Human Resource Management in IT-Organizations

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Chapter 4 – IT Micro-Organization - Overview

- **Organization**
- **Staff**
- **Technology**
- **Know-How**

Chapter 4 – Micro-Organization

Team

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1975	University of Vienna. Doctor of Philosophy (Mathematical Psychology and Methodology
1975 – 1979	Project Manager in the Austrian Institute for Research on Vocational Education
Since 1976	Trainer for companies especially in Austria, Germany and Switzerland in different fields of management training
1979 – 1986	Project Manager at the Technical University of Vienna in an interdisplinary research project on the quality of working life under the influence of new technologies
Since 1986	Lecturer at the universities of Vienna, Klagenfurt and the Technical University of Vienna
1986 – 1989	Manger in an international consulting company in Vienna, responsible for the consulting portfolio in the field of organizational development and IT-project management
1989 – 2002	Managing partner in consulting companies specialized in the field of IT for insurance companies. Project manager in different projects with insurance companies in Europe and the USA.
Since 2002	Member of the board of directors at act Management Consulting GmbH (www.act-mc.at) in Vienna, a spin off from former KPMG Consulting. Responsible for consulting services in the field of project management and IT governance.

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Agenda

- The Specific Tasks of Leaders
- Recruiting and Career Management
- Management of Motivation
- Management of Stress and Conflict
- Knowledge Management and Communication
- Summary

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The IT Manager's Decision Scope and Organizational Responsibility

Interfaces to customers and suppliers

- **IT department provides products and services**
  - **operational tasks**
  - **projects**
- **Meet (internal) customers' demands**
- **Manage external suppliers**

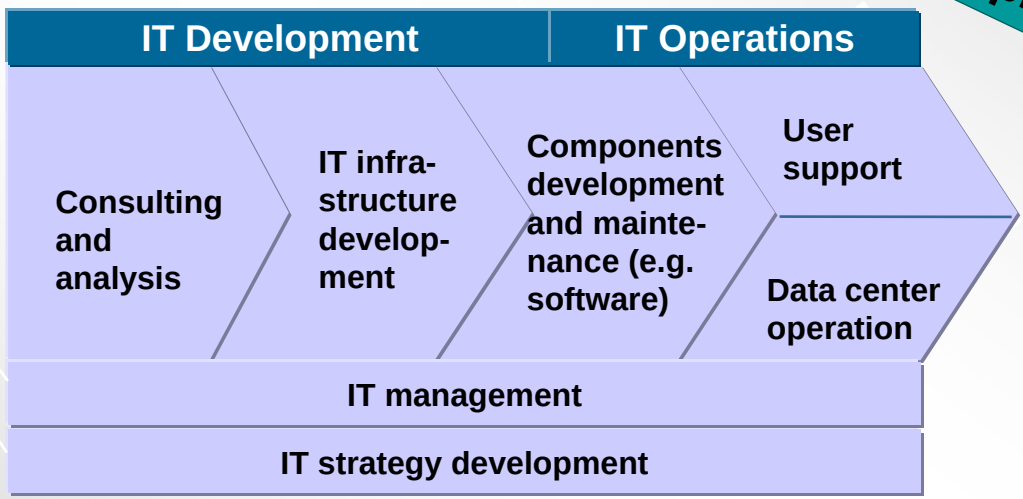
Management of IT resources

- **Staff**
- **Technology**
- **Know-how**

example

Principle

Optimize the IT department's service processes towards the (internal) customers



Source: Capgemini

☞ A process model, which is aligned with the defined service portfolio, is the core element of the organizational model.

Leadership - A Job Description
4 Factor Model of Bowers & Seashore

These four criteria explain most of the difference between high and low performing teams:

- **Goal emphasis:**
  Goals are clearly defined, well known and accepted
- **Working conditions:**
  All necessary resources are available to every team member
- **Cooperation:**
  Team members support each other and they feel as a team
- **Personal development**
  Team members see their personal chances for development

Leadership

- **The difference between high and low performing teams was found to depend significantly on the degree of manager's engagement to improve these 4 factors**

Peer Leadership

- **In high performing teams not only the leader but also every team member contributes to fulfill the tasks of leadership**

☞ Leadership includes specific tasks that need time and skills

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Carefully Defined Role Descriptions Help to Select the Right People with a Proper Mixture of Hard and Soft Skills

- The requirements for new employees are closely connected with their future role in the IT organization, like e.g.:
  - Analyst
  - Software Developer
  - Advisor / Account Manager
  - Project Manager
- The required skills have to be defined in adequate role profiles. They act as
  - „wanted poster“ for the HR department, but also as
  - guideline for further HR processes as well as people development
- Along with technical abilities soft skills are becoming more and more important for employees in the IT area, like e.g.:
  - Team working capabilities
  - Behavior in stress situations
  - Social competence
- An Assessment Center is an appropriate tool to analyze these soft skills

