

Monitoring and evaluating knowledge management strategies

Nature does not measure. Nature recognizes patterns. (Senge)

IKM Background Paper
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About IKM Emergent

In April 2007, a five-year research programme was approved for funding by the Directorate General for International Cooperation (DGIS), which is part of the Dutch Ministry of Foreign Affairs. The programme, Emergent Issues in Information and Knowledge Management (IKM) and International Development, will be known as the IKM Emergent Research Programme.

The objective of the programme is to improve development practice by promoting change in the way the development sector approaches the selection, management and use of knowledge in the formation and implementation of its policies and programmes. It aims to achieve this by:

- Raising awareness of the importance of knowledge to development work and its contested nature;
- Promoting investment in and use of Southern knowledge production of all types and origins;
- Creating an environment for innovation, supported by research on existing and emergent practice, for people working in the development sector to raise and discuss means of addressing these issues; and
- Finding, creating, testing and documenting ideas for processes and tools which will illustrate the range of issues which affect how knowledge is used in development work and stimulate thought around possible solutions.

Colophon

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Abbreviations and acronyms

ALPS	Accountability, Learning, Planning System
CIT	Critical Incident Technique
CSIR	Council for Scientific and Industrial Research
DFID	Department for International Development, United Kingdom
DGIS	Directorate General for International Cooperation, Netherlands
GDP	Gross Domestic Product
IBM	International Business Machines Corporation
IDRC	International Development Research Council
IFAD	International Fund for Agricultural Development
IICD	International Institute for Communication and Development
IKM Emergent	Information and Knowledge Management Emergent Research Programme
IM	Information Management
INGO	International Non-Governmental Organization
INTRAC	International NGO Training and Research Centre
IT	Information Technology
KM	Knowledge Management
KM4Dev	Online community about Knowledge Management for Development at www.km4dev.org
MBA	Master of Business Administration
MDGs	Millennium Development Goals
M&E	Monitoring and Evaluation
MSC	Most Significant Change
NGO	Non-Governmental Organization
OECD	Organisation for Economic Cooperation and Development
PIPA	Participatory Impact Pathways Analysis
RAAKS	Rapid Appraisal of Agricultural Knowledge Systems
R&D	Research and Development
SIDA	Swedish International Development Cooperation Agency
SNA	Social Network Analysis
SNV	Netherlands Development Organization
SOL	Society for Organizational Learning
SROI	Social Return on Investment
UK	United Kingdom
UN	United Nations

Executive summary

Why is knowledge management important for the development sector? One reason is that development is fundamentally a knowledge industry, hence knowledge exchange and mutual learning are crucial. More and more, we see interesting examples of development organizations adopting knowledge management strategies. We seek to assist managers, programme officers, evaluators, knowledge management specialists and others implementing knowledge management strategies to make informed decisions.

Duffy (1999, p.13) defines knowledge management as *...the identification, growth and effective application of an organization's critical knowledge*. So knowledge management consists of improving certain knowledge processes. Everyone has knowledge, but not everyone will engage in knowledge management strategies. The objective is to create knowledge management processes that synthesize the 'right' combination and balance of the personal and organizational knowledge management practices. What is the relation between knowledge management and organizational learning, human resource development and information management? What are the current strategies of knowledge management in the development sector? And how can we measure and evaluate the impact of knowledge management strategies? This is the core questions of this paper.

We have developed a framework, called the 'ripple model', to discuss the impact assessment of knowledge management strategies. The monitoring aspect involves tracking progress over time throughout the whole knowledge management process, while the evaluation aims to assess progress at a fixed point in time. While the model provides us with a way of talking about impact and knowing where to search for impact, it does not solve the main challenges associated with assessing the impact of knowledge management strategies within the development sector. These main challenges include:

- the lag time between cause and effect;
- demonstrating causality and attribution;
- quantifying the unquantifiable;
- power relations and ownership;
- reflection, critical thinking and documenting experiences;
- finding the right balance between the cost and the results of the assessment;
- working across multicultural settings and in a multicultural context; and
- proving results *versus* risk-taking and innovation.

One way of dealing with these challenges is to engage in a participatory design process of the appropriate and necessary way of monitoring and evaluating, making use of measurements and narratives like storytelling, using triangulation, and agreeing on what level you can realistically measure. By comparing scores before and after the knowledge management strategy, professionals can indicate whether new knowledge has been created or existing knowledge processes have been improved.

What methods are appropriate for assessing the impact of knowledge management strategies? Before you start measuring the impact, you will need to do some research into the epistology of the organization regarding its knowledge, knowledge processes, and knowledge productivity. The assessment method chosen will further depend on the perspective on knowledge management. After providing some food for thought to those people who have to make decisions regarding the monitoring and evaluation design, the paper ends with a few issues for further research, namely: 'How are knowledge management strategies chosen and what are the predominant strategies?' and 'How do leaders in knowledge management strategies and interventions gain support for their strategies?'

About the authors

Joitske Hulsebosch has an MSc. in Irrigation and Soil and Water Conservation from Wageningen University, the Netherlands. She has worked for over 10 years in Chile, Kenya, Mali, Ethiopia and Ghana in the field of organizational development, organizational learning and knowledge management, mostly with civil society organizations, and for SNV and IICD. Since 2007, she has been working as a freelance consultant in the field of knowledge management, specialising in social media and communities of practice. She has a Dutch blog at www.joitskehulsebosch.nl and an English blog at <http://www.joitskehulsebosch.blogspot.com>.

Sibrenne Wagenaar has over 15 years of experience in knowledge management and human performance improvement. She works as an independent consultant, researcher and learning facilitator, and is active in the areas of knowledge productivity, collective learning and innovation. She works in not-for-profit as well as profit organizations on the premise that we learn by collaboration, dialogue and interaction. She uses an appreciative approach in her work, matching knowledge management strategies to the dynamics in an organization and the environment and culture in which people work. In her opinion, the work environment is the most powerful learning environment, which means that she is always looking for ways to design knowledge management and learning approaches in which the work environment plays a dominant role. She is editor of the Dutch journal *Leren in Organisaties* as well as a series of books called *Innovative HRD practices*. She blogs at www.link2learn.eu

Mark Turpin works as a consultant for *Kessels & Smit The Learning Company* where he helps organizations and individuals with learning processes. He is also interested in developing new learning cultures and helping individuals to expand their learning opportunities. He is currently intrigued by the idea of how we can learn from the future and from young people. Mark has worked in Southern Africa, Europe and the Middle East. He currently works as a mentor in both formal and informal mentoring programmes, and has worked with various organizations to implement effective HIV workplace programmes. He is currently managing capacity building programmes for the National AIDS Commissions in Swaziland, Lesotho & Botswana, and operates as a consultant for a wide range of organizations including the CSIR, the University of Johannesburg, Khulisa Crime Prevention and other companies. Mark has an MBA from WITS Business School and is currently studying for an MSc in Public Policy and Management through London University, UK.

Introduction

Knowledge management is a vital organizational process – indeed today knowledge and information are understood to be as important a factor for organizational success as physical and financial capital used to be in the past. So why is knowledge management also important for the development sector? Three points are mentioned by Powell (2006) and Ferguson et al. (2008):

- Development is a process which involves change for the better, which in turn involves people doing things differently. Development is fundamentally a knowledge industry.
- Development organizations work with external multiple stakeholders. Knowledge exchange and mutual learning is crucial.
- The development sector is characterized by power inequalities. Mutual learning can contribute to overcoming such inequalities.

More and more, we see interesting examples of development organizations adopting knowledge management strategies. If the value of such strategies is to be proved, evidence needs to be available. Therefore, how can we measure impact? In this paper we address this question by identifying key lessons that are summarized in a set of design principles for designing an impact assessment process of knowledge management strategies. The core question we address is:

How can we monitor and evaluate knowledge management strategies to generate conclusive evidence of their value for development efforts?

The authors conducted an extensive literature review (see *References* and *Bibliography for further reading*) and interviewed fifteen leading thinkers in the field; eleven people from the development sector and four from the private sector (Annex 1). We also invited private sector input as it can be valuable to see how profit organizations also measure the impact of knowledge management, and what the development sector can learn from this. We hope to challenge, give food for thought, encourage critical thinking, and stimulate practical change in measuring impact. We seek to assist managers, programme officers, evaluators, knowledge management specialists and others implementing knowledge management strategies to make informed decisions about the monitoring and evaluation of their strategies.

Part 1 Knowledge management in the development sector

There are many different ways to interpret knowledge management. We consider it important to define some of these terms which are especially relevant for this paper. What do we mean by 'knowledge management'? And what is the difference between organizational learning, human resource development, and information management?

What do we mean by 'knowledge management'?

Let us start with the IKM definition of 'knowledge management':

Knowledge management (KM) encompasses any processes and practices concerned with the creation, acquisition, capture, sharing and use of knowledge, skills and expertise, whether these are explicitly labeled as KM or not. (Ferguson et al, 2008)

Other definitions also capture this 'creating-capturing-storing-sharing-applying-reusing' idea as a set of knowledge management processes. Hovland (2003) makes a distinction between raw information and knowledge:

Raw information may be widely available to a number of agencies, but only some organizations will be able to convert the information into relevant knowledge and to use this knowledge to achieve their aims. The processes by which they do this are known as KM strategies.

