MODULE 3 : Implementing a Knowledge Management System



Overview

Unit 1: Requirements for a knowledge management strategy

Unit 2: Implementing a knowledge management strategy

Summary

The duration of module will be approximately 90 minutes.

Introduction/ what to expect?

This unit will familiarize you with problems related to decision making:

- What problems are common in decision making?
- How do these problems relate to the process of decision making?
- How can you deal with these problems?

Find your way:

Not only are there numerous definitions for 'knowledge management', the term also implies several different features. Basically three categories are important:

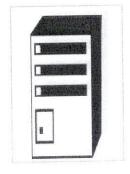
- 1. Common understanding of the many terms relevant to knowledge management involved
- 2. A clear view on all the skills involved
- 3. A clear view on all the tools involved

Knowledge management is a systematic process of identifying, making available to others, maintaining, creating, and nurturing the knowledge available within an organization and uses it to create added value. This added value can come in many ways: efficient knowledge sharing and knowledge creation within an organization, efficient working processes, clear understanding of what everybody is doing and finding the right way to do the work, etc.

Inventorizing knowledge:

In order to start with the implementation of knowledge management, the knowledge, either tacit or explicit, within an organization needs to be inventoried. This is necessary because the basic purpose of knowledge management is sharing it with your colleagues. However, knowledge on its own has no meaning, it is mere information. For it to become knowledge, it therefore needs to be accompanied by context, environment, and culture of an organization.

Knowledge within an organization is not a product on its own, it can be recorded, generated, re-used, transferred, and learnt, but it cannot easily be moved around. It needs to have context, which is usually added by the people retrieving the knowledge



Knowledge definitions:

When we look at knowledge and learning within an organization, we will use the following descriptions:

- Tacit knowledge: is unconscious and intuitive. It is the knowledge that people carry in their head and which is hard to document. We do many things that are based on experience that we do not realize, let alone are able to explain.
- Explicit knowledge: is articulated and accessible through recorded materials like writing, sound, visuals, etc. It is knowledge that can be captured and shared.
- Implicit knowledge: is the knowledge of shared believes, values, and expectations

Module: How Knowledge Management works Unit 1: What is Knwledge Management?

Objectives/ What to expect?

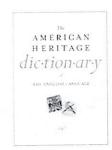
This unit will introduce the organizational and systematic structure of knowledge management:

- What is knowledge management?
- What organizational structures and processes define knowledge management?

What is Knowledge Management?

There is no standard definition of knowledge management available. If you would ask 5 experts to formulate a definition, you most probably would get 5 different definitions.

If they would agree on something, it would be on what knowledge management is not. It is not about managing people. Nor is it about managing knowledge! That is why knowledge (in the context of managing knowledge) is often linked to terms like knowledge sharing, organisational learning, and information systems.



Before going into the definition of knowledge management, we will first give a short description:

Knowledge Management is the process through which organisations generate value from their intellectual and knowledge-based assets. Most often, generating value from such assets involves codifying what employees, partners and customers know, and sharing that information among employees, departments and even with other companies in an effort to devise best practices.

It's important to note that this description says nothing about technology; while Knowledge Management is often facilitated by information technologies, technology by itself is not Knowledge Management.

In order to be able to understand the concept of knowledge management please read the attached paper:

Literature: Ram Babu, Knowledge Management: Concept, Elements and Process >>

Organisational structure:

One reason organisations exist, is because collective human endeavour greatly increases the scale of operations and the scope of processes that can be carried out by organisations. In short, organisations can accomplish more than individuals acting alone. Organisations also yield greater complexity.

Consider the typical "order fulfilment" process: this process is often defined as limited on one end by the receipt of an order from a customer and, on the other end, by delivering to, and receipt of payment from, the customer. The order fulfilment process can involve dozens or hundreds of people, large-scale data processing systems, and many processing steps. Depending on the design of the process, several functions are involved: order entry, manufacturing, shipping and distribution, billing, credit administration, and the receiving of payments.

Organisational knowledge:

In these enterprise-wide processes, knowledge of the process is fragmented; it is distributed across people, departments, equipment, functions and even organisations. Frequently, no one person – or even small group of people – has a full understanding of the entire process. As much as anything else, this points to the potential value of a knowledge management effort that enables efficient access and sharing of high-quality, relevant, timely knowledge up, down, and across organisational lines, especially those functional and organisational lines that result in fragmented processes.