☞ The underlying role profiles should be derived from the process model und have to be defined jointly by the HR and IT departments

Selecting and Hiring of New Employees is a Challenging Process, which Should be Conducted Jointly by HR and IT

Current situation

- **The IT job market situation has improved during the last few years**
- **Organizations can generally choose out of a multitude of qualified candidates**
- **Time-consuming process, which in case of a wrong decision can lead to negative financial impact and image damage**

Objective

- **Establishment of a high quality selection process**
- **Consideration of both technical and social skills**
- **Cooperation of HR and IT department in the recruiting process**

☞ Early cooperation between HR and IT will avoid follow-up costs due to avoided mistakes.

Clear Defined Career Paths, which Request Different Profiles of Resources, are the Basis for a Transparent HR Policy

Challenge for the IT manager

- **Securing the availability of IT resources with the right skill set at the right time**
- **IT employees tend to strengthen their market position, which is based on technical knowledge and experiences (e.g.: challenging projects)**

Solution: career paths for experts

- **Special career paths for experts and a coordinated internal and external training program**
- **(Internal) certification programs shall integrate theoretical knowledge and practical experience**

Example out of IT Consulting

- **Examples of specific career paths (“Professions”): Engagement Manager, Solution Architect , Software Engineer**
- **„Communities“ provide a continuous know-how transfer of practical experiences in the company and strengthen the identification of the employees with the company**

Source: Capgemini

☞ IT specific career paths have to be coordinated in cooperation with HR and the companywide personnel development.

People Management is Based on Psychological Assumptions:
Should We Know Our Implicit Personality Theory?

We all hold a number of general assumptions about human behaviour that provide the basis for our participation in social life. This "folk psychology" is referred to as implicit personality theory (IPT).

IPTs can be described by the following constituents:

- **The criteria that are seen as relevant to describe and to understand people (intellectual, physical and moral attributes)**
- **Our judgement about good/bad, pleasant/bothering, important/unimportant etc. concerning different ratings**
- **Selection of data that are seen as relevant and valid to get the ratings and the deduction process from the observed data to the ratings**
- **The assumptions that we use to predict the future behaviour of people based on the derived criteria**

- Managers have to take very important decisions concerning people (selection process, assignment to tasks and teams, reaction to problems, …)
- Very often the data basis for such decision is small and there is not the time for further research
- Managers always have to rely on an implicit personality theory, if they know or not

☞ Try to understand and to validate your implicit personality theory and do not claim to have the one and only valid theory.

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Working Atmosphere, Corporate Culture and Team Spirit are Essential Factors, Which Affect the Motivation of the Employees

- The design of an attractive social environment is critical. Motivation and the general identification with the job can be influenced positively by the IT-Manager

Motivation and Behaviour – Lewin's Field Theory

- The person and the environment together comprise an imaginary mental field called the life space.
- Life space is a psychological picture which depicts all the facts that determine behavior at a particular moment in time. It is divided into numerous subdivisions representing how a person perceives his or her environment.
- The life space can be compared with a magnetic field. A positive or negative valence draws a person's attentions and effort either toward or away from a goal. When the goal is reached, the tension is relieved etc.
- Life space changes over time due to experience and personal development.
- The foundation of Lewin's Field Theory is that all behavior is determined by both the person and the environment:

Behavior = f(Personality, Situation)

We tend to underestimate the influence of the situation, especially if the consequences of ones behaviour cause problems.

☞ We have to see our team members as part of a social system that influences their behaviour. Managers can only select team members by criteria of personality, but they cannot change the personality of their team members. But managers have a lot of influence on the situation.