Duffy (1999, p.13) defines knowledge management as *the identification, growth and effective application of an organization's critical knowledge*. The OECD (2003, p.7) defines knowledge

Box 1. Examples illustrating a personal knowledge approach to knowledge management

- In order to share who knows what in the organization or network there are 'yellow pages' on the intranet, listing professionals with specific expertise, contact details, etc.
- New employees work for several months together with an experienced employee before starting their own job.
- A project team reflects weekly on their performance, discussing results, identifying problems, and sharing ideas for improvement.

management as *a broad collection of organizational practices relating to generating, capturing, disseminating know-how and promoting knowledge sharing within an organization*. The UN Economic and Social Commission (2001, p.2) describes KM as *the development, gathering, utilisation, processing,*

preservation and sharing of organizational knowledge base in such a way as to efficiently achieve results that match organizational strategic objectives.

Snowden (2000) offers an inclusive definition that recognizes both explicit and tacit knowledge:

Knowledge management is the identification, optimization, and active management of intellectual assets, either in the form of explicit knowledge held in artefacts or as tacit knowledge possessed by individuals, teams, organizations or communities.

Since knowledge management is concerned with managing knowledge workers, relationships between people, organizational structure, culture, process and systems, we take the view that:

Knowledge is an embodied concept with tacit and explicit dimensions. Knowledge management is about managing professionals, and creating the right culture, structure, processes and systems that allow knowledge workers to professionalize, be effective and innovate.

We differ with the IKM perspective that knowledge management is the business of everyone who works in the organization. While we accept (and indeed stress!) that everyone learns continuously, we see knowledge management as purposefully improving knowledge processes - and not every professional will be concerned with this. Everyone has knowledge, but not everyone will craft knowledge management strategies.

By addressing tacit as well as explicit knowledge, we present different views of the nature of knowledge itself and of the resulting possibilities for managing knowledge in organizations. These two views are characterized by Sanchez (2005) as the personal knowledge approach and the organizational knowledge approach. The personal knowledge approach assumes that knowledge is essentially personal in nature, and that knowledge is therefore very difficult to extract from the minds of individuals.

To manage the personal knowledge of individuals we create interactions to encourage knowledgeable individuals to apply their knowledge constructively together, to share their knowledge with each other, and through their interactions to create new knowledge that may be useful to the organization. Two examples are transferring people as 'knowledge carriers' from one part of an organization to another, and bringing knowledgeable individuals together under circumstances that encourage them to share their ideas.

Box 2. Examples of an organizational knowledge approach

- New employees make an overview of tasks they observe an experienced employee perform.
- A catalogue with 'best practices in water and sanitation' is placed on the internet, for which different quality teams are responsible.
- Job aids are made that describe the main steps that need to be followed to perform a needs analysis.

The organizational knowledge approach assumes that knowledge can be articulated by knowledgeable individuals who make it available to others. Dissemination occurs usually through documents, drawings, standard operating procedures, and manuals of best practice. Intranet and

(online) databases are often used. According to Sanchez (2005), both kinds of knowledge management processes are likely to be needed in any organization. The objective is to create knowledge management processes that synthesize the 'right' combination and balance of the personal and organizational knowledge management practices. A best practice database might work well in combination with face-to-face meetings in which professionals meet, share experiences and generate new ideas.

Finding the right balance between personal and organizational approaches

We believe that it is important to find the right balance between personal and organizational approaches. In this sense we do not fully agree with the IKM opinion (Ferguson et al. 2008) that:

Knowledge management should be considered as relating primarily to the social processes and practices, and not to the technological component of this, which needs to support the social processes and practices.

What is the relation between knowledge management and organizational learning, human resource development and information management?

Knowledge management is distinct from, but overlaps with, organizational learning. Schwandt and Marquardt (2000: 43) define organizational learning as: *a system of actions, actors, symbols and processes that enables an organization to transform information into valued knowledge which in turn increases its long-run, adaptive capacity.* Organizational learning can be said to occur when there is a change in content or beliefs shared by a group of individuals in the organization. Hence, organizational learning is about a continuous process of organizational adaptation, whereas knowledge management is about connecting professionals to knowledge resources and enabling them to create new knowledge and innovation.

Knowledge management equally overlaps with, but is distinct from, Human Resource Development (HRD), Information Management (IM) and Research and Development (R&D). Knowledge Management and Human Resource Development are mutually supportive in the sense that HRD activities provide individual professionals with the capacities they need to be effective knowledge workers. Research and Development (R&D) contributes to the organization's critical knowledge, and develops new products and services based on certain knowledge management processes. Information Management is concerned with data and information. If we visualize knowledge as an iceberg, then Information Management (IM) is dealing with the tip of the iceberg – information, whereas Knowledge Management equally deals with the larger underwater part of the iceberg that represents intangible knowledge (Callahan et al, 2006).

Some common elements of a Knowledge Management strategy

To put Knowledge Management (KM) into sharp focus, we have defined some common elements of a KM strategy:

- putting in place knowledge sharing systems;
- strengthening communities of practice (CoPs) or learning networks;
- using stories to make worthwhile experiences explicit;
- encouraging cultural change within the organization; and
- creating knowledge-sharing relationships with partners (based upon an overview of Hovland, 2003).

Knowledge management strategies in the context of the development sector

What are the current strategies of knowledge management in the development sector? According to Hovland (2003), most of the work on knowledge management in the development sector has been carried out by Northern-based or International Non-Governmental Organizations (INGOs). One of the knowledge management strategies is to create knowledge and insights from monitoring and evaluating projects and programs. Some Knowledge Management work has been carried out at the large donor agencies (World Bank) and bilateral agencies (DFID and SIDA). Geoff Barnard observes two important periods: the period of the mid-1990s up until 2005 which saw a strong interest from bilateral and multilateral development organizations for knowledge management and the period from 2005 onwards with the introduction of knowledge management strategies in multilateral agencies like ADB, FAO and IFAD. (Cummings, 2007, unpublished)

Less Knowledge Management work seems to focus on the knowledge management challenges that are faced by the Southern institutions, although

there is no overview available. However, there are many known efforts and initiatives to foster networks that encompass Southern professionals or stimulate south-south exchange, both online as well as offline. Powell (2006) points to a growing body of literature about 'knowledge and development' in general however detailed studies on knowledge management strategies in the sector are rare. One recent study was carried out by Ramalingam (2005). His main conclusions about the practice of knowledge management in development are: strong emphasis on information, tangible outputs and information systems rather than improved processes or changed behaviours.

Box 3. Examples of knowledge management interventions applied in the development sector

After Action Reviews, partner meetings, collecting best practices, building a repository, intranet, reflection days, monitoring and evaluating projects and programs, yellow pages for staff and experts, culture change process, internal staff exchange programs, reality checks, expertise locators, implementation of collaboration tools like wikis, forums, etc, knowledge audits, communities of practice (CoPs) and knowledge networks, learning partnerships, restructuring of the organization, office restructuring, knowledge services for partners, (e-magazine, inter-organizational CoPs, policy networks, knowledge centres, action research, thematic portals, open access conferences, think tanks, help desks and advisory services.

Smit (2007) recognizes those conclusions, and describes a few characteristics of development organizations:

- An activist learning style is the hallmark of many development organizations. Thinking and doing are separated or compartmentalized. They become more aware of the importance of reflection.
- Knowledge seems to be interpreted as information – that is, as an object that can be transferred from one person to another. There is a focus on systematizing learning experiences and knowledge by writing them down.
- Many organizations are internally focused. When relating to other like-minded organizations, they do not always see them as potential resources.
- Field experience appears to be crucial in gaining new experiences from which to learn.

Box 4. Method: Appreciative Inquiry (AI)

Appreciative Inquiry (AI) is a particular way of asking questions and envisioning the future that fosters positive relationships and builds on the positive aspects of what works in a person, a situation, or an organization. The idea is to build from what works, rather than focusing on what does not. By acknowledging the contribution of individuals, the method aims to increase trust and organizational alignment. Appreciative Inquiry (AI) has been criticized for privileging a certain type of positive story. Given that negative stories are critical to human learning, this can be viewed as inauthentic or even manipulative, but can also be empowering.

The difference between a knowledge management strategy and interventions

We recognize the difference between knowledge management interventions and strategies. Interventions are a series of actions aimed at changing an existing pattern within an organization or between organizations. A strategy normally combines a series of interventions with an overall defined purpose. Many development organizations adopt *ad hoc* interventions (see box 3 for some examples), while fewer have an explicit knowledge management strategy.

Part 2 Current approaches for monitoring and evaluating knowledge management

A framework for talking about monitoring and evaluating knowledge management strategies

The terms ‘monitoring’, ‘evaluation’, ‘measurement’, ‘assessment’ are often used interchangeably, yet they are quite different. Inherent in the idea of monitoring and evaluation processes is ‘value’.

