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How to Put Knowledge Management into Practice

*The greatest danger in times of change is not the turbulence – it is to act with
yesterday's logic*
Peter Drucker

Learning Outcomes
After completing this chapter
- You will know what the challenges and governance options of KM are in organisations;
- You will be able to select a KM implementation framework that suits the need of your organisation;
- You will know which eight steps should be considered in leading change;
- You will be able to name the key competences of knowledge workers;
- You will be able to carry-out a work-out session.

9.1 Shaping the Knowledge Organisation of the Future

In a constantly turbulent and complex environment, knowledge management should be able to support organisations in developing their «dynamic capabilities» for reconfiguring, redirecting and integrating core competencies with external resources. («Dynamic capabilities are the ability to reconfigure, redirect, transform, and appropriately shape and integrate existing core competences with external resources and strategic and complementary assets to meet the challenges of a time-pressured, rapidly changing Schumpeterian world of competition and imitation.») (Teece et al. 2000, p. 339).

At the same time, this «dynamization» is the core process of future KM. In an environment that is characterised by unpredictable, varying and «unexpected» crisis situations, knowledge management encourages swift problem solving, permanent experimenting, and quick collective learning as well as living with mistakes. This also implies a series of changes to how organisational knowledge management should be designed in the future.

Organisations will need to give up attempts to force knowledge into an orderly manageable and achievable form. In the future, organisations would need to carefully consider when it is worth the effort to make knowledge explicit and document it or whether it is more effective to switch over to creating collective implicit knowledge (process of socialisation) in rapidly changing situations.

The knowledge organisation of the future will need to further increase its learning ability and develop methods for finding quick solutions across organisational boundaries. How much energy should be spent in identifying and transferring «Best Practices», if rapid changes instead demand the development of «Next Practices»? ◙ Table 9.1 displays some of the challenges of practising KM in turbulent environments.

Knowledge management of the future is hence closely coupled with strategy, innovation management and personnel development which encourage the dynamisation of organisations. It

1. Focuses on competition-relevant knowledge and supports competency («Selective Knowledge Management» Howald et al. 2004);

▣ Table 9.1 Differences between KM in stable and turbulent contexts	
Knowledge management in stable context	**Knowledge management in turbulent context**
Codify knowledge and document process	Share tacit knowledge
Build on experiences	Develop ability to learn fast and «turbo problem-solving»
Disseminate «Best Practices»	Develop «Next Practices»
Ensure knowledge transfer across employee generations	Facilitate ad-hoc availability of knowledge

2. Defines and complies with normative standards and routines of documentation, of knowledge exchange, of learning and of knowledge protection (e.g. when should After Action Reviews be carried out and how should their results be integrated in future value creating process?);
3. Offers professional services for «dynamization of knowledge» (turbo problem solving, innovation workshops, knowledge carriers, organising exchange forums such as knowledge markets, support of CoP, etc.)

These tasks can be accomplished by different ***governance options of KM functions*** in an organisation.

The task of *focusing on competition-relevant knowledge and supporting relevant competency development* can be accomplished by setting-up an «expert organization» which includes *competence centers* for priority areas relevant for supporting present business and relevant for future business development, naming *subject matter experts* charged with systematisation and dissemination of relevant know-how as well as *communities of practice* linking expertise across the organisation and to the outside. As those professionals having technical expertise usually do not have experience about ways to document, share and learn they need either to be trained on these issues or be supported by professional KM services (see below).

The task of *setting and monitoring compliance* with normative standards and routines can be best accomplished if KM is attached to functions already in charge of standards and procedures such as quality management, process & information management or organisational development. In these functions usually a central unit and decentralised roles are combined to ensure implementation in all units of the organisation. This means for example having a central knowledge manager attached to quality or information management and a network of quality or information managers in the business units who depending on the size of the unit might be a full-time job or a role occupying 10% of a professional's time.

The task of providing *professional KM services* can be accomplished by different options. An effective one is to attach KM services to in-house consulting services. Another is to place KM services within the context of corporate universities and training/coaching functions, thus strengthening the link between organisational learning and KM. A third option is to link KM to business development and innovation management.

Independent from the organisational anchoring the end point should be integration of KM in the daily practices of each employee, in each unit and the management structures of the organisation, just like other management disciplines such as financial, people, project or quality management. And just like these other disciplines, KM needs a management framework within which it can be embedded. Furthermore, knowledge workers need to develop the relevant skills to manage their information and knowledge.

9.2 KM Implementation Frameworks

A framework is a defined set of technologies and processes, embedded into business activity, and a defined set of roles embedded into the organisational structure, all under an umbrella of governance. Like other management systems, effective KM is a framework of roles, processes, technologies and governance which has been embedded into the business.[1] It is a change process which is not gradual but a step-change. It is a remodelling of the organisation; a make-over, a new way of thinking that needs to be treated and measured as a change process. Don't go into KM thinking that it is about a new IT tool, or just «trying out communities» – you won't get far if you don't start to address the hearts and minds. This also means that KM implementation must be structured like a change program (including a piloting component), and must have a strong team of change agents to implement the change.[2]

Introducing KM into an organisation will not happen by accident. It will only happen if someone makes a deliberate decision. Very few CEOs wake up one morning and «decide» to implement KM. Instead, like any other practice, implementation of KM results from a series of decisions, and each decision rests on evidence (Milton and Young 2007).

Implementing a KM system can be complex and dynamic, no matter how well planned and developed it might be. Inevitably a degree of organisational inertia is focused on the *current* rather than the *new*. Within an enterprise, personal and group interests can adversely affect the commitment needed to successfully implement such a system. The best way to ensure KM system value and overall proper implementation is to focus on enterprise performance as it relates to customer benefit (Bixler 2002).

In the following we will present some frameworks for KM implementation.

9.2.1 Business Excellence Models as an Overarching Framework

One option is to integrate KM initiatives in a Business Excellence framework (see ◨ Table 9.2). Business Excellence (BE) aims at developing and strengthening the management systems and processes of an organisation to improve performance and create value for stakeholders. BE is about achieving excellence in everything that an organisa-

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1 For an overview of KM frameworks see Wong and Aspinwall (2004); Liebowitz and Megbolugbe (2003).
2 Knoco stories: Top 7 tips for knowledge management success ► http://www.nickmilton. com/2011/09/top-7-tips-for-knowledge-management.html

◘ **Table 9.2**   Knowledge management objectives linked to the Baldrige criteria for performance excellence

Baldrige criteria for performance excellence	Link to knowledge management
1. *Leadership*: examines how your organisation's senior leaders' personal actions guide and sustain your organisation. Also examined are your organisation's governance system and how your organisation fulfills its legal, ethical, and societal responsibilities and supports its key communities	Leaders recognise the link between KM and performance, the right attitudes exist to share and use others' know-how, leaders reinforce the right behaviour and act as role models
2. *Strategic Planning*: examines how your organisation develops strategic objectives and action plans, how your chosen strategic objectives and action plans are implemented and changed	Clearly identified Intellectual assets KM strategy is embedded in the business strategy. Framework and tools enable learning before, during and after
3. *Customer Focus*: examines how your organisation engages its customers for long-term marketplace success. This includes how your organisation listens to the voice of its customers, builds customer relationships, and uses customer information to improve and identify opportunities for innovation	Networks and CoPs and open innovation with customers, effective learning routines with and from (potential) customers
4. *Measurement, Analysis, and Knowledge Management*: examines how your organisation selects, gathers, analyses, manages, and improves its data, information, and knowledge assets and how it manages its information technology	A KM action plan and resources for KM exist, Knowledge is easy to get to, easy to retrieve. It is constantly refreshed and distilled
5. *Workforce Focus*: examines your ability to assess workforce capability and capacity needs and build a work force environment conducive to high performance	Skill/competence management is linked to business objectives and personal development goals. A wide variety of learning formats are in use Incentive systems contribute to align behaviour
6. *Operations Focus*: examines how your organisation designs, manages, and improves its work systems and work processes to deliver customer value and achieve organisational success and sustainability. Also examined is your readiness for emergencies	Processes are documented, «Best Practices» are systematically identified and disseminated; quick problem solving routines tapping all required knowledge (e.g. work out approach) are applied
7. **Results**: examines your organisation's performance and improvement in all key areas – product and process outcomes, customer-focused outcomes, workforce-focused outcomes, leadership and governance outcomes, and financial and market outcomes	Indicators measuring the quality of knowledge management are in use; intellectual assets are evaluated regularly. Competitive Benchmarking allows to learn from best performers

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tion does (including leadership, strategy, customer focus, information management, people and processes) and most importantly achieving superior business results.