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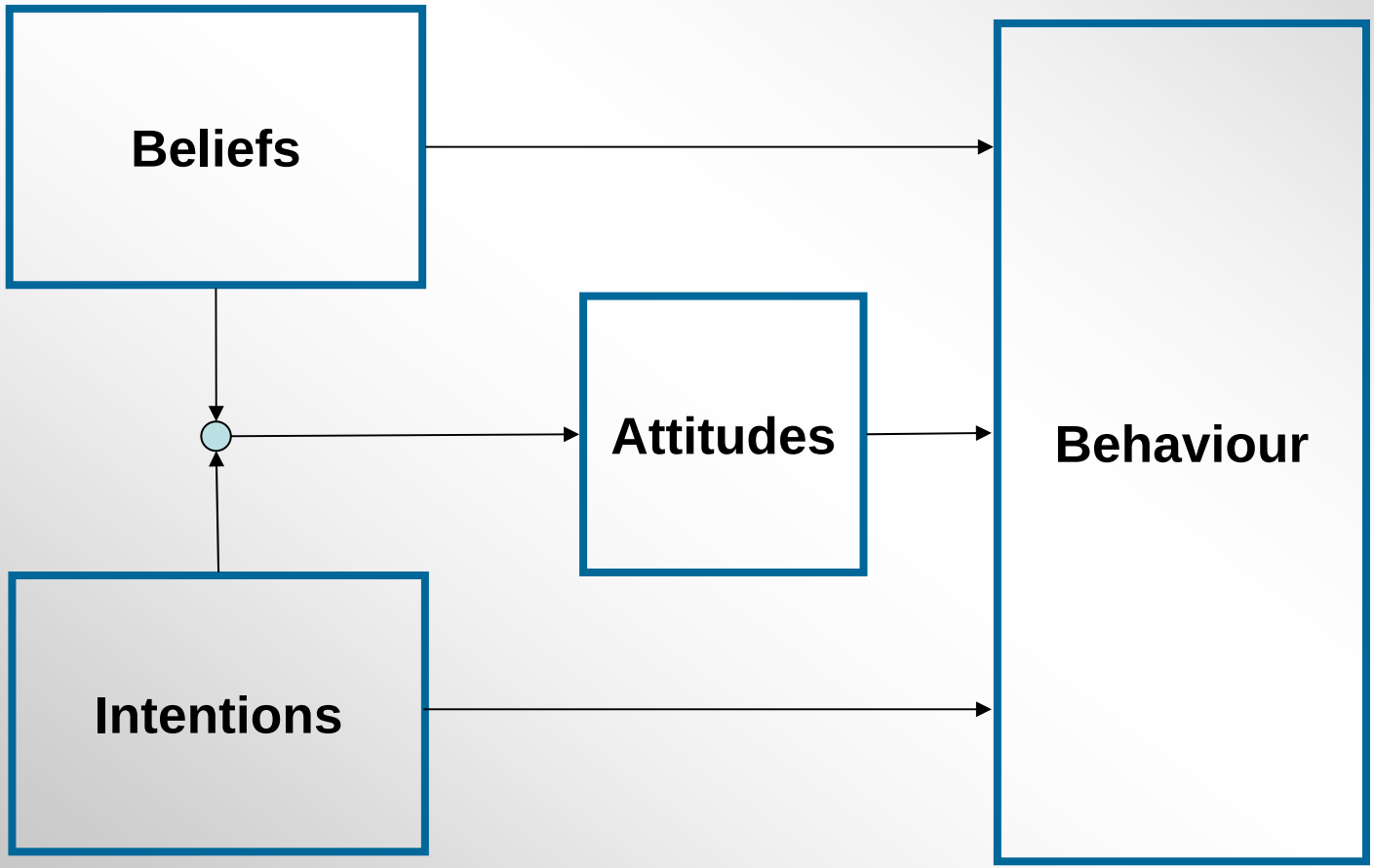
Variable Remuneration Components Will Become More Important, but Different Models Are Needed

- Variable components may consider
  - Staff productivity (e.g. utilization, number of days billable to the customers)
  - „soft“ or qualitative criteria (e.g. conducting internal trainings, contribution to knowledge management like documentation and communication of project results and lessons learned).
- Critical success factors
  - Variable remuneration components models have to be adapted to the roles of the employees within the organization (e.g. for project managers other efficiency criteria have to be defined than for employees at the Help-Desk or the Data Center).
  - Criteria have to be objective and achievable to act as a motivation factor.
  - Transparent performance evaluation
    - To be conducted by the customers/users (usually the business areas).
    - Performance of project managers and project team members should be evaluated by a structured top-down as well as bottom-up approach.
  - Clear target system with regular evaluation meetings and feedback loops (at least once a year).

Source: Capgemini

☞ Use of variable remuneration components mainly where performance can be influenced by the employee, is definable objectively and - ideally - measurable by the customer.

Motivation and Attitudes - Fishbein & Ajzen's Theory



☞ Analyze the intentions and beliefs of people
to understand and influence their attitudes and their behaviour

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Variable Remuneration can Become a Pitfall for Employee's Motivation

Intrinsic Motivation

- Caused by factors that are part of the task itself (application of important personal abilities, meaningful task, problem solving etc.)
- Self-energizing, no external input needed

Extrinsic Motivation

- Caused by factors that are not part of the task (money, status)
- Needs permanent reinforcement from the environment
- Dose-effect-relationship goes down, you need more of the same

Discounting Principle (H. Heckhausen)

- If intrinsically motivated actions are reinforced strongly by extrinsic factors, self-perception tends to see the action as extrinsically motivated
- The characteristics of intrinsic motivation will be substituted by those of extrinsic motivation

- ☞ Do not use variable remuneration to "motivate", see your employees as motivated by the task itself
- ☞ Use variable remuneration to give your employees a part of the financial success that is a result of their efforts.