An evaluation takes place at a specific moment in time. Monitoring involves tracking progress over time during the whole knowledge management process. We see measurement as the process of estimating or determining some attribute of an object, such as its length or weight, relative to a unit of measurement (source: Wikipedia). Assessment is a type of evaluation where the primary focus is on impact. We see assessment as the process of gathering and judging evidence in order to decide whether a person, a team, an organization, or a community has achieved a certain aim or objective. Another useful term is ‘reading’. Reading is about interpretation, making a mental representation of the meaning or significance of something. Reading is something we all do continuously, and involves progressively developing an understanding of organizational systems and their impact while remaining open until a comprehensive view emerges.

Box 5. Method: The Critical Incident Technique (CIT)

The Critical Incident Technique (CIT) is used for collecting direct observations of human behavior of significance according to some criteria. A critical incident can be described as one that makes a significant contribution - either positively or negatively - to an activity or phenomenon. Critical incidents can be gathered in various ways, but typically respondents are asked to tell a story about an experience they have had. The critical incident technique relies on events being remembered by users. The method has a built-in bias towards incidents that happened recently, since these are easier to recall.

More information at:

<http://www.usabilitybok.org/methods/p2052?section=basic-description>

A ripple model for monitoring and evaluating knowledge management strategies

Based on Kirkpatrick (1975), James (2002) and Wenger (2008, unpublished), we developed the ‘knowledge management strategy value creation ripples’. This model was inspired by the ripple model developed for capacity development (INTRAC, James, 2002). We adapted this model for assessing the impact of knowledge management strategies. The ripples visualize the various levels at which value may be created as a result of knowledge management strategies, and hence need to be monitored. Like the ripples that form in the water when you throw a stone, one ripple flows to the next.

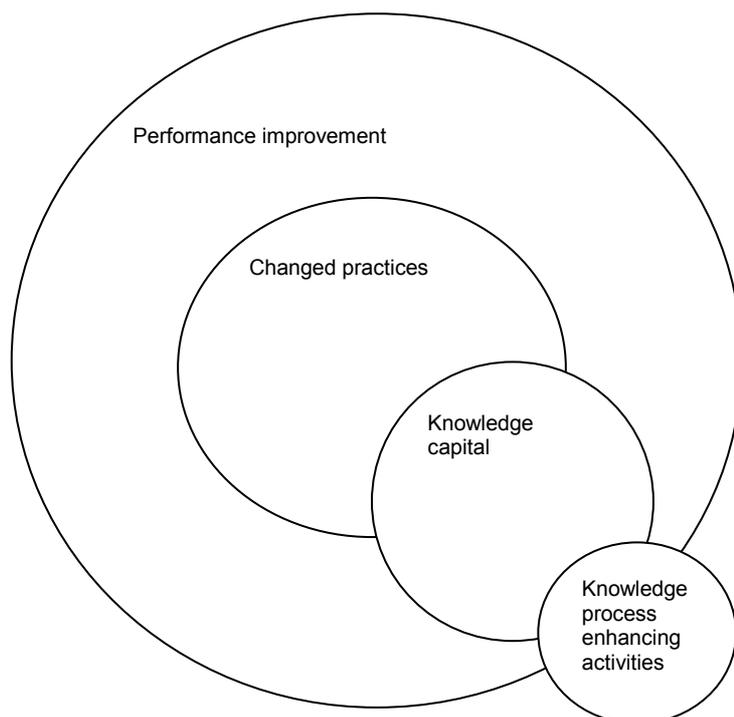


Figure 1. *The ripple model for monitoring and evaluating knowledge management strategies*

The first level is the level of knowledge process-enhancing activities, like the organization of knowledge network meetings, the creation of a database, the introduction of After Action Reviews for teams, etc. This is the level where we need to track the number of activities like the number of participants in an online forum, the number of network meetings, or the number of stories in the database.

At the second level we find the knowledge capital created, which can partly be counted, like the number of publications or blogposts. But it also includes new or different relationships and connections facilitated, inspiration, access to information and new ideas or insights gained.

The third level is the level of changed practices, and what changes can be observed in the way people, teams or organizations act/function. From the second to the third level we see that the transfer of knowledge into practice is a prerequisite.

The last level is the level where we find the business results (for-profit organizations) and performance measures like impact on development (development organizations). The third and fourth levels may be referred to as the 'impact levels'. The most relevant performance measures have to be determined for each individual knowledge management strategy; is it the extent to which the policies are changed in favour of certain partners or is it the number of projects with a positive evaluation?

The model will help you to consider the level at which you wish to assess the value of knowledge management. By way of illustration, in the table below we have formulated possible monitoring and evaluation questions for each level.

Ripple	When are you satisfied?	Example of a learning network on value chain approaches
Knowledge process enhancing activities: events, problem-solving activities, exchanges, tools, encounters, action researches	Activities realized: Did we implement the knowledge process enhancing activities? What kind of activities? How many? How often? Are these the right activities?	Number of network meetings, number of participants, number of Dgroups contributions, number of documents downloaded, website visitors
Knowledge capital: Knowledge, skills, inspiration, relationships, trust, documents, tools, procedures, publications	Capital created: What did we produce in terms of tangible and intangible artifacts? Were they the result of our activities?	Publications, blogposts, practical problems solved, framework created, number of inspired participants
Changed practices: Individuals, teams, organizations or networks changed their professional practices	Practices changed: What do individuals, teams, organizations do differently as a result of the activities? Is this influenced by our activities? How?	Improved practices of identifying partners, improved advisory services
Performance improvement: the problematic situation to improve or challenge to tackle	Performance improved: Did changed practices help to improve the problematic situation or enable us to deal with the challenges? How did the environment influence this, how did the activities influence this?	Increase in income by primary producers in the value chain

Table 1: Monitoring and evaluation questions for different ripples

Monitoring and evaluation in the development sector is frequently linked to a ‘log-frame’ perspective with a focus on measuring predetermined indicators. This linear approach assumes a direct link between cause and effect that is often absent in reality, and even more so in the case of knowledge management. Schwandt and Marquardt (2000: 22) approach knowledge management from a systems perspective: *...the social dynamics of an organization require a non-linear systems approach to explain collective learning... ...we must consider all of the social dynamics associated with organizational behaviour such as turf wars, communication breakdowns, and power struggles, and how they relate to knowledge creation.*

Box 6. Timelines

Though timelines are tools rather than a methodology, they are worth mentioning because of their value in helping with the plausible association of changes due to knowledge management strategies or interventions. People can be asked to plot certain developments or changes against a timeline. This is an indirect and powerful way of asking people about the relationship between certain activities and changes.

More information can be found in the book by Rick James, *People and Change, Exploring Capacity-Building in NGOs.*

As we demonstrated with the ripple model, the success of a knowledge management strategy depends very much on the consistency in ‘the chain’ of knowledge process-enhancing activities – the knowledge capital created – changes in practices – performance improvements.

The eventual improvement in performance will depend on the diagnosis of the difficulties and bottlenecks within knowledge processes. The right choice of knowledge management strategies and interventions is important to arrive at performance improvements.

What is the purpose of assessing impact?

It is not that easy to monitor and evaluate at the level of the impact of knowledge management strategies, so why do we think it is important? The goal of impact assessments could be to learn from what has happened, to be more aware of success or failure, or to demonstrate results to funders. *While we monitor and evaluate with ease the use of resources, we should also be in a position to monitor and evaluate the deeper, more subtle changes that result from our interventions.* (Dlamini, 2006). SOL (1998) distinguishes between different types of assessment and different audiences:

1. **Inherent assessment:** the assessment is implemented by the participants in the intervention, is continuous and may be tacit or explicit.
2. **Exportable assessment:** the assessment that creates a product for someone who has not been part of the process.
3. **Extractive assessment:** the assessment that 'extracts' information from the process because someone on the outside needs to know this.

Current monitoring and evaluation practices

When we look at how organizations monitor and assess the impact of knowledge management in the development sector, we see a wide range of approaches. Monitoring and evaluation programmes has become a big industry within the development sector, but practices seem less developed with regard to knowledge management interventions. Mebrahtu (2005) *...the heightened preoccupation with effectiveness on the part of international donors has had a real impact on INGOs. Terms such as 'impact', 'performance', 'results' and 'accountability' have assumed a new prominence in M&E ... over the last five years.* This urgency to demonstrate the effectiveness of projects and programs does not seem to be felt at the same level for knowledge management interventions.

Jan Ubels, SNV: *The topic and your research questions seem very interesting to me. However, I must admit that we have done very little about M&E of KM specifically at SNV. KM is simply dealt with in line with broader M&E approaches and practices that we have developed.*

Lesley Schneider, World Bank: *We haven't gotten to the point of M&E for communities of practice in our study. In the past, we've used anecdotal evidence/stories of how they contributed to operational work, but that hasn't been done since about 2000.*

Ramalingam (2005) suggests that there is no solid practice of measuring the impact of knowledge management strategies within Northern agencies, and concludes that all organizations face difficulties in assessing their strategies. *There appears to be more emphasis in all study organizations on the potential of knowledge and learning, rather than on the tangible benefits it has already achieved... The point-of-use cost of engaging in knowledge/learning strategies is rarely assessed.*

Ramalingam's findings are seconded by Vigreux, who detailed (personal communication) numerous KM activities implemented within CARE USA (which sees KM as a key strategic objective), while acknowledging that little has been done to evaluate the impact of the strategy. The question is raised – *Is it always necessary to evaluate such strategies if there is a belief and faith in the idea that KM strategies are essential to organizational success and will have the desired impact?* Jan Ubels from SNV thinks the call for an impact assessment of knowledge management has been larger than for fields like Human Resource Development because KM is a relatively new field and managers may have doubted its importance. However, he observes that this call is lessening because there is now more widespread support for, and a belief in, knowledge management. To devote a certain percentage of the budget to knowledge management strategies seems as acceptable as using it for Human Resource Development. The first calls for an impact assessment were related to the relatively large investments in ICT systems. Most organizations now seem to have their internet and intranet solutions developed. The second generation KM strategies, with their focus on human connections, do not require such heavy investments, hence the call for an impact assessment is lower.