Business Excellence Models – first called Total Quality Management Models – are now used in around 90 countries as a key mechanism to help businesses to improve.[3]

There are several quite similar models in use around the world: The Baldrige Criteria for Performance Excellence (CPE) which is used in the United States but has been adopted in many countries in Asia. The leading model in Europe is the EFQM Model (European Foundation of Quality Management, ► www.efqm.org). For the public sector a «Common assessment Framework» (CAF, ► www.eipa.eu) based on the EFQM Model is in use in many European countries. These excellence models usually start with a self-analysis followed by the determination of priority actions and a change and implementation process along the PDCA-cycle (Plan, Do, Check, Act). In order to integrate KM initiatives in a Business Excellence framework in ◼ Table 9.2 we summarise KM objectives in relation to the Baldrige Criteria for Performance Excellence which are also closely related to the criteria used by the EFQM Model.

9.2.2 ISO 9001:2015 as an Implementation Framework

In addition to overarching Business Excellence frameworks, management standards provide guidance on the integration of KM in management systems. The first country to adopt a standard to guide KM implementation was Australia in 2005 with «AS 5037-2005 Knowledge management». It took the International Standards Organization (ISO) until 2105 (10 years) to integrate KM together with risk management in a revision of the ISO 9001 quality standard. ISO 9001:2015 now follows the same overall structure as other ISO management system standards, making it easier for anyone using multiple management systems.

A new clause on organizational knowledge (7.1.6) has been added to ISO 9001:2015. The requirements of this clause are:
- «Determine the knowledge necessary for the operation of its processes and to achieve conformity of products and services.
- This knowledge shall be maintained and made available to the extent necessary.
- When addressing changing needs and trends, the organization shall consider its current knowledge and determine how to acquire or access any necessary additional knowledge and required updates.»

Separating the individual requirements of the standard text and displaying them in a meaningful order creates a knowledge cycle, which illustrates how the requirements of ISO 9001: 2015 relate to understanding knowledge management and their implementation (see ◼ Fig. 9.1). It also clearly shows that knowledge management within an organization is not a one-off project, but a continuous process.

Therefore, the knowledge cycle consists of the following essential elements:

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3   Adapted from ► http://www.apo-tokyo.org/coe/files/Understanding-Business-Excellence.pdf
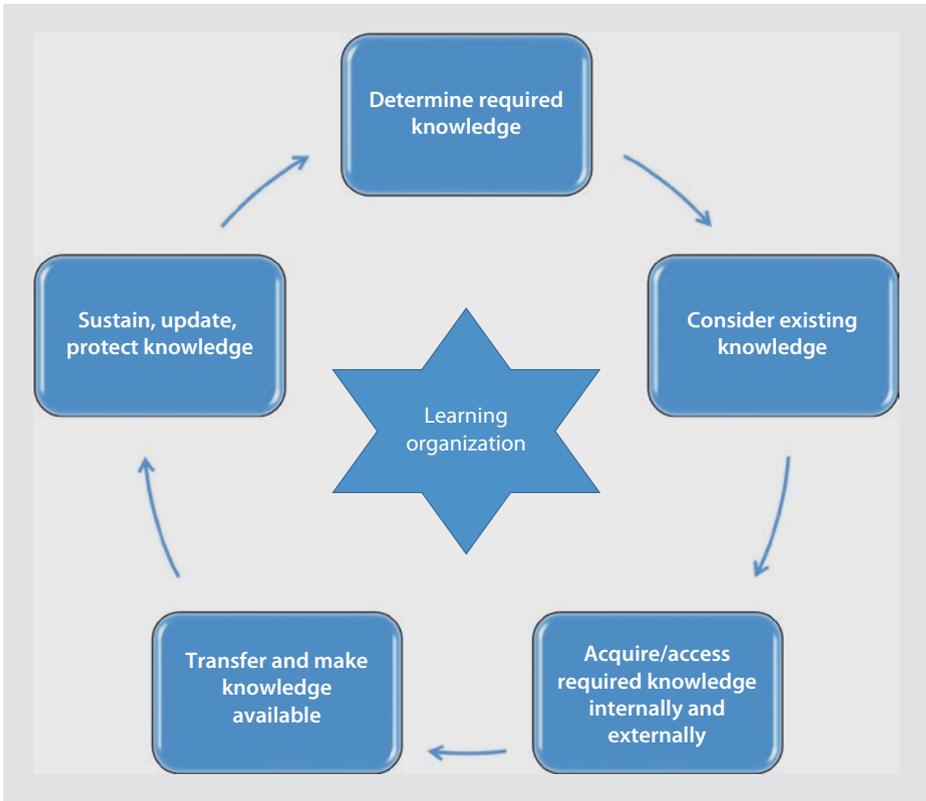
□ Fig. 9.1   The knowledge management cycle (North et al. 2016)

Determine required knowledge: This first step identifies what knowledge is required to be able to meet the customer requirements. You should not only consider the required individual knowledge of employees, but the entire relevant internal and external, implicit and explicit knowledge. This applies not only to the requirements of customers, but all interested parties should be included in the analysis.

Consider existing knowledge: The second step is to take into account the knowledge actually available and set to the required knowledge scope. This requires a sufficiently specific description of the existing knowledge that allows an Is-target comparison. Identifying differences between the existing and required knowledge trigger the next step in the process.

Acquire required knowledge: To comply with current customer needs or to prepare for the future the organization should have a strategy and systematic ways how knowledge can be procured internally or externally – the knowledge acquisition of the organization may be based on the following:

1. on internal sources (e.g. intellectual property, accumulated from experience knowledge, lessons from mistakes and successful projects, acquisition and exchange of non-documented knowledge and experience that results from improvements in processes, products and services);

2. on external sources (e.g. Industry standards, universities, conferences, knowledge acquisition by customers or external suppliers). (DIN EN / ISO 9001: 2015, 7.1.6 NOTE 2)

In a dynamic environment, where the requirements of customers and the market can change very rapidly, it will be necessary to continually build or to acquire new knowledge. In this sense, the requirement for gaining knowledge within the knowledge cycle is to be understood also as a measure for continuous improvement.

Transfer knowledge and make it available: It is important to understand that organizational knowledge always represents a bundle of knowledge resources. Knowledge materialises in documents, processes, tied in IT systems, and in the organizational structure. It always needs people who are able to capture this information and knowledge to enrich the exchange and external knowledge that complements the internal resources. Therefore, a good interaction between organizational, human resources development and information and communication technology is a key success factor to ensure that the right knowledge is available at the right time at the right place.

Sustain, update, protect knowledge: The last step in the knowledge cycle and as a requirement of ISO 9001: 2015 is to maintain the existing and acquired knowledge in an on-going basis. Organizations have to establish a process how existing knowledge can be updated and preserved. On the one hand, this can be done by documentation of the required knowledge, in order to preserve it for the organization, on the other hand, knowledge can also be maintained by being passed on to (new) employees and so is preserved for the next generation. The systematic identification of knowledge loss risk, e.g. by retirement or employee turnover, sets an important prerequisite for effective measures in the preservation of knowledge (see also ► Sect. 8.4).

Before taking the first step to fulfill the requirements of ISO 9001, you should appoint someone who is responsible for the knowledge management in the organization. The new ISO 9001: 2015, does not foresee a single representative of the top management for quality or knowledge management but assigns responsibility for the quality management system to the entire top management team. This is where knowledge management responsibility should be located (regarding knowledge managers see ► Sect. 5.4).

The following checklist provides some guidance which topics need to be addressed in order to comply with the standard (◘ Table 9.3).

