

# **Knowledge Management and Setting up of Effective Communities of Practice**

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## **ABSTRACT**

Today's competitive environment is more knowledge intensive than ever, showing continuous shifts in business process that characterizes the current "Knowledge Age." In order to introduce KM and to develop the right culture for knowledge sharing, OMV E&P has embarked on an ambitious program. One of key KM initiatives has been to establish Communities of Practice (CoPs) which are rolled out to all its worldwide E&P subsidiaries. CoPs are global knowledge sharing E&P teams, connected via an online platform "E&P Connect".

## **INTRODUCTION**

In today's highly competitive global organizations, we are in an era characterized by constant change and complex systems or processes, where knowledge centric activities are becoming the primary source of sustainable competitive advantage. In other words, in order to add real value to their organisations, managers must seek to identify, manage and leverage company's knowledge. Thus "Knowledge Management (KM)" becomes an emerging discipline which aims to leverage "information" across the entire organization, for improving decision making, increasing Innovation, and attain competitive advantage. CoPs associated with KM have proved to be very effective and have been successfully deployed in many knowledge intensive global organizations. The paper will address and clarify Knowledge and knowledge Management concept, moreover it will present CoPs and how it is currently functioning in OMV E&P.

## **KNOWLEDGE**

What is knowledge? That is the most frequent question asked by people interested in KM. The discussion about knowledge has a very long tradition. More than 2 thousands years ago, Socrates asked the same question to his students, "What is knowledge? Why do we have to know what Knowledge is?" [1]. Human civilizations have been preserving and passing knowledge from generation to generation for a better understanding of the past and therefore, the future. In today's dynamic and complex business environment, the thirst for knowledge has increased even more with the scope and content changed dramatically, often spreading outside the organization. Polanyi [2] coined the term "tacit" and divided knowledge into tacit knowledge and explicit knowledge based on the degree of expression and says "We know more than we can tell" [3]. Maybe Polanyi's [4] distinction between tacit and explicit knowledge is the fundamental contribution. Tacit knowledge is the knowledge embedded in people's mind, usually easy to observe but hard to formalize and communicate to others. A good example is the knowledge on how to ride a bicycle or drive a car. Where as explicit knowledge can be easily captured and stored, hence it can be transmitted and communicated to others. The most common form of explicit knowledge is manuals, documents, procedures etc.

## KNOWLEDGE MANAGEMENT (KM)

The term Knowledge Management was used by Karl Wiig, for the first time in a presentation in 1986 [5]. It is important to understand that KM has not evolved out of a set of formal methodologies. As a concept Sveiby [6] claims that in the mid 1980's researchers and practitioners all over the world started to be interested in the role of knowledge in organisation. KM is not one single discipline. Rather, it an integration of numerous endeavors and fields of study [7]. Quaddus, & Xu [8] has quote the following from the work of Duke et al., [9] stating that "Much of the Knowledge of the Greeks and Persians was preserved in Arabic translations, following the fall of these empires to the expanding Islamic Empire. This knowledge eventually reached the monasteries of Europe where monks, who could be termed knowledge specialists, preserved and translated these works for contemporary scholars and future generations". The above quote highlights that the practice of managing knowledge is not new. Coombs et all. [10] defined knowledge management as specific routines that shape the knowledge base of the firm and make it accessible in the innovation process. Sveiby [11] defines that knowledge management is 'the art of creating value from an organization's intangible assets'. O'Leary [12] states that Knowledge management (KM) is defined as the formal management of knowledge for facilitating creation, accessing, and reuse of knowledge, typically using advanced technology. Nevo & Wand [13] says Effective management of knowledge is critical to collaboration and knowledge sharing in organizations. Taking these definitions into consideration KM can be considered to be a systematic and organized attempt to use existing knowledge to create new knowledge thus improve performance and attain perpetual competitive advantage.

## KNOWLEDGE MANAGEMENT IN OMV E&P

OMV Exploration and Production (E&P) is one of the three core businesses of the OMV AG – alongside Refining and Marketing (R&M) and Gas and Power (G&P). With a daily production rate of approximately 316,000 boe, OMV is the biggest natural oil and gas producer in Central Europe. OMV entered the international E&P business in 1985 through exploration in Libya. Currently the group has a balanced international E&P portfolio on five continents, divided into six core regions: the Danube and Adriatic region, Northern Africa, North-West Europe, the Middle East, Australia/New Zealand and Russia/Caspian region. KM department was formally established in OMV E&P in Jan 2007, as a result of the implementation of new Information Services strategy. Key guidelines and objectives for the new department were set in the strategy. The Vision set for the new department:

“Engrain Knowledge Management practices in everyday business”.