Box 7. Method: Learning histories

A narrative of a recent set of "critical episodes" for instance: a new initiative, a widespread innovation, a successful product launch, or even a traumatic event like a downsizing. The document ranges in length from 25 pages to 100 pages, nearly all of it presented in two columns. In the right-hand column, relevant events are described by the participants. Each person is quoted directly, and identified only by title. The words are woven into an emotionally rich, coherent story. The left hand column is a different matter. It contains an analysis and commentary by the "learning historians", a small team comprised of trained outsiders, usually consultants and academics who specialize in organizational learning, along with concerned and knowledgeable insiders. Learning histories acknowledge that individuals informally evaluate all the time and the team tries to capture this systematically for organizational learning.

More can be found in the article by Kleiner and Roth: *Learning histories: a new tool for turning organisational experiences into action*, at:

<http://ccs.mit.edu/LH/21cwp002.html>

More information can be found in the book by Rick James, *People and Change, Exploring Capacity-Building in NGOS*.

This does not mean the field is barren. HIVOS, for instance, has a monitoring protocol for its knowledge management program, focusing on output, outcome and sustainability. The protocol has a strong link with the annual planning and reporting cycle, and responsibility for measurement is divided between academic partners and HIVOS internally (Josine Stremmelaar, pers.com).

Josien Stremmelaar, HIVOS: *Each programme has its own M&E of knowledge, described in a knowledge protocol. This protocol has a strong link with annual plans and reports. What targets have been met? Where do we still need to invest in? What are indicators we don't have to focus on anymore? What indicators are important for the next half-year? We make choices, and use those targets with which we really can make a difference. Do we achieve what we want to achieve and do we need to achieve this? Twice a year, a steering committee comes together for an internal and external evaluation moment.*

Part 3 Challenges in carrying out an impact assessment of knowledge management strategies in the development sector

In this chapter we outline the main challenges of carrying out an impact assessment of knowledge management strategies within the development sector. We owe a lot of our thinking to Hailey, James & Wrigley, R. (2005) and James, R. (2002). Many of these challenges are valid for any impact assessment but we have tried to come up with some specific solutions for evaluating knowledge management strategies.

The challenge of dealing with the lag time between cause and effect

The impact of knowledge management strategies may take a long time to surface and may occur in unexpected places. Strategies may last for one to two years, while the real impact may only emerge several years later. For instance, professionals participating in a knowledge network may gain new ideas about ways to support actors in the cotton value chain, but may not see a chance to apply these ideas until much later. Hence, the impact may remain at the level of the individual being better informed, whereas organizational impact appears at a later stage.

Box 8. Method: Outcome mapping

Outcome mapping was developed by IDRC for project evaluation. It focuses on measuring changes in the behaviour of the people with whom a development initiative works most closely in 3 stages and 12 steps. Outcome mapping limits its concern to those results – or ‘outcomes’ – that fall strictly within the program’s sphere of influence. It considers only those activities where the program can claim it contributed to a direct effect. *Outcome Mapping debunks many of the myths about measuring impact. It will help a program be specific about the actors it targets, the changes it expects to see, and the strategies it employs and, as a result, be more effective in terms of the results it achieves.* Criticism of outcome mapping is that it is also a rather linear approach to impact. Furthermore, it is developed for project evaluation and not specifically for KM.

To join the outcome mapping learning community go to: <http://www.outcomemapping.ca/> or find more information at the website of IDRC: http://www.idrc.ca/en/ev-26586-201-1-DO_TOPIC.html Sara Earl explains outcome mapping in a video: <http://www.youtube.com/watch?v=ulXcE455pj4&feature=related>

Christiaan Stam: *In my opinion you need at least three years before you can say something useful about the impact. During those three years, however, you can monitor at certain moments to make the developments visible.*

Outcome mapping (see box 8) is a method that organizations choose, not to assess the impact through all the ripples, but to focus on the level of the outcomes. In the case of knowledge management strategies, this means assessing changed practices rather than performance.

The challenge of demonstrating causality and attribution

Dealing with attribution is a recurring problem for those engaged in multi-actor, multi-location, multi-level and multi-strategy change work. How to 'prove' causality between your knowledge management activities and the impact at other levels like knowledge capital, realized value and performance (see table 1). The further you move out on the ripples, the more difficult it is to attribute the changes to your activities. Besides, there may be effects that are outside your range of vision.

Mathieu Weggeman: *There are many variables that make it hard to link interventions to certain effects. In one case there was an adviser who worked with a management team, and the team improved its functioning. However, we found out that the chairperson fell in love with one of the lawyers on the team and hence changed his attitude, listened better, etc. That was a stronger explanatory factor for the improved functioning of the management team than the knowledge management activities.*

James (2002) calls for a realistic approach - attribution issues can never be fully overcome, but can be mitigated by using 'plausible associations'. Social Return on Investment (see box 4) is a method that aims to monetize the impact. This method addresses the challenge of attribution by way of estimating the benefits on the safe/conservative side, to avoid attributing too large a portion of change to your activities.

Scott Drimie makes a distinction between influence and impact. 'Influence' means that one is part of the key dialogue and conversations; 'impact' means that something is changed as a result of your actions (personal communication, Scott Drimie). This suggests the value of consciousness of what one is realistically able to achieve. Christiaan Stam suggests that you should not measure the impact of a knowledge management intervention up to the last level of impact; the performance level. Wenger advocates storytelling as an attribution instrument: *Storytelling is important, because you can measure a lot, but if you don't know the story*

behind it, you don't know what you are measuring. It helps with attribution, but also to understand the mechanisms at work. You need measurement and causal assessment by collecting anecdotal evidence of how impact is created in the form of stories.

Box 9. Method: Social Return on Investment (SROI)

A Social Return on Investment (SROI) analysis is a process of understanding, measuring and reporting on the social, environmental and economic values created by companies and organizations. It includes monetizing this value. It was designed by the REDF in the USA and comprises 4 stages: planning, implementation, reporting and embedding. Though it is not specifically developed for KM, the monetization method could be adapted to suit KM.

More information can be found in Contextuals No. 4 Social Return on Investment: An Introduction (<http://contextinternationalcooperation.files.wordpress.com/2007/12/contextuals-no-4.pdf>) or in the Guide to Social Return on Investment written by Peter Scholten, Jeremy Nicholls, Sara Olsen and Brett Galimidi.

Mathieu Weggeman: *In my opinion you need at least three years before you can say something useful about the impact. During those three years you can perform a series of evaluations to make the developments visible. I make a strict distinction between evaluating the KM effort and evaluating the performance of the organization. The aim of KM interventions is to improve knowledge processes. And hopefully this will lead to better organizational performances. An organization might use Communities of Practice (CoPs) to support knowledge sharing between professionals with the aim to better use the knowledge available in the organization. I only measure at the level of knowledge processes. There are too many other factors influencing the performance of the organization.*

Quantifying the unquantifiable

It is hard to measure (and use metrics) for intangible effects like knowledge creation. Explicit knowledge in the form of publications, mails, can be easily be counted, but intangible aspects like changed perceptions are much harder to quantify. Trust in measurements has its basis in the natural sciences, whereas the social sciences focus more attention on the fact that changes in behaviour cannot be measured. We have to find a balance in this because simply using stories and anecdotal evidence may also not be taken as valid proof. Extractive assessments are more likely to search for visible and quantifiable results, because we seek to convince with 'hard evidence'. Managers are more often preoccupied with this type of evidence. Hence, the use of quantitative indicators is tempting, but you have to take care that indicators are not used as a scapegoat for developing an understanding of the context of developments. (SOL, 1998)

Hailey, James, and Wrigley R. (2005): *The reliance on numbers and counting creates a false precision about what is an inherently uncertain and evolving process. An over-reliance on quantitative data may mean that the real essence of change is not recorded or understood.*

Rating sheets (scoring statements on a numerical scale) are a useful instrument for obtaining comparable figures. Donald Ropes has developed an assessment form for communities of practice (CoPs) on areas like 'community', 'collaborative learning processes' and 'learning outcomes'. By comparing scores before and after the knowledge management strategy, professionals can indicate whether new knowledge has been created or knowledge processes have been improved. The assessment form is based on the idea of critical reflective work behaviour, developed by van Woerkum, University of Tilburg. Wenger advocates counting everything that can be counted, but making sure that you complement it with stories that explain the figures, and combining it with conversations about what the figures mean. Figures or trends in figures can also be a good signal, for instance the number of people who voluntarily attend network meetings, the number of times documents are downloaded, the number of comments that a weblog receives, do say something about the perceived value by the professionals who participated. However, they always need to be

interpreted; maybe the attendance of a meeting was low because it coincided with a funeral, another meeting etc. Also, the payment of *per diems* may blur the interpretation of attendance figures.