9.2.3 Step Approach Frameworks to KM

KM initiatives require a change process in the organisation. Therefore several frameworks define a sequence of steps inspired by change management approaches to guide the implementation of KM practices within an organisation. Wiig's «Building Blocks», North's «knowledge ladder», Albers (2009) approach and Nihilent's MC^3 are such frameworks.

◘ Table 9.3   Checklist – Knowledge Management Requirements of ISO 9001: 2015

Determine required knowledge

Knowledge and competence goals are derived from the business strategy: What do we need to know and be able to do to meet «uniquely» the market and customer requirements today and in the future?

(Future) Customer demands, market and technology trends are systematically analyzed and from that the requirements for knowledge / competence are determined

Critical knowledge is identified for specific/key processes and determined concretely

Consider existing knowledge

The core competencies and mission-critical knowledge of the organization are determined periodically and reflected: What do we know and what are we capable of doing, which ensures our long-term competitiveness?

Important qualifications and skills of employees (human capital) are determined and periodically evaluated

Process-relevant information, intellectual property rights and information systems (structural capital) are documented and evaluated

External sources of knowledge and partnerships (relational capital) are recorded, the quality of the relationship is evaluated regularly

Acquire required knowledge

There is a strategy and systematic approach to acquire needed knowledge internally and / or externally

Various forms of learning support the acquisition of the required knowledge (e.g. training, e-learning, job-based learning, team learning, coaching, mentoring)

Lessons learned (learning from mistakes / successes, after action reviews) are systematically analyzed and harnessed

The organization develops and uses systematically external knowledge sources (e.g. Co-operations with research and educational services, consultants, customers, suppliers, online services, and more.)

Transfer knowledge and make it available

The corporate culture and incentive systems promote knowledge sharing and joint learning

Education and training are effectively aligned with strategic and operational knowledge / competence goals

Training of new employees and knowledge transfer of leaving employees are systematically practiced

Individual expertise is made available for the organization through documentation or personal exchange

There is a push and pull strategy for different categories of knowledge

Media and information systems (e.g. databases, intranet, social software) support user-oriented access and exchange of information/knowledge internally and externally

| ◼ **Table 9.3** (continued) |
|---|
| **Sustain, update, protect knowledge** |
| There is a strategy and a systematic approach to secure, document and update mission-critical knowledge |
| Knowledge loss risks are systematically identified, unique knowledge is passed effectively in time before staff changes |
| Legal possibilities of knowledge protection (e.g. patents, brand protection) are used systematically |

Building Blocks According to Wiig

Wiig (1999) introduced a set of 16 common building blocks in a step-wise manner to guide the introduction of KM practices in an organisation. They were presented in the following order of implementation:

1. Obtain management buy-in.
2. Survey and map the knowledge landscape.
3. Plan the knowledge strategy.
4. Create and define knowledge-related alternatives and potential initiatives.
5. Portray benefit expectations for knowledge management initiatives.
6. Set knowledge management priorities.
7. Determine key knowledge requirements.
8. Acquire key knowledge.
9. Create integrated knowledge transfer programmes.
10. Transform, distribute and apply knowledge assets.
11. Establish and update a KM infrastructure.
12. Manage knowledge assets.
13. Construct incentive programmes.
14. Coordinate KM activities and functions enterprise-wide.
15. Facilitate knowledge-focused management.
16. Monitor knowledge management.

Accompanying these building blocks, Wiig discusses the purpose and characteristics of each building block and provided examples of KM activities to introduce them.

9.2.4 A KM Implementation Framework Based on the «Knowledge Ladder»

In ► Chap. 2 we have explained the «knowledge ladder» visualising the steps of knowledge based value creation. The knowledge ladder has also proved a practical framework to implement knowledge management in a modular way. The challenge of implementing KM is on the one hand to provide «quick wins» addressing priority problems and on the other hand to integrate these actions into a longer and more comprehensive perspective towards a learning organisation.
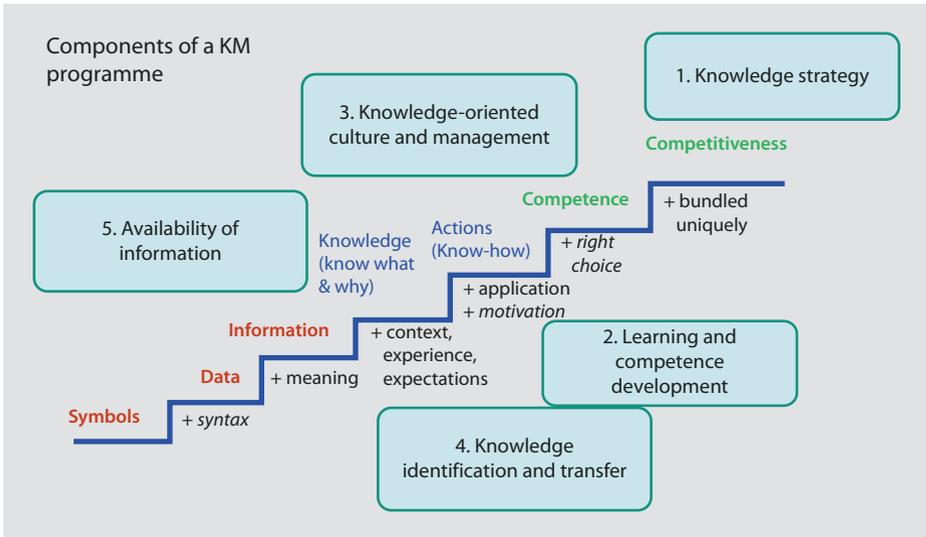
Fig. 9.2   KM implementation framework based on the «knowledge ladder»

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Therefore we have defined five modules or components which can be used as work packages for a KM project. As a result of a KM self-analysis (see ▶ Chap. 1) objectives for each work package as well as measures can be defined. Below you will find a suggestion for formulation of objectives as well as typical measures related to achieving the objective. You can start at any step of the knowledge ladder provided you do not lose a long-term perspective of completing all five components (see ▣ Fig. 9.2).

■ **1st Component: Knowledge Strategy**

Objective   Knowledge and learning are integral components of corporate strategy. Core competencies and knowledge goals are derived from the strategy and turned into measures for developing competencies and safeguarding knowledge.

Measures for example:
1. Identification, examination and communication of core competencies, periodical execution of a «strategic knowledge analysis» or development of an intellectual capital statement.
2. Competence centres or communities ensure development of core competencies and their incorporation in the performance process («key topics»).
3. Personal development is oriented towards core competencies and knowledge goals derived from them.

■   **2nd Component: Learning and Competence Development**

Objective   Competences of employee are evaluated systematically and their development is encouraged. Collective learning is integrated in business routine.

Measures for example:
1. Identifying competences and developing them by a systematic skill management and different forms of learning
2. Identifying key experts and integrating them into a team
3. Establishing competence centres for key themes and comprehensive performance processes.
4. Encouraging informal learning through CoP (communities of practice) and initiatives such as «colleagues learn from and with colleagues.»
5. Learning in and from projects (project briefing/lessons learned) and integrating in quality management
6. Living in an «error culture» («The error of the month»)

- **3rd Component: Knowledge-Oriented Culture and Management**

Objective A culture of sharing knowledge and cooperation is encouraged and followed systematically («Sharing knowledge is power»). Management takes up the task of setting an example. Teamwork is the lived value of an open organisation.

Measures for example:
1. Creating reasons for exchange of knowledge (e.g. common breakfast, brown bag lunch, lunch bingo, etc.)
2. Encouraging exchange over levels of hierarchy (e.g. skip level meeting)
3. Incorporating competence development and knowledge transfer in employee appraisal
4. Encouraging knowledge transfer by rotating jobs, organising teams and planning substitutions
5. Providing time for exchange of knowledge
6. Playful motivation: «sharing knowledge earns you miles» and establishing awareness
7. Office architecture and communication zones encourage exchange of knowledge

- **4th Component: Knowledge Identification and Transfer**

Objective «Knowbodies» are identified and approachable («Knowing who knows what»). Handover situations (orientation, preparation) are attended to systematically.

