Knoco Newsletter

March 2013 - 5 Flavours of Knowledge Management

Knowledge Management is not a one-flavour issue. Although the principles are always the same, each industry applies a different KM Framework, with its own emphasis and style.

However as our articles show, there is always potential for improvement!

Flavour 1 - Knowledge Management in software engineering

Many software development nowadays uses the Agile development process, an iterative process where the software progresses towards completion in a series of learning steps, rather than a linear process. Agile, with its iterations and scrums, is well suited to Knowledge Management and to informal learning.

After Action Reviews can be added within the iteration cycles, to ensure that the teams are constantly learning as the software Facebook, and project Retrospects are also a common part of the learning process for Software Development teams. Software developers are also natural users of online networking, and software development communities of practice are easy to set up, and almost run themselves. Think of the open software community on the World Wide Web - this is an example of a knowledge sharing...
community. Even basic technical problem solving uses a search of forums rather than reference to a specific manual.

The area of biggest focus for KM within the software development world lies outside the iteration cycle, and is linked to the transmission of knowledge along the supply chain. In the leading KM companies, this will include:

- Effective transfer of knowledge about the customer requirements (particularly the customers real needs, rather than a list of functionalities). This is often achieved by running a wiki or blog alongside the prototype versions,
- Effective documentation of the Basis of Design of the software, as well as the "as-built" design, and the reasons why the "as built" design was chosen,
- Effective transfer of knowledge to, and between, the technical support staff, potentially as a living blog- or forum-based system.

Once these three areas are consistently addressed, Knowledge Management in Software Development will be up with the global leaders.

Flavour 2, Knowledge Management in Oil and Gas

Oil and Gas was, in many ways, the birthplace of modern Knowledge Management. Companies such as Shell and ConocoPhillips have been on the MAKE awards list for over a decade, and have fully-embedded KM frameworks which have been adding value on a billion-dollar level. The basic KM model for Oil and Gas companies consists of

- **Learning Before, During and After projects**, to identify, re-use and embed lessons (Shell call this cycle "Ask, Learn, Share")
- **Communities of Practice**, to create and transfer knowledge through the organisation
- **Company experts, technical authorities or internal consultants** to maintain and promote the company knowledge base.
Oil and Gas is however more than one type of business. There are the one-off, high risk and high cost projects, there are the continuously operating refineries and chemical plants, and then there is the customer-oriented retail end - the gas stations we are all familiar with. Within each of these three divisions, the same KM components may see different emphasis, and so develop it's own local flavour.

### Flavour 3, Knowledge Management in Legal Firms

![Stephanie Barnes, Knoco Canada](image)

In many law firms knowledge management starts in the IT department, and in a few cases, the library and like in many other organizations is focused on document management and technology. Also in common with other organizations law firms are dealing with pressure to reduce costs, be more efficient and effective for their clients, address issues of an aging workforce, and the technology demands of freshly minted lawyers who expect near instant access to knowledge.

According to [leading KM lawyer Steve Lastres](http), lawyers see knowledge management as a way to:

- Give the firm a competitive advantage since the firm's know-how becomes more easily accessible
- Increase productivity: lawyers don't waste time searching for information
- Improve practice support by fostering collaboration
- Speed response time to client requests
- Provide an on-ramp for junior lawyers to get up to (billable) speed more quickly
- Help integrate the "practice of law" and the "business of law"

However, unlike most other industries, KM in law firms rarely incorporates learning from experience, using techniques such as After Action Reviews, Lessons Learned processes and databases. Partly this legal model is a result of conservatism; the firm's CKO is often a lawyer, and the main people on their teams are other lawyers and librarians. This lack of diversity and lack of KM specialists may have led to the focus on documented knowledge. By not including the learning aspect of KM it seems to me that law firms are missing...
something.

One of the presentations that I attended at KM World 2012 was Eric Hunter’s, "Innovation, Change Management, & Business Optimization." Eric Hunter is another leader in the law firm KM sector. What they are doing at his firm is moving towards that learning objective through collaboration and social technologies.

There is a shift coming, however. Law firms are starting to look outside their industry to see what lessons they can learn from other industries and from KM specialists. I have been doing a series of workshops and webinars for law librarians. The participants in these sessions have been engaged and interested to learn the lessons that I have to share from my experience in other industries. And I have been glad to share my experience and let them know that they are not alone, that the challenges they face are the same challenges that any KM leader faces; somehow there's comfort in that knowledge.