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Social Working Environment (1)
Management of Stress

Stress is an inevitable part of our work life. But beyond manageable limits stress creates chaos. IT Governance implies predictable results that cannot be achieved under chaotic circumstances.

Situation (Working Environment)

- **Feasibility:**
  Workload and staffing, assignment of tasks and qualification are generally aligned
- **Priority Management:**
  Transparent and stable priorities and task assignments
- **Social Support:**
  Feeling as a member of a team that helps each other has measurable effects on stress reduction

Personality

- **Reframing:**
  Changing the way you see things around you
- **Personal organization:**
  Time management and productivity techniques
- **Relaxation**
  Techniques against physical symptoms of stress

- ☞ Lewin's formula B = f (P,S) is also helpful to understand and reduce stress
- ☞ It is part of IT manager's responsibility to manage stress

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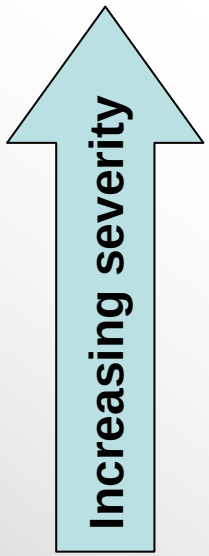
Social Working Environment (2)
Management of Conflict Using a De-Escalation Model

Conflicts are comparable to stress, but they occur in the social system.
They are also an inevitable part of our working life, beyond manageable limits they create chaos.
IT Governance implies predictable results that cannot be achieved under chaotic circumstances.

Possible Causes
• Values
• Goals
• Methods
• Facts



1. Look for conflict areas on the lower levels and try to solve them first
   - define rules how facts will be verified and try to agree in advance what to do depending on the results of fact finding
   - define decision criteria to choose a method based on shared goals and approved facts
2. Look for common goals and make them visible
3. Look for common values and make them visible
4. Ask if disagreements on higher levels are really relevant for the specific conflict

☞ IT-People are used to analyze problems by separating them into different views. Use this type of methodology also for conflict resolution.

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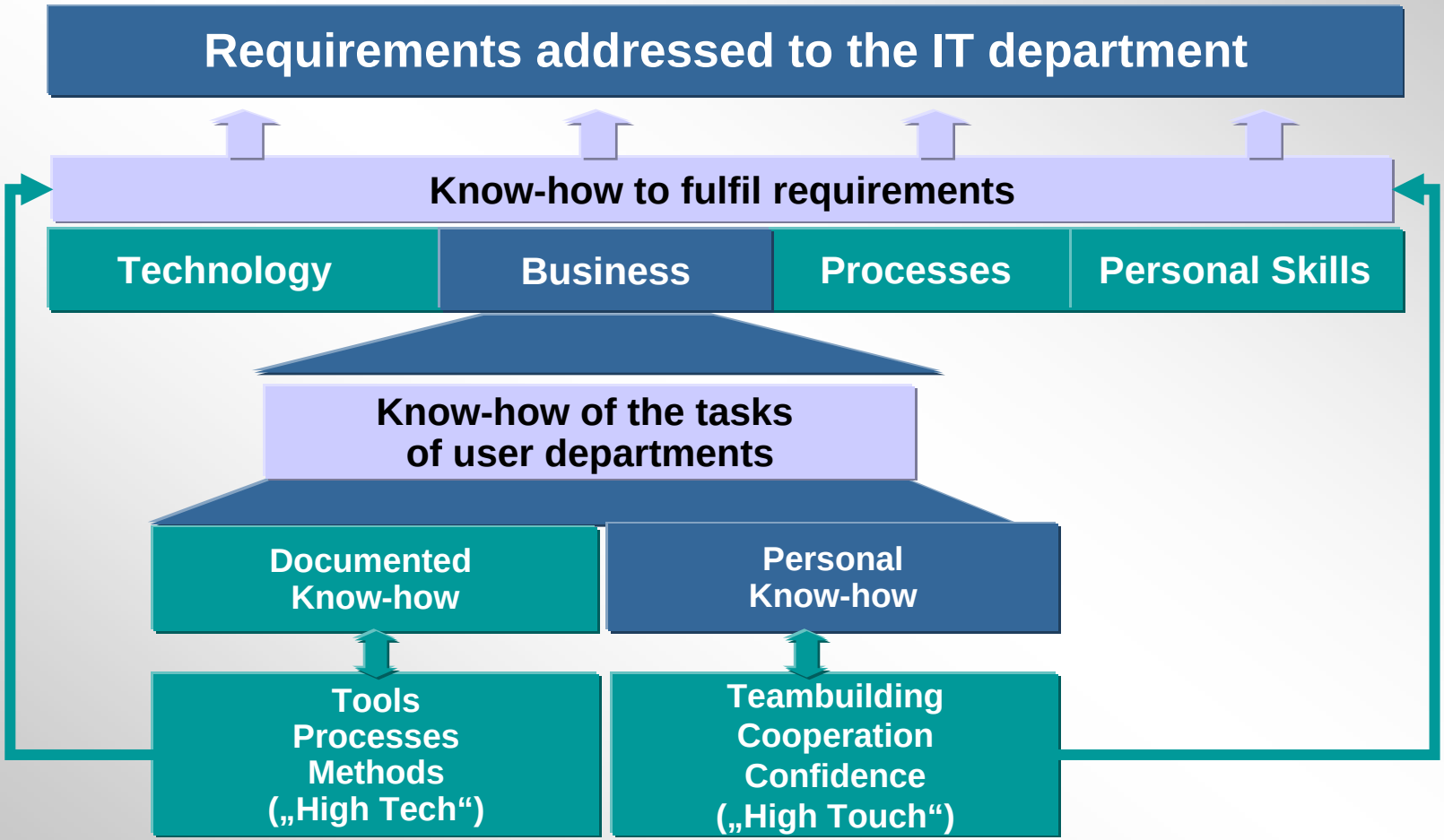
Know-how is Bound to People