Measures for example:
1. Yellow pages, expert finder, company Facebook, or knowledge mail for identifying expertise
2. Orientation concept and orientation package for new employees
3. Accompanying handover situations

- **5th Component: Information Availability**

Objective Information strategy is demand-oriented (role concept), easily accessible and retrievable (pull system), selected information is forwarded in structured and coherent form to potentially interested persons (push system) High-priority information is supervised by moderators who are responsible for regular updating and consolidating of information.

Measures for example:
1. User-based structuring of information and overall concept for decentralised databases as well as re-launching intranet
2. Implementing cross-departmental wikis and blogs
3. Cleanup day of databases: clearing, discarding, giving away, etc.

These components can be adapted according to necessity and can be implemented in a phased mid-term strategy.

Case Study

Suggestions for Knowledge Management in a Small to Medium Law Firm

1. Discuss KM challenge with partners. Choose one partner as KM officer, manager or coordinator (not to act in directive manner, but as driving force, coordinator and adviser behind the KM effort). KM needs to be recognised and started as a meaningful activity, important to the future of the firm. Inform all colleagues.
2. Defining key (major) areas of KM interest should be key practice and competency areas that the firm wants to develop may be 4–7 major areas of legal business, meaningful and prospective from client's and firm's point of view. KM will focus on these areas. All firm activities need not be covered.
3. Appoint 1–2 partners responsible for KM in each area in addition to doing client work and promotion.
4. Define objective(s) of KM for each area (becoming market leaders, offering new services, catching up with competition, improving quality, etc.) related to real business and firm strategy objectives, and client needs and requirements
5. Define key terms (taxonomy, thesaurus) for KM effort in each area – a limited number of key issues
6. Define database (traditional + computerised), including: project (case) profiles, presentations, literature, web links, directories, internal expertise, external experts and other sources, etc.)
7. Choose software solution adequate to coverage, objectives, volume and resources
8. Develop competency profile for each partner and lawyer in chosen key areas, e.g., rating knowledge of each in each area as basic-good-expert level (e.g. competence matrix)
9. Define individual development targets by areas (becoming a top expert, just keeping up-to-date, acquiring basic knowledge, ignoring the area, etc.). Link KM with individual development efforts.
10. Define with partners and all lawyers their individual roles and responsibilities for making inputs in the database and contributing to KM more generally
11. Focus the whole effort on future, from existing (past) documents and sources include selectively only essential know-how and sources that will remain important in the future
12. Among completed projects (client contracts) focus on those that were really important, that offer a lot of learning, that were in prospective markets, that could be easily replicated to save time, where the firm could develop its own internal standard, etc.
13. Do not produce any documents and files just for the sake of it; be very selective and rational
14. Organise (regular) knowledge-sharing events offering significant learning – on important current or completed projects, outcome of conferences, new legislation, new business trends and demands with new implications to legal work – always sticking to the key areas of business

15. Circulate only a minimum of information to all or most lawyers, but make sure that they get all the information that is imperative for them to know
16. Circulate and exchange some well-selected information and tips of wider professional and intellectual interest beyond the defined areas of business (ethics, conflict of interest, new trends in business and law, etc.).
17. Periodically, discuss the functioning and effectiveness of your system at partner meetings and with other lawyers and take corrective measures. Flexibility and adaptability are essential. Make sure that the system is alive!

Nihilent's MC³ Framework[4]

Organisations are like living organisms. In rapidly changing scenarios, they need to be constantly aware of their environment, sense opportunities and adapt quickly in order to win in the marketplace. This is the fundamental belief that gave birth to MC³ – the world's first patented holistic learning and innovation framework that brings about knowledge-enabled transformation in organisations. MC³ is the first patented framework of its kind focusing on Learning and Innovation (South Africa Patents Act 1978, No. 2002/1681) introduced by Nihilent, a global Consulting and Solutions Integration company headquartered in Pune, India.

The framework adopts a cybernetic (cause and effect) approach, since similar to the laws that govern nature everything a company does is governed by what it is. It is a framework that integrates people, process and technology, has a direct impact on business results and brings about not just an incremental change but a transformation in an enterprise.

The MC³ framework truly transcends conventional change management boundaries. It emphasises the need to create a context for learning, problem solving and innovation through curiosity, thus increasing its capability to create new knowledge in terms of innovations, process improvements and better services.

When rephrased, the four constituents that symbolise MC³ are (see also ◩ Fig. 9.3):
- **Motivation** to seek and collaborate
- **Capability** to create, capture and disseminate knowledge and information
- **Capacity** to leverage and institutionalise best practices
- **Calibrate** performance against predefined goals

The MC³ framework aligns and percolates strategy to all levels in the organisation. It enables organisations to leverage their intellectual capital and, supported by appropriate technology, achieve business results. While application of the MC³ framework is tailored to suit each organisation's requirements, it addresses the following constituents:
- **Intent Management:** Create a mindset for learning and define a learning agenda tied to the business goal and encourage individuals to learn better and perform better.
- **Content Management:** Facilitate capture of tacit knowledge from suppliers, customers and internal experts and acquire competitive and business intelligence.

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4   Our Model ► http://www.mc3consulting.com/html/ourmodel/Framework
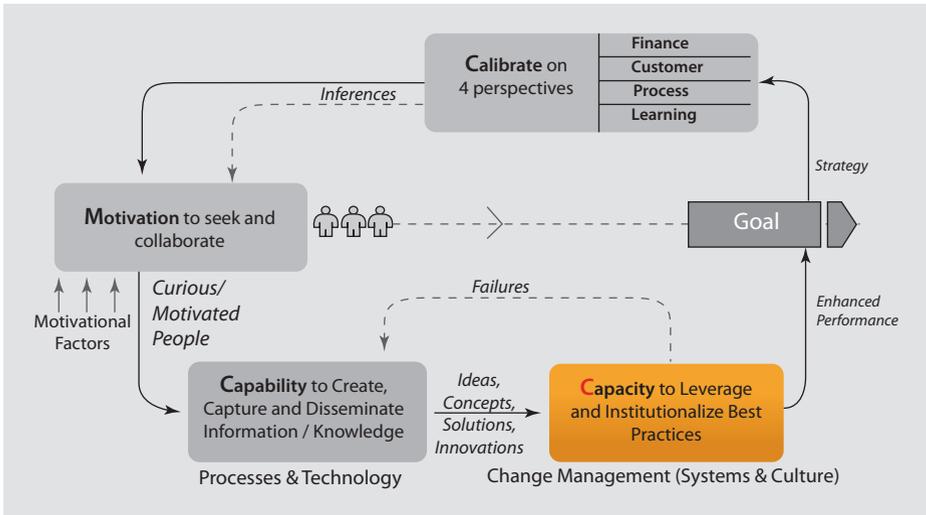
◘ Fig. 9.3   Nihilent's MC³ framework (Copyright © 2007 Nihilent Technologies Pvt. Ltd)

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- **Action Management:** Apply the learning and thus change the way in which the organisation performs and,
- **Performance Management:** Re-aligning individual goals with organisational goals and assessing and analysing performance based on these metrics.

Calibration is the first stage in the implementation of the framework.
 It does the following:
- Calibrates the organisation across four crucial perspectives, namely: finance, customer, process and learning
- Generates learning agendas within the business context and
- Acts as an overall Performance Management System for the organisation.

The Calibration stage consists of three distinct processes:
- Balanced Scorecard Implementation
- Competency Assessment
- Knowledge Mapping

The Balanced Scorecard implementation provides clear and measurable targets to the organisation as a whole, the various departments within it, and to the roles within these departments. This provides the business context to everyone within the organisation. Competency assessment and knowledge mapping help in defining the learning agendas for individuals in this business context.

At the end of the **Calibration** exercise, individuals know what they are supposed to do and also become aware of the gaps in their capabilities and knowledge levels that could possibly hinder their progress in achieving their goals.

The **Motivation** exercise follows the calibration and motivates individuals to perform through group workshops and individual counselling.

It takes inputs from:

- The Competency Assessment exercise, which identifies gaps in the «soft» skills of the individual (like attitude, team building, etc.)
- The MC^3 Assessment exercise which identifies motivational gaps in the organisation as a whole.