Changing organisational processes:

Knowledge management is essentially about facilitating the processes by which knowledge is created, shared and used in organisations. It is not about setting up a new department or getting in a new computer system. It is about making small changes to the way everyone in the organisation works. There are many ways of looking at knowledge management and different organisations will take different approaches. Generally speaking, creating a knowledge environment usually requires changing organisational values and culture, changing people's behaviour and work patterns, and providing people with easy access to each other and to relevant information resources.

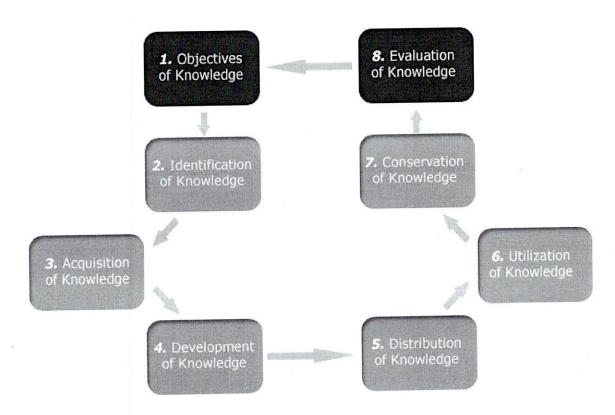
In terms of how that is done, the processes of knowledge management are many and varied. As knowledge management is a relatively new concept, organisations are still finding their way. This means that there is no single agreed way forward or best practice. Similarly, to simply copy the practices of another organisation would probably not work because each organisation faces a different set of knowledge management problems and challenges. Knowledge management is essentially about people - how they create, share and use knowledge - and so no knowledge management tool will work if it is not applied in a manner that is sensitive to the ways people think and behave.



Knowledge Management as a system:

For this module we will work with a pragmatic model developed to make the process of knowledge management more transparent. It consists of eight elements that are essential parts of a complex organisational system called knowledge management. In order to have this system work efficiently, each of these elements and their relations have to be fully analyzed and developed.

First we start with a presentation of this model. We then continue to describe all the eight elements from the definition of knowledge objectives of the organisation to the evaluation of the available knowledge.



1. Objectives of knowledge:

Knowledge management involves a strategic commitment to improving the organisation's effectivity, as well as to improving its opportunity enhancement. The goal of knowledge management as a process is to improve the organisation's ability to execute its core processes more efficiently. Davenport et al. (1998) describe four broad objectives of knowledge management systems in practice:

- Create knowledge repository
- Improve knowledge assets
- Enhance the knowledge environment
- Manage knowledge as an asset

The key to knowledge management is capturing intellectual assets for the tangible benefits of the organisation. As such, imperatives of knowledge management are to:

- 1. Transform knowledge to add value to the processes and operations of the business
- 2. Leverage knowledge strategic to business to accelerate growth and innovation
- 3. Use knowledge to provide a competitive advantage for the business.

Strategic objectives:

The establishment of a knowledge management system cannot be an aim in itself. A KM system should be functionally linked to the strategic objectives of an organization and thus is directly related to these objectives.



So to develop a knowledge management system, we first need to determine our strategic objectives. Strategic objectives are broadly defined targets or goals that an organization sets to make its strategy succeed. As such they are very much like indicators: a set of situations that you as an organization wish to achieve. Generally strategic objectives are externally focused and fall into eight major categories: market, innovation, human resources, financial resources, physical resources, productivity, and social responsibility and profit requirements.

From this brief description we can distill a key question:

Key questions:

- What kind of knowledge do we need and where and when in order to achieve our strategic objectives?
- What are the strategic objectives of the company/institution you are working with or in?

You may find that to try and answer the above questions for all fields related to your strategic objectives is a bit too much when developing your knowledge management system. However, it is important to keep in mind the different categories, because in the end they are all relevant!

Knowledge portfolio:

How can we translate strategic objectives into knowledge objectives?

A possible instrument is the knowledge portfolio. It describes as precisely as possible the strategic, normative and operational knowledge that should be available in the enterprise in order to achieve its strategic objectives.

Although there is no standard form of such a portfolio, we'll give you three examples. Read them carefully and observe the differences:

EXAMPLE 1: A general knowledge portfolio

For the general knowledge portfolio we will use the case of a computer hardware company called "Computer Company".

Its strategic objective is: "To be the market leader in customized high quality hardware."

What kind of specific knowledge would they need in order to achieve this strategic objective? In this table you can find some examples.