Etienne Wenger: *When we try to quantify the value of communities of practice (CoPs) we get stories like Chevron has been able to save 20 million dollars, because this and this innovation was shared. But what does that really mean?*

The challenge of dealing with power relations and multiple knowledges

Creating a genuine climate of trust for learning and sharing failure between donors and grantees is known to be a real challenge in the development sector as funding creates a major power imbalance. In the case of knowledge management strategies, this will also be an issue as long as these strategies are externally funded, but will be less so when the strategy is internally funded. For knowledge management, power and ownership play a different role during extractive assessments (for outsiders like the donor/sponsor) or inherent assessments (for insiders) when people involved want to know the value created by the strategy. For extractive assessments, the sponsoring department may be a relative outsider with different concerns than the insiders, and holding the power to continue or withdraw support. This makes it harder to create an avenue for open feedback and the pitfall is that it leads to ‘convincing’ the outsiders rather than looking critically at the real value.

One possible solution is to discuss up front with the various stakeholders what and how to monitor and when and how to assess impact. For continued support, however, it is more important to make the discussion on progress part of an open constructive dialogue between insiders and outsiders rather than relying on a formal assessment. It is very likely that different stakeholders will have a different view. Several interviewees stressed that it is hard to convince an outsider of the value of a knowledge management strategy through formal assessments. Personal observations and conversations are more important.

Besides the question of inherent/-extractive purposes, a related question is “Who assesses the impact, who determines the questions, and who facilitates?” On the one hand, there are externally-led evaluations, on the other hand self-assessments with the risk of bias or lack of credibility. A joint assessment and a stakeholder

Box 10. Method: Rapid Appraisal of Agricultural Knowledge Systems (RAAKS)

RAAKS has been developed as a method for joint inquiry by stakeholders, not so much as an evaluative method but with the aim of improving the situation. The method could be applied, however, in an evaluative manner in a situation where there is a multi-stakeholder process, where the developmental objective of the assessment is very strong. Its strength is the fact that the inquiry team consists of both insiders and outsiders and engages in a joint analysis. On the downside, it is quite time-consuming.

More about RAAKS is available online from the website of the Royal Tropical Institute of the Netherlands (KIT)

<http://www.kit.nl/smartsite.shtml?id=4616>. Although the resource kit is out of print, you can download the kit, as well as case studies and other materials from the website.

approach will help to accommodate different perspectives. The Rapid Appraisal of Agricultural Knowledge Systems (RAAKS) method (see box 10) is a strong methodology that recognizes that there are various actors involved in any innovation system and provides a practical methodology for joint inquiry by a team composed of insiders and outsiders.

The challenge of reflection, critical thinking and the systematic documentation of experiences

Documenting, analyzing and reflecting upon experiences is critical for monitoring the progress of knowledge management strategies. It is possible to monitor at various levels and, despite what is sometimes thought, it is not true that monitoring is limited to merely counting the outputs of the activities. Monitoring may take place across the levels of our ripple model. Anecdotal evidence of impact may surface at any time during the implementation of the strategy. Monitoring this over time through the rigorous documentation of experiences can provide valuable basic ingredients for assessments. However, the action orientation of the NGO sector does not favour a rigorous practice of documenting experiences and sense-making. Smit (2007) found little evidence of time for (or priority given to) documentation and reflection in three development organizations in the Netherlands. Without a culture of documenting experiences, it is harder during impact assessments to make sense of certain developments because memories may be distorted.

Josien Stremmelaar: You cannot learn without reflecting on what you do. When you don't build in explicit moments for reflection, you have the chance to lose yourself in the daily routine without making improvements or coming up with new ideas... M&E is a powerful tool for reflection and in the power dynamics between HIVOS and local partners, we ask them to identify their objectives and indicators. This approach makes M&E more their process as well.

Finding the right balance between cost and expected results

How costly is monitoring and carrying out impact assessments compared to the value that is derived from them? Impact assessments can place huge demands on the people, groups and organizations involved, and can take up time, resources and de-energize the participants. If the right balance is not found, processes may generate little information of value and may cause resistance, frustration or low morale (Hailey, James and Wrigley, R. 2005). Furthermore, impact assessments often tend to serve too many incompatible purposes at the same time, as a result of which not a single purpose is served well.

It is important to be clear about the purpose. James (2002) advocates a simple and light monitoring and impact assessment: *It is easy to get carried away with the complexity of the task and design a top-heavy system that produces too much poor quality information and does not justify the expense.* One way of reducing the burden of collecting data is to use existing measures that are already available such as the income that is generated, nutrition rates, GDP, etc.

Working across multi-cultural settings and contexts

In the development sector, we tend to work in multi-cultural settings. This affects the choice of a certain knowledge management strategy – “What are cultural and individual preferences?” There is evidence to suggest that high power distance and uncertainty avoidance cultures¹ will be more likely to embrace the idea of performance measurement (Hailey, James and Wrigley, 2005). Hence, different cultural contexts have to be considered when choosing a knowledge management strategy and monitoring and evaluating the initiatives.

Proving results versus risk-taking and innovation

Innovation requires an environment in which you dare to risk failure. To stimulate innovation in the development sector, it is important to experiment with new routes, reflect in a double and triple loop learning way, and strengthen yourself as an individual, team or organization with the capacity to discover new things. Molenaar (2008) stresses the need to create room for endogenous innovation within the sector and notes the contradiction with needing to prove results according to a planned logical framework. Many evaluation methods inhibit rather than support innovation (Perrin, 2001). Most attempts at innovation, by definition, are risky and may ‘fail’. *One does not expect new concepts necessarily to work – indeed, if one is trying new, unknown and hence risky approaches, most should not work* (Sutton, 2000). Drucker (1998) stresses that unexpected failure can be a major source of innovation opportunity, and that innovation most frequently works in ways that are different from what was originally expected. Learning is admitting uncertainty, trying things, making mistakes. Innovations are generally long term in nature, and attempting to assess ‘results’ too soon can be counter-productive.

Box 11. Method: Collecting systematic anecdotal evidence

This is a term coined by Wenger, McDermott and Snyder in their book entitled *Cultivating communities of practice*. It involves collecting enough stories from professionals involved in the intervention so that you understand how value is created. “You cannot merely count things. Measures such as participation rates, documents produced, etc. only become useful in the context of stories that explain the causal links between them.” The story should include the initial activity, the knowledge resource generated (insight, method or relationship for instance) and how this resource was applied to create value.

Perrin (2001) suggests that an approach to assess the impact of knowledge management strategies should be considered to be innovative:

- Take a ‘key exceptions’ or ‘best practices’ approach to evaluation;
- Use a systems model;
- Look for learning *versus* success, as well as for the degree of innovation;
- Set realistic time frames;
- Incorporate a process approach;
- Use appropriate methodologies;
- Acknowledge political and organizational realities

¹ see Hofstede on national culture at <http://www.geert-hofstede.com/>

Part 4 Interesting approaches for monitoring and evaluating knowledge management strategies

There is an enormous amount of literature available on monitoring and evaluation, and equally on the value of knowledge management. In our bibliography, you will find a list of materials we have gathered. Some of the literature is very critical about the value and practices of donor-initiated evaluations, see for instance Dlamini and Mebrahtu. There is also literature from management theorists, which see knowledge management as an instrument to ‘manage’ an organization on the journey towards its mission, examples are Drucker, Cohen and Duffy. There is also literature based upon a social constructivist approach which views knowledge creation as a process of sense-making between people. Snowden, Smit, de Jong and Kessels and Wenger represent this view. Conversation is very important for these authors, as is the creation of capital. They are far more likely to pay attention to the assessment of the social capital created by a knowledge management strategy. In this chapter, we will first share some interesting approaches in monitoring and evaluating projects and programs; a field that has seen extensive attention and innovation. We continue with interesting methods and end the chapter with approaches from the profit sector.

Some interesting general approaches to monitoring and evaluation

There are some interesting approaches used to monitor and evaluating projects and programs; ones that we could learn from and apply to the area of knowledge management. Guijt (2007) describes how SPARC looks at M&E and learning: *They use a mix of different methods for assessment and learning – group ex-changes, self-evaluation, stakeholder feedback, individual professional development, commissioned external perspectives, action learning, and action research. The essence lies in the simplicity of issues that simply seek to respect people’s ideas and keep donors at arm’s length to give people the space to act on these ideas.*

Action Aid International introduced its ‘Accountability, Learning, Planning System’ (ALPS) (see box 14 below). This approach

stresses that poor people must define the agenda and own ‘indicators’ of what change looks like, and that rigid frameworks are less important than process and relationships. Central in the framework is clarity about the question of who wants to know what – and why it matters.