Based on these inputs, people are categorised with respect to motivational levels (High, Medium and Low) and interventional workshops or individual counselling sessions are introduced depending on these categories. This exercise generates a highly focused and motivated work force that knows exactly what it has to do and how it is going to be measured in the business context.

The **Capability** exercise equips the organisation with the ability to aid this motivated, focused work force to learn, share, innovate and therefore bridge their knowledge gaps and the knowledge gaps of the organisation as a whole. Inputs are taken from the knowledge mapping exercise in the Calibration phase. This is typically a knowledge management exercise and breeds the essential learning habit within the organisation.

This phase requires two interventions:

- **Non-technological interventions include**:
    - Tacit knowledge to explicit knowledge externalisation
    - Creating repositories of knowledge
    - Inculcating Communities of Practice
    - Gathering Competitive Intelligence
    - Ideation and brainstorming techniques, etc.
- **Enabling technology** also plays a large role in the knowledge management initiative. Examples of technology interventions are Collaborative tools, Employee portals, Business intelligence tools, Data marts, Document management systems and E-learning systems.

Capacity is the final stage of the MC^3 implementation process, where the organisation develops the capacity to institutionalise the successes from the previous exercise (Capacity) and scale it across the organisation. Processes which build sustained successes and augment the transformation of the enterprise are created.

This stage is also called Change Management because it equips the organisation with processes that manage the change that takes place in the organisation. MC^3 involves Change Management diagnostics which are immensely useful in this process.

«Change champions» are identified within the organisation and are instrumental in continuing the cycle and developing the sustained transformation that is so essential to excellence.

Even though this is the final stage of the MC^3 framework, it doesn't end here. Change management leads to Recalibration of performance. Newer and higher levels are targeted and the cycle repeats itself. The cycle has to repeat itself for the organisation to survive.

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Case Study

Share TRAnsactions Totally Electronic (STRATE)

Monica Singer, CEO of STRATE, the organisation that performed the electronic settlement of all equity trades in South Africa, was planning the way forward for the balanced scorecard driven knowledge management intervention that STRATE had implemented over the past 8 months. At the beginning, most of the knowledge about STRATE's business had resided with the consultants that had helped establish STRATE and the IT systems that were so critical to its functioning. What she initially thought to be a simple knowledge transfer exercise had actually resulted in a comprehensive organisational transformation and she was delighted with the outcome.

STRATE is the authorised Central Securities Depository (CSD) for the electronic settlement of financial instruments in South Africa. It is a regulated body formed by JSE Securities Exchange and five major banks of South Africa. Its core competencies include an IT infrastructure and application to serve the needs of the security trading market. Initially, STRATE handled only equity market operations. It then acquired Universal Exchange Corporation Ltd. (UNEXcor), which handles bond market depository, clearing and settlement operations. UNEXcor was entrusted with the responsibility of developing Money Market Clearing, settlement and depository operations. With this acquisition STRATE would be a major player in the electronic settlement of financial instruments in South Africa.

STRATE experienced amorphous growth in its short span of time. It outsourced most of its projects to external service providers and consultants especially in the Information Technology area including a world-class settlement system namely SAFIRES (South African Financial Instruments Real Time Electronic Settlement System). Most of the knowledge and expertise was with third party providers/consultants and STRATE paid high outsourcing costs.

Another challenge that STRATE faced was that business and technology experts were wrapped in silos affecting productivity and hence «time-to-market». There were low levels of communication between staff and management leading to divided focus on long term and short-term goals across various divisions.

The MC^3 framework for learning and innovation was used at STRATE to transform STRATE into a learning organisation. To ensure client comfort, reduced risk and to capitalize on experience, the following were built:

- A clear and flexible performance model aimed at accomplishing business goals in line with the vision.
- A process for creating and utilising intellectual capital towards driving its sustainability as a viable service provider.
- A process for transfer of required knowledge to role holders within the organisation.
- A dynamic organisation in order to respond to the changes in the market

«The process opened my eyes to where we are and where we want to go. This process has standardised the applicability of HR processes across the organisation and clearly brings out the issues that contribute to the company's progress. We are very pleased. Now we know that KM is not a theory.» says Brutus Molefe, Head-HR, STRATE.
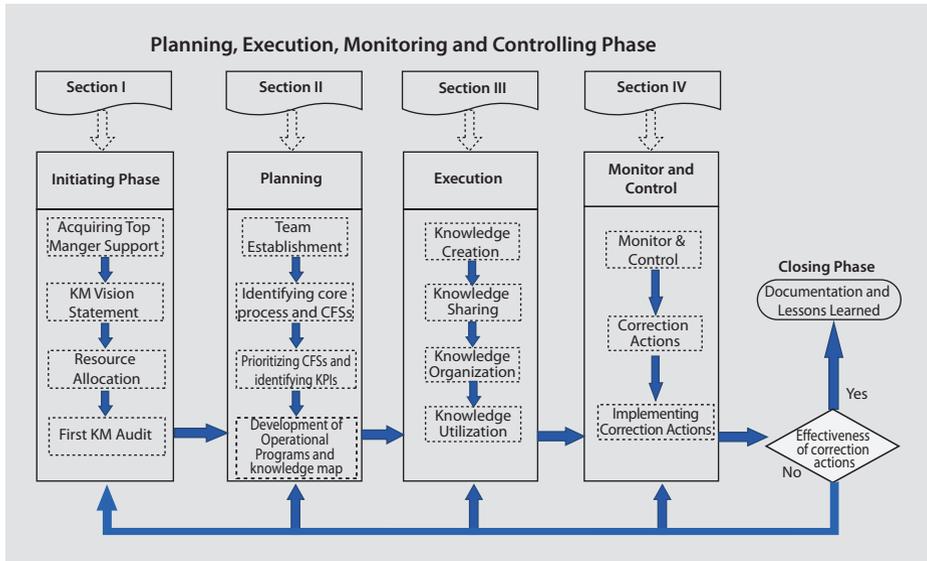Source: ► http://www.nihilent.com/casestudies/STRATE.pdf

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9.3   Implementing KM: A Change Project

9.3.1 Structuring a Change Project

As discussed earlier the implementation phase
- Needs to be someone's responsibility,
- Needs a change strategy and a plan,
- Needs a special team and budget,

Fig. 9.4 Five phase implementation model of project management (Source: ► http://idosi.org/wasj/wasj11(1)10/6.pdf)

- Has a start and an end, and
- Has objectives and deliverables.

So it needs to be managed as a project. Whatever process you use internally for managing projects, apply it to your KM implementation.

Based on KM models, control projects model and a continuous improvement cycle, Erfani et al. have defined a KM implementation Model considering the five phases of Project Management. The model is shown below in ▣ Fig. 9.4:

It has been shown that while implementing the managerial models many interested organisations don't pay attention to the initiating phase and go directly into the execution phase. These organisations face problems because of neglecting preliminary requirements such as budgeting. Moreover they do repetitive work since they don't consider closing the phase in their models and don't have a method to document the results and procedures of their projects (Erfani et al. 2010). Organisations wishing to implement KM initiatives should be aware that this requires in most of the cases a change of behaviour. This is why ***KM projects are fundamentally change projects***. To increase the probability of successful change those leading KM initiatives should be aware of the principles of change management.

9.3.2 Kotter's Eight Steps of Change

There are many theories about how to «do» change. A widely accepted model was introduced by Harvard professor Kotter with his eight-step change process in his book, «*Leading Change*.» (Kotter 1996) We look at his eight steps for leading change below.[5]

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5   Adapted from ► http://siriusmeetings.com/files/8steps1.pdf

1. **Establish a Sense of Urgency**

   Talk of change typically begins with some people noticing a vulnerability in the organisation. The threat of losing ground in some way sparks these people into action, and they in turn try to communicate that sense of urgency to others. Kotter notes that over half the companies he has observed have never been able to create enough urgency to prompt action. «Without motivation, people won't help and the effort goes nowhere […]. Executives underestimate how hard it can be to drive people out of their comfort zones». In the more successful cases the leadership group facilitates a frank discussion of potentially unpleasant facts: about the new competition, flat earnings, decreasing market share, a lack of communication and knowledge sharing other relevant indicators. It is helpful to use outsiders (consultants) who can share the «big picture» from a different perspective and help broaden the awareness of people. When is the urgency level high enough? Kotter suggests it is when 75% of your leadership is honestly convinced that business as usual is no longer an acceptable plan.