Knowledge Level Persons	Strategic	Normative	Operational
Sales representatives	Knowing the strengths and weaknesses of all competing producers/products Observe and evaluate development of sales figures in our market segment	Respect the rules and regulations for contracts Being conscious of the internal benchmarks for sales representatives	 Apply the right arguments for the purchase of our products Being fluent in English and Spanish (conversation and negotiation)
Production Management	Research newest technological trends in hardware Monitor the actual production costs in South East Asia	Benchmarking the position of the biggest competitors	To monitor stock of parts versus production needs (with the emphasis a small stock)
Office management	Monitor all outgoing communication (like advertisement, use of the brand name)	To apply correctly the spelling rules To ensure that all letters in sent in our official communication style	To handle complaints of clients in a professional manner

EXAMPLE 2: A specific knowledge portfolio:

Now we will look at the same company, but now with a specific knowledge portfolio. What kind of specific knowledge would they need in order to achieve this strategic objective?

Knowledge Level	Sciacogic	Normative	Operational
Persons Sales representatives	Receive a monthly circular analyzing the newest products of main competitors. Participate quarterly in an internal "Market observation workshop"	All sales staff get monthly updates on internal sales figures	Since the operation is working in a global market, the representatives need to be able to speak English. Therefore 5 of 20 sales representatives pass through a language test each year
Production Management	Publish quarterly an internal circular about	To know the internal benchmarks of the biggest	To run and apply successfully the new production flow

Knowledge management is therefore not an implementation of some available system – be it an IT system or a communication or training tool. As mentioned earlier, the organizational context is an important one, and therefore implementation of a knowledge management system is always based on the specific requirements of an organization.

The most important aspect however of knowledge management is not the system, but the people. So the focus of implementation should be on people and not on IT. In general, knowledge management is divided in three components: people, process, and technology



Module: Implementing a Knowledge Management System Unit 2: Implementing a knowledge management strategy

People:

Not only are the people the most important component of knowledge management, it is also the most difficult one. Does the culture of your organization support ongoing learning and sharing of knowledge? Are people motivated? Is there a culture of openness and mutual respect? Or are you working in a very hierarchical organization where knowledge means power, and is only shared when there is a benefit for the sharing party? Does the organization create space for knowledge sharing (in regards to work pressure and efficiency models)? Do people learn from mistakes, or is there a culture of `punishment` when you make a mistake?

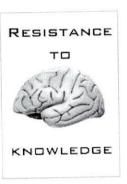


Resistance:

Any process of organizational change has losers and winners and is accompanied by fears, hopes and interests. Therefore, resistance is normal. You cannot create a real and sustainable organizational change without meeting resistance.

Resistance is a healthy and natural force. An organization that is not showing any resistance to change is - dead! So, be glad if you find resistance!

Resistance is a very useful source of information. It shows the real interests of the people. If you know these interests, you can include them in your change strategy.



Resistance has many faces:









When the computer company announced the introduction of a knowledge management system, this decision was commented by its employees in various forms. We present you 4 employees of the computer company and their opinions about the change project. Each of them stands for a different form of resistance.

Please click on the pictures and read their statements. Try to "feel" what kind of resistance could be behind each statement before you read the "Explanation".



« The whole thing is just another trick of the management to control us. I will do my job but I will never feed these computers with my personal knowledge or participate in one of these silly learning groups. This is a complete waste of time! »

Open resistance: This is the most comfortable form of resistance because the people express themselves frankly. This could be the beginning of a constructive discussion or mediation process.



st I fully agree with the management. It's a very important and necessary project. It has my complete support. The people who will run that project can call me any time and visit me in my office. st

Introjection: The innovation is treated like a strange or dangerous intruder who is superficially welcomed for purely tactical reasons, but will remain isolated without any real connection with the rest of the organization.



« Good idea. We have been using knowledge management in our department since many years. The problem is the other departments who really don't know what they do and what they know. »

One's own problems and fears are projected towards an external entity. So it can be avoided to perceive and deal with one's own weaknesses. The others have to change, we are ok!



« This is so exciting! I am admiring our management how innovative it is. Knowledge management will become now a top issue for me, and I will dedicate 50% of my time to that project. I already bought many books about knowledge management. »

This statement could be a symptom for a very difficult form of subconscious resistance: **Confluence** means the disappearance of any borders between one's own opinion (=personality) and the opinion of other people. Very often, it expresses itself as a complete over-identification with e.g. the company or the management. If management changes its opinion, this person will give up its position, too. Similar to projection; and introjection, this form of resistance

avoids any real contact with the intended innovation.

