

# Introduction to ITIL – Best practices for IT Service Management

- You'll find out ... (Agenda):
  - my vision
  - what is ITIL
  - the limits of ITIL
  - the mission of ITIL
  - the ITIL process architecture
  - what are ITIL information objects
  - ITIL Service Support Lifecycle
  - importance of tools
  - organizational needs

# Who is here ...

- few words about myself
  - Achim Grindler (Forschungszentrum Karlsruhe)
  - Systems Engineer / Teamlead and responsible for several IT-Services and the operation of the associated systems
  - ☺ gained expertise in „IT Service Management“ due to the project management of several „ITSM Projects“ in FZK
  - ☺ visited several ITIL workshops and conferences
  - ☺ tight collaboration with external ITIL consultants

# „My vision“

... our „**IT-Services**“ will optimally support the daily work and all important business processes of each employee in the Karlsruhe Institute of Technology (a cooperation between Forschungszentrum Karlsruhe and University of Karlsruhe)...

... because they are managed with **ITIL Service Management best practices** ... and controlled and improved by skilled process and project managers

# Change of „Data Centres“ to „Service Centres“ - Requirements

- today we provide classical (standard) *IT Services* for our customers (institutes) and users
- these services should:
  - have high (best with variable) quality
  - operated with preferable little amount of persons
  - be optimally supported
  - their costs are as small as possible
  - charged to the origin consumer
- **Goal:** The IT should support the internal business processes of KIT reliable, secure and efficient!

# Change of „Data Centres“ to „Service Centres“ - Reality

- Challenge: Change to pure service orientation
- Some typical situations in real service operation:
  - an error in a software modul occurred, but you don't know all the systems where it is installed
  - you have a defective hardware, but no informations about associated maintenance contracts and service levels
  - you handle incidents and service requests with the same priority
  - if the configuration of service components must be changed, the impact to the service cannot be estimated exactly
  - please decide by yourself whether these situations happen also in your organisation

# Why IT Service Management?

- Proven „best practice guidelines“ can counteract these weaknesses mentioned before
- The IT Infrastructure Library (ITIL) describes processes, that helps you to change a datacentre into an IT servicecentre
- Customer orientation: the service consumer is internally called „the customer“

# Characteristics of „ITIL“

- some flashlight characteristics about the IT Infrastructure Library
  - de facto standard for IT Service Management (ITSM)
  - collection of books (specifications) => IT Infrastructure Library
  - just a framework describing the “what to do” not the “how to do it”
  - describes IT Service Management processes in detail
  - a concept to gain higher IT Service Quality
  - not bound to a specific vendor / company
  - best practice guidelines
  - extremely aligned to the customer and business needs (service orientation)

