Global Knowledge Management

Frameworks and Strategies

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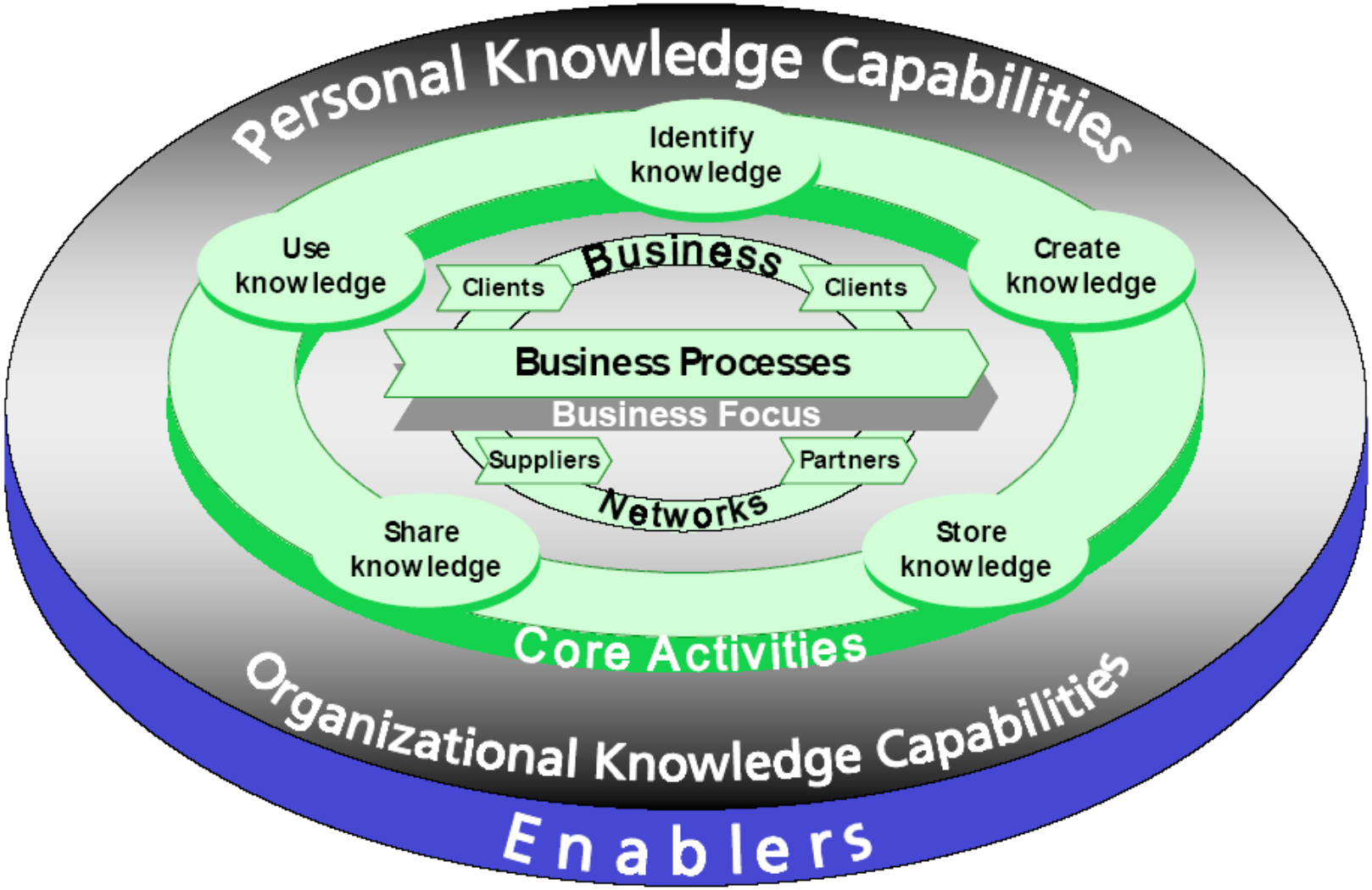
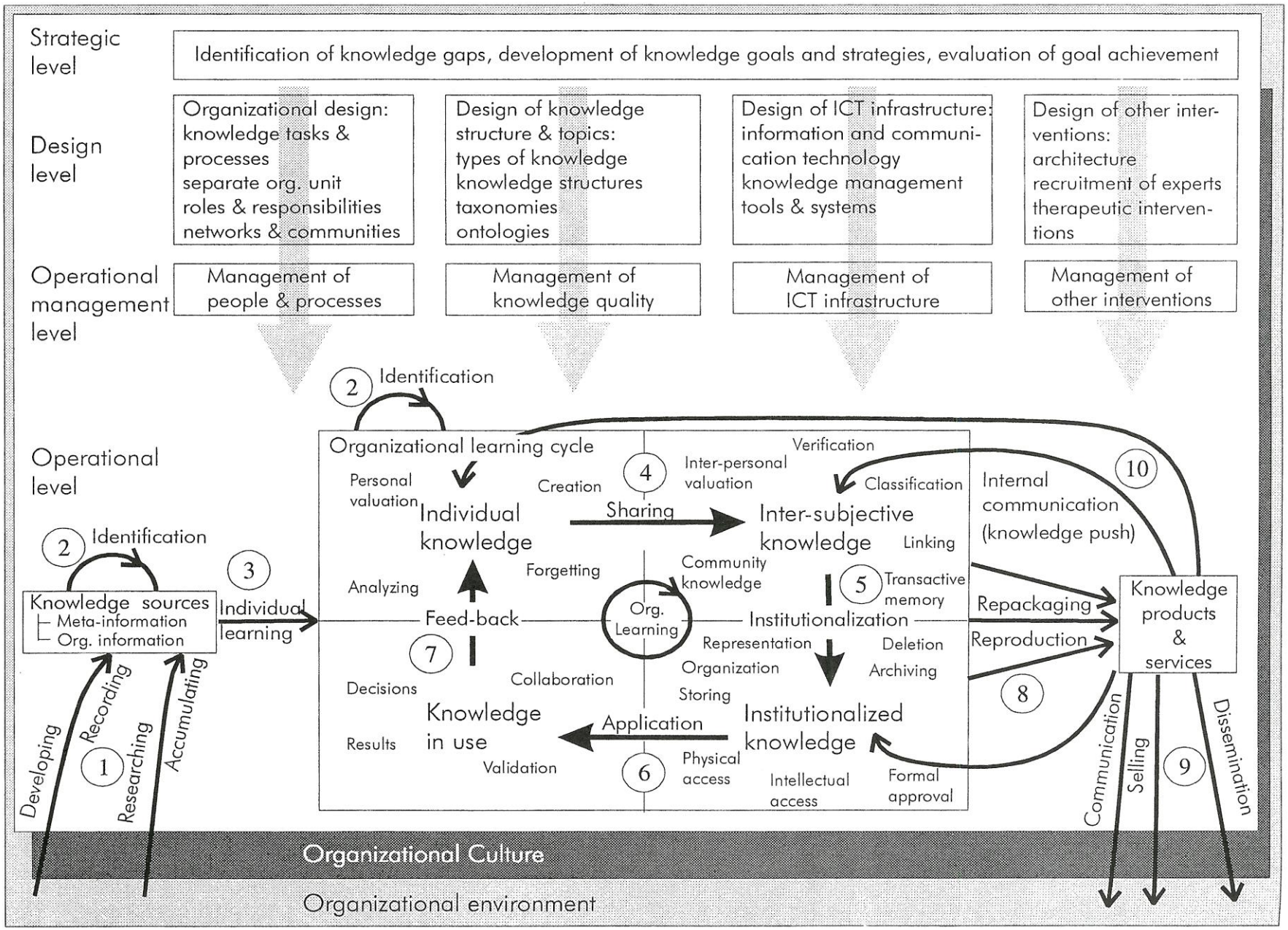
Knowledge Management Frameworks