One of the key initiatives set for the new KM department was setting up of Global CoPs. By December 2007, 12 CoPs were established and many more were planned for 2008. Members' registered for different CoPs exceeded 900. During the first year after its inception the CoP initiative was acclaimed in annual E&P day event and was nominated for a prize. A description of CoPs and how they are implemented in global OMV E&P organization is given hence forth.

### a. Communities of Practice (CoPs):

Communities of Practice (CoPs) are group of people that have a common interest in some subject or problem and which collaborate to share ideas,

find solutions, and build innovations. The term was founded based on the work of Barbara Rogoff (1985) and . CoPs has become associated with KM as it is being used for nurturing new knowledge, stimulating innovation, or sharing existing tacit knowledge within an organization. Within CoPs an effective way of sharing tacit knowledge is via story telling, as it gives listeners a theme to understand and remember. CoPs are also effective in establishing international teams as with globalization, many organizations are increasingly turning to them to improve their effectiveness when operating in the modern distributed international environment [14,15].

Some key CoPs benefits are:

- You have the ability to learn what others know and to share what you know
- You have the ability to get the information you need quickly
- You have a network of people to count on
- You can learn from best practices
- You get recognition for what you contribute

#### b. OMV E&P Communities of Practice

With operation in 20 countries and five continents, OMV E&P subject matter experts (SME) are spread all around the world. An expert required in Australia may be working in UK or some other country in Asia. Each E&P subsidiary during the course of exploration and production undertake similar projects and hence face common challenges. To enable Knowledge sharing at a global level and to address some of these challenges, CoPs are established with the following mission:

“To establish a platform which will facilitate knowledge creation and sharing culture; it will help to identify and develop best practices, improve company business processes, and will be used to exchange ideas and to address and solve technical problems”

Fig. 1 illustrates the current and future CoP setup in OMV E&P. The vertical bars represent CoPs which have been established based on E&P disciplines and skill pool areas. The horizontal bars shows CoPs to be established based on key technology areas, these CoPs will constitute multi disciplinary team members.

CoPs allow its members to interact face to face and also virtually through an online web based platform “E&P Connect”. As face to face allows occasional gettogether due to global nature of teams, the virtual platform allows members to always remain in touch with one another. To participate in a CoP, membership is requested which is usually granted through the approval of a CoP leader. One or two leaders are assigned to all CoPs. The leaders play an integral role to ensure that CoP is always active and in use by the members, its contents are up to date and that there are no questions or discussions topic postings which are unanswered.

Fig. 2 illustrates “how CoPs work” by listing the responsibilities of CoP leader and members.

c. CoP Online Platform features:

CoPs are hosted on “E&P Connect”, a web based system developed using Microsoft Office SharePoint Portal Server. It is accessible via OMV worldwide network and from the Internet. The system does not require a username and password when logging-on from OMV network.

Fig. 3 illustrates Geosciences CoP. Given below is an overview of the current CoP features:

i. Personal web page:

Once a membership is granted for CoP, a member can create his personal web page, which can then be shared with other members. He can introduce himself and post his picture; write down his quantifications, past projects and list down his interests and hobbies.

ii. Urgent Request :

A member can post a question in Urgent Request area. This will triggers an email alert to all CoP members. Members will be directed to CoP via the link attached in the email, where reply can be directly posted. The usual response for urgent request ranges from few minutes to maximum of one hour.

iii. Discussion Forum:

This is an area where non urgent questions are posted. Once a question is posted an email is triggered to all CoP members similar to Urgent request. This area is also used to share knowledge on a certain technical topic of mutual interest or to share personal experience gained during a project.

iv. Lessons Learned Database:

The database is developed for drilling CoP and will be eventually rolled out to all other CoPs. A member after completion of a certain project or during its execution phase can post lessons learned or after action reviews. This is a valuable database which provides critical information to any member who wants to undertake similar project in future.

v. Links:

Members have access to Internet links to many useful worldwide sites related to oil and gas. Links to other OMV online forums and access to corporate subscriptions to journals, magazines, and databases are provided.

vi. Resources:

This area is used to share documents mainly guidelines, procedures, technical publications/papers etc.

vii. Microsoft Office Communicator:

CoP members can connect to each other free of cost no matter which part of the world they are located given that they are connected to OMV network or the Internet. The tool provides the option to check the availability status (online, busy, in meeting) of other members, initiate a voice or video call, chat and send or receive documents instantly.

viii. RSS feed:

Through this feature members are provided up to date industry related news and information.

ix. Alerts:

Automatic alerts can be set, in order to stay informed when a new item is added in a CoP. The alert is sent via an email message going to all alert subscribers. Alerts can be disabled any time based on ones preference.

x. Search :

Various Search options are available to find the contents of E&P Connect. Employees can be searched based on their experience and past completed projects. Full text search gives the option to locate any document or content based on any word or phrase.

