KM and ROI

Many knowledge management champions or knowledge management team leaders have found themselves in the position of being asked, by their management, to estimate the return on investment that a Knowledge Management Implementation program might bring.

Many have found this a particularly difficult request. How can you quantify the benefits of something like knowledge management? How can you define KPIs, ROIs, and other metrics, for such an intangible variable? It feels like estimating the ROI for teamwork, or for risk management, or quality management.

However it is not unreasonable for senior management to ask for some reassurance that they will "get their money back" from KM. You will be asking them to make a significant investment, you will be asking them to set up a program, with a full-time team, you may be asking for some investment in technology, and you will certainly be asking them for an investment in change management.

You can't blame them for asking you what they will get for their money!

Why calculate ROI?
You need to make a business case for knowledge management, when you're asking for investment. Decisions are not necessarily made on the basis of the business case – there may be many other motivations for investment - but they are often justified on the basis of a business case.

There are two main points at which you need to think about ROI. These are

- Prior to investing in KM in the first place, and
- Prior to rollout.

Prior to any investment in KM, you can't calculate ROI at all. You need to make the case for KM by analogy with other companies, and what they have been able to deliver (see some of the examples below, and see our free guide to making the business case). The investment you are asking for at this stage is fairly minor, but the most important thing is to ensure that you get enough funding to be able to run some pilot projects where you can actually measure KM ROI, as described below.

It is the ROI on those pilots that will help support the second decisions - to roll out KM across the organisation. If the pilot ROI is high enough, then senior managers will commit to KM.

In an ideal world, once that commitment is made, you would not need to measure ROI again. After all - which companies still ask you to justify continuing with risk management, or financial management, or project management, on the basis of ROI? However KM is still fairly new, and you may need to keep attention on the value delivered by KM, until it is fully embedded in the culture.

Is it important to measure KM?

Since we were children, we all were educated for two things: compete and measure everything. We did it at school where very early, we establish student rankings based on the grades they obtain in the exams. We also competed and performed all kinds of measurements in
sports and games. It would be strange to watch or play a football game without keeping score or without a clock that tells you who is winning or how much time is remaining. Nor could we imagine a child who has does not know his school grades.

As adults, once we step the workplace, our obsession to compete and measure everything only increases. The purpose of any organization is to meet its goals and achieve the promised results. As they say, "if you do not measure it, you cannot manage it". Companies are managed by looking at numbers and interpreting indicators that inform of the progress towards achieving their business goals. Decisions, for better or worse, are also made from these numbers.

**Do we have to measure knowledge?** Knowledge is one of the main assets of the organization and in the case of service companies, is their only asset. In addition, knowledge is directly responsible for its results. Therefore, any business needs to know how much "stock" it has of that asset, what is the best way to make the most advantage of it, if that asset is at risk and how much knowledge will be needed in the future to meet their goals.

**How can we measure knowledge?** Knowledge has, among many others, two essential characteristics: 1. it is an intangible and 2. It is a means and not an end in itself. Therefore it is not easy to measure knowledge with numbers, and it makes no sense to measure knowledge directly. We need to measure it indirectly, by measuring the impact it has on the results we really want to achieve.

**Do traditional tools allow us to manage knowledge?** Companies have traditionally armed themselves with sophisticated management systems and tools that allow them to monitor their "vital signs" continuously. What usually happens is that such systems and tools were never intended or designed to manage the intangibles of the organization, specifically their knowledge. Much of the time, knowledge falls beyond the reach of the organizational radar. What we are measuring today is what our current tools allow us to measure but not necessarily what is really most important. That's why Knoco has developed tools to measure how well your "stock" of knowledge is being managed, and also whether you have the enablers that allow knowledge "flow".
How can we measure knowledge management and its impact on the organization? In the next section, we describe a formula where you establish a baseline, work out a desired outcome, introduce knowledge management activities and measure again afterwards to determine if metrics have improved. It is important to realize that knowledge is always one of the causes (sometimes is the only cause) of any business problem and therefore, it's also a vital part of the solution.

**What challenges do we have for the future?** Since today we are still trying to measure knowledge using implements that were never intended for that task, the challenge is to develop specific indicators and tools to manage knowledge in organizations. This requires us to begin asking, in the first place, what is important to measure, how that can be measured and subsequently, devise methodologies and tools that allow us to do so. We can be sure that knowledge will always be one of the main elements to be measured and consequently, to be managed.

### How to calculate ROI from pilots

As we said above, the key point for you is to be able to calculate ROI on some business pilots, as it is on the basis of this calculation that senior managers will make their decision. For example, when we were at the piloting stage in BP, the executive committee challenged us to deliver $100m in value through pilot projects in a single year, for an investment of about $2.5m. That was their test, and as history records - we passed.

So how do you measure the ROI on a pilot project?