- Framework
  - Conceptual models describing and relating potential influencing aspects, such as systems, processes or instruments
  - Understanding the inter-relations in global settings
  - Learning how to apply in in practice…
- Utilization:
  - Guideline which aspects should be taken into account
  - Research tool

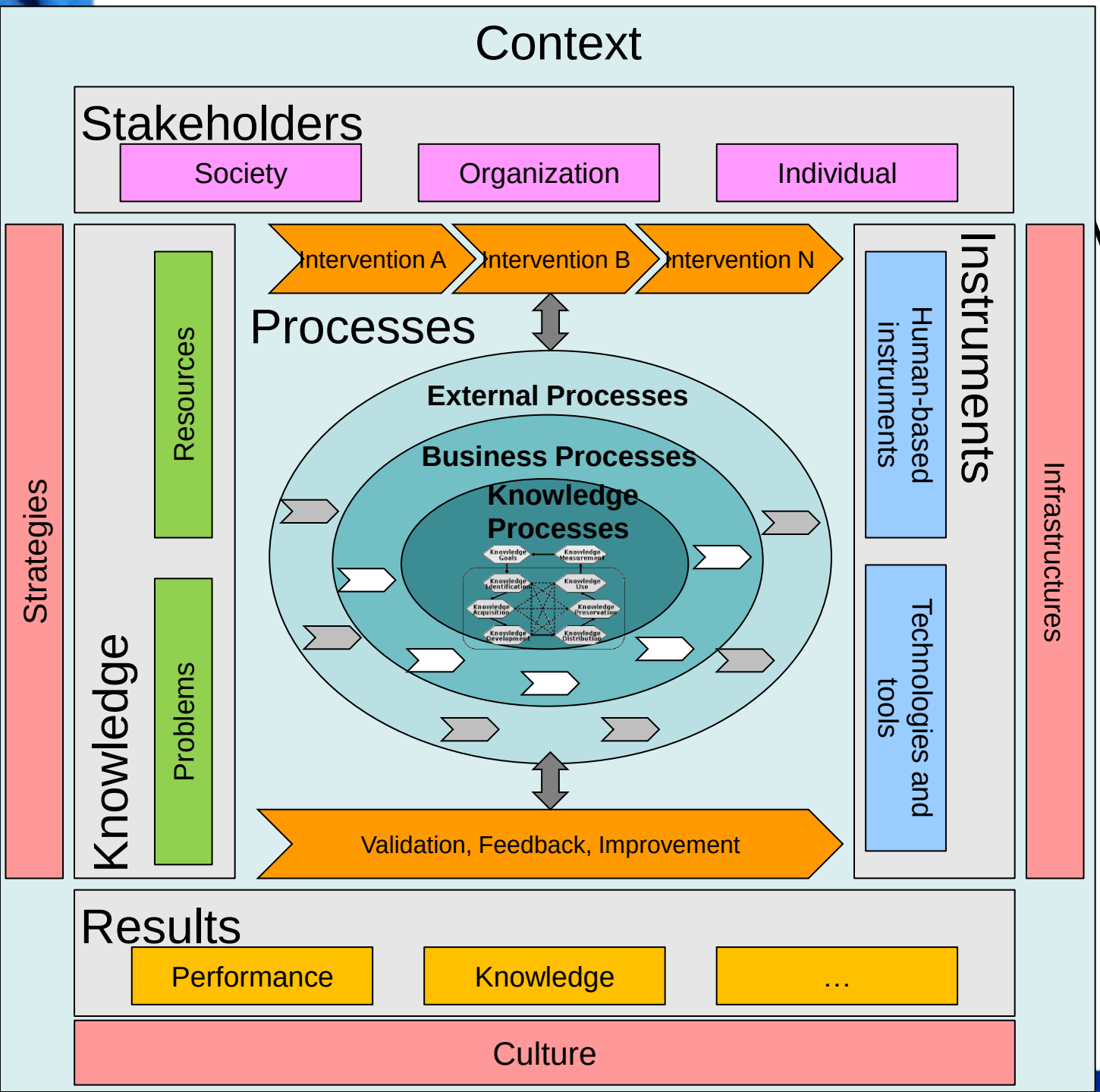
Knowledge Management Framework (CEN, 2004)