## CONCLUSION

Organization can use KM effectively to meet its objectives in the face of globalization and stiff competition. CoPs have proved to be very effective in capturing and sharing of knowledge, which is the reason why it has been readily accepted in OMV E&P, where its usage is growing and so are its active members. To ensure CoPs are alive and running, the following steps are needed: (1) Management and leadership support (2) Acknowledgement of active contributors (3) Promote face to face meetings at least once a year (4) Continuous improvement of online platform, to make it more effective and user-friendly, its contents need to be regularly monitored and updated.

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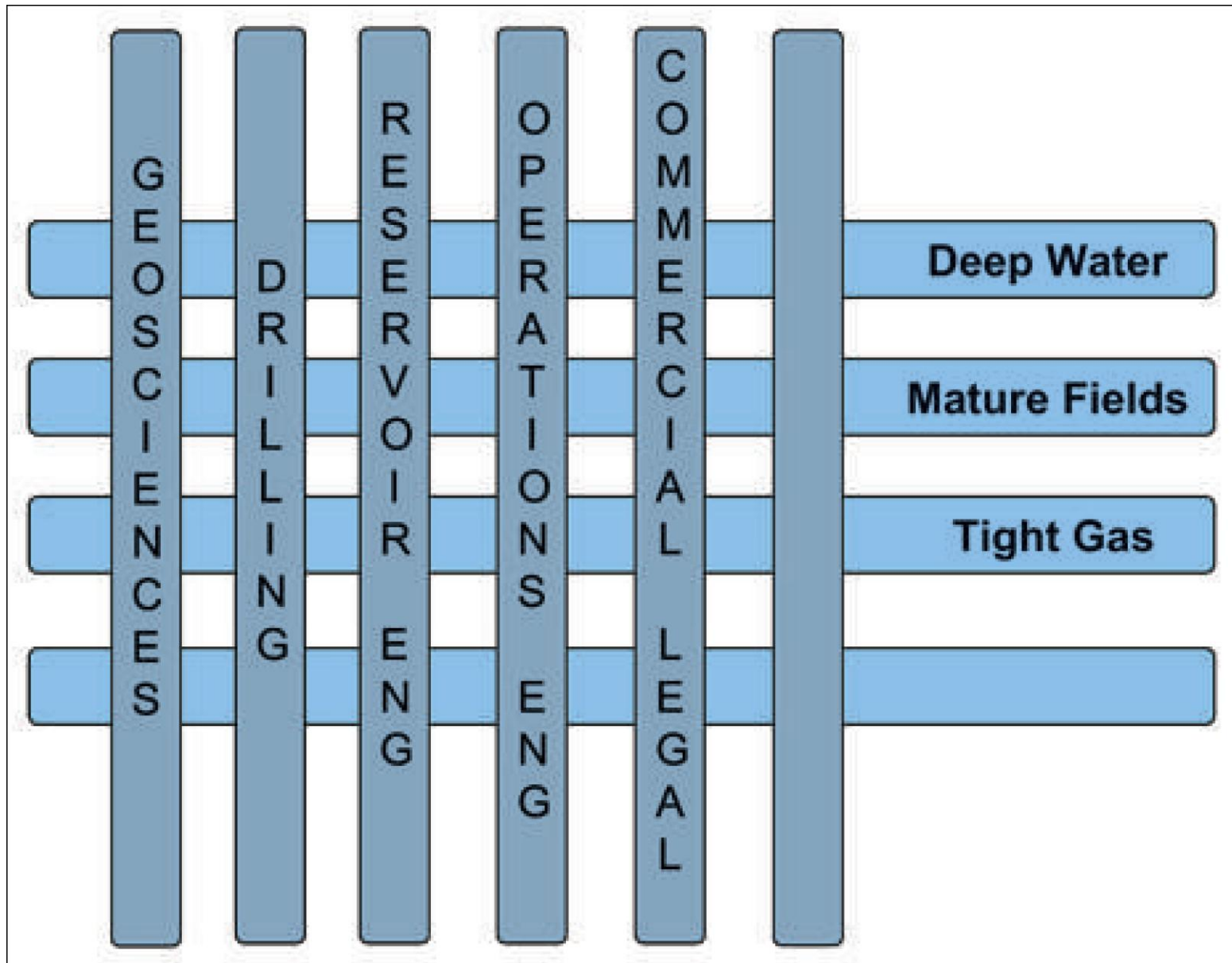