Box 12. Method: Participatory Impact Pathways Analysis (PIPA)

Participatory Impact Pathways Analysis (PIPA) is a project planning, monitoring and evaluation (M&E) approach. It is a relatively young and experimental approach that draws from program theory evaluation, social network analysis and research to understand and foster innovation. It is designed to help the people involved in a project, program or organization make explicit their theories of change, in other words how they see themselves achieving their goals and having an impact. PIPA goes beyond logframes and the traditional use of logic models commonly used by engaging stakeholders in a structured participatory process, promoting learning and providing a framework for ‘action research’ on processes of change. *More about PIPA at <http://boru.pbwiki.com/>*

The IFAD, Wageningen International, and training institutions in East and Southern Africa are working in a partnership to develop a new approach to M&E called the ‘Strengthening Managing for Impact Programme (SMIP).’ The core idea is that all those involved in a development initiative – communities, implementers, managers and donors – must be part of a learning alliance that seeks to achieve the greatest possible positive impact. *Common sense perhaps, but the reality is that much development work has involved the unquestioning implementation of activities with little reflection on what those activities add up to in terms of outcomes and impact.* (Woodhill and Pabari, 2008).

Box 13. Method: Accountability, Learning and Planning System (ALPS)

ALPS (Accountability, Learning, Planning System) is developed by Action Aid. ALPS is designed to deepen Action Aid’s accountability, ensure processes create space for learning and innovation and ensure participatory planning. In this way it is an example of an attempt to structure monitoring and evaluation in the service of learning. ALPS consists of a mix of methods including storytelling, participatory review, reflection processes, written reports, external reviews, and peer reviews. More information about ALPS is available online on the ActionAid website:

http://www.actionaid.org/assets/pdf%5CALPSENGGLISH2006FINAL_14FEB06.pdf

The success of the approach depends on the ‘people process’, that ensures that the necessary information is gathered, sound decisions are taken, and individuals give their best. However, information is only useful if it is shared and discussed, enabling reflection and learning... To ensure that learning drives the process, it must be recognized that change is the result of coordination, integration and the commitment of all actors. Consequently, the challenge of managing for impact goes beyond ensuring the delivery – it also includes influencing relationships and the actions of others.

Box 14. Method: Social Network Analysis

Social Network Analysis (SNA) can visualize social capital and relationships, and analyze the hubs and connectors... Information can be recorded as matrices, or graphs for visualizing patterns. Simpler social network analysis can be done within a group...

More information about social network methods can be found at:

<http://www.faculty.ucr.edu/~hanneman/nettext/>.

An example of SNA as an intervention can be found here:

<http://www.socialnetworkanalysis.com/selectleader.htm>

OXFAM-Australia identified 10-15 projects that a majority of stakeholders found successful and looked at the critical success factors. These factors are now the basis for monitoring the programs over the life-span of their plan, using stakeholder dialogues and social audits.

These various methods and approaches build on the concept of learning as a social process, and emphasize the value of making meaning in the process of understanding impact. They purposefully engage various stakeholders to get a variety of perspectives and start a dialogue around it, rather than having one party (an external consultant) passing judgement about impact and effectiveness.

We also recognize the opportunity of using M&E processes as a mechanism for empowerment and liberation from the strictures of externally-imposed processes.

Interesting methods for assessing the impact of knowledge management strategies

What methods are appropriate for assessing the impact of knowledge management strategies? Throughout this publication, you will find examples of interesting methods displayed in boxes with some critical remarks and references. Some methods are developed for project monitoring but may be amended for use in knowledge management strategies too.

The assessment method chosen will depend on the perspective on knowledge management. Stam (interview 2008) says: *When I think about an approach we could use in an organization to measure the impact of KM, I always look at the 'language' they use, the type of interventions they use, because this expresses their view on KM. To me it is important to strongly link with their measurement intervention to the KM approach and to the school of thought the organization is using. Especially when you look at M&E as a KM intervention in itself!* So there is not 'one right way to do it'. In choosing a KM measurement approach, we should be aware of our convictions, understandings and values related to KM.

But do we have sufficient and applicable methods for the way we look at impact assessment nowadays? Cohen (2006, p. 28) takes the view that an emergent approach is most useful: *Leaders of knowledge-based organizations approach the measurement problem by accepting soft indicators that knowledge management is earning its keep rather than demanding hard numbers that may be misleading.* Cohen suggests that the most important approach is to be clear about the purpose of knowledge management initiatives and then to apply storytelling and anecdotal methods to explore success. Christiaan Stam shares the idea that we need new methods for assessing impact:

Box 15. Method: Most Significant Change (MSC) process

The Most Significant Change (MSC) process involves collecting significant change stories emanating from the field, and the systematic selection of the most significant of these stories by panels of designated stakeholders or staff. Once changes have been captured, these are discussed. Although originally developed for project evaluation, the method could be used for KM. Critics of the MSC process doubt the usefulness of focusing on one type of change as being more significant than others. Instead they believe that change should be analyzed holistically. *A free guide can be downloaded from*

<http://www.mande.co.uk/docs/MSCGuide.pdf>

or you can join the MSC mailing list here:

<http://groups.yahoo.com/group/MostSignificantChanges/>

A video with Jess Dart explaining Most Significant Change can be found at:

<http://www.youtube.com/watch?v=JuaGmstG8Kc>

As an organization you should be willing to look at impact assessment in new ways... what is important at the moment (knowledge and information...) is difficult to assess with traditional evaluation methods. And you should use a method that connects to the type of organization: when you see knowledge as an objective truth, you will use systems as KM interventions. When you see knowledge as a personal competence, you use mentoring, coaching, CoPs. Those different types of interventions require different measurement methods. Before you start with measuring the impact, you need to do some research on the epistemology of the organization according to knowledge, knowledge processes, knowledge productivity.

Guijt (in an interview) remains sceptical about methods: *Methods will never be the full answer to the challenges of assessment and learning. In practice, creating an appropriate assessment and learning process requires mixing and adapting a combination of frameworks, concepts and methods to ensure they address the information and reflection needs and match existing capacities... ..the choices for which remain an issue of perspective and deliberation. The danger of reducing dynamic approaches into 'technologies' and over-simplified 'how-to's always lurks.* (Guijt, 2007).

Chris Roche: *A challenge in the monitoring and evaluation of KM strategies is that a lot of tools for planning and evaluation are based on a certain way of working of the world. Interesting tools are drivers of change, power relations, most significant change and storytelling. We haven't found a lot of useful tools for individual and organizational levels and peer evaluation.*

In conclusion, we might say that every knowledge management strategy is unique and requires its own M&E approach and methods. Methods however, cannot ensure a valuable M&E cyclus, therefore the design needs to be well thought through and care should be taken to ensure that the right people are engaged (see Part 6).

Interesting practices in the profit sector

Despite the differences with the profit sector (see Guijt, 2008 and Anheier, 2000 for details) we found some interesting monitoring and evaluation practices for KM strategies in the private sector. There is not much attention for monitoring and evaluating knowledge management strategies in the profit sector. Mathieu Weggeman explained that the profit sector is less concerned with impact assessment than the public sector since it is not working with public funds and does not have to 'prove' impact. Managers may have their own informal 'readings' of the impact of a knowledge management intervention, and do not want to waste their own and other professionals' energy and time on formal impact assessments. Etienne Wenger felt that investments made for knowledge management strategies are relatively low, and the time of the professionals engaged in the intervention may be scarce. Hence the question is whether it is worthwhile investing in it.

Mathieu Weggeman: *My first association with measuring impact is a lot of energy without very useable results. More and more, I believe in the involvement of professionals and managers' trust. In general, a lot of measurement is a waste of energy. This is often about trust and confidence. Does the management trust the initiatives?*

Researchers Donald Ropes and Christiaan Stam, however, feel that it is important to convince an organization of the value of knowledge management strategies. Ropes: *Some professionals are of the opinion that measurement is not necessary. I think that view is unrealistic. Someone needs to convince an organization of the value of KM initiatives. Trust alone cannot be the only deciding factor.*

Ropes has developed a measurement form with ratings that are scored by individual participants before and after the knowledge management strategy has taken place. It is based upon:

1. Critical reflective work behavior
2. Competencies of participating professionals
3. New knowledge and knowledge products

He feels it is important to use baseline surveys. Feedback to learn and improve the intervention is needed separately in the form of process questions, but this is not integrated in the impact measurement forms.

Box 16. Method: Storytelling

Storytelling is the ancient art of conveying events in words, images and sounds by improvisation. Stories frequently instill values and provide a rich context. The art of storytelling has come up as a counterbalance to the reductionist nature of communication in an organization. The risk of storytelling is that when asked for stories about impact, there is a tendency to put an overly positive gloss on results without identifying key areas for improvement. *Anecdote Circles* are a special case of storytelling.