☞ According to John Naisbitt the combination of “High Tech” & “High Touch” is essential to Know-how management

Know-how is a Resource of Increasing Importance that Requires Active Management like other Resources

- “Beside the classic factors of production, namely land, labour and capital, knowledge is not only a further resource but today the most important one “ (Peter F. Drucker)
- The rapid change of technological options allows and demands an up-to-date working up of information.
- Know-how consists of knowledge and skills that are relevant for concrete tasks and that can help to take action. It allows to define alternative courses of action and to decide between them according to their contribution to achieve the objectives.
- Know-how is the result of working up data and information. Know-how is therefore represented only by those persons that have gone through such an active process of information processing
- Efficient communication between specialists with different background and focus is a critical success factor for the value contribution of IT.
- Measures to raise the probability that, if required, the necessary know-how is available and can be used efficiently are an important part of IT-governance
- The IT-management is responsible for the implementation of know-how-management.

☞ Success will be obtained with a pragmatic and undogmatic combination of different elements and approaches to the management of know-how

Selecting the Relevant Information From the Information Offered is a Great Challenge for the IT Department

There is no other knowledge area where the information pool is as big and the "half-life period " so short as in IT.

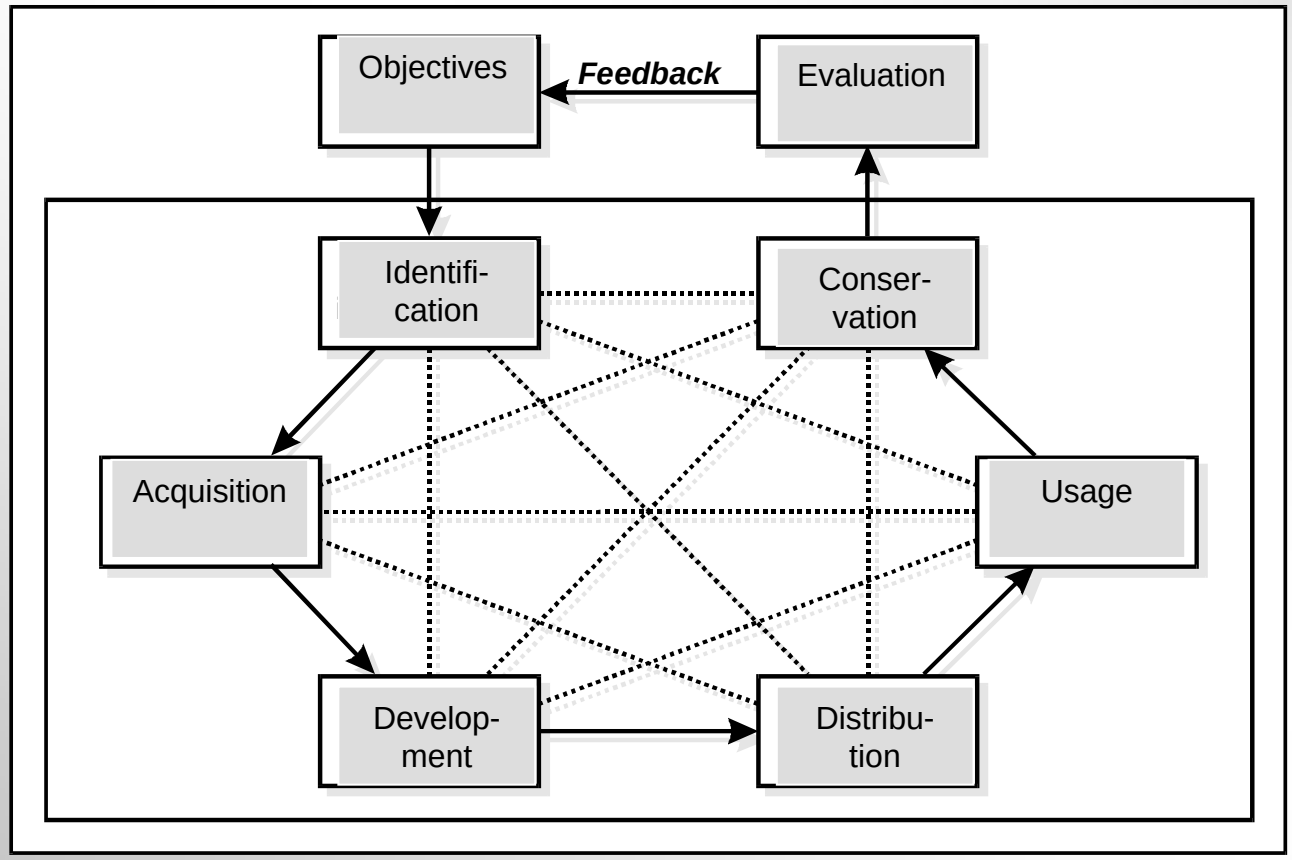