2. **Form a Powerful Guiding Coalition**

   Change efforts often start with just one or two people, and should grow continually to include more and more who believe the changes are necessary. The need in this phase is to gather a large enough initial core of believers. Regardless of size of your organisation, the «guiding coalition» for change needs to have 3–5 people leading the effort. This group, in turn, helps bring others on board with the new ideas. The building of this coalition – their sense of urgency, their sense of what's happening and what's needed – is crucial. Involving respected leaders from key areas of your church in this coalition will pay great dividends later.

3. **Create a Vision**

   Successful transformation rests on «a picture of the future that is relatively easy to communicate and appeals to stakeholders. A vision helps clarify the direction in which an organisation needs to move». The vision functions in many different ways: it helps spark motivation, it helps keep all the projects and changes aligned, it provides a filter to evaluate how the organisation is doing, and it provides a rationale for the changes the organisation will have to weather. «A useful rule of thumb: if you can't communicate the vision to someone in five minutes or less and get a reaction that signifies both understanding and interest, you are not yet done with this phase of the transformation process».

4. **Communicate that Vision**

   Kotter suggests the leadership should estimate how much communication of the vision is needed, and then multiply that effort by a factor of 10. Leaders must be seen «walking the talk» – another form of communication – if people are going to perceive the effort as important. «Deeds» along with «words» are powerful communicators of the new ways. The bottom line is that a transformation effort will fail unless most of the people understand, appreciate, commit and try to make the effort happen. The guiding principle is simple: use every existing communication channel and opportunity.

5. **Empower Others to Act on the Vision**

   This entails several different actions. Allow people to start behave and act in the new ways and to make changes in their areas of involvement. Allocate budget money to the new initiative. Carve out time on the agenda to talk about it. Change the way your organisation is organised to put people where the effort needs to be. Free up key

people from existing responsibilities so they can concentrate on the new effort. In short, remove any obstacles there may be to getting on with the change. Nothing is more frustrating than believing in the change but then not having the time, money, or support needed to effect it. You can't get rid of all the obstacles, but the biggest ones need to be dealt with.

6. **Plan for and Create Short-Term Wins**
   Since real transformation takes time, the loss of momentum and the onset of disappointment are real factors. Most people won't go on a long march for change unless they begin to see compelling evidence that their efforts are bearing fruit. In successful transformation, leaders actively plan and achieve some short-term gains which people will be able to see and celebrate. This provides prove that their efforts are working, and adds to the motivation to keep the effort going. «When it becomes clear to people that major change will take a long time, urgency levels can drop. Commitments to produce short-term wins help keep the urgency level up and force detailed analytical thinking that can clarify or revise visions».

7. **Consolidate Improvements and Keep the Momentum for Change Going**
   As Kotter warns, «Do not declare victory too soon». Until changes sink deeply into an organisation's culture – a process that can take time – new approaches are fragile and subject to regression. Again, a premature declaration of victory kills momentum, allowing the powerful forces of tradition to regain ground. Leaders of successful efforts use the feeling of victory as the motivation to delve more deeply into their organisation: to explore changes in the basic culture, to expose the systems relationships of the organisation which need tuning, to move people committed to the new ways into key roles. Leaders of change must go into the process knowing that their efforts will take a while to produce results.

8. **Institutionalise the New Approaches**
   In the final analysis, change sticks when it becomes «the way we do things around here», when it seeps into the bloodstream of the corporate body. «Until new behaviors are rooted in social norms and shared values, they are subject to degradations as soon as the pressure for change is removed». Two factors are particularly important for doing this. First, a conscious attempt to show people how the new approaches, behaviors, and attitudes have helped improve the life of the organisation. People have to be helped to make the connections between the effort and the outcome. The second is to ensure that the upcoming leaders believe in and embody the new ways. Kotter writes, «There are still more mistakes that people make, but these eight are the big ones. In reality, even successful change efforts are messy and full of surprises».

9.3.3 Implementation Paths of Knowledge Management

KM implementation is long-term issue as in most cases it requires a change towards an open, self-organised enterprise model. Such a change process can have different starting points. In a survey of German companies four main implementation paths of KM were identified (North and Papp 2001). Most of the knowledge management initiatives of the companies surveyed resulted from pressure to change or need to improve (path 3).

	Phase I	Phase II	Phase III	
1st path	• New ICT systems are implemented • Databases, discussion forums or yellow pages are introduced	• Interested individuals are motivated by knowledge-authorities to contribute to the process • Informal and formal networks are developed	• Creation and transfer of knowledge is further encouraged by incentive systems and active support of management	
2nd path	• A coordinator is appointed to transfer knowledge: he motivates exchange of information sets a positive example	• Topic-related networks are formed. They are then supported by IT infrastructure	• Informal teamwork is formalised, rewarded by incentive systems and supported by company's management	Knowledge-oriented company
3rd path	• Interanal or company-wide benchmarking survey → pressure to change • Best pratices are shared	• Network of interested individuals is formed. They store the information in databases and maintain discussion forums	• Company culture undergoes a change • Incentive systems changed from knowledge perspectives	
4th path	• Business management takes up the goals of knowledge management → research groups are called up • Pilot project are motivated	• Informal networks are formed • IT infrastructure is built as per goals • Knowledge-authorities motivate employees for usage	• Creation and transfer of Knowledge is supported by incentive systems and continuous internal marketing	

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■ **Fig. 9.5**   Implementation paths of knowledge management (Source: North and Papp 2001)

Ask yourself a question: How and where should we begin? Below we will explain the four implementation paths. We found several companies that switch from one path to another or combined paths over time (Ref. ■ Fig. 9.5).

Implementation Path 1: ICT Orientation

The first path implements new information and communication systems in order to improve access, documentation and interaction. Best-practice databases, discussion forums or yellow pages are established as a starting point. In the second phase, a central coordinator or a coach motivates the interested individuals to cooperate. This builds informal and formal networks. In the following phase, creation and transfer of knowledge is further encouraged by suitable incentive systems and active management support. Sceptics are convinced that teamwork is worthwhile, organisation culture changes gradually and existing organisation structures are adapted to new working methods.

Implementation Path 2: Knowledge Manager as an Evangelist

The second implementation path begins with appointment of a coordinator for knowledge transfer. This coordinator motivates exchange of experiences, is supposed to keep a record of «*who knows what in the company*», exemplifies knowledge exchange and demonstrates that teamwork is worthwhile by means of small concrete examples. Inspired exchange of experience gives rise to relevant networks that are then supported by IT infrastructure. Following the snowball system, more and more employees are included. Informal cooperation is formalised, rewarded by incentive systems, and supported by the company management. For instance, a knowledge manager of a pharma-

ceutical company is responsible for «*the business development of the company. Projects are established in this context and persons who are suitable worldwide are recruited. In the future, efforts will be taken to enhance the networks internally as well as externally*».

Implementation Path 3: Pressure to Change

The third implementation path is linked directly to internal and external pressure of competition, e.g. through benchmarking surveys. A pressure to improve is developed. Business units find out that they are facing similar problems. Best practices are exchanged. Units start working together in comprehensive projects, improvement goals are set and networks with similar interests are generated. These networks store their information systematically in databases and maintain discussion forums. The company culture changes. Organisational structure and incentive systems are changed from knowledge perspectives.

Case Study

Competence Networks in an Electronics Company
A pilot project was started in the computer-chip developing division of an electronics company in cooperation with the central process consultation. The project primarily aimed at linking experts who worked on the same subject. A meeting was organised every 6 months in which the interest groups (20–30 people, international) discussed common problems under the guidance of a moderator.

While organising the activities, it was always ensured that needs of network members were met and functioning as an «instructor» was strictly avoided. This gave rise to the requirement for an efficient form of communication (primarily in international context). Communication technology was adapted by installing a suitable video conference system. Since the initiatives offered relatively fast results for quite a huge number of participants, there was an increased interest in teamwork at the employee level and the project also enjoyed desired and necessary support of the top management.