Flavour 4, Knowledge Management in Mining

Perhaps the best indication of the type of KM model that will work effectively in mining comes from De Beers Marine. Operating a fleet of large mining vessels deploying large diameter drills and sophisticated seabed crawler technologies, it represents a "cross-over" operation positioned between the worlds of mining and oil and gas. This means that the KM model from oil and gas proved to be very effective. Through applying Peer Assists, Retrospects and After Action Reviews on a project basis, De Beers Marine could target the elimination of waste and inefficiency in systems through more effective learning and the reuse of knowledge gained. As a result of improved learning capability major projects came in ahead of schedule, on budget, performance improvement in sampling efficiency was delivered, operational downtime was reduced and extraction efficiencies improved, leading to dramatically reduced cost and time requirements whilst improving safety.

Innovation in Exploration

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In 1936 Fred Nobs, the longstanding General Manager of the Empire Gold Mine in Grass Valley, California commissioned what is believed to be the first 3-dimensional model of a complex Orebody. The model was used by the mine planning team to guide and optimise new underground development. It also led to the discovery of the Newmont Vein, which was to become the backbone of a new company - Newmont Mining. Almost 80 years later, Goldcorp would issue a challenge and a prize across the world using the internet to release prospecting and production data from a dying mining operation. Once again, 3-D visualization would be used to discover a vast, new gold resource at virtually no cost. It would become an early example of the dramatic success that open innovation can deliver.

These stories underpin the enormous hidden value contained in "orebody knowledge", allowing mining knowledge to be brought together and made visible, with the aim of finding new and innovative opportunities to deliver value.

**Operational knowledge**

Operational continuity from producing mines is a top priority across the industry. An unforeseen event paralyzing the production process, even for a few hours, can result in $ millions being taken off the bottom line through lost production, and also potentially endangering the safety of people or seriously damaging the environment. Such risks are commonly found to be directly related to human behaviour and the way in which knowledge is or is not reapplied. In the current economic climate insurance companies assessing claims are increasingly looking for evidence of effective Knowledge Management - if they are not in place, premiums can increase substantially.

**Challenges for mining**

Several factors suggest that the mining industry has a long way to go with Knowledge Management. For example, inadequate focus is often given to closure of learning loops to ensure that lessons learned and best practices are converted systematically into continuous operating procedure improvement. In addition, relatively few success stories of major value being added by communities of practice are being published. At the same time, core Knowledge Management teams are being cut-back at a time when they should be seen to be adding crucial value to business sustainability in a hostile economic climate.

The results from De Beers Marine, and from the Innovation examples above, lead us to think that KM remains a golden opportunity for the
Flavour 5, Knowledge Management in Sales and Marketing

Firstly, you can’t treat Sales and Marketing the same when it comes to KM. They operate differently, they need different knowledge, and they need it in different contexts.

An effective knowledge-enabled marketing company will have an excellent library of market knowledge, compiled from extensive research, which allows them to confidently target market segments with their new material. They will have developed and deployed their own best practices in effective marketing, and will have global brand-focused communities of practice, enabling them to tap into each others’ expertise at a moment’s notice.

An effective knowledge-enabled sales company will concentrate on getting the best possible knowledge to the customer-facing frontline staff, to allow them to maximise their sales. Sales staff that work “on the road” will be provided with mobile devices linked into the company knowledge base, they will access a good CRM system that gives them the knowledge of each client, and they will be provided with knowledge of the product, the market, the consumers, and their competitors. Then if they need more, they will have access to a sales CoP and/or a help desk. The best sales performers will be the mentors of the junior staff, sharing their knowledge so that total sales can rise.

That’s KM for sales teams “on the road;” companies that sell through bids and tenders take a different KM approach, more akin to the project-based knowledge management described above for Mining and Oil and Gas. The bid team will learn before (learning about the product, the client, the possible solutions, and the processes of bidding and negotiating), they will learn during (through access to a Bid CoP), and they will learn after the bid (regardless of whether it has succeeded, or whether it has failed) in order to draw lessons to improve future bids.

Tom Young, Knoco UK
Conclusions

Knowledge Management comes in many flavours. We have explored five of them here, but your industry may be different, and will probably need a flavour of its own.

Although Knowledge Management is governed by a set of universal principles, the way those principles are applied varies; from industry to industry, from country to country, and from company to company. Your Knowledge management Framework has to be tailored to your context if it is going to deliver the value you require.

Knoco can help with this - we have designed dozens of customised KM solutions. Drop us a line - we can help.