KM Architecture (Maier, 2007)



Global Knowledge Management Framework



Knowledge…

Category	Description	Sample Values / Attributes
Knowledge element	Description of knowledge areas of an organization	• Subject area • Type (procedural, factual, …) • Representation / codification • Culture specifics (common, contextualized, …)
Knowledge type	What kind of knowledge	• Knowing that / knowing how • Tacit / implicit / explicit • Knowledge as object / knowledge as process • …
Problem	Problems to which knowledge is applied	• Problem description • Context • Related knowledge • Related competences • Related actors

Global Knowledge Management Framework

Context

- Context
  - Society: (National, regional) culture, legal aspects, infrastructure, …
  - Organization: Culture, Strategies, Structure, Processes, …
  - Individuals: Characteristics, preferences, knowledge / skills / competences, barriers

Context.
Organization /
Individuals

Barriers to KM

Lack of time	70,1%
Lack of understanding KM & its corresponding benefits	67,7%
Ignorance of knowledge demand	39,4%
Attitude knowledge is power	39,0%
Missing transparency	34,6%
Missing reward system	34,4%
Too high specialization of personnel	32,2%
No organized knowledge exchange	28,7%
Inappropriate IT-Infrastructure	28,3%
Hierarchical structures	28,0%
Interdepartmental competition	27,6%
Missing business culture	26,7%

Global barriers

Context. Organization / Individuals

Challenges faced in global processes		
Challenges in Communication	**Challenges in coordination**	**Challenges information sharing**
• Delayed responses • Communication requires extra efforts • Misunderstandings with the use of email for complex topics • Lack of informal communication • Extra effort to Initiate contacts and networking • Troubles in finding the correct contact • Language differences can force team to asynchronous method of communication; cause misunderstandings, extra delays and errors. • Differences in negotiations and accepting work	• Lack of overlapping working hours • Less possibilities to coordinate a synchronous meeting • Extra effort requires in coordination and which can increase the coordination cost. • Reduced trust • Lack of group awareness and team spirits • Incompatible views of the problem • Doubts about other team members capabilities and skills • Not easy to enforce standards and process for the people from different working environments • Hard to synchronize the work between different locations • Different formalities including different laws, traditions, and regulations. • Different hierarchy and authority • Difficulty of changing usual practices from the past	• Lack of opportunities to share information • Difficulties to find correct contact to get the information • Lack of opportunities to learn about other peoples skills and capabilities • Effect of organizational and national culture towards the difference in information sharing practices

Sample attributes on the context

Category	Description	Sample Values / Attributes
Individual: Personal Characteristics	Description of individuals' characteristics	• Demographic data (name, age, gender, …) • Qualifications • Competences • Globalization competences • Educational preferences • …
Individual: Barriers	Potential barriers towards knowledge management utilization	• lack of time • fear about job security; • Lack of awareness • use of strong hierarchy, position-based status • insufficient capture, evaluation, feedback, communication • differences in experience levels; • lack of time and interaction • poor verbal/written communication and interpersonal skills; • age and gender differences; • Lack of networking skills • Lack of trust • …

