Expectation about Teamwork to Build a Knowledge Management System

Andrea Bencsik

Abstract—Gurus of the Classical Management School (like Taylor, Fayol and Ford) had an opinion that work must be delegated to the individual and the individual has to be instructed, his work assessed and paid based on individual performance. The theories of the Human Relations School have changed this mentality regarding the concept of groups. They came to the conclusion that the influence of groups greatly affects the behaviour and performance of its members.

Group theories today are characterized by problem-solving teams and self-managing groups authorized to make decisions and execute; professional communities also play an important role during the operation of knowledge management systems.

In this theoretical research we try to find answers to a question: what kind of characteristics (professional competencies, personal features, etc.) a successful team needs to manage a change to operate a knowledge management system step by step.

Keywords—Knowledge management, team, team knowledge, team memory, team roles.

I. INTRODUCTION

A GROUP is mostly defined as two or more individuals in co-dependence and close interaction who act or cooperate with one another in order to accomplish some common goal [20]. We cannot talk about a group without mutual co-dependence and common actions: it is for most people being together [10]. The individuals who make up the group share abilities, they consider themselves to be units which are distinguished from everything else, and they are aware of the positive mutual connections between certain goals and interests. The members interact with one another, and they strive to accomplish common goals. If a group exists for a longer period of time, it will create a set of norms which regulates and controls the interaction of the members. The predefined actions, duties and rights of the members are conditioned by the rules.

If a group is characterized by all the above mentioned factors, we can talk about an 'organized group'. Comparing the different definitions, [10] we can see that they share a lot. However, we must distinguish two important thoughts which claim that the members of the group influence one another and group members find their membership in the group a benefit. The above factors have a key role in creating individual and group knowledge.

There can be several types of groups within an organization. These include leader groups, task groups and interest groups. Leader groups consist of the leader and his close subordinates, and this group usually coincides with formal organizational groups. We can call them functional groups as well. Of course, we can also talk about informal and formal groups besides the above.

Formal groups are the units created by the organization [7]. These groups operate within an organized framework, according to the division of labour codes defined by the hierarchy, and they form a unique system of roles, norms, customs and behaviour patterns.

Task groups consist of people who work together in order to accomplish a certain given task or objective. People form interest groups (coalitions) if they cooperate to do a task which is vital and important for all of them [20]. Formal groups have an essential role in creating and operating KM systems. The creation of a learning organization (as the realization of an organizational change based on project logic) must be based on the operation of these groups regarding the organization's way of thinking and actions.

The members of an informal group join and stay in the group of their own free will because of emotional considerations or because they have shared interests and values (e.g. sport clubs, hobby groups and associations etc.). These operational possibilities have vital importance in knowledge sharing. Spontaneous or informal talk on formal occasions, corridor gossip and stories are all elements of organizational operation based on trust. Interaction is vital during common work, and it also has a key role in transferring knowledge. Informal groups usually have a higher level of trust between members than formal ones, therefore, they share knowledge at a higher degree and in greater quantity as well. However, there is no rigid boundary between the two forms of groups as spontaneous processes and partnership based on emotional ground may occur in formal groups too. Conversely, formal elements may be found in informal groups.

The following pages are going to reveal how individuals interact within the group and what kind of relationship and connection can be observed between individuals, groups and organizations.

II. BRIDGE BETWEEN THE INDIVIDUAL AND THE ORGANIZATION

By introducing group-work, organizations hoped that they would be able to use their human resources better in order to achieve the goals defined in the field of cost reduction, flexibility, lead-time and customer-oriented attitudes. In other words, companies hoped that during group-work, workers will be better motivated and committed, resulting in innovative and flexible work, and solving new and complex tasks. Also, they

Prof. Dr. Andrea Bencsik is with the Szechenyi Istvan University, Gyor, Hungary; Universita J. Selyeho Komarno Slovakia (phone: +36 30 3877215; e-mail: bencsik.andrea@yahoo.com).

expected to see the realization of the principals of economical work, for example, reducing costs, increasing quality and shortening lead-time.

Researches about groups have shown that advantageous and disadvantageous effects are not only present between individuals and groups, but also between groups and organizations. Organizations expect more knowledge and information, versatile problem-handling approaches and the better understanding of decisions through their groups [20]. Members of the groups accept the decision and they feel responsible for its implementation if they took part in the process of problem-solving.

