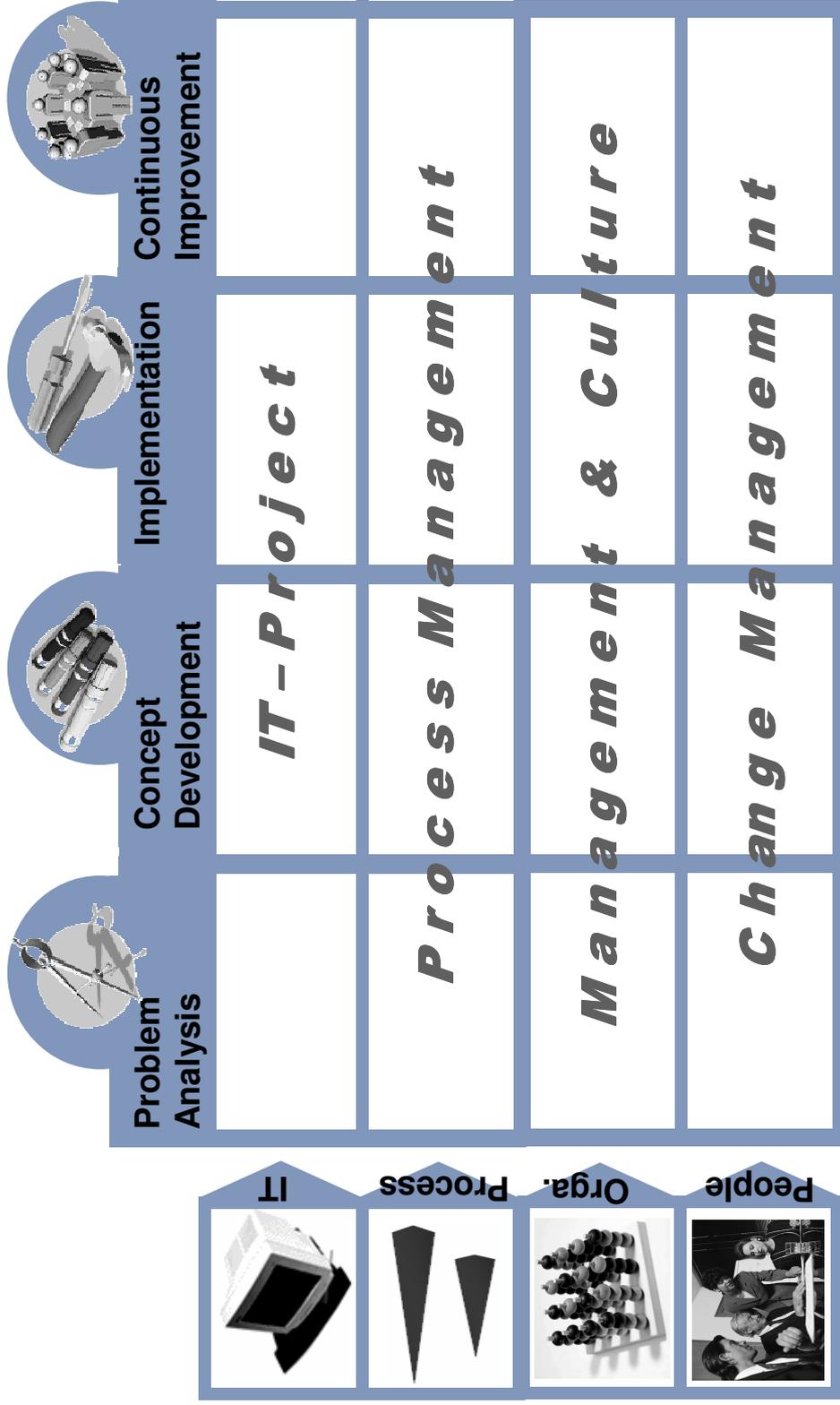


Integrated IT- and Process Management

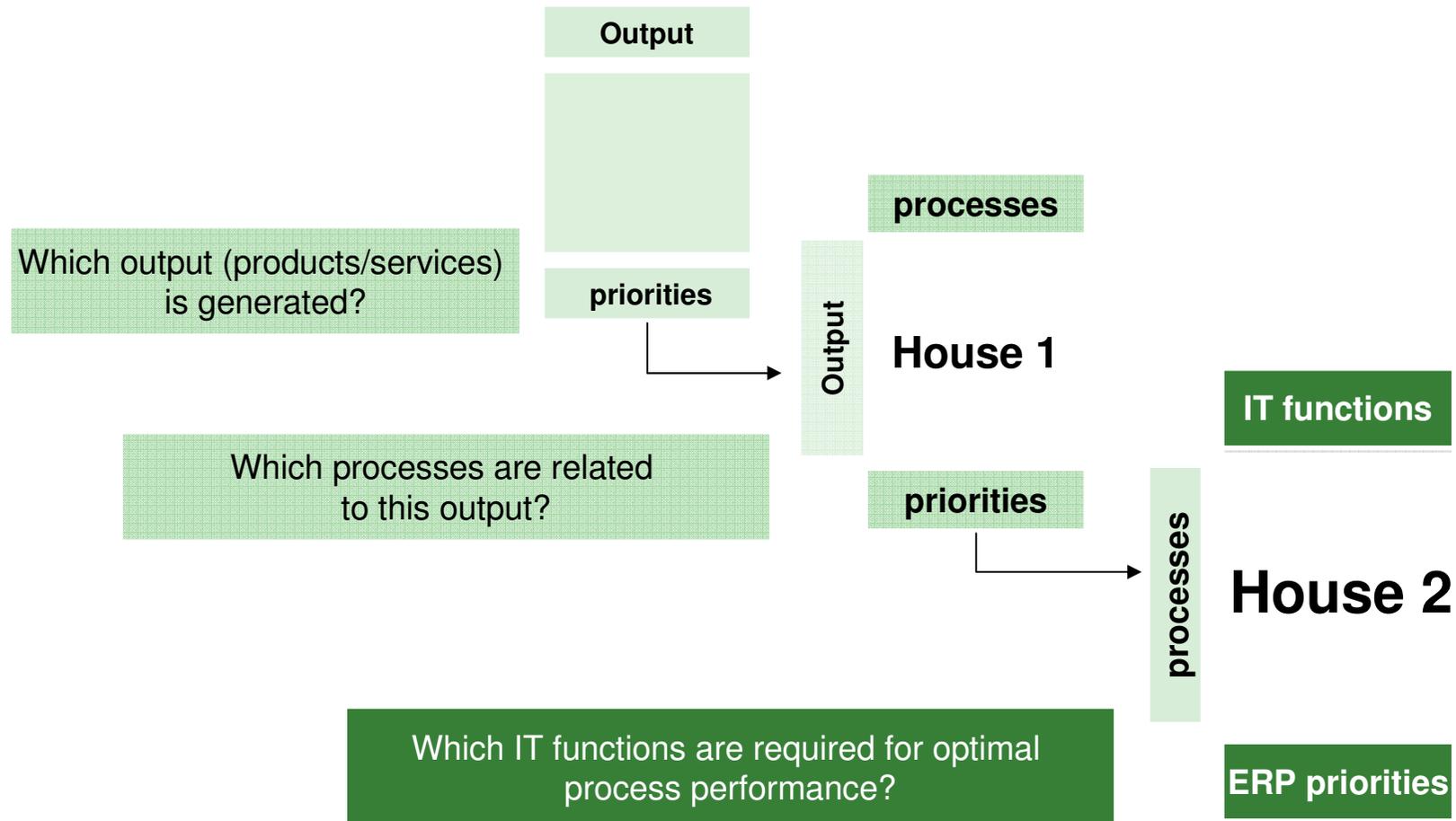




Framework of the Process driven approach



Method: "House of IT-Functions"



➔ Process oriented selection of the future IT-system

Process oriented management of the IT-landscape



What is to do to manage IT?