Interests against knowledge management:

Although knowledge management seems to be a very useful thing for an organization, a lot of individual or departmental interests speak (and work) against the implementation of such a system. Can you imagine some of these interests?

Exercise/ Solutions

Exercise/ 301	utions			oment system
Please identif	y 3 typical individua	<u>l interests agains</u>	st a knowledge manag	ement system
in a company				
1				
2				

Your answer could have included something like:

- People believe knowledge is power.
- People are insecure about the value of their knowledge.
- People don't trust each other.
- Employees are afraid of negative consequences.
- People work for other people who don't tell what they know.
- People are afraid they will be replaced when their knowledge is shared

Preparing for implementation:

In order to prepare the implementation of a knowledge management system, you need to promote it in your organization.

Develop a vision on what you want to achieve with it. Also develop a few easy to remember messages, so people will easily understand it and not forget it.

Communicate with the people how you will start, who will be involved and why.

Whose support do you need? Communicate with them separately and make an inventory of their specific needs. It is very important that you will get the support of the management in order to gain credibility.

Start with a small project. For instance start in a specific department or topic within the organization. In this way, people can see it happening and can join in at a later stage



Motivating people:

So how do you get people to be enthusiastic about your project and willing to cooperate? First of all, people need to understand the need and gains of the change. One way of doing that is to find a successful example of a familiar organization that went through the same process and was

Organize team meetings to make an inventory of the problems and needs of people and try to incorporate these as much as possible

Involve the enthusiastic people, the so-called "early adaptors"; they can become ambassadors at a

Involve the IT department at an early stage. Although knowledge management should not be driven by IT, their involvement is crucial. Also recognize that there are many challenges for them. On a more personal level, please take the following aspects into account:

People have clear and specific goals in mind:

- Which are important to the individual
- Which are within their power to achieve
- For which they have or can develop the required competence to achieve them
- They can get information relevant to the goal and their progress towards to, and
- They can assimilate feedback

Problems when dealing with people:

Please study the following list of problems occurring when dealing with people.

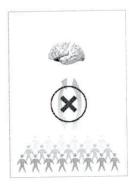
 They don't know why they should do it: leadership has not made a strong case for knowledge sharing. <u>Solution</u>: have the leader of the organization communicate regularly on knowledge sharing expectations, goals and rewards.

They don't know how to do it: they have not received training and communications on how to share knowledge.

<u>Solution</u>: regularly communicate and conduct training, webinars, and knowledge fairs. Web-based training and webinar recordings should be available for all tools.

 They don't know what they are supposed to do: leadership has not established and communicated clear goals for knowledge sharing.

<u>Solution</u>: establish and communicate clear knowledge-sharing goals.



4. They think the recommended way will not work: they have received training and communications but don't believe what they are being asked to do will work.

<u>Solution</u>: the knowledge management leaders, knowledge brokers and other members of the knowledge management team have to convince people in small groups or one-on-one by showing them that it does work.

 They think their way is better: they are used to working on their own or collaborating only with a small group of trusted comrades and believe this is the best way.

<u>Solution</u>: regularly share stories of how others are benefiting from sharing knowledge using the recommended ways.

 They think something else is more important: they believe that there are higher-priority tasks than knowledge sharing.

<u>Solution</u>: get all first-level managers to model knowledge-sharing behavior for their employees, and to inspect compliance to knowledge-sharing goals with the same fervor as they inspect other goals.

 There is no positive consequence to them for doing it: they receive no rewards, recognition, promotions, or other benefits for sharing knowledge.

<u>Solution</u>: implement rewards and recognition programs for those who share their knowledge. For example, award points to those who share knowledge, and then give desirable rewards to those with the top point totals.

 They think they are doing it: they are sharing knowledge differently than the recommended ways (for example, sending e-mail to trusted colleagues or distribution lists).

<u>Solution</u>: assign people to work with each community and organization to show them how to use the recommended ways and how they work better than other ways. Providing a new tool or process which is viewed as a "killer app" - it quickly and widely catches on - is the best way for the old ways to be replaced with new ways.

 They are rewarded for not doing it: they hoard their knowledge and thus get people to beg for their help, or they receive rewards, recognition, or promotions based on doing other tasks.