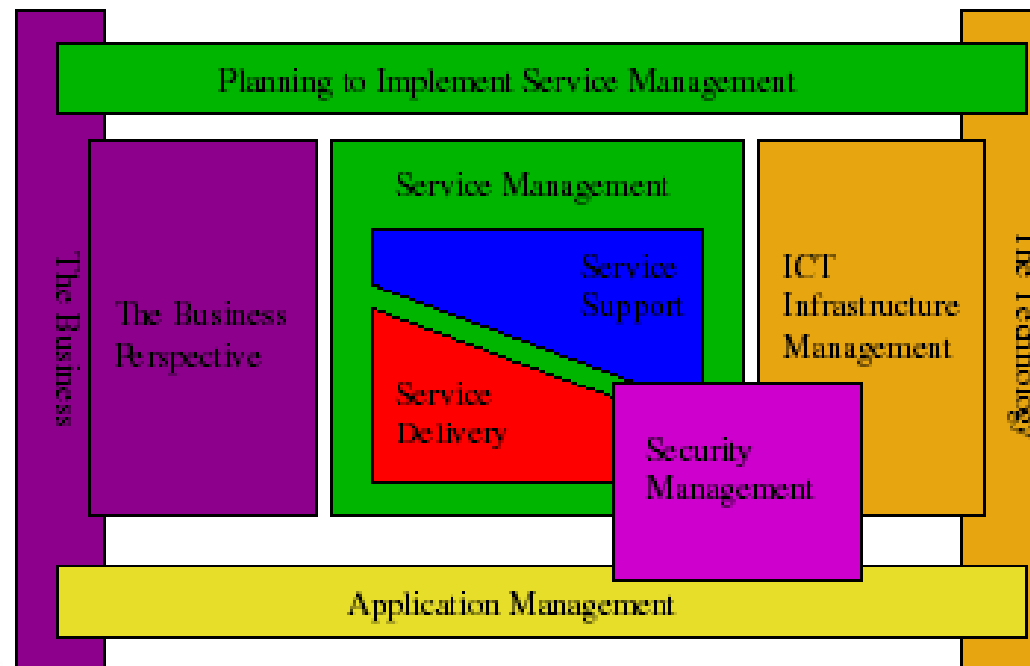
# Limits of „ITIL“

- ITIL cannot
  - change your organisation
  - define your services
  - motivate your IT staff
  - raise the awareness of your IT staff
  - present “ready to go live” solutions



## „ITIL“ core issues

- ITIL is organised in five main issues:
  - Business perspective
  - Planning and delivering of IT-Services
  - Support and operation of IT-Services
  - Infrastructure Management
  - Application Management



## The missions of „ITIL“

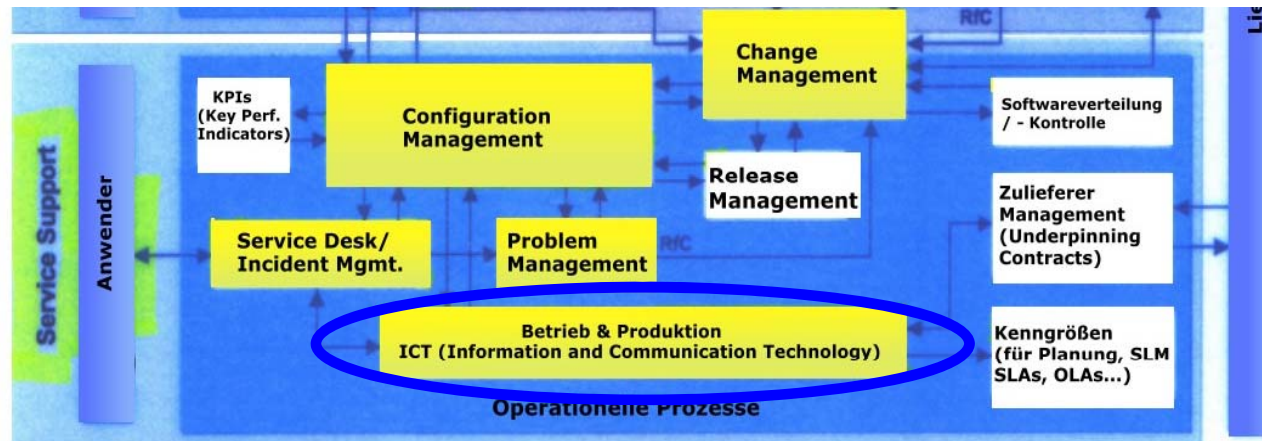
- Well implemented ITIL processes gain:
- alignment of IT Services to the enterprise and customer requirements
- quality improvement of the provided services
- decreasing costs of the service activities as a long term goal