Donald Ropes: *Managers would like to see hard figures, for participants the value lies in the learning experience. There is not so much written about measuring the impact of knowledge management, most models focus on Human Resource Development (HRD) initiatives. Evaluations focus on the level of the learning process or acquired skills. But isn't the transfer to the workplace what learning should be about?*

In the cases of impact assessments of knowledge management strategies in the profit sector, the emphasis on conversations and storytelling is striking (see box16). Shell, for instance, has invested in documenting impact using storytelling. The results can be found in their 'stories from the edge' publication.² Shell states that *...storytelling hands down learning, insight or collective revelation and can be effective in helping change the mindset and improve knowledge practice. The power of a good story well told can inspire innovation, personal challenge and professional breakthrough.* Shell does try to monetize the value, eg: "In maintenance, the use of V-belt tension gauges and sheave guidelines was implemented at over 10 locations. A cost saving of \$140,000 per year resulted from sharing this maintenance practice".

Etienne Wenger: *Storytelling is important because you can measure a lot, but if you don't know the story behind it, you don't know what you are measuring. It helps with attribution, but also to understand the mechanisms at work.*

IBM (Lesser and Storck, 2001) has studied how communities of practice influence business performance. It sees communities as an engine for social capital, which leads to behavioural changes, which positively influence business performance, (supporting the ripple model presented in Part 1). They define three dimensions of social capital, which may help to focus impact assessment:

1. **Structural dimension.** The ability of individuals to make connections to each other. These connections constitute information channels that reduce the amount of time and investment required to gather information.

² Downloadable online from: <http://www.knowledgeboard.com/item/2184>

2. **Relational dimension.** The development of deeper interpersonal relationships that reinforce the connections. There are four components of the relational dimension: obligations, norms, trust and identification.
3. **Cognitive dimension.** The development of shared context between the parties; a common language that includes language, acronyms, subtleties and underlying assumptions.

Stam makes a strict distinction between assessing the impact of the KM effort itself and the overall performance of the organization. It is hard to attribute organizational performance to knowledge strategies since there are so many other factors influencing performance. *“What you can try to do is understand negative effects from the perspective of knowledge processes”*.

What we can learn from the profit sector is the combination of narrative techniques that may capture causality between the various levels of our ripple model and efforts to measure changes by using rating sheets.

Part 5 Key lessons from existing approaches

The core question needs to be questioned

The first lesson is that the assumptions behind the core question of this paper may need questioning. The assumption is that by evaluating knowledge management strategies we find evidence of their value to convince decision-makers, policy-makers and managers in development. We question this assumption. Firstly, knowledge management seems to have gained credibility and therefore there is less need to prove in order to convert. Secondly, the following question was raised by the interviewees: if a person doesn't believe in a knowledge management strategy will he/she be convinced by a formal evaluation? Thirdly, it is hard to assess the value of knowledge management strategies against alternatives like organizational learning or research and development. Information managers have come up with a similar conclusion (IDRC, 1995): *To assess the relative value of information against its funding competitors is like the relative value of food versus water for human survival. Which is more valuable, food or water? It is a meaningless question. We must have both.*

This is not to say that monitoring and evaluation is never necessary, but it may be more interesting to explore how to monitor and evaluate knowledge management strategies with the aim of improving their effectiveness and securing support. A knowledge manager should always be able to communicate about the effects of his or her work, whether that needs formal assessments is the question.

Inherent versus extractive assessments

As a knowledge worker, manager, or policy-maker, you may ask yourself questions about “whether to monitor and evaluate”, and then ‘why’ and ‘what’. The major distinction is between an assessment owned by the participants and an assessment that is meant for external parties. It might be useful to decide on the main purpose because combining them can have downsides. Engaged actors will never be completely open when they are keen to prove something. Storytelling will then risk becoming successful storytelling.

Use informal methods and focus on the ability to read

Another lesson is that we could make more use of informal methods and have trust in the readings of the people involved. The fact that impact is not formally assessed does not mean that there is no impact and that people do not sense the impact. Investments in a formal assessment may only be justified when it is really important and strategic to know. On the other hand, a very light mechanism may do the work. Make choices: You do not have to measure or assess everything imaginable. Especially when you use assessment for inherent purposes, it might be more valuable to focus on specific indicators that are useful for the moment of the assessment. In order to understand what happened it is necessary to combine measurement with narrative assessment.

Chris Mowles: ...In development there is far too much assessment, and far too little sense-making of the assessments. People spend a lot of time collecting data and don't make enough sense. When I was in Bangladesh for an organizational assessment, I found out it was the fifth or sixth assessment.

Combine measurements with narratives and sense-making

Logical framework methods are not sufficient for monitoring and evaluating knowledge management strategies; organizations (as human systems) are typically non-linear systems. Knowledge management strategies work through different interventions, with different kinds of people, and are implemented for different reasons and with different objectives in mind. Consequently, a monitoring and evaluation strategy has to be uniquely designed in each case. There is no blueprint solution or best method. Narrative methods can help to enhance understanding of the effect of the KM activities across the ripples of our model to changed practices and improved performances. In combination with measurements ‘that focus on quantitative indicators’. Finally there is a need for sense-making; without sense-making, monitoring and evaluation will not contribute to improvements in the strategy.

Link to available data and regular monitoring and evaluation

A lesson from the development sector experiences and non-profit sector alike is that monitoring and evaluating knowledge management strategies may, as much as possible, be linked to using data that has been generated for other purposes, or data that is readily available in the organization. All development organizations have an extensive system for general monitoring and evaluation. Given the lower investments in knowledge management strategies, it may not be worthwhile setting up

special data collection exercises to get information about improvements in the performance. However, these data may be used in combination with collected narratives about how knowledge management strategies have contributed to improvements in performance.

Part 6 Monitoring and evaluating knowledge management strategies: Some considerations for designers

How can you design M&E for knowledge management strategies? How can you use the Ripple model as a framework for the design? We are convinced of the value of deciding to monitor and evaluate early on in the design process. Some reasons for this include the following:

- Thinking about the intended impact beforehand is an important steering mechanism in designing the knowledge management strategy; it clarifies expectations.
- When you have determined the intended impact beforehand, you know where to look for it.
- When you decide at the very beginning to conduct monitoring and evaluation activities, you avoid ending up in a situation where it could simply be used for hidden agendas, like ending the support.

In table 2 we present twelve important decisions that will have to be made about monitoring and evaluation. For each, we outline some aspects that should be considered when making those decisions. We think that the practice of monitoring and evaluating knowledge management strategies will be helped if these decisions are taken more consciously and proactively.

Phase 1: Questions to consider at the start	<ol style="list-style-type: none"> 1. Is it important to formally monitor and evaluate the impact or not? 2. To monetize or not? 3. What is the main purpose of the impact assessment? 4. Who is the owner? Who judges? 5. Who is involved in the design process?
Phase 2: Focus of the M&E	<ol style="list-style-type: none"> 1. What kind of change processes are we measuring? 2. Do we measure all the way down? 3. Which indicators do we use? What can we measure? What do we assess?
Phase 3: Selection of methods	<ol style="list-style-type: none"> 1. Do we use retrospective techniques or baseline studies? 2. What mix of methods is appropriate?
Phase 4: Presenting and learning from the results	<ol style="list-style-type: none"> 1. How are we going to present the results? 2. How are we going to read the assessment?

Table 2: *Decisions to make about monitoring and evaluating knowledge management strategies*

1. Is it important to monitor and evaluate or not?

Whether or not to invest in formal monitoring and evaluation mechanisms should be a conscious choice. Not carrying out a formal assessment does not mean that there is no impact. Is it worthwhile? What do we expect to gain from monitoring? What decision will we make on the basis of the outcomes? In the decision to invest in impact assessment or not, it is also important to consider the assessment costs and likely outcomes.

2. To monetize or not to monetize?

Do we want to monetize the value? If so, how? Monetizing the value of a knowledge management intervention may be important for calculating the return on investment - comparing the cost of knowledge management strategies and their impact. Social Return on Investment uses monetization by asking the people involved to try and monetize the value. However, the risk of monetization is an over-simplification of human change, with the risk that the figures become meaningless.

3. Is the main purpose extractive or inherent?

It is important to know the main purpose of the impact assessment – is it primarily an inherent assessment undertaken by the participants with the aim of improving what they are doing, or is it an extractive assessment that ‘extracts’ information for interested outsiders? In the case of an inherent assessment, it is important to use the perspectives of the professionals involved in the KM intervention. Often, there will be decisions made on the basis of the assessment. Try and formulate the decisions to be made beforehand, and then select an appropriate measurement process. If on the other hand the purpose is to collect evidence for a sponsor or donor to demonstrate that a knowledge initiative is working or not, it may be best to inquire what kind of proof is needed and to choose your methodology accordingly.

4. Who is the owner? Who judges?

Who wants to monitor? There must be clarity about who monitors, who documents and who judges. A traditional approach is to call in an external consultant for the evaluation and to make a judgement about value (most often using participatory methods), at the other end there is the practice of self-assessment. Joint inquiry is somewhere in the middle. An extractive assessment calls more for an external assessment than an inherent assessment. An inherent assessment can be lighter, because reading the impact is undertaken continuously by the professionals engaged in the intervention as well as by managers. One important recommendation is to make sure that when you want to design an assessment approach from a learning perspective, it would be wise to have ownership over the finances involved in the assessment and to use self-assessment. This gives you the freedom to design the assessment in a way that addresses your learning questions.