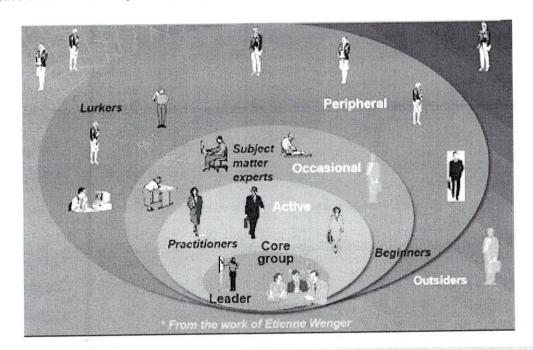
<u>Solution</u>: work with all managers in the organization to encourage them to reinforce the desired behaviors and stop rewarding the wrong behaviors.

10. They are punished for doing it: as a result of spending time on knowledge sharing, they don't achieve other goals which are more important to the organization.

<u>Solution</u>: align knowledge-sharing processes and goals with other critical processes and performance goals.

Communities of Practice:

However, please be aware that after you have dealt with the organizing people and their possible resistance, not everybody will be as active as you wish. Knowledge is context related, re-created or re-invented. Communities of practice (CoPs) are therefore an essential strategy for any KM program. CoPs are groups of people who share an interest and interact to learn with and from one other. This goal of learning marks the difference between CoPs and pure socializing. The more colleagues interact, the less time they will spend re-inventing the wheel. In order to facilitate the sharing of knowledge, a so-called Community of Practice is designed. How this community of practice could function in practice is depicted in the following image:



Recommended literature

If you want to learn more on knowledge sharing in general, please read:

Knowledge Sharing - Methods, Meetings and Tools >>

If you would like to read more on communities of Practice specific, please read the following manual:

Facilitating a Community of Practice >>

Processes:

In order to make knowledge management a success, organizations often need to change the way their internal processes are structured, and sometimes even the organizational structure itself. For instance, if there is a strong competition within the sales department, and sales staff is mostly interested in bonuses, then it will be very difficult to get them to share knowledge.

Within an organization we can distinguish primary processes and secondary processes. Primary processes are those that are judged to be essential to an organization's performance. Without these primary processes the organization would not function, it would not have good reasons to exist. These primary processes differ among organizations. For example, for a manufacturing company the production of let's say clothes might be a primary process. For a non-governmental organization a primary process might be grant application. Secondary processes are processes that support the primary process (es). This could be for example accounting or personnel management.

Knowledge management processes can be defined as the activities or initiatives you put in place to enable and facilitate the creation, sharing and use of knowledge for the benefit of your organization. They have to be seen in the broader context of an organization's vision, mission, general infrastructure and processes or "ways of doing things" where knowledge also plays an important role. For knowledge organizations knowledge management processes can be seen as primary processes; whereas for manufacturing companies, for example, they would be secondary processes.



Common processes related to Knowledge Management:

Whether KM processes are primary or secondary processes in your organization, there are many initiatives or activities that an organization can undertake. Below is a list of common processes related to knowledge management? This list, which is mostly self explanatory, is by no means exhaustive, but it will give you a general

- Identifying knowledge needed: benchmarking, road mapping, analyzing in brainstorms, holding interviews with staff and clients.
- Developing knowledge: identification and evaluation of new ideas, organizing brainstorming sessions or training sessions.
- Collecting and storing information: searching for relevant information, introducing database or archive systems for storing the information, training people in the use of databases, documenting experiences, having exit interviews, setting up a library, setting up a website, capturing the knowledge of experts and making it available to others.
- Sharing knowledge and information: publishing and packaging information: setting up an
 intranet or a website, publishing books and articles, CD-ROM, DVD, video etc. Example:
 reworking your 100-page document meant for an academic audience into a four-page
 briefing for policy makers; into a radio message for a local community in Africa; and into an
 article for a newspaper.
- Sharing knowledge: introducing job rotation, or apprenticeships, setting up communities of practice (CoPs), having informal gatherings around the water cooler, organizing (e-) conferences, sending e-mails, coaching and mentoring, specialist days, telling stories (click here for more information on storytelling)
- Applying and maintaining: practicing with new tools (which, in turn, can also create new knowledge), developing best practices; attending refresher courses, keeping abreast of new developments in specific fields by reading relevant journals.
- Evaluating the content and/or the process: evaluating the relevance of the content of your databases and adapting it, organizing after action reviews, surveys.

Technology:

idea:

So once you have met all these requirements, you can start thinking about the IT side of knowledge management. Depending on the size of the organization, IT should be informed right from the start, but only involved fully once you have drafted your strategy and involved the necessary people.

In this next step, the role of IT has to be designed. In general, IT is seen as the facilitator of storing and creating access to documents and other data carriers. However, with all the new software tools that provide sharing (Web 2.0 applications), there is much more to it than only documents.