# Without ITIL, you are here ...

## IT Infrastructure Library (ITIL)

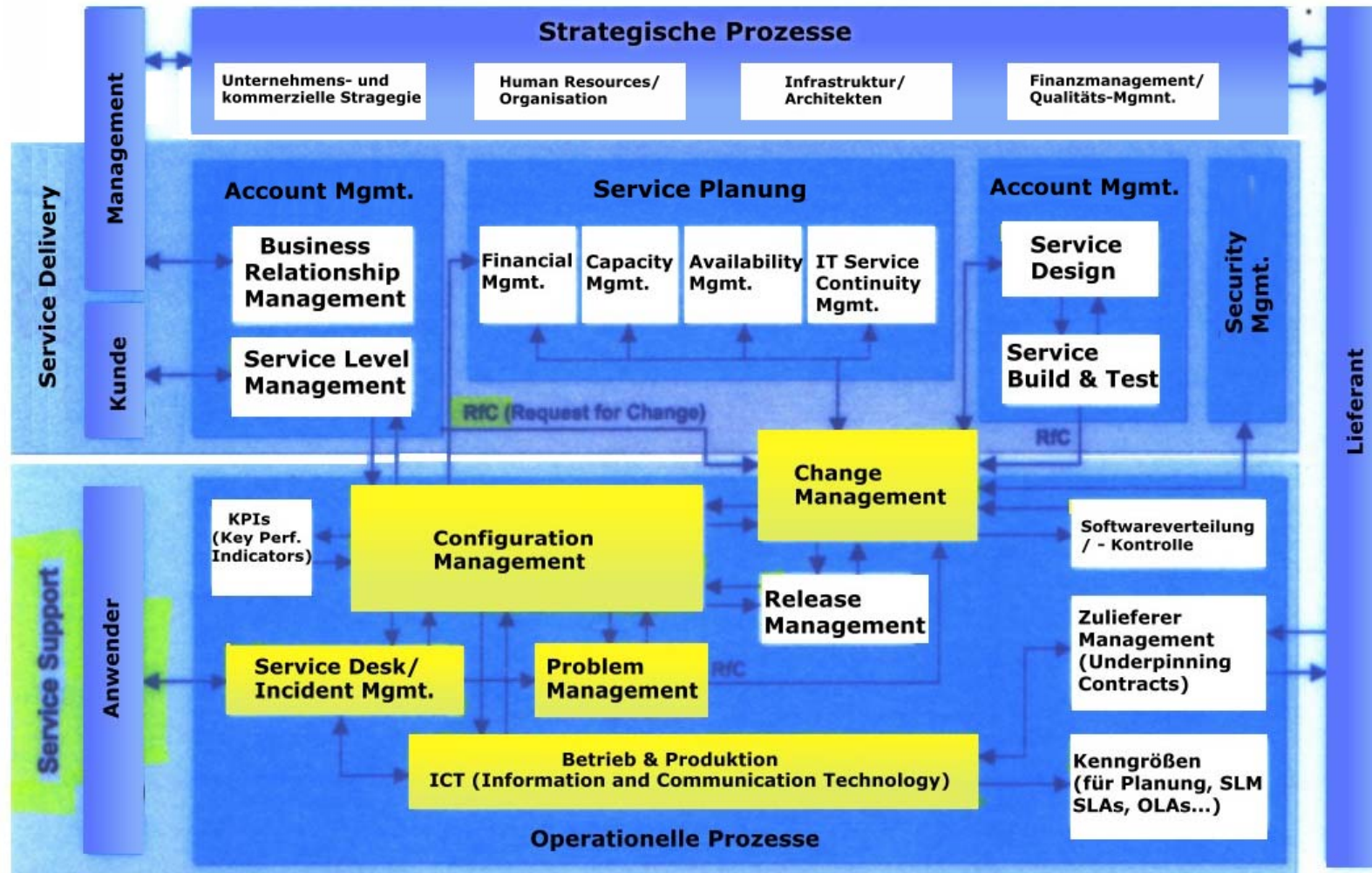
### Operation of IT-Services:

- Networking,
- Serversystems,
- Basic Services
- Applications



# Architecture of „ITIL“ (Processes)

## IT Infrastructure Library (ITIL)



# What are ITIL information objects?

- Write it down, than you own it!
- The results of our process oriented work are:
  - incident records
  - problem management records
  - workaround descriptions
  - known error forms
  - request for change forms
  - configuration item records
  - service level agreements
  - service description (in a service catalogue)