I already have...

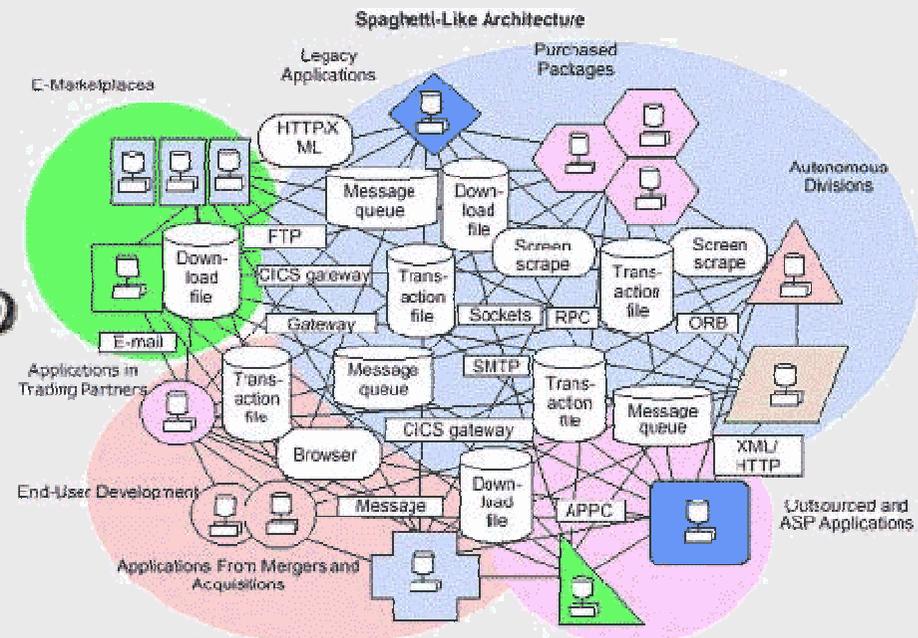
Process modells

Asset-Management

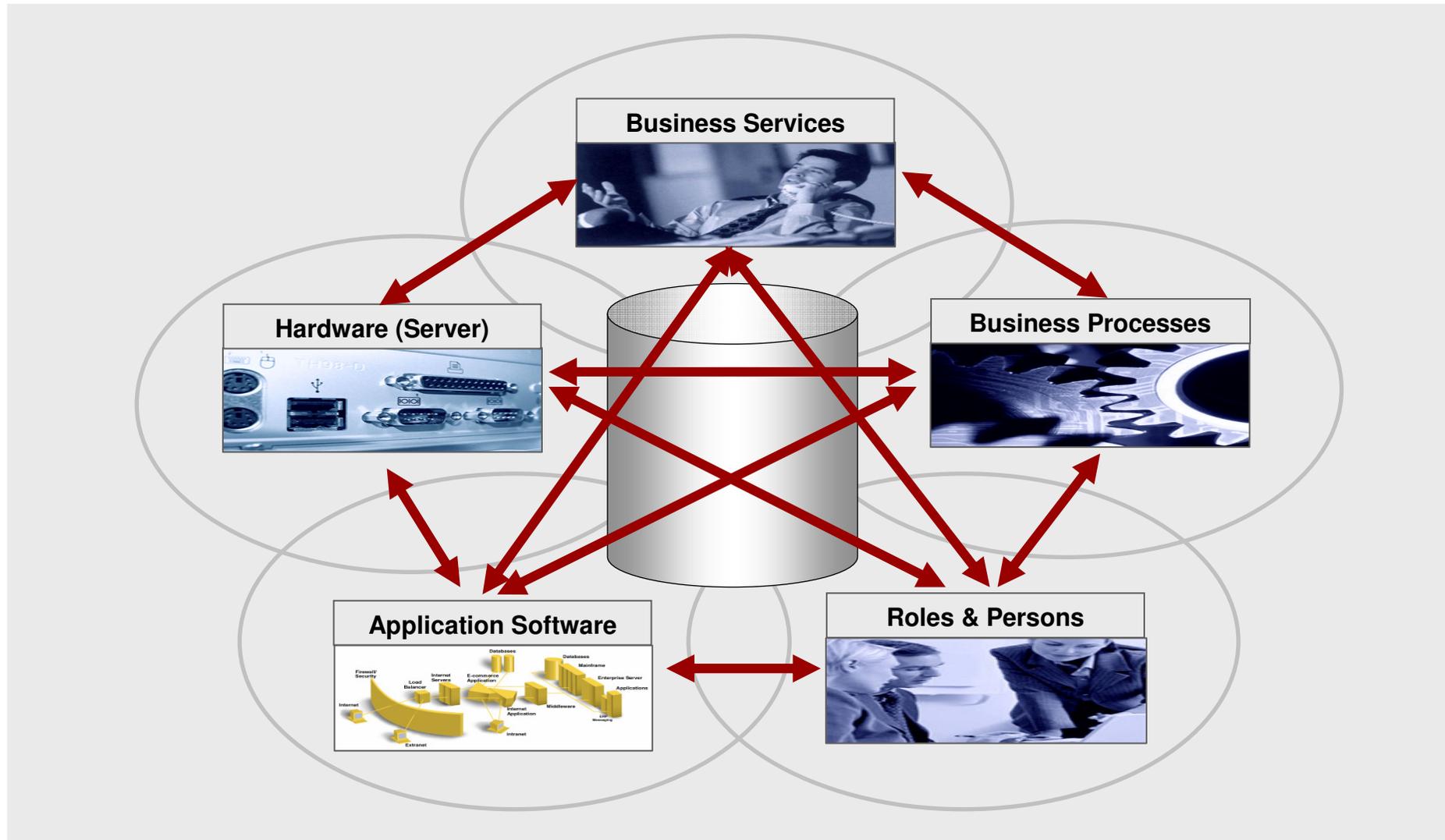
Configuration Management Database

ITIL-Processes

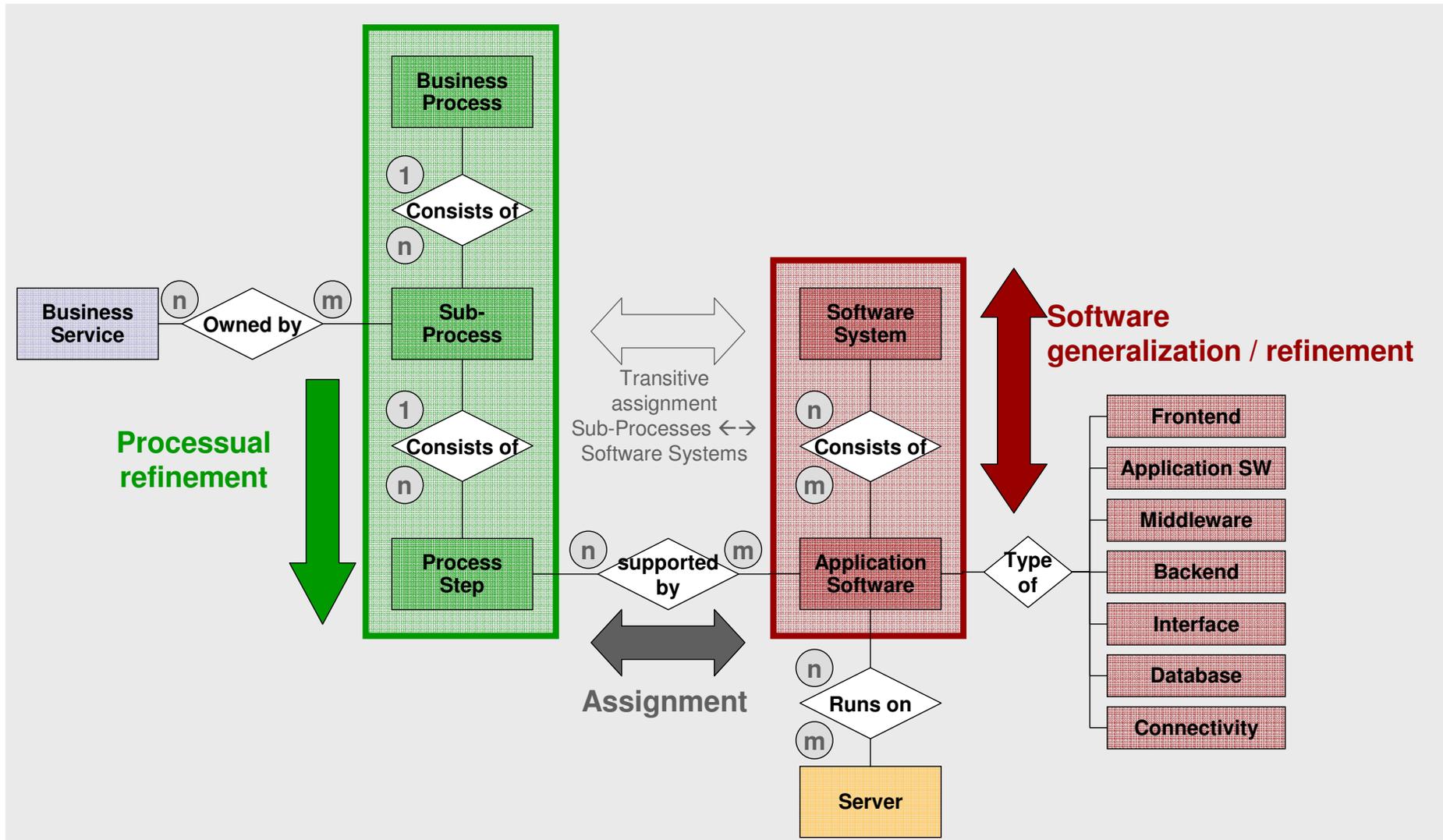
Ticketing-System



Integrated database Process and Configuration Management

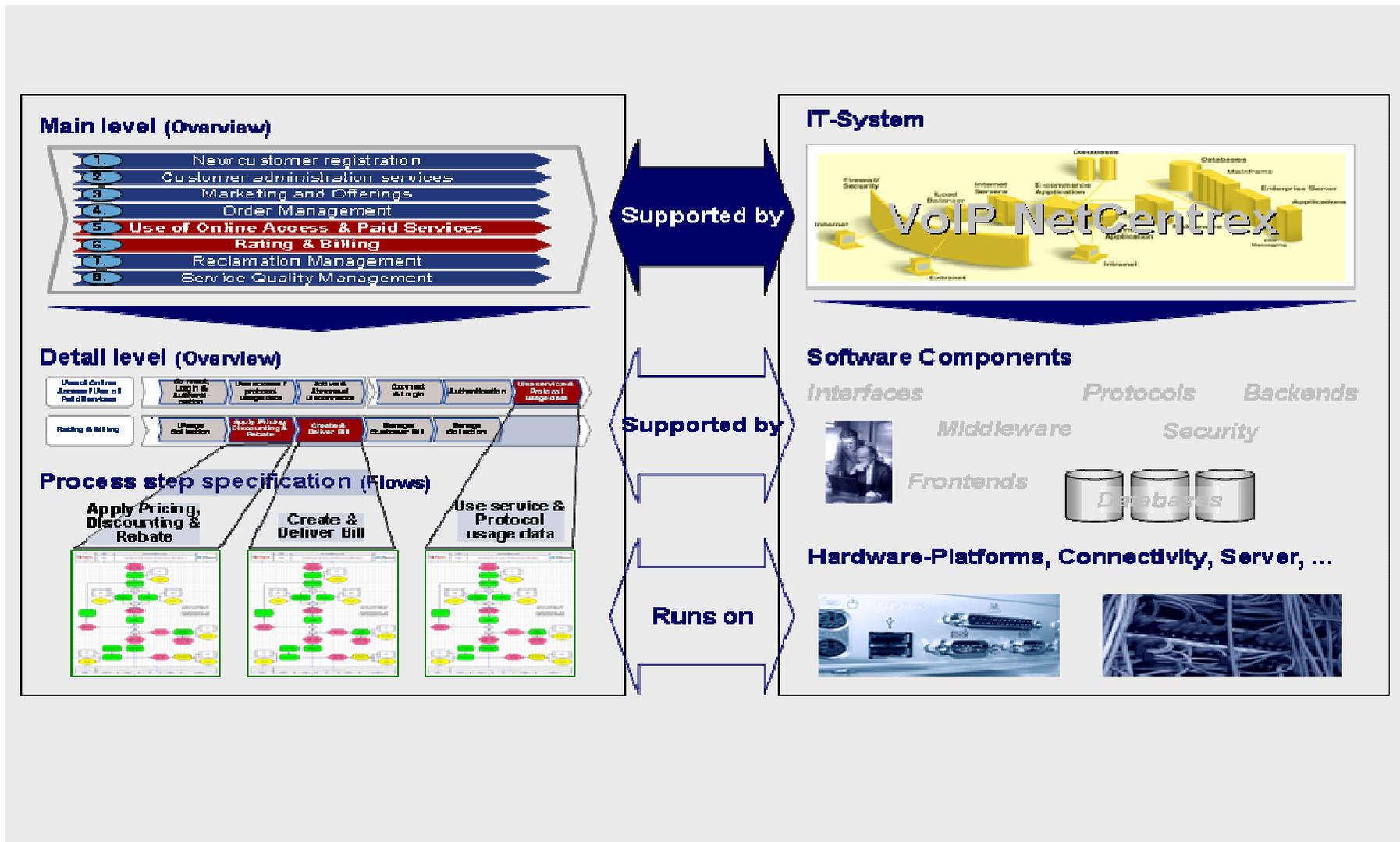


P-CMDB prototype modell (Conceptual model)





Requirements of a process orientated CMDB



IT-Database – Access Prototyp



Auswahl