5. Who should be involved in the design process?

You could design the assessment together with the participants, sponsors and facilitators. In this way, developing the assessment is an intervention by itself that helps to clarify expectations. Thinking of 'indicators' for the success of the strategy beforehand can support the learning process. In the case of an extractive assessment, it is important to start from the point of view of the external sponsors. This 'relational' approach increases the chances that the assessment will address key questions held by the different people involved.

6. What kind of change process are we measuring?

Being able to identify the kind of change process we are dealing with is the first step towards finding the right approach to assessing the impact. Williams: *Many evaluators acknowledge that most of their work focuses around complex adaptive, rather than simple or chaotic systems. The implications are hence profound: evaluations need to be dynamic and flexible: 'Specifically, they should capture an emerging model of causal relationships, evaluate and revise the evaluation design often, and learn from the 'noise' in the system... They need to be able to observe evolutionary change in individual and system-wide behaviour over the course of an assessment period. And they need to be able to respond to and observe emergent patterns.*

7. Do we measure all the way down?

How far do you think you can go by measuring the impact of knowledge management? With the ripple model we present four layers: activities realised, capital created, practices changes, and performance improved. We would all probably want to make the link between knowledge management and performance improved which calls for narrative techniques that can help make the linkages clear. The ripple model as presented can be helpful to make a choice - do we simply want to monitor the changed practices? Or do we intend to link these to improved performances? The choice may also depend on the (easy) availability of data about performance, going into data collection is usually really cumbersome.

8. Which indicators do we use? What do we measure? What do we assess?

When you know the main focus of your M&E, you might describe for each 'ripple' the most important indicators for measuring the impact. When are you satisfied? And what is an indicator that gives information on the manner in which you have achieved this? If you are satisfied when professionals in the community, after two years of working together, have a stronger ability to reflect on their own behaviour and learn from that (e.g. capital created), you could use the following as indicators:

- the number of changes or improvements they have made in their work processes;
- practical insights derived from focused reflection on a specific project;
- types of questions they ask each other while sharing experiences.

But sometimes the use of indicators set in advance is not possible:

One of the authors is helping to stimulate a learning culture in a South African research institution. The approach taken is to support learning processes by stimulating internal social capital. The core of the work is to support employees in creating effective personal and working relationships with colleagues. How is the impact of this work being measured? It is difficult to set up standard indicators in advance, particularly as the initiative aims to work with relational capital – which is tacit by nature. So the consultants agreed with the institute to a continuing process of documentation and dialogue, through which the steps taken and the results achieved are documented after every intervention and discussed so as to create shared meaning and understanding. This is best understood as an ‘emergent’ approach to creating clarity and shared understanding around impact.

9. Retrospective techniques or baseline studies?

We distinguish between three types of methodologies that differ in their basis for measuring change:

1. Baseline-based methodologies - use baseline studies and repeated measurement to be able to detect progress/change;
2. Retrospective techniques - use interviews to formulate change by looking back; and
3. Documentation techniques - use meticulous documentation to track changes over time.

Mathieu Weggeman: Without zero-measurement a measurement is nothing. You need a reference. You take several interventions, and measure the impact again after half a year. You need to be self-critical as an organization, open for feedback, need the courage to say 'This is something we can improve.'

Baseline methodologies are important when trying to measure two different states. However, they should be used intelligently. Baseline studies are not appropriate for capturing unknown effects, whereas retrospective methods have the advantage of being able to capture all developments that become known in retrospect. The disadvantage of retrospective techniques is that you cannot fully trust human memory. Therefore, documentation may be an important technique for monitoring developments over time.

Chris Mowles: Retrospective sense-making is the strongest method because a week into the interventions you begin to understand it differently. But people tend to forget what they thought a year ago, therefore you need documentation to track the evolution of our thinking. Baselines are problematic because you are using natural science methods applied in social science. But not impossible, if you want to try to track causality you can use it.

10. What mix of methods is appropriate?

The choice of measurement method depends on several other decisions you have made so far in the design process. Are you designing a formal or an informal measuring process? Is the purpose of the measurement extractive or inherent? On which level do you want to measure? Are you looking for a

participative approach or not? What 'language of learning' is used? There are many different kinds of methods. Stam (2002) distinguishes between (1) anecdotic methods, (2) financial methods, and (3) the use of indicators. Anecdotic methods are suitable for qualitative approaches. Financial methods are characterized by formulas and numbers. Stam says: *Because this type of reporting is quantitative, it also seems to be objective. We forget that in quantitative reporting there are as many assumptions at stake as in qualitative reporting. However, by using numbers and figures we connect to the dominating accounting convention.* The third approach is a pragmatic mix of the other two. By using measurable indicators, you speak a familiar language to managers. *The difference with the financial approach is that the focus with indicators is on the process instead of the result. The core of the indicator approach is the conviction that the value is in the common interpretation of numbers. Indicators should, in the first place, be seen as input for internal communication.*

James (2002) argues for using a range of methods in order to triangulate and verify findings. Taylor and Soal (2003) notice that the problem is often not in the quality of models, but the 'slavish application in all situations'. Hence the choice of a method or mix of methods should be one that suits the evaluation at hand. In the end, a method cannot be a substitute for a good design. Throughout this publication we have illustrated various methods in boxes.

11. How are we going to present the results?

Most of the time the report is the document which brings together all that accumulated information and knowledge and, regardless of whether it is 30 or 100 pages, it will have an all-important summary. Despite the effort put into such a document very few people will read the full text, with the majority referring only to the executive summary (Adams, 2007). Anecdotes abound of how reports, once shared, languish on desks for several months before being archived, never to see the light of day again. How should your impact assessments be used? When this is a collaborative process, in which the results of the impact measurement are analysed and interpreted, collective learning has taken place. People know what to find in the document, and might use it as a reference tool. Continuous conversations between the knowledge actors and the outsiders like donors/sponsors about the link between the initiatives, changed practices and organizational performance may be needed as reports.

12. How do we read the assessment?

From the perspective of knowledge management as a social learning process it is more valuable to look for ways to stimulate dialogue, interaction, collective analysis and interpretation. Make the design of meaning-making part of the design process as well, by incorporating participatory learning or reflection meetings as a particular part of the whole process. Think of the people you would like to have involved in this meeting, and the methods to be used for stimulating dialogue and interaction. Such a meeting might be a lot more than just collecting comments on a first draft of the report.

Part 7 Issues for future research

What are issues emerging from this research that need further elaboration? In our view, the following questions might need follow-up to even better understand the practice of M&E in knowledge management in development.

1. How are knowledge management strategies chosen and what are predominant strategies?

Most literature we found is based on scientific research or the personal opinion of the authors. It might be valuable to make practices with knowledge management strategies within the development sector more explicit. What strategies are used, and in relation with which organizational or sector-wide question? And how is a certain strategy chosen or designed? How does the design process of such a knowledge management strategy look? Are there important knowledge divides that are not bridged by the strategies?

2. What capacities do you need as an organization to use monitoring and evaluation of KM strategies as an (inherent) learning intervention?

The value of assessment as a learning intervention lies in the way you share impressions, insights, thoughts and ideas with each other. How do you perceive feedback? How do you have a dialogue in which you use double or even triple loop learning? What capacities do you need as an individual and as an organization for really learning from assessment?

3. What might the impact of knowledge management be on the north-south relationship?

As many professionals say, knowledge management requires a relationship based on trust and confidence, which are necessary for mutual learning. Knowledge management might also influence the relationship in a positive way, working towards an atmosphere in which north and south are more equal and might share ideas, learning insights and knowledge. It seems like a 'chicken and egg' story, but it might be very valuable to understand more of these dynamics in order to improve our relationships towards mutual learning instead of donor-recipient.

4. How do leaders in knowledge management strategies and interventions gain support for their strategies?

One of the assumptions in this question, and one that we challenge towards the end, is whether rigorous monitoring and evaluation will create the type of evidence that will gain support for knowledge management. How do leaders currently gain support? What works? What does not? What are the consequences when they fail to gain support?

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Annex 1: List of persons interviewed

In alphabetical order of surname:

- | | |
|---------------------|---|
| Nancy Coulson | - Public health practitioner and consultant, Johannesburg, South Africa |
| Peter Das | - Consultant at Context, International Cooperation Consultants |
| Scott Drimie | - Regional Coordinator Southern Africa, RENEWAL network, Johannesburg |
| Alan Fowler | - Co-founder of INTRAC, organizational adviser in international development |
| Irene Guijt | - Director/Owner, Learning by Design |
| Rick James | - Principal Consultant, INTRAC |
| Chris Mowles | - Principal Consultant, Red Kite Partners |
| Chris Roche | - Director of development effectiveness, OXFAM Australia |
| Donald Ropes | - InHolland University of Applied Sciences, The Netherlands |
| Christiaan Stam | - Associate Lector, InHolland University of Applied Sciences, Netherlands |
| Josine Stremmelaar | - Coordinator of Knowledge Programme, HIVOS |
| Jan Ubels | - Senior Strategy Officer SNV |
| Jean-Michel Vigreux | - Regional Director CARE Southern Africa, Johannesburg |
| Mathieu Weggeman | - Professor at the Technical University Eindhoven, The Netherlands |
| Etienne Wenger | - Consultant and writer about communities of practice |

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