A certain type of individual dominance may be formed within a group, and there is often a conflict between group members concerning the most effective way of solving problems. The organization is the great 'melting pot' where the management attempts to control the dominance of individual human behaviour by forming a culture and advocating a functional group operation. As a result, organizational groups provide the 'glue', some form of a bridge between individual behaviour and organizational attitudes; they also serve as the primary platform for knowledge sharing. The behaviour and performance of the group greatly affect the individual and the company, which in turn attempts to maintain its competitiveness and efficiency. Harmonized operation, mutual trust and assistance are indispensable for human development and the creation of knowledge. For this reason, it is important to examine what factors affect group behaviour and performance, and how these serve as the glue between people and the organization.

All in all, the behaviour and performance of the group can be explained along the following six dimensions:

The first dimension is the external condition system which basically means organizational culture and structure, management style, physical environment, working conditions and information technology support.

As people become the primary resources for companies, special emphasis must be placed on the following characteristics of group members: abilities, skills, personal traits, personality. If we want to bring hidden resources to the surface, we also need various forms of motivation. As the outside environment affects the operation of the group, the group itself also affects the behaviour of its members. Based on this, the third dimension which requires attention is group structure. Group structure is characterized by five traits: the size of the group, mixture, rules and group norms, status and the roles within the group [5], [6]. The fourth dimension affecting the behaviour of the group is group process: the process through which individuals form a functioning, harmonic unit. There is a very strong connection between group processes and roles because group processes define who will take what role in the group itself. The balance of role influences the operation of the group, its mutual nature and the willingness to learn and teach. The behaviour and effectiveness of the group are influenced by the tasks it receives, as well as by the goals which individual members

have. The pursuits and position of the group give a basis for group norms and values which express common interests and aims. The group rewards actions which correspond to the norms and punishes those which do not. The position of the group members is defined by the degree to which they can adapt to the said norms. Finally, the performance of the group and the contentedness of its members cannot be ignored.

We can assess the effectiveness of a group based on three principles [13]:

1. How much do the product, service and decisions made by the group meet the overall expectations of quantity, quality and deadline?

2. How much do the processes followed by the group ensure that the performance of the group can be maintained in the long run?

3. How much can the group assist in the personal development of its members?

To sum it up, we can say that a group functions effectively if its members possess good communication skills, are able to work in a group, have good problem-solving skills, can think individually and are able to organize their own tasks. They should also be able and willing to learn quickly and use the available technology. If a group meets these requirements, both the individual and the collective performance increase.

III. Process and People in Cooperation (Team Processes, Team Roles)

How are thinking and behaviour combined?

All teams are defined by its members as well as the background and motivation of the individuals who start working together. Team performance is greatly influenced by the presence of others. There can be factors which enhance or even hinder performance.

The teams change continuously from their creation to the end of their operation. This continuous change is called group development [24]. The process is described by a four-step model; the four steps are Forming, Storming, Norming and Performing. A successful team knows at which step it is at the moment and it can bridge different steps in an expert way [9].

Common goals are achieved much more easily if team roles are well defined and the members are able to fulfil the roles which best suit their abilities and personalities. There are several 'sets of roles' making up a successful team. Belbin in the 70s was examining what influence teams consisting of different personality types have on efficient team-work. He managed to identify eight different roles for tag-team purposes [5]:

– Company Worker
– Chairman
– Shaper (Forming)
– Plant (Idea Maker, Seed)
– Resource Investigator (Connection Builder)
– Monitor - Evaluator (Supervisor-Assessor)
– Team Worker (Team-Player)
– Completer - Finisher (Realizer)

Belbin [5] claims that if the suitable representatives of the eight types work in the same team, the group is able to solve any problems. Every team member knows in which situation they are able to contribute to the performance of the team and when they can build on the strengths of the others. One person may fulfil several roles, but if one type gets too much influence, the performance of the team suffers. For this reason, it is worth examining the team roles in a team created to complete a given task (or in management teams, project work or even in the change management process during the creation of a learning organization) because this way, it is possible to correct the composition of the given group.

Table II summarizes the abilities and characteristics of the different types.

The application of the Belbin team roles is a necessary prerequisite, but the team also has to learn how to ensure its transition into a learning organization with the correct organizational culture, the necessary intelligence and surviving its own development phases (by overcoming resistance). Other expected conditions for successful organizational operation include an acceptably high level of emotional intelligence (EQ) as well as regular intelligence (IQ), the maintaining and adaptation of knowledge (knowledge management and team learning) and the correct handling of conflicts.