Fig. 1 - CoPs setup in OMV E&P

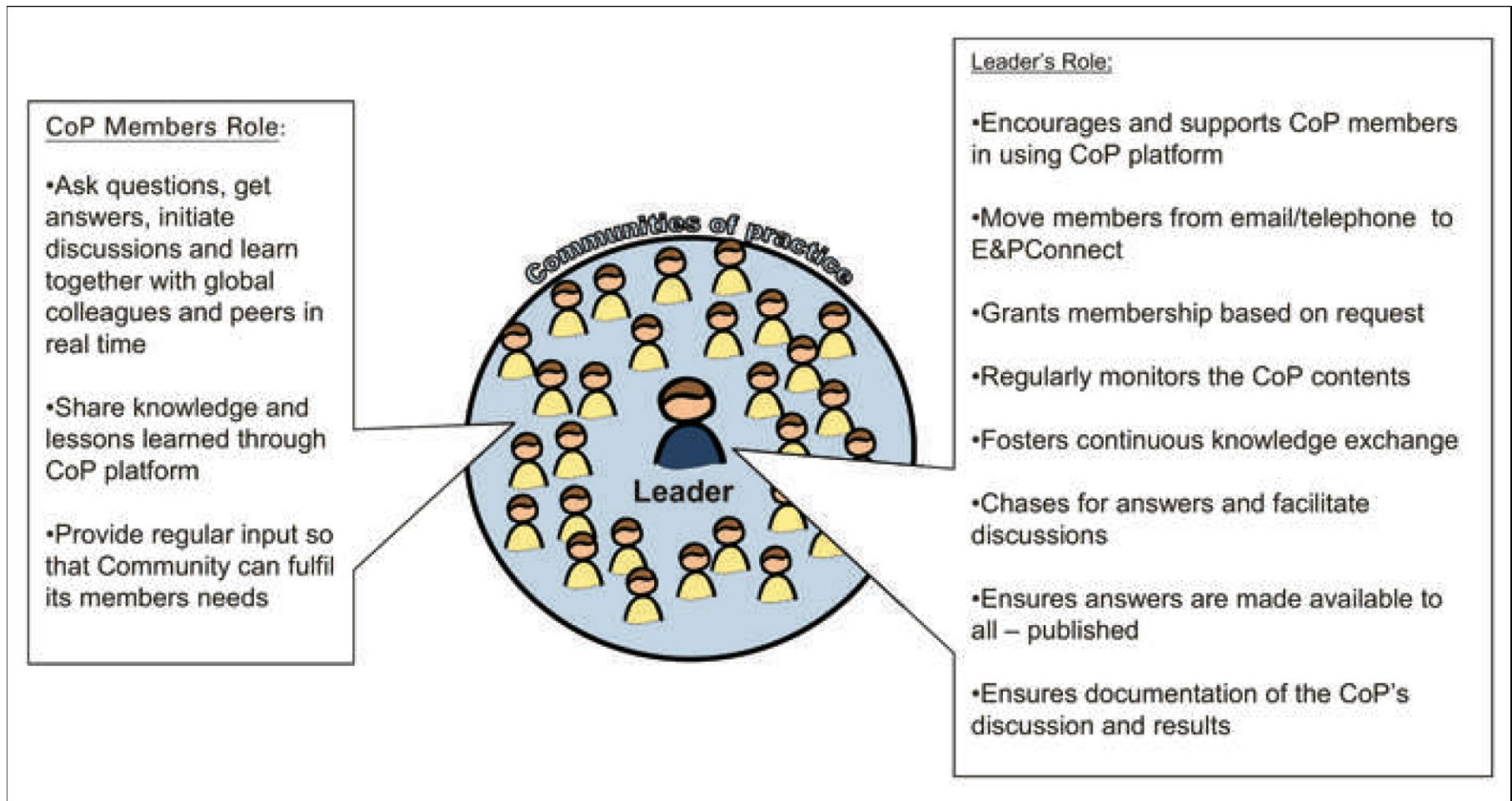


Fig. 2 – How CoP works?



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EPRI - online meeting	0	Spitzer, Roman	15.05.2009 14:46	closed
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Fig. 3 - Geosciences CoP