Today, efforts are being made to link interest groups formed earlier. Communities of Practice are implemented which consists individuals with similar experience and interest. Presently, efforts are being made to connect 1500 employees. A major task in the process of connection is removing barriers and reconstructing information and communication systems accordingly. Roles should be defined (community manager, administration, etc.) and the entire system should be integrated in day-to-day business.

Implementation Path 4: Top-Down Initiative

The fourth implementation path is a top-down initiation and begins with ambitious goals of the company or comprehensive strategic programmes that require cooperation or motivate cooperation. A company's internal «*knowledge alliances*» and cooperative projects are established and they become components of daily work. Information and communication infrastructure is built and rebuilt and networks are formed. Success in the achievement of ambitious goals further encourages teamwork, particularly when greater attention is paid to rewarding the overall success of a company than satisfying particular interests of individual business units.

Which Is the Most Effective Path?

Depending on the implementation path and phase, the implementation of knowledge management is subject to different levels of difficulties. Companies following the first path complete a long stretch quickly but do not reach very high. One can also call this way as «*quick win*» way. Quick results like increasing interest and increasing number of users obscure the view of much difficult part of the path, i.e. the necessary adaptation of incentive systems and a corresponding change in the corporate culture. Many companies rest on this intermediate goal for a long time, thus risking their authenticity and creating useless IT graveyards.

In many surveyed companies, internal marketing was and continues to be at the top in the plan of activities. Internal marketing aims at sensitising people for knowledge management and motivating them to use knowledge management tools. However, these important measures for stimulating the exchange of knowledge should not serve as an end in itself. Words should be followed by actions. The management and/or the spokesperson of knowledge management should consistently exemplify the communicated and encouraged image of an «*ideal employee*».

Findings from the second round of interview made it clear that knowledge management initiatives often depend on individual employees connected to the subject. These initiatives are doomed to fail if these promoters leave the company or devote their time to other activities. In 5 of the 30 surveyed companies, the position of such promoters or contact persons remained vacant after the existing contact persons quit the company.

Knowledge management requires a professional organisation that ensures sustainable and systematic use of knowledge. There are different ways of integrating knowledge management organisation in formal structures in a given case. In the early times of KM implementation it was often advocated that creation and transfer of knowledge does not require active control. This perception is no longer true. A vast majority of those who were interviewed admitted that a formally established knowledge manager should promote, coordinate and monitor knowledge management activities. Experiencing knowledge-oriented management of a company is like entering into a new territory and experimenting.

9.4   Implementing KM at Individual Level: Key Competencies for Knowledge Workers[6]

Independent from the organisational anchoring and implementation path the ultimate objective is the integration of KM in the daily practices of each employee, in each unit and the management structures of the organisation.

This requires the development of skills and competences to at individual level. The following five key competencies are essential for knowledge workers:

1. **Structuring and evaluating knowledge domains**
   «*Finally I understand what you do!*», exclaimed the CEO of an international organisation after the employees had structured important topics and fields of knowledge for

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6   This subchapter has been adapted from North and Gueldenberg (2011).

◘ Table 9.4	Structuring and evaluating knowledge domains			
Field of intervention, service module, method	**Specific knowledge**	**Reference «lighthouse»**	**Maturity level (1 crude – 5 developed)**	**Documentation and availability**
….				
….				

each service module and had systematised reference projects, documents, publications and methods according to a standard pattern.

The challenge lies in presenting one's own knowledge domain in such a way that others understand what their colleagues do. An even greater challenge lies in working together in one department:

━ What is the core knowledge of our group or department?
━ How do we distinguish ourselves from the others?
━ What are the methods specific to our work?

While structuring knowledge domains and while visualising, e.g. with a mind map or in the form of a process presentation, it does not make much sense to start with the question, «What do we know?» Instead, a more useful question would be, «Which services do we provide to our customers and what is the knowledge required for providing these services?» (See also tools knowledge taxonomy and knowledge inventory).

It is also practical to evaluate knowledge domains on the basis of their maturity; for instance from «crude» (knowledge under development) through «mature» (tried and tested) up to «excessively mature» or «obsolete» (i.e. this knowledge is not required anymore and thus can be discarded). Structuring knowledge domains and evaluating them is also important in order to realise which knowledge we, as a group for instance, lack and how we can acquire it. ◘ Table 9.4 shows a practically tested structure of knowledge domains with reference to specific services, fields of intervention or methods.

2. **Learning teamwork: find a common language**
«It took me much time to find a common language and a common method of working in the team, but it was worth it», said a young engineer who worked in a development project along with social scientists, doctors and business economists. Several disciplines further train lone fighters and when work groups are formed during training they are mostly comprised of people from the same discipline: Engineers work with engineers, doctors with doctors and so on.

Thus, it is important to have interdisciplinary work groups already at the stage of training. With the interdisciplinary aspect also comes the intercultural aspect. For instance, if a German engineer has to work with a French engineer both have to understand the way of thinking of the counterpart, which has been developed by different cultural traditions. Thus, the ability to work together has to be learnt. There

should be room for reflecting on methods, implicit assumptions and role allocation. We talk a lot about what we do, but very little about how we work together.

3. **Using information and communication media intelligently**

A lawyer once said, «*When I am not reachable, I somehow feel excluded. But when I take time-off it's business as usual even without me*».

During a routine working day, we rarely think about how we communicate.

Handling communication tools consciously and developing one's own communication strategy is a skill of knowledge workers and this skill has to be learnt.

4. **Self-management**

«*I had no idea what to do with the newly found freedom*», said a project engineer who had moved from a tightly controlled conglomerate to a small engineering firm.

Utilising available freedom is difficult for many; even for students it is more difficult than executing more or less predefined tasks. Using freedom effectively requires the ability to manage oneself. This means structuring tasks, setting goals for oneself, finding a certain work rhythm, making decisions, and coping with uncertainty. All this was taught and learnt insufficiently until now in the dominant education system.

Self-management also means taking responsibility for developing one's own competencies. Knowledge workers should be able to upgrade their competency profile and proactively develop further.

Marketing one's own competencies also falls under the domain of self-management. Thus, young consultants need to learn quickly that they have to market their abilities in order to get interesting projects, while perhaps their education trained them to wait until they are approached.

Self-management also includes the ability of self-reflection, i.e. to think, «How do I deal with myself and with others?»

5. **Mindfulness**

«*While working, I always think about the next step and the step after that. What I do now seems like a hindrance only to get to the next step*», said a manager in a seminar. Being mindful means to observe internal and external processes calmly and with undivided attention. Being mindful means to fully concentrate and appreciate the things one is doing, or to pay undivided attention to a partner in a discussion. Judging people and things in peace and without being prejudiced is not always easy, especially when a quick decision is required. Being mindful can be practiced, e.g. as shown through a number of techniques of Zen Buddhism. What do you do to develop these key competencies for yourself and for your organisation, and probably also for students and managers in further training?

9.5   The 12-Point Programme for Knowledge-Oriented Management of a Company

At the end of the book we would like to summarise our implementation suggestions by the following *12-point programme which* was developed in a project with small and medium enterprises. You can start at any random point. Under a mid-term perspective you should complete all 12 points one by one. You can also use the *12-point programme* as a checklist to examine the latest status of knowledge-oriented management of your company.

1. Sensitise your employees for knowledge management and carry out a problem analysis: Where are we falling short of knowledge? Where could we avoid errors through a better flow of knowledge? How could we improve our innovation performance?
2. Derive knowledge strategies from the organisational strategy. Which competences do you want to develop in the coming years?
3. Create enabling conditions that encourage creation and exchange of knowledge, e.g. through incentive systems, knowledge criteria in employee appraisals or employee agreements on teamwork
4. Make arrangements for knowledge flows and learning from external sources, i.e. from customers, suppliers, competitors, universities, research centres or other external experts. This can also be done by creating technology teams and customer forums. Cooperate with other companies.
5. Pay attention to targeted competence development of your employees. For instance, create a competence profile and control the results of development measures.
6. Enable knowledge transfer across employee generations so that the company does not lose any valuable know-how. This is possible through godparent model following the motto «*employees train employees*» or checklist for orientation of the successors.
7. Encourage creativity and innovation of your employees by introducing non-bureaucratic employee suggestions, making small improvements immediately beforehand or initiating competitions of ideas for new products.
8. Support the learning process within and across projects by after action reviews, debriefing (neutral persons document the project experiences of employees) and through project discussions and lessons-learnt databases.
9. Integrate knowledge management in your business processes. The key question here is: How can we make process knowledge transparent and accessible?
10. Create opportunities for facilitating personal exchange of knowledge. This can be done by regular meetings, departmental breakfast, info zones of knowledge markets.
11. Bring structure to your documents, databases and intranet. Create guidelines on documentation and define precisely which employee is responsible for which content. Give incentives to your employees for actually using the systems.
12. Provide for an open and trustworthy atmosphere of teamwork so that the employees are ready to share their knowledge with others.