- Firstly you need to understand what the business metric will be. Will you help the project to save money, or cut time, or increase production, or improve quality, or some other business outcome.
- Secondly you need a baseline measure. Whatever business metric you choose, you need to know what the baseline is, so that when you add KM, you can see an improvement.
Then you do the work. Introduce KM, share and re-use the knowledge, apply the processes, use the tools, and deliver the value.

You need some objective measure of the delivered value. Ideally you would use the normal business reporting methods. If the project was shorter than normal, that should be reported in terms of meeting the deadline. If it saved cost, that will be reported through the financial channels.

Then you need a measure of the investment. This will be a total of the manpower and travel costs from the KM team, plus any investment in technology, plus any additional work needed by others in the business.

Finally you need to put all of this together into an ROI story. Get someone from within the business to tell the story - record them on video if you can - as the story will have more authenticity coming from them than it will coming from the KM team.

So the answer is actually very simple. You find a baseline, add KM, and show improvement against the baseline, which outweighs the KM costs.

People often ask "how can you demonstrate that the difference in performance is due to KM?" After all, success is created through many things working together. However, if KM is the only difference - the only thing you introduced to the pilot - then you can claim it was a key component of the added value. You can back this up with as many anecdotes and examples of how KM helped deliver the value - stories of lessons re-used, of knowledge gained from others, or of new solutions brought into the project through KM activity.

### ROI and the impact on strategy

Evaluating return on investment is difficult, although there are methodologies that help, and the "European Guide to good Practice in Knowledge Management - Part 4: Guidelines for Measuring KM" is a great resource.

The challenge comes from the fact that...
many of the benefits of Knowledge Management are intangible, thus making them difficult to measure and include in an ROI calculation. Many organizations measure activity, e.g. the number of communities, or the number of people participating in After Action Reviews, which while useful for some things, is not a meaningful way to measure return on investment. Regardless of the challenges in measurement the questions of, 'how soon can the organization expect the investment to start paying off?' and 'how can the ROI be maximised on an on-going basis?' do need to be answered.

Return on Investment is best measured by understanding the relationship between Knowledge Management and the business strategy, i.e. what impact is the organization looking for in implementing KM, or more simply said, "why is the organization implementing knowledge management?" Some examples might be shorter time to market with new products, improved customer retention, more projects on time and on budget. Being clear about the why of KM, will help determine what the appropriate measures and metrics are and ultimately the ROI.

It is critical to collect baseline metrics and measures when first starting out with KM. Completing this baseline allows the organization to know where it is starting from and it also then knows the inputs to the ROI calculation. Knowledge Management can start to show some benefits immediately, although they may be anecdotal initially, until a critical mass is achieved. For instance, stories will start to circulate about people finding information they did not know existed, or connecting to people within the organisation they were unaware of. However, it could be 12 or more months before dollar values can be attached as answers to these questions and an early ROI determined.

Ideally, calculating an ROI at the three and five year marks is more meaningful as benefits have accrued and metrics and measurements have been gathered.

Some examples of ROI from KM
Nick’s blog has a collection of Knowledge Management success stories, some of which can be turned into ROI calculations, as shown below.

The Siemens ShareNet system was in use by 12,000 salespeople in Siemens’ Information & Communications Networks Group, which provides telecom equipment and services. The Knowledge Management framework at Siemens was reported in 2001 to have added $122 million in sales, for an investment which included $7.8 million spent on ShareNet. That’s an ROI of 15000%.

According to CIO magazine in 2007, Shell International Exploration and Production attributed more than $200 million in direct costs saved and additional income in 2002 to the use of its on-line communities of practice. Shell’s Arjan van Unnik estimates the annual cost of the KM system at about $5 million, with the majority of that sum going toward engaging community members. “The cost is man power,” he says, including two to three full-time employees per major on-line COP (of which Shell has 12). But with an estimated annual return of more than $200 million, the ROI is 4000%.

Research from the Cisco Internet Business Solutions Group shows that in fiscal year 2008 Cisco used collaboration to reduce costs by $251 million, to increase profit margin by $142 million, and to generate time savings for employees worth US$380 million. The total cost to achieve these benefits was just $82 million, resulting in overall net savings of $691 million, and an ROI of 840%.

The Schlumberger knowledge management system is based around a technology called InTouch, developed in the late 90s for $160m. However according to this brochure it delivers direct cost savings of more than USD $200 million per year as well as substantial intangible benefits. The service has improved response time by 95% for resolving technical queries, and by 75% for deploying engineering modifications globally. These reductions translate directly into improved operational performance and service to customers. There is a KM framework built around InTouch, but if we assume 10 years savings for $200m for a $160m investment, that’s an ROI of 1250%.
And finally, our "year of pilots" at BP yielded a mid-range value estimate of £260m, for a two-year budget of $5m. The value came through a reduction in build cost of gas stations, a reduction in cost of refinery turnarounds, and several other similar pilots. That's a return on investment of 5200%.