☞ The information offer is far beyond the processing capacity of any individual and any team

Examples:

- On its website Gartner Research offers a total of about 87,000 entries.
  The offered topics (as of October 2003):
  - Business Objectives (3216)
  - Computing Hardware (13600)
  - Software Infrastructure (8074)
  - Business Applications (12823)
  - Application Development (2389)
  - Communications Services (10225)
  - Communications Equipment (8248)
  - IT Services (5519)
  - IT Management (12508)
  - Technology and Society (2914)
  - Semiconductors (7392)
- There are offers of a similar amount by other research companies like Giga/Forrester, META-Group.
- The extensive information offer of manufacturers like IBM, Microsoft, SAP, Oracle etc. have to be evaluated for systems in use as well as for choosing new solutions.
- The internet offers an unmanageable amount of newsgroups, newsletters, information platforms of user associations, newspapers, universities etc.
- Printed media (professional journals, manuals, product documentations etc.) as well as conferences have to be analysed too.

☞ At conferences and workshops direct personal contact often brings crucial information about the practical value of products and methods of resolution.

The Core Processes of Knowledge Management Have to be Implemented in the IT Department



Selective initiatives with manageable time horizons are more effective than large scale programs.

Experienced staff members who are assigned to coach new employees can be won to participate in know-how-transfer. This can be the first step to integrate them in general initiatives to implement know-how-management

☞ New employees are the most promising target group for the implementation of know-how-management