Sample attributes on the context

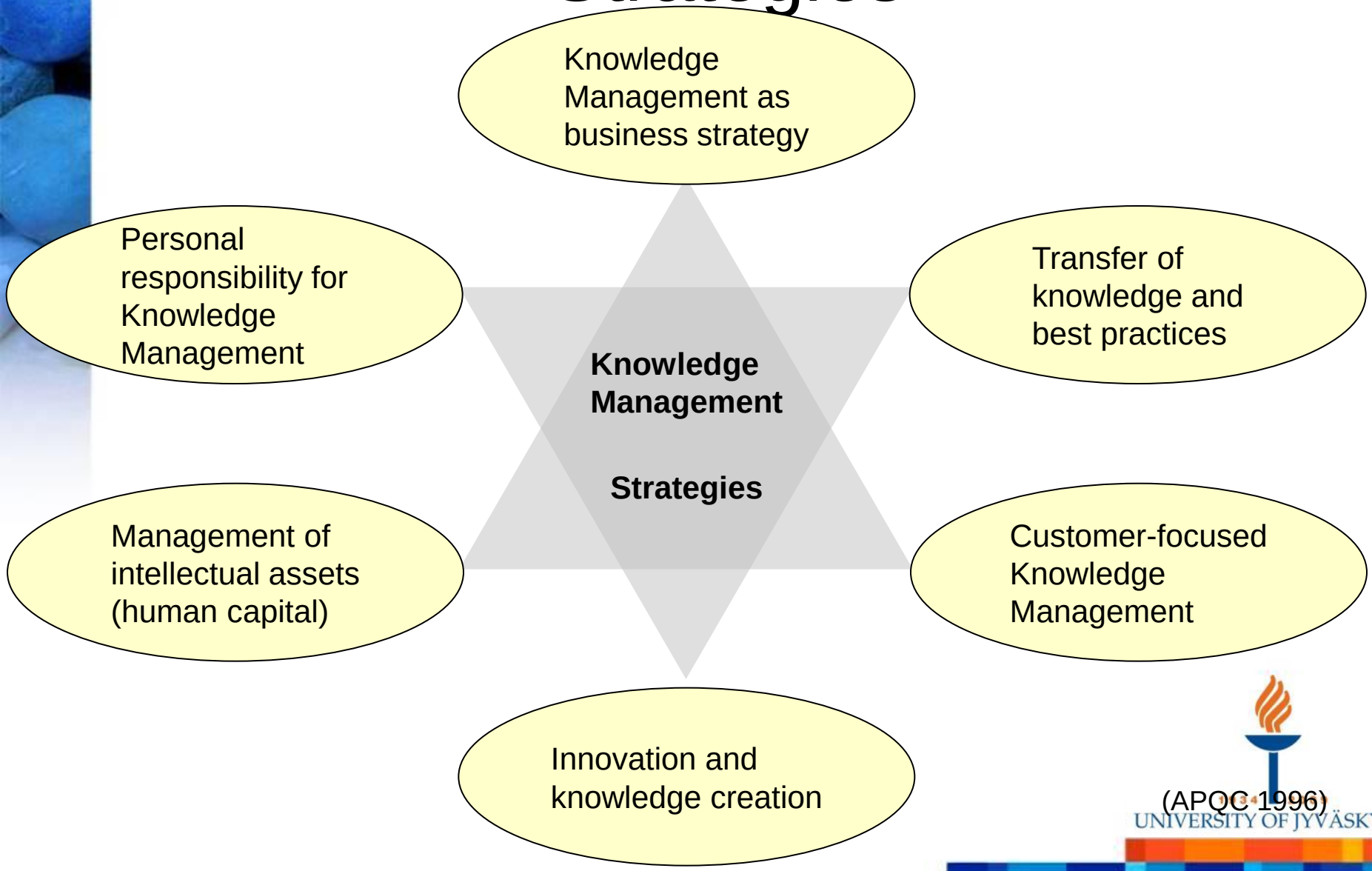
Context: Organizational Characteristics	Description of organization characteristics	• Name • Size • Type (private, government, NGO, …) • Sector (healthcare, automotive, …) • Vision • Strategy • …
Context: Organizational Barriers	Potential organizational barriers towards knowledge management utilization	• lack of leadership and managerial direction / strategies • shortage of formal and informal spaces to share, reflect and generate (new) knowledge; • lack of a transparent rewards and recognition • insufficient corporate culture • shortage of appropriate infrastructure supporting sharing practices; • deficiency of company resources • communication and knowledge flows are restricted • physical work environment and layout of work areas • internal competitiveness within business units, • …

Sample attributes on the context

Context: Success factors	Success factors for KM in organizations	• Integrated Technical Infrastructure • Knowledge Strategy that identifies users, sources, processes, storage strategy, knowledge • Clear knowledge structure • Motivation and Commitment • Organizational culture supporting sharing and use of knowledge • Senior Management support including allocation of resources, leadership, and providing training • Measures are established to assess the impacts • Clear goal and purpose for the KMS • Search, retrieval, and visualization functions • Work processes incorporate knowledge capture and use • Learning Organization • Security/protection of knowledge • …

Knowledge Management Strategies

Context. Organization



(APQC 1996)

Knowledge Management Strategies

Context. Organization

- **Knowledge management as a business strategy:**
  - most comprehensive and enterprise approach
  - KM is central to the ability to grow and compete
  - knowledge is seen as a product with significant and direct impact on the profitability and viability of the enterprise
  - firms pursuing this strategy mostly align their KM strategies closely with the other major directions of the enterprise

- **Transfer of knowledge and best practice:**
  - key strategy that mostly all of the companies: transfer not only has tremendous intuitive appeal and face validity but also leads to rapid, demonstrated successes
  - focuses on systematic approaches to knowledge reuse and transfer for best practices and knowledge to where companies can use them to improve operations or include them in products and services
  - documentation of a practice does not itself produce transfer, but the importance of teams, relationships, and networks is the basis for effective transfer
  - various approaches in this strategy: the learning organization, networking, practice centers and communities of practice, and lessons learned