# The ITIL Service Support Life Cycle

- Each process likes to achieve it's dedicated goal!
- So work only in your process and be aware of the tasks:
  - incident appears (service unavailable)
  - user contacts the service desk (service call)
  - service desk records the incident (incident ticket)
  - service desk or service experts tries to recover the service (usually a workaround) => service is recovered
  - if similar incidents accumulate => record the problem (PMR)
  - investigate the cause of the problem
  - error is found => problem becomes a “known error” (KE)
  - solution for “known error” exists => request a change => (RfC-Form)
  - if change a is approved by change advisory board => change the configuration (problem is permanently solved)
  - remove workarounds, update configuration management database

# The Importance of Tool

- Tools are not everything!
- A fool with a tool is still a fool!
- Tools must control and support the process and access and control the change of process relevant data (e.g. configuration data)
- Whithout good ITSM tools one hardly can get the key performance indicators to assess the process quality
- Rule of thumb while implementing ITIL:
  - pay approximately **70%** attention to the **IT staff and the customers**, **20%** to the **IT processes** and **10%** to the **tools**

# Organisational needs

- Establish Process Managers (they guide, control, manage the whole process)
- Establish responsible persons for the tools
- Sponsors in the top management are essential to push the project
  
- The implementation of IT Service Management requires normally organisational changes
  
- !! One has to gain the acceptance for the importance of the service and process orientation among the whole IT staff!!
- Establish a continual service improvement process as soon as possible and concentrate to „quick wins“ and communicate them!



# Spare transparencies

# parameters / structure of a process

- general process structure
  - process goal
  - inputs
  - outputs
  - metrics
  - tasks (subprocesses)
  - roles and responsibilities
- process control parameters
  - key performance indicators
  - key goal indicators
  - critical success factors

# parameters / structure of a process (example for Configuration Management)

- process mission
  - identify, record and report on configuration items and their relationships that underpin IT services
- process (business) goals
  - accounting for all IT components
  - prevent unauthorised alterations
  - verify physical existence
  - provide a solid basis for change management
  - link all configuration components (logical and physical) to associated IT services

# parameters / structure of a process (example for Configuration Management)

- key performance indicators
  - percent of configuration components for which data is kept and updated automatically or controlled by workflow
  - time lag between the modification of the configuration and the update of records
  - frequency of data audits and verifications
  - number of exceptions in configuration audits

# ITIL Processes and their goals (InM)

- These are your objectives in the service support:

## Incident Management

the fastest possible reestablishment of the service and the minimization of the impairment of the business processes

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## ITIL Processes and their goals (PrM)

- These are your objectives in the service support:

Problem Management

reduce or prevent incidents by correcting and avoiding errors

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## ITIL Processes and their goals (CoM)

- These are your objectives in the service support:

### Configuration Management

provides up-to-date and secure information of the IT Infrastructure  
also provides a logical model of the IT infrastructure

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# ITIL Processes and their goals (ChM)

- These are your objectives in the service support:

## Change Management

efficient and punctual implementation of changes with minimal risks using standardised methods and procedures

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# ITIL Processes and their goals (SS)

- These are your objectives in the service support:
  - Incident Management - the fastest possible reestablishment of the service and the minimization of the impairment of the business processes
  - Problem Management - reduce or prevent incidents by correcting and avoiding errors
  - Configuration Management - provides up-to-date and secure information of the IT Infrastructure also provides a logical model of the IT infrastructure
  - Change Management - efficient and punctual implementation of changes with minimal risks using standardized methods and procedures
  - Release Management - scheduled and undisturbed rollout of hardware and software components

# ITIL Processes and their goals (SD)

- These are your objectives in the service delivery:
  - Service Level Management - ensuring the accordance of the delivered and the agreed service
  - Availability Management - ensuring the agreed service availability
  - Capacity Management - ensuring that the services could be provided to economic conditions
  - IT Service Continuity Management - guarantee the provision of services in contingency cases
  - Financial Management - providing financial information for economic control, financial planning and cost accounting
  - Security Management - protecting the data and infrastructures concerning confidentiality, integrity, and availability