Auswahlmenü Freie Universität  Berlin

Prozesse

- Arbeitsprozess
- Liste der Arbeitsprozesse

Organisation

- Mitarbeiter
- Liste der Organisationseinheiten
- Adressen

Berichte

- Arbeitsprozesse
- Arbeitsprozesse (Orgeinheit)

Informations-Technologie

- IT-System

Hardware

- Server
- Client

Software

- Applikation

Administrator

WER...
...macht
WAS...

...WOMIT?

Eingabe / Zuordnung
von Prozessen,
Organisations-einheiten
und
IT-Systemen

Extended CMDB Prototype - benefit



- **Transparency:** Mutual dependencies and interactions between Business Services, Processes, IT-Systems, and Roles / Contact persons are documented in detail.
- **Availability:** required information about Business Services, Processes, Roles & Responsibilities, and Technology are available in one comprehensive database.
- **Multidimensionality:** entrance in DB content can be made from individual point of view (Business Services, Processes, Roles, and IT) and required abstraction level.
- **Detection of missing roles and responsibilities:** roles, responsibilities, and contact persons can be assigned on arbitrary detail level. Unallocated or vacant roles and responsibilities can be detected efficiently.
- **Integrated information base for several application fields:** These dimensions and mutual dependencies define the kernel for systematic migration management, quality management, risk management, business process management and more.