(APQC 1996)

Knowledge Management Strategies

Context. Organization

- **Customer-focused Knowledge Management:**
  - focuses on capturing knowledge about customers
  - developing and transferring knowledge and understanding of customers' needs, preferences, and businesses
  - to increase sales, and bringing the knowledge of the organization to bear on customer problems
  - belief that if a company could make their customers successful, their own success would be secured as well

- **Innovation and knowledge creation:**
  - emphasizes innovation and the creation of new knowledge through basic and applied research and development
  - example: NSA set aside a multi-million-dollar annual funding pool for high-risk research and development to provide a simple, fast, and streamlined process for sponsoring exploration of technical innovation

(APQC 1996)

Knowledge Management Strategies

Context. Organization

- **Management of intellectual assets (human capital):**
  - emphasizes enterprise-level management of specific intellectual assets such as patents, technologies, operational and management practices, customer relations, organizational arrangement, and other structural knowledge assets
  - management focus may center on renewing, organizing, evaluating, marketing, and increasing the availability of these assets

- **Personal responsibility for Knowledge Management:**
  - people are the engine of knowledge and should be supported as such,
  - individuals are personally responsible for identifying, maintaining, and expanding their own knowledge as well as understanding, renewing, and sharing their knowledge assets
  - reasons for this strategy: perception of the value of having employees who are broadly knowledgeable and able to perform competent work, and the understanding that successful development of knowledge in individuals cannot be micromanaged and must be done by the individual
  - strategy is in line with the emerging paradigm that employees are the ultimate source of new knowledge in a firm and that they are responsible for their own knowledge development

(APQC 1996)

Knowledge Management Strategies

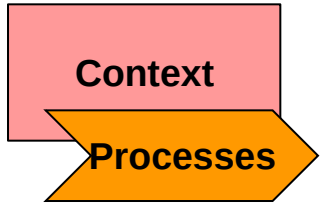
Context. Organization

- **Global Aspects of Strategies**
  - Which partners are strategic & trusted in terms of knowledge exchange?
  - How to align strategies for knowledge in all parts of the globe?
  - Which knowledge makes competitive advantages?

- **Guidance**
  - Develop national / regional strategies
  - Provide strategies in local languages
  - Let partners participate in strategy development
  - Define procedures for strategy implementation

(APQC 1996)

Knowledge Management Framework Business Focus (CEN, 2004)



- The **business focus** should be in the centre of any KM initiative and represents the value-adding processes of an organization, which may typically include
  - strategy development
  - product/service innovation and
  - development, manufacturing and service delivery, sales and customer support.
- Processes represent the organizational context, creating critical knowledge on
  - products and services
  - Customers
  - technology
  - …
- Processes are inter-organizational in distributed networks

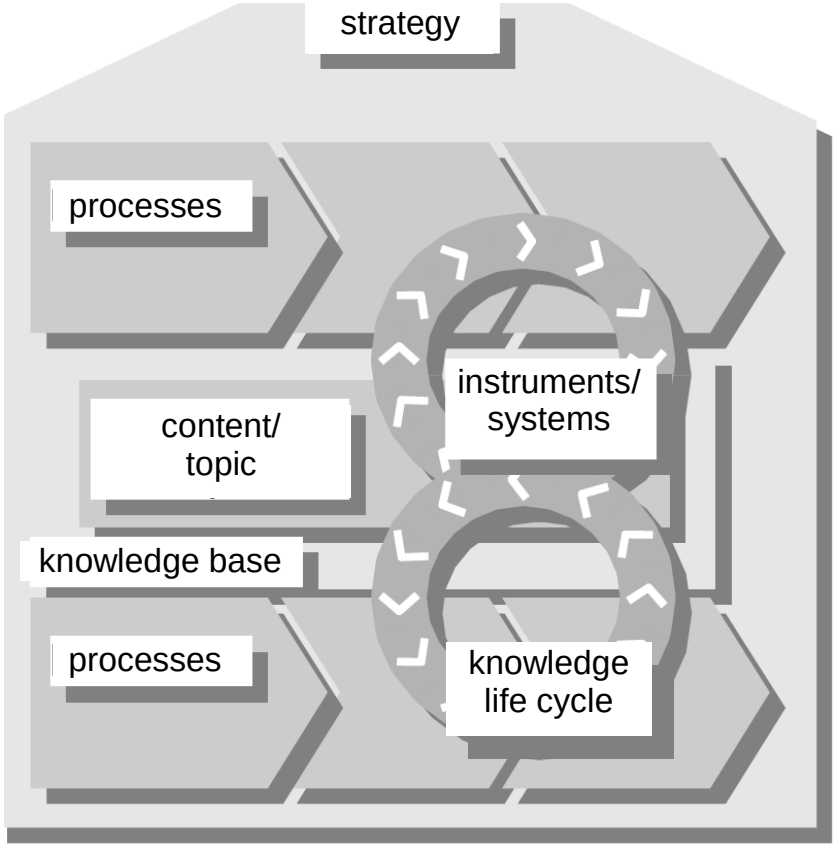
(CEN 2004)

Knowledge Management Framework Business Focus

Processes

Process orientation

- knowledge-intensive (operative) business process
  - denotes a business process that relies substantially ‘more’ on knowledge; regarding organizations core competencies on the operative level: e.g., design products and services, produce products and services.
- knowledge process
  - refers to a dedicated service or support process which supports the flow of knowledge within and between knowledge-intensive (operative) business processes: e.g., search, acquisition.
- knowledge management process
  - kind of a ‘meta’-process that is responsible for the extensive implementation of the knowledge management initiative: e.g., organizational instruments, ICT instruments, controlling.