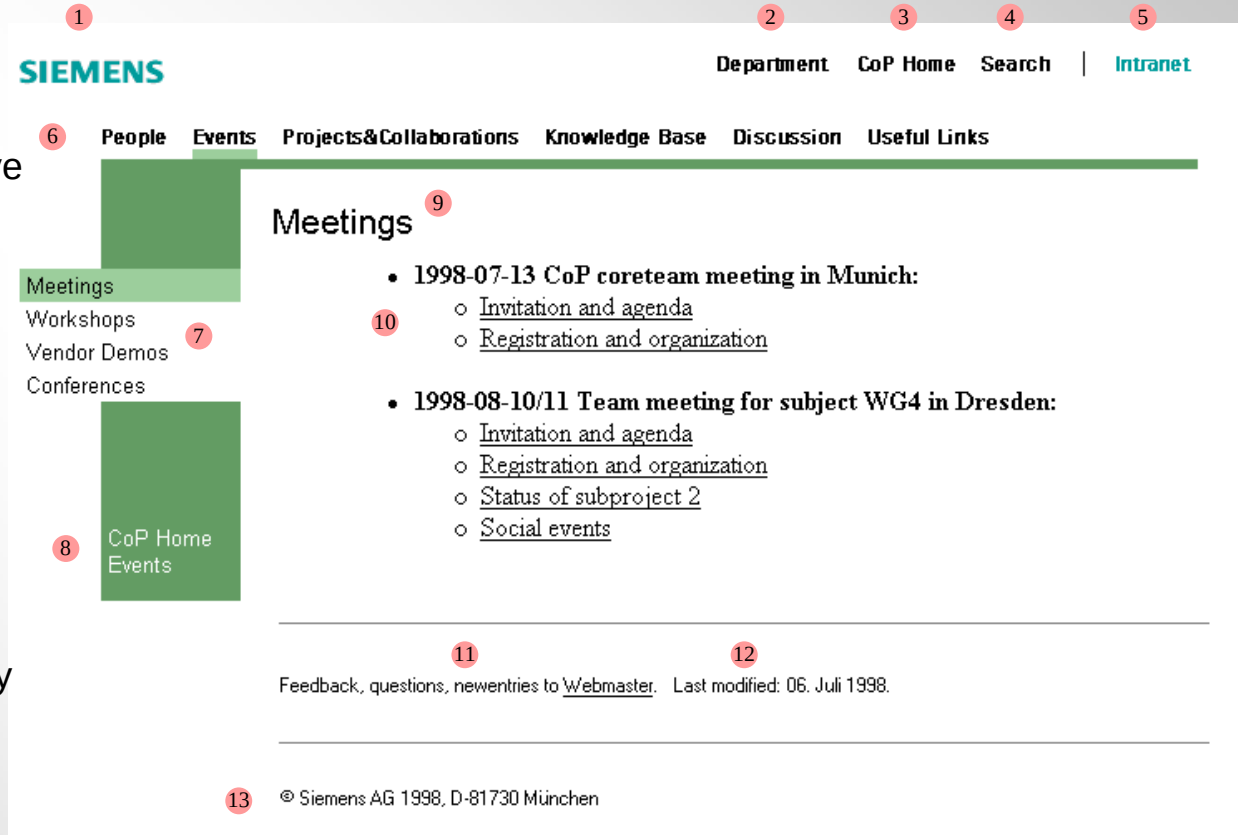
Case Study: Community of Practice

Objectives:

- To exchange experiences between sites
- To find solutions faster that have helped to solve a problem somewhere else
- To answer questions posed by sites together

Measures:

- Protected area on the intranet that is only open to CoP-members
- Regular meetings of CoP-members (app. 20 people) every 6 months, always at a different site

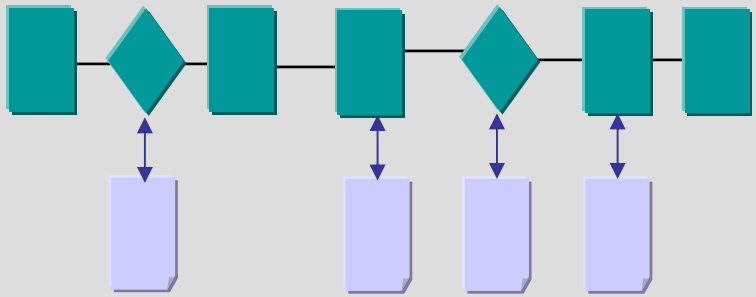


☞ Personal contact is an important lever to support the use of the tool

Know-how-Management Has to be Integrated in All Processes of an IT Department as a Standard Element

“Explicit“ know-how management:

Every definition of a process contains methods and tools that help to use existing know-how and build up new know-how (“learning system”)



“Implicit“ know-how-management:
Not only dedicated tools for knowledge management, but every tool can be and should be used for know-how-management:

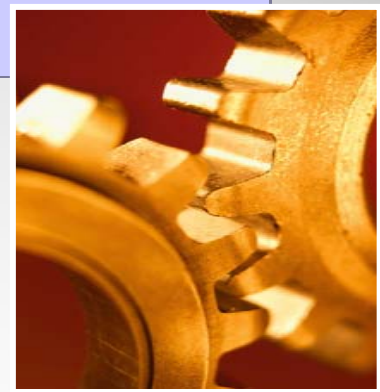
- **Intranet**
- **Portals**
- **eLearning**
- **FAQ**
- **Trouble Ticketing**
- **Tools for process definition**
- **CASE-Tools**

☞ Combine “explicit” and “implicit” know-how management

The Provision of Know-How Will Only Lead to Success, When there's Readiness to Use it

Not Invented Here (or NIH) refers to the problem when people in companies continue to ignore existing solutions to problems because it was not created in-house. It is endemic to the computer industry.