The effective implementation of team work requires besides team roles and emotional intelligence some other factors which affect the operation of the whole company [14].

- management based on participation,
- focus on the future,
- shared responsibility,
- focus on the task,
- well-defined objective,
- high level of communication,
- creativity,
- quick responses etc.

Another way of listing differentiates three different role types during group-work. These types are independent of the specific behavioural roles mentioned earlier. The three role types are in the Table I [4].

- task - oriented
- connection/relation - oriented
- self-oriented roles.

TABLE I
TEAM ROLE TYPES AND THE IMPLEMENTATION OF HUMAN CHARACTERISTICS BEHIND THE ROLES

Task - oriented roles	Suitable Belbin's roles
To determine goals	Chairman, Plant
Initiation	Plant, Shaper
Collection of information	Resource - Investigator
Coordination	Company Worker, Team Worker
Evaluation	Monitor – Evaluator, Completer - Finisher
Connection/Relation – oriented roles	
Encouragement	Chairman, Team Worker
Mediation	Team Worker, Resource - Investigator
Stimulation	Completer – Finisher, Shaper
Norming	Monitor - Evaluator
Imitation	Team Worker
Looking in every direction	Monitor - Evaluator
Self – oriented roles	Belbin's roles are not predominated
Checking	
Run after acknowledgement	
Dominance	
Withdrawal	

Source: author's construction

By emphasizing the importance of team roles and following the phases of team development, we can point out how the successive phases of the team efficiency model correspond to the phenomena created during team development. However, these events are influenced by the team roles, which, according to the Belbin theory, are inevitable in the specific phases of team development, and which are still influential factors on the quality of the accomplished tasks.

Team development studies were started by group dynamics studies in the United States in the 1930s. The first researches were conducted by Kurt Lewin [16]. He claimed the principles he found to be applicable to any team because they come into being from the social aspect.

The question may arise why we need to point out this connection. One of the preconditions of the creation of a learning organization is team-work. Knowledge sharing, as we will see it later on, is the most critical element of the knowledge management system. All this proves that if the management wishes to handle and operate these vitally important factors of successful operation, it has to know what happens in certain phases of team work and how these tasks and team roles can be used to ensure that cooperation serves the already mentioned goals. Another demand can be to determine (and based on this, chose the right person for the

right task) how meeting the demands in the successive stages of team development is connected to team processes and to the efficiency of the team. The following tables and figures are attempting to give the answers. To interpret them, the following thoughts will be necessary to consider.

Based on the development phases of the team, there are only connection/relation - oriented roles in the 'norming' phase. Regarding role allocation, we need types who primarily convey the values of the organizational culture (this presumes the presence of emotional intelligence in the team efficiency model). These types have to be able to become prominent members of the group which means plant and shaper types are needed. Priority is given to defining team objectives, team forming and setting tasks which also needs the encouragement of a strong leader figure.

The 'storming' phase still has an abundance of connection/relation - oriented roles where there is a demand for handling debates, fights for status and conflicts. Peace making and coordination are of vital importance which can be achieved by combining the connection-making ability of the team worker and the harmony granted by the source investigator. Still, a chairman with strong personality or a shaper are still necessary role types. All this means in a model with emotional intelligence, the appearance of trust, the expression of membership and the willingness to help.

Connection/relation -orientation and task - orientation are both present in the 'norming' phase. The emphasis here is put on forming group norms and expressing common interests.

This requires the ability to make and coordinate norms and the best types for this are the team worker, the shaper, the

monitor - evaluator and the company worker. According to the model describing team efficiency, cooperation, contribution and participation get more attention. Special emphasis is given to the values which are connected to norm forming as the successful operation of the whole organization is only possible if the norms of consciousness between the various teams which make up the organization are implemented at a high level [15].

The team development phase which is the most defining regarding team-work is the 'performing' stage; this stage also affects the final success of the whole organization. The aim here is to implement the real work, which requires task - oriented roles. The team here needs to create solid relationships, identity and high-level performance and concentration. To realize all this, all team roles are needed as the required aim is to cooperate successfully. Still, the most needed roles are a good chairman, an intelligent plant as well as a resource investigator, a monitor - evaluator and a team worker. Naturally, the other team roles become indispensable – or perhaps negligible or even substitutable – during the solution of a specific task. If we support the efficiency model with emotional intelligence, we can expect higher productivity, more creative problem solving and

better decisions. The necessary roles for the last phase – which either result in disbanding or transforming the team – are automatically present in teams. However, we firmly believe that as team development occurs and pursuits shift towards task orientation, more and more team roles are needed for the successful completion of the task. The logic behind this is presented in Table II.