(Remus 2002)

Knowledge Management Framework Core Knowledge Activities (CEN, 2004)

Processes

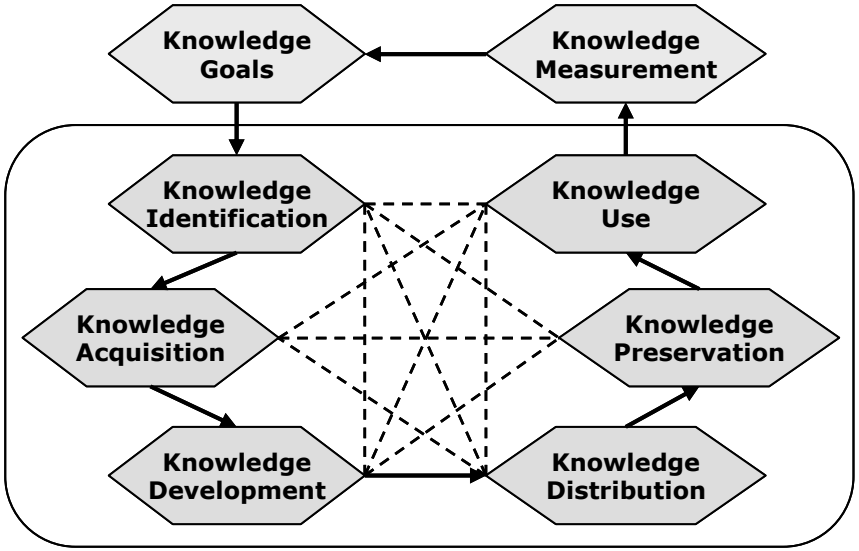
- Five core knowledge activities:
  - **identify, create, store, share and use**.
  - Supported by the right KM methods and tools
- Requirements have to be fulfilled to achieve improvements
  - Integration / alignment of core activities with organizational processes and daily tasks.
  - **Carefully balanced** in accordance with the specificities of each business process and organization. A KM solution should not focus only on one or two activities in isolation.

Knowledge Management Framework
Core Knowledge Activities

Processes

Knowledge Management Tasks (Maier, 2004)

- creation, building, anticipation or generation
- acquisition, appropriation or adoption
- identification, capture, articulation or extraction
- collection, gathering or accumulation
- (legally) securing
- conversion
- organization, linking and embedding
- formalization
- storage
- refinement or development
- distribution, diffusion, transfer or sharing
- presentation or formatting
- application, deploying or exploiting
- review, revision or evolution of knowledge



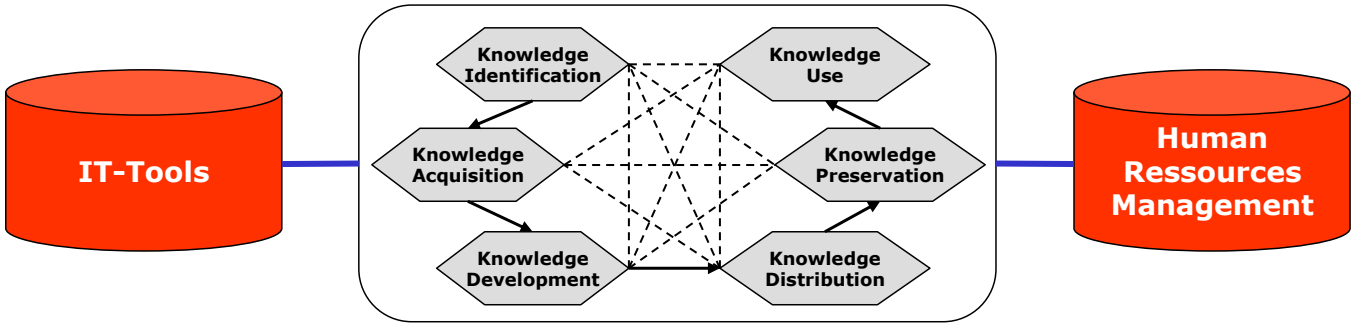
(Probst & Romhardt 2000)

Knowledge Management Framework: Enabler

Instruments

Knowledge Services

- Knowledge Services support the work of knowledge workers and their organizations



IT-Tools

- Document Management
- E-Mail
- CSCW
- Search
- Data Mining
- List-Server
- Multi-Point-Videoconference
- News-Channel / News-Feed
- Application Sharing
- Social Software
- etc.