The most important thing is to have a clear communication with IT on your goals and needs. Since most IT people deal with IT only (either hardware or software), you will be the one guiding them through your needs. So be prepared.

What could help?

Don't confuse knowledge management with the installation of computers for data processing and administration! Combine technical and social systems!

- Don't accept standard solutions from external providers. Develop stepwise a tailor-made model for your organization that is understood and accepted by all important parties involved.
- The management should declare and handle knowledge management as a top priority linking it with the strategic objectives of the organization.
- Knowledge management should recognize and give access to the explicit and implicit knowledge of the organization.
- Knowledge should be offered according to the principles of easy-to- use, just-in-time, and ready-to-connect, embedded in a positive "culture of mistakes" and adequate forms of direct human communication and learning.

Additional reading:

Literature or Links

Now we are almost at the end of the module, but before it is ended we would like to provide you with some reading material. First of all we have some case studies that might be of use for you:

Knowledge management for agricultural innovation: lessons from networking efforts in the Bolivian Agricultural Technology System >>

<u>Investing in knowledge for evidence-based social policies for children: two case studies of knowledge dissemination initiatives in the Eastern Caribbean >></u>

Knowledge management: a key factor for productive chain evolution in the department of Cauca, Colombia: A case study of the fishing chain network >>

Developing a regional knowledge centre in HIV/AIDS in Latin America and the Caribbean: a knowledge audit >>

A cultural perspective on knowledge management: the success story of Sarkuysan company >>

Literature or Links

Also we would like to provide you with some more useful reading materials:

Online communities as communities of practice: a case study >>

And finally a study by Ben Ramalingam called Implementing Knowledge Strategies: Lessons from international development agencies >>

This study synthesizes existing research on knowledge and learning in the development sector, and draws out eight key questions for examining related strategies and systems in development agencies. Together, these questions make up a comprehensive Knowledge Strategies Framework.

Establishing knowledge sharing processes:

Once you've established the barriers to knowledge sharing in your organization, the next stage is to implement a useable knowledge-sharing process. Please always bear the following in mind:

- Overreliance on a database for problem solving
- To replicate the same knowledge-management system across different departments
- The original team of contributors in a project ends up squeezing out any knowledge from outside the core group
- The Field of Dreams trap: "Don't assume that if you build it, they will come." There was
 no incentive for anyone to invest time and energy to solve other people's problems
- No process to monitor the quality of written contributions
- Expecting new technology and reengineering of processes to produce a collaborative, sharing culture, where the company's greatest need was not new technology but a culture modification program to prepare for a knowledge management initiative
- Management says they want it, but everything they do is opposed to it
- Belief that professional standing depends on what you know that others don't
- Technological incompatibility: each file had to be translated to a spreadsheet before transmission
- A respected head of knowledge management at a large multinational consulting firm, who
 had her budget cut to nothing by senior management
- Defining knowledge within functions or silo-oriented communities of practice does not work. Instead define knowledge at the level of business processes.
- Forgetting that a knowledge management initiative must relate knowledge to people's day jobs.
- Attempting to apply Information Technology to tacit knowledge. This is fraught with difficulty. Instead, it is explicit knowledge that is most susceptible to the application of Information Technology.
- Failure to carefully manage external input to knowledge management initiatives managed to ensure people within the organization are in control of the initiative at all times.
- Failure to understand the organization's willingness to change and to manage people's expectations appropriately.

Knowledge Management Scans:

Before finishing this module, we invite you to go to the following website where you can make knowledge management scans. You can use the result as a starting point for your own knowledge management strategy and implementation. http://www.provenbenchmark.nl/ >>

Wrap-up:

We have come to the end of this module and we hope you have found it a useful one. However, if you need more information or a useful reference document, please use the following quideline:

Recommended literature

ABC of Knowledge Management >>

Module: Implementing a Knowledge Management System **Summary**

This module focused on how to develop a knowledge management strategy and system. You've learnt about:

- What different knowledge and learning activities exist;
- What the balance is between creating, storing, sharing and using knowledge;
- How the organizational framework relates to knowledge management;
- What requirements exist for a successful knowledge management strategy;
- And how to implement a strategy into a working knowledge management system.

This module has provided you with more insight into how to use your knowledge of and experience in knowledge management to develop a successful knowledge management system. The module elaborated on the organizational requirements for success, how to develop a strategy, and how to transform a strategy into a system. By going through this module, you should have developed a good insight into what requirements exist for knowledge management strategies and organizational implementation, and what principles to follow to create a successful knowledge management system.