TABLE II
NECESSARY ACTIONS REGARDING TEAM ROLES AND DEVELOPMENT

Type of role	Stage of team development	Elements of team successfulness	Team roles	Necessary activities
Relation oriented	Forming	Organizational culture, Collective EQ	Shapes, Co-ordinator	To know the team goals and tasks, team forming, encouragement
Dominance of relation oriented	Conflicts, storming	↓	Team worker, Resourcer investigator, Co-ordinator or Shaper	Debate, to handle conflicts, fight for status quo, mediation, coordination
Relation and task oriented	Cooperation, norming	↓	Team worker, Implementer, Shaper, Monitor - evaluator	Team norms, common interest, encouragement, coordination, invitation
Task oriented	Productivity, performing	↓	Plan, Co-ordinator, resource, Investigator, Monitor – evaluator, Team worker	Hard connection, identifying, concentration on high level tasks
	Change, performing			

Source: author's construction

The above connections reveal why it is important not only to put emphasis on physical conditions for the satisfactory completion of quality organizational team tasks, but also on human traits and the correct mixture of team membership. It is absolutely necessary to take these factors into consideration if the aim is quick and smooth change management which results in an effective learning organization, capable of storing knowledge in the organizational memory in a way that it assists the leaders in knowledge management.

If an already existing learning organizational culture can be used, the first step of the team efficiency model has already been fulfilled as such an organization is characterized by trustful atmosphere, openness to knowledge and a high level of emotional intelligence. We can assume that the knowledge goals have already been determined by the management and knowledge identification has been done as these are all parts of a learning organizational culture [1], [3]. The chance is present in the community to step forward to the next phase of

the team efficiency model where the emphasis is put on gaining, developing and sharing knowledge. The second and third step of the team efficiency model cannot be separated from each other which means that trust and cooperation get the most attention. The result can be the utilization, storing and assessment of knowledge which at the same time result in a higher level of organizational operation; phase 4 of the team efficiency model brings about creativity, better solutions and higher-level decisions. While the over-abundance of connection-oriented roles dominated during the comparison of team development and efficiency, task orientation gains attention in every phase of the KM cycle and even self-oriented roles appear. Their combined and effective handling

is the task of the management, and the background is always given by the characteristics of the learning organizational community [15].

Taking into consideration the operational phases of knowledge management systems, the following chart summarizes the most important viewpoints and the expected personality traits for the successful creation and operation of KM. It becomes obvious from the chart that the critical point of KM is the knowledge sharing phase which is the part requiring the implementation of connection/relation - oriented roles the most; consequently, this is the phase which can be influenced the least and with most difficulties. See the Table III.

TABLE III
CYCLICAL STEPS OF KNOWLEDGE MANAGEMENT AND NECESSARY STEREOTYPES AND ROLES

Role Types			Steps of Knowledge Management Cycle	Belbin Team Roles
Task-Oriented	Connection-Oriented	Self-Oriented		
setting goals	encouraging		determining knowledge goals	Chairman, Plant, Team Worker
collecting and assessing information			identifying knowledge	Resource Investigator, Monitor - Evaluator, Completer - Finisher
initiating, coordinating	following, observing		acquiring knowledge	Plant, Shaper, Monitor - Evaluator, Team Worker, Company Worker
collecting information, initiating, coordinating	encouraging	acknowledging, urging, dominating	developing knowledge	Plant, Shaper, Team Worker, Company Worker, Chairman
coordinating	encouraging, following, urging	blocking, dominating, withdrawing	sharing knowledge	Chairman, Team Worker, Completer - Finisher, Shaper, Company Worker
initiating	following	acknowledging, urging, blocking	utilizing knowledge	Team Worker, Plant, Chairman, Shaper
initiating	urging		preserving knowledge	Completer - Finisher, Shaper
assessing	norming, observing		assessing knowledge	Monitor - Evaluator, Completer - Finisher

Source: author's construction

The above logic is justified if we take the demand for the **Belbin team roles**, which are based on personality traits, and look at them concerning **KM cycle - team efficiency** and **team development - team efficiency** relations. The final result shows that almost all team roles are necessary for the implementation of the KM cycle steps which also serves as feedback to organizational operation and that almost all team roles are necessary for the implementation of the KM cycle steps which also serves as feedback to organizational operation and culture as well as the expected precondition of EQ. The connections are revealed in the following Table IV.