Source: www.wikipedia.org



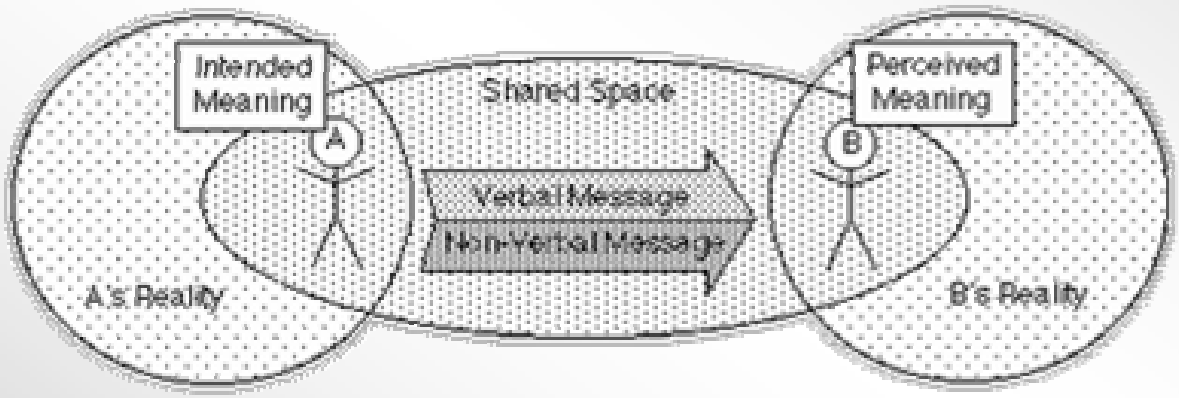
By doing so the wheel's always being reinvented.
The results are higher expenses for development,
dependence on individuals
and increased complexity due to a lack of standardization.

Indicators for a well established reuse-culture are e.g.:

- The part of self developed solutions is declining.
- Self developments are based on standards and components that are used by more than one person or a team.
- Searching utilizable solutions is an integral part in the process of software development. Different approaches to solve a problem are accepted and used.
- In projects there is an intensive cooperation between IT and users. User representatives are also accepted as managers of subprojects.
- The participation in newsgroups and forums as an user and an author is organised.

☞ Whoever is assigned to build up specific know-how should also be obliged to organize the transfer of this know-how and both objectives are part of the performance criteria

The Challenge of Human Communication



- **Perceived meaning will always differ more or less from intended meaning because sender and receiver never refer to the same model of reality**
- **IT- and non-IT-people and also specialists within the IT-department often have very different reality models**

Means to solve the problem of mutual misunderstanding:

- **Meta Communication:**
  Communication about the communication process itself
- **Feed Back:**
  Information about the perceived meaning from the side of the receiver

P. Watzlawick: Pragmatics of Human Communication.

☞ If we accept misunderstanding as a problem that occurs and has to be managed like any other problem, most of the communication problems are solved

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IT Governance is Also a Communication Task

- Strategic alignment requires a common understanding of terms and a harmonized view of the present situation and of the objectives that have to be reached
- The problem of understanding begins with a diverse vocabulary and ends with diverse ways of thinking and methods of solving problems.
- The common assessment and prioritisation of IT-projects by the managers of the business departments and of IT (PPM: Project Portfolio Management) is an indispensable requirement and an unerring indicator for the quality of cooperation between business and IT-management

- The quality of user documentation and the professionalism of user training during projects are valid indicators for the intensity of know-how transfer between IT and users.
- Communication always has a level of content and a level of relationship. Therefore not only the exchange of information but also the cooperation style has to be improved.

Source: **act** Management Consulting, 2003

☞ The safest and most efficient way to build-up a culture of know-how transfer in both directions is the establishment of mixed project teams

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Management Summary on “Micro-Organization”

- The requirements of business addressed to the IT department are derived from the strategic guidelines and structural decisions as described in the chapters before. These requirements are the starting point for the design of the inner structure and for the management of the IT department
- It is the task of the IT-managers to allocate and manage the available resources according to the given strategic, economic and organizational constraints
- Qualified and motivated employees have a high and still growing impact on the performance of the IT-department. Therefore **human resource management** becomes a key success factor for the IT department
- Business management has to define clear and measurable requirements but should not determine the way how the IT department goes to fulfill them. The definition of a **system architecture** and the selection of an appropriate **technology portfolio** is therefore the responsibility of IT management
- The management of **Know-how** which is also a crucial resource of the IT-department, and therefore it is a task of growing relevance. Also here the management of human resources and technology is required.