Human- & Structure-oriented Tools

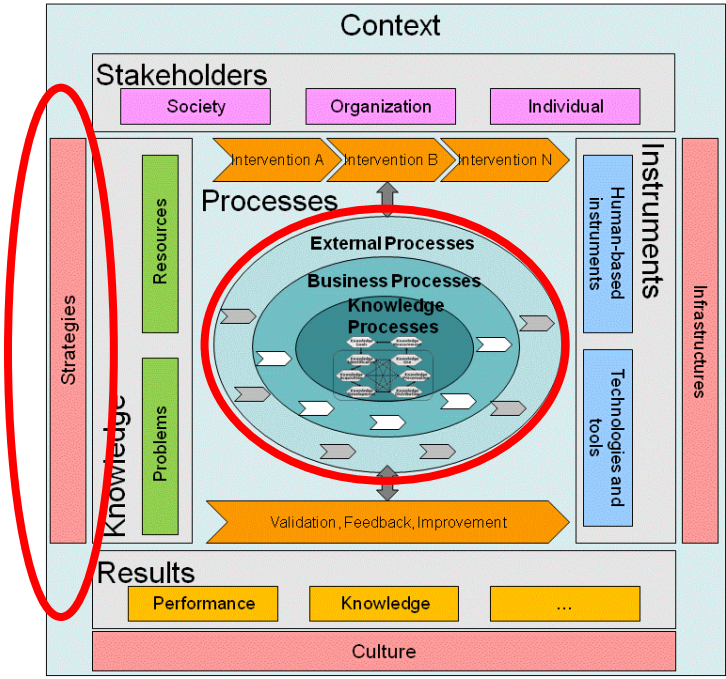
- Mentoring
- Open Space
- Job Rotation, Job Enlargement
- Career Planning
- Team Development
- Simulation Games
- Future Search Conference
- etc.

Knowledge Management Framework: Results

Knowledge	Measurement of knowledge and core processes	• Acceptance of knowlede management systems (KMS) • Usability / usefulness of KMS • Knowledge assets (number, usefulness, complexity, …) • Knowledge sharing (number of knowledge elements, motivation, know • Knowledge utilization (usage of knowledge elements, number of users per element, perceived usefulness, …) • …
Global aspects	Measuring international aspects	• Improvement of global competences • Awareness and sensitivity • Team understanding, team-related aspects • Number of interrupted communications • …

GKM Step by Step: Strategy and Requirements

- Assess organization's strategy and vision regarding KM
- Assess core knowledge of the organization
  - Knowledge cluster
- Assess core (business) processes
  - Business Process Model
- Specify and improve the strategy
  - Strategy specification



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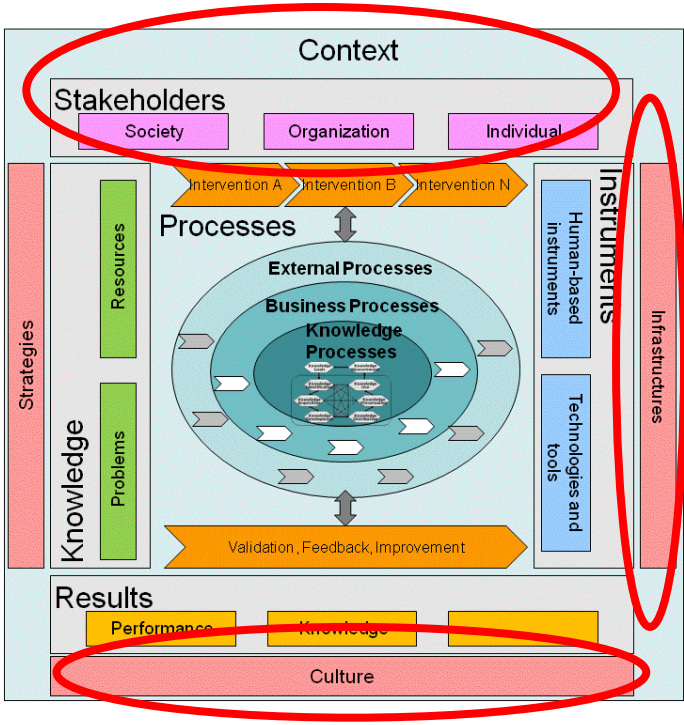
GKM Step by Step: Context

Describe key context aspects

- Stakeholders and roles
  - Organization / individual profiles
  - Knowledge and competence profiles
- Culture
  - Culture profiles
- IT Infrastructure
  - Regional infrastructure
  - Enterprise Architecture

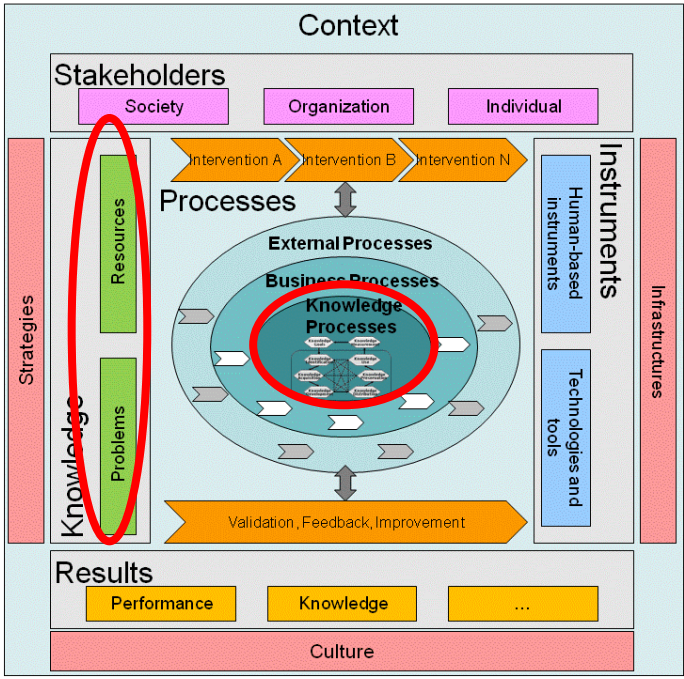


GKM Step by Step: GKM Design (1)