TABLE IV
CONNECTIONS BETWEEN KM CYCLE AND THE ROLES OF THE TEAM EFFICIENCY MODEL

Dominant Role Types		Steps of KM Cycle	Phases of Team Efficiency Model	Required Belbin Team Roles
Over-abundance of connection orientation based on task oriented thinking	1.	setting knowledge goals	organizational culture, emotional intelligence of the team	Chairman, Plant, Team Worker, Resource - Investigator, Monitor - Evaluator, Completer – Finisher
	2.	identifying knowledge		
Same level of task and connection orientation and the danger of self-oriented roles appears	3.	acquiring knowledge	help, membership, trust	Plant, Shaper, Monitor - Evaluator, Team Worker, Company Worker, Chairman
	4.	developing knowledge	cooperation, contribution, participation	
	5.	sharing knowledge		
Connection orientation is pushed back, task orientation dominates	6.	utilizing knowledge	better performance (more knowledge), more creative solutions, better decisions	Team Worker, Plant, Chairman, Shaper, Monitor - Evaluator, Completer - Finisher
	7.	preserving knowledge		
	8.	assessing knowledge		

Source: author's construction

The information in the above chart reveals further essential duties. Although team efficiency presumes that self-oriented roles do not appear during the operation of the group and the Belbin-theory says these roles cannot even be identified in the process, even in the most well-established culture, mistrust, selfishness or the fear of losing one's job may cause problems. In such cases, it is the task of the management to restore balance.

While organizations in the 70s put emphasis on the lonely genius, today, the driving force behind the effective work is the flexible team members. Any co-worker only possesses parts of the necessary information and knowledge during problem solving and the missing information has to come from other team members. This means that colleagues are co-dependent. We can say that the role of group-work has gained significance and companies like using it during their operation. For this reason, we find it important to examine the role of groups in creating, sharing and retaining.

IV. TEAM LEARNING

The operation of knowledge management systems can only be realized in organizations where the organizational operation is able to provide the necessary preconditions for the implementation of the already defined rules. These preconditions are the creation of the learning organization and the teamwork involved. As teams consist of individuals, their knowledge and the results of their learning abilities add up in the results achieved by the team. This happens in a way that it creates more knowledge than the simple mathematical addition of the combined knowledge of the members. In this respect team learning means individual learning on the one hand and on the other hand preserving, developing and sharing of the knowledge created by the work of the group as a whole unit.

Two requirements have to be met before we can talk about learning which is observed at team level [2].

1. Individuals have to act according to the goals determined through the changing process, that is, they have to act in the interests of the duties necessary for the change.
2. The ideas, suggestions, assessment and experience created by the individuals have to be absorbed by the organizational memory, that is, other groups must have access to it.

What happens with the outdated, redundant data? We have to forget it deliberately on group and organizational level as well. This means that learning organizations must be able not only to learn, but also to forget; in this sense, group learning may also be called group forgetting.

It is very important during group work that the individuals should learn from their mistakes, and they should always look for the reasons and draw the necessary conclusions in the future. Groups have to learn from the mistakes of the others, including their own group members.

It is essential that the creativity of the individuals should be applied; group members should not be jealous of one another but should learn from them; they should not look down on the others but assist and help them. Naturally, the personality of the group leader influences the creation and maintenance of the creative-learning atmosphere.

We must mention here that there are certain factors which hinder group learning, consequently, storing knowledge in the group memory. We are coming back to these factors later on [8].

An interesting question is: 'How can it be that the combined performance of a group consisting of managers with an average IQ of 120 barely reaches IQ level 63?' [12]. The reverse may happen in other situations: people with average abilities form a group which solves problems previously deemed unsolvable. The principle of group learning gives an answer to such paradoxes. It is a widely accepted fact that groups are able to learn together. There are outstanding examples in sports, art, science and sometimes even in

business life where the intelligence of the group exceeds the intelligence of the members involved, enabling them to develop special skills for cooperative work. If we are able to learn together, we can expect not only outstanding performance, but the individual members will also develop faster than otherwise [18], [19]. The reverse is true on the negative side: if common learning is unsuccessful, failure is guaranteed in spite of individual excellence.