Cogitate Incognita Think the unthinkable, think something new and put it into practice

9.6 Key Insights of Chapter 9

– KM needs to be introduced as a management framework consisting of technologies and processes, embedded into business activity along with a set of roles embedded into the organisational structure – all under an umbrella of governance. Once embedded, the management framework will deliver sustained organisational KM, but needs to be accompanied by a change in behaviour and culture too. Different frameworks have been introduced.

- The best way to ensure KM system value and overall proper implementation is to focus on enterprise performance as it relates to customer benefit.
- Knowledge management of the future is hence closely coupled with strategy, innovation management and personnel development which encourage dynamisation of organisations
- KM needs to be managed as a change project. Whatever process you use internally for managing projects apply it to your KM implementation and be aware of Kotter's eight principles leading to change.
- The following five key competencies are essential for knowledge workers: Structuring and evaluating knowledge domains, learning teamwork: find a common language, using information and communication media intelligently, self-management and mindfulness.

9.7   Questions

1. What are the elements of a KM framework?
2. Discuss the pros and cons of the four KM implementation paths.
3. How can you measure the effectiveness of the KM initiative in an organisation?
4. What are the tasks of a knowledge manger (refer also to ▶ Chap. 5)?
5. Where do you see differences in implementing KM in a firm, public administration and a non-profit organisation?

9.8   Assignments

1. **Implementing KM in a hospital**
   The medical field in recent years has been facing increasing pressures for lower cost and increased quality of healthcare. An organisation can lower its cost through elimination of non value-added activities and enhance quality of service through process control. It is perceived that knowledge management can significantly increase the efficiency of operations.
   As a consultant, you have been assigned the task of implementing knowledge management at a large hospital to improve the quality of service. Identify the knowledge assets of the hospital and formulate a KM strategy that would help them improve their efficiency and brand name.
2. **KM vision**
   Formulate a vision, what you want to achieve with implementing a KM project in a company? Conduct an internet search for published KM visions and compare them.

9.9   KM-Tool: Work-Out (General Electric)

❓ **What is a Work-out?**
This problem solving methodology was developed by General Electric:
«Work-Out was based on the simple belief that people closest to the work know more than anyone; how it could be done better. It was this enormous

reservoir of untapped knowledge, and insight, that we wanted to draw upon. Across GE today, holding a Work-Out session is as natural an act as coming to work. People of disparate ranks and functions search for a better way, every day, gathering in a room for an hour, or eight, or three days, grappling with a problem or an opportunity, and dealing with it, usually on the spot - producing real change instead of memos and promises of further study. Everyone today has an opportunity to have a voice at GE, and everyone who uses that voice to help improve things is rewarded» (General Electric, Annual report 1995, p. 5).

❓ Why do a Work-out?

Work-Out is not just a cost-cutting process. It rather helps companies grow along five key dimensions:

First, it ***provides a focus on stretch.*** By forcing people to rethink what they are doing, it also encourages them to stretch to a goal or challenge that is significantly beyond their current performance level.

For example, the stretch goal might be to cut the time to develop a new product in half, or to reduce the number of customer complaints by 30% in the next year.

Second, Work-Out helps to ***develop systems thinking.*** Work-Out encourages people to take a systems perspective. In the initial design phase of Work-Out, the design team creates a comprehensive map that describes the steps, processes, and subprocesses involved in producing current results.

Third, Work-Out ***encourages lateral thinking.*** With the process map as a starting point, participants brainstorm ways to achieve the goal and sort through ideas, select the best ones, and develop them into recommendations. Work-Out begins by focusing on the «*low-hanging fruit*,» the easy fixes that can be made to virtually any process. Every organisation develops clutter or inefficiency over time.

❓ How to do a work-out?

No matter what the challenge, the process remains the same, with four basic steps:
1. Bring together the people who know the issues best.
2. Challenge them to develop creative solutions.
3. Make yes or no decisions on the solutions immediately in a public forum.
4. Empower people to carry out the solutions.

Work-Out particularly addresses «RAMMPP» inefficiencies, short for reports, approvals, meetings, measures, policies, and practices. These are relatively easy to find and remove. The simple RAMMPP Matrix illustrated below lists each type of clutter and the places where it might exist.

	CONTROL					Could it be:
	Self	Department	Group	Company	External	
Reports						
Approvals						
Meetings						
Measures						
Policies						
Practices						

Could it be:

1. Eliminated?
2. Partially eliminated?
3. Delegated downward?
4. Done less often?
5. Done in a less complicated/time-consuming manner?
6. Done with fewer people involved?
7. Done using a more productive technology?
8. Other?

Sources/Links: Ulrich et al. (2002), a free @*GE WORK-OUT* KIT can downloaded from
► www.scribd.com/…/3240020-GE-WORKOUT

References

Albers J.A. (2009). A practical approach to implementing knowledge management. *Journal of Knowledge Management Practice, 10*(1). http://www.tlainc.com/articl174.htm

Bixler, C. H. (2002). Knowledge management: Practical aspects of implementation. *KMWorld, 11*(7). http://providersedge.com/docs/km_articles/KM_-_Practical_Aspects_of_Implementation.pdf

Erfani, S. Z., Akhgar, B., & Ramin, F. (2010). A novel knowledge management implementation model for mobile telecommunication industry. *World Applied Sciences Journal, 11*(1), 29–37. ISSN 1818–4952 © IDOSI Publications, 2010.

General Electric. (1995). Annual report, p. 5.

Howald, J., Klatt, R., & Kopp, R. (2004). *Neuorientierung des Wissensmanagements – Paradoxien und Dysfunktionalitäten im Umgang mit der Ressource Wissen*. Wiesbaden: Deutscher Universitäts-Verlag.

Kotter, J. P. (1996). *Leading change*. Cambridge: Harvard Business Review Press.

Liebowitz, J., & Megbolugbe, I. (2003). A set of frameworks to aid the project manager in conceptualizing and implementing knowledge management initiatives. *International Journal of Project Management, 21*(3), 189–198.

Milton, N., & Young, T. (2007). Masterclass KM implementation. Inside Knowledge. *Feature, 10*(5). Posted 31 Jan 2007.

North, K., & Papp, A. (2001). Wie deutsche Unternehmen Wissensmanagement einführen – Vergleichsstudie 1998 bis 2000. *REFA-Nachr, 54*(1), 4–12.

North, K., & Gueldenberg, S. (2011). *Effective knowledge work*. London: Emerald.

North, K., Brandner, A., & Steininger, T. (2016). *Wissensmanagement für Qualitätsmanager*. Wiesbaden: Gabler Springer.

Teece, D. J., Pisano, G., & Shuen, A. (2000). Dynamic capabilities and strategic management. In G. Dosi, R. R. Nelson, & S. G. Winter (Eds.), *The nature and dynamics of organizational capabilities* (pp. 334–362). Oxford: Oxford University Press.

Ulrich, D., et al. (2002). *The GE work-out: How to implement GE's revolutionary method for busting bureaucracy and attacking organizational problems – Fast!* New York: McGraw-Hill.

Wiig, K. M. (1999). Introducing knowledge management into the enterprise. In J. Liebowitz (Ed.), *Knowledge management handbook* (pp. 3.1–3.41). Boca Raton: CRC Press.

Wong, K. Y., & Aspinwall, E. (2004). Knowledge management implementation frameworks: A review. *Knowledge and Process Management, 11*(2), 93–104.