Design Knowledge Processes

Aligned with the context, you should…

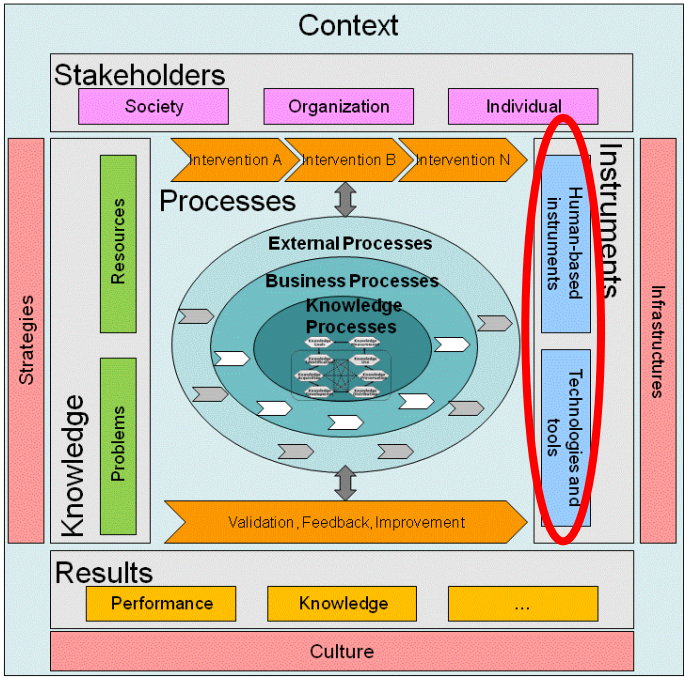
- Design potential knowledge processes
  - Specify processes
  - Embed with business processes
  - Agree / integrate with international collaborators
  - Prepare change processes
- Knowledge description
  - Develop knowledge descriptions / standards
  - Incorporate collaborators
  - Develop problem specifications



GKM Step by Step: GKM Design (2)

Design interventions

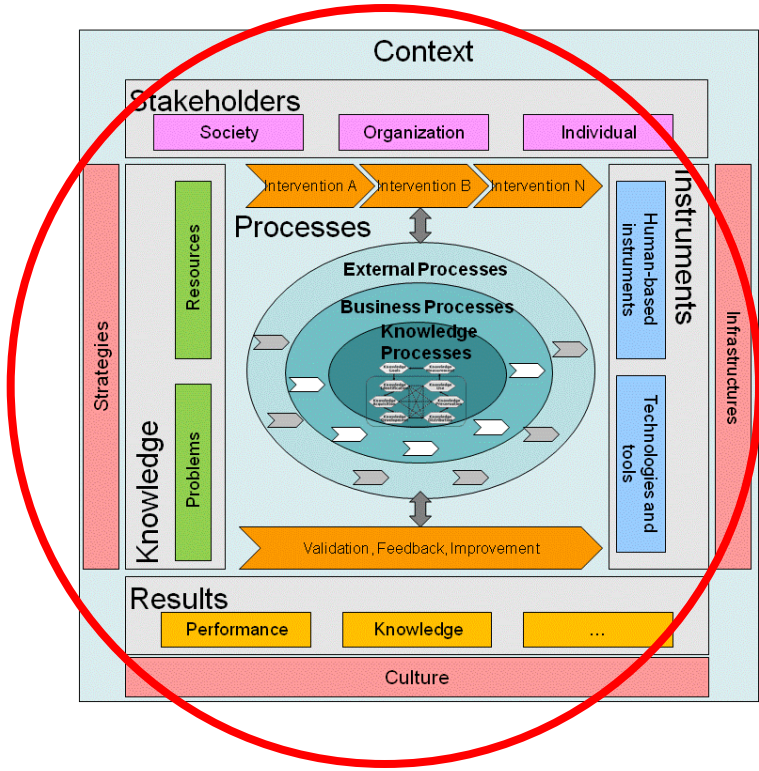
- Choose a barrier / success factor
- Identify candidate instruments
- Integrate process
- Identify influences / context
- Validate process – context – instrument impact
- Validate, refine, improve…



GKM Step by Step: Realization

Deploy & adopt

- Initiate change processes
- Integrate processes
- Realize interventions
- Validate results
  - Short term and long term
  - Staff knowledge
  - Productivity
  - …
- Develop improvement recommendations



Summary

- Successful Global KM is still a creative, explorative design activity
- Factors are identified but their interdependencies and context-correlations are unclear
- Step by step, participatory approaches with validations and continuous improvement
- More research to be done…

Guiding questions

- How to embed knowledge management in a strategy?
- How could knowledge processes be integrated in work processes?
- What are promising tools?
- How can knowledge sharing be embedded in a collaborative environment?

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