On the one hand, group learning is a process which is similar to organizational learning (only it takes place at group level); on the other hand, it also involves the increase of the cooperative willingness of its members, harmony within the group and group consciousness. Group learning is also part of the process through which the knowledge possessed by the members is absorbed at group level and becomes shared knowledge [12].

If we want to implement this theory, we need to determine the expectations which may help companies to acquire, spread and share knowledge in the organization in a professional way.

The expectations towards the groups are the following:
- professional (intellectual) preparedness,
- emotional intelligence,
- forming and implementing competences,
- the ability to learn,
- the implementation of knowledge-sharing and knowledge-management attitudes.

V. Team Knowledge

Creating shared team knowledge is a condition of knowledge flow which occurs through the solution of a task.

Knowledge is only created when the team analyses the experience and the work already done, and it reveals the possible reasons and conclusions before moving on. Creating shared knowledge requires thoughtful strategy and the necessary attitude of the members. In order to ensure the flow of the already created common knowledge, the team needs some method or tool which can realize this; however, knowledge also has to be formed in a way that others can understand it. After the required knowledge reaches its destination, the users can adapt it to their needs and process it, so they can complete their own tasks [11].

We can see that group knowledge is more than the simple summary of individual knowledge. Its main source is communication between people, and it also involves skills, professional knowledge, competencies and cultural backgrounds. It is a combination of explicit and tacit knowledge elements, and although it is difficult to define its exact nature, team knowledge is a key factor in maintaining competitiveness.

VI. Team Memory

What roles do groups play in anchoring knowledge in the organizational memory?

As there are team learning and collective knowledge, there is also a team memory as knowledge, learning and memory are inseparable from one another even on the team level.

During effective work, people form teams and (apart from a few cases) they operate collectively which results in people contacting one another. At this stage, the knowledge and memory of all the individuals are needed, but not at the same degree. After some time, workers learn about the knowledge of the other team members which ensures the creation of new knowledge and the formation of team memory. The knowledge of the individuals becomes part of the group memory.

Naturally, the means which assist team learning also assist in preserving knowledge in the team memory. Such tools include: communication (an exchange of ideas), shared vision of the future (aims, strategy, philosophy, identification), psychological security, norms (the tolerance of mistakes), personal management (self-realization), consciousness (self-control, openness), leader roles and style (exemplary behaviour) [8]. Besides what has already been mentioned, anchoring knowledge in the organizational memory is also assisted if we can create a team which is determined to learn, successful and willing to take over the aims of their organization [7].

On a team level, it is possible to achieve great efficiency in spreading knowledge in the team memory because several factors are more favourable here than on company level:
- the group has fewer members and the relationship between them can be more solid, informal and open
- it is easier to form a motivating atmosphere which favours new ideas and the sharing of knowledge.

When the size of the company is too big to successfully conduct information and knowledge transfer processes, the team becomes the appropriate organizational unit (the proper size) which is ideal in preserving knowledge in the organizational memory and realizing knowledge management. The teams which are able to meet the above mentioned requirements are not necessarily the teams functioning within formal and regulated frames. The teams which use the possibilities of learning, knowledge sharing and knowledge management views can be those professional communities which are formed (created) spontaneously or in a regulated way in the organization. Their aim is to assist the operation of the organization during the implementation of changes, especially when the aim of the change is to become a learning organization and the spreading of knowledge management views.

VII. Knowledge Communities

The significance of professional communities has been recognized in recent years by more and more companies who also try to utilize them (we briefly described the significance of their operation in the first chapter; here we are concentrating on their role in maintaining and developing knowledge and in implementing the necessary changes) [23].

These teams are important in giving a high-level support to professional work. They are also important in creating a good team spirit which gains significance during learning, facing difficulties during change, overcoming resistance and improving competitiveness. They are important in acquiring, sharing, maintaining and developing knowledge as well as in the field of team - and organizational learning and development. The connection between knowledge communities and innovation goes without saying.

'The professional community is a unique combination of three basic building elements: the knowledge of the given profession which defines a given set of questions; the community of people who work in this professional field; finally, common practice which is developed so they could be more effective in their fields' [25]. Based on these thoughts the following Table V. presents the role of these three basic elements [22]:

TABLE V
THE ROLES OF PROFESSIONAL COMMUNITY BUILDING ELEMENTS

Professional Area	– creates a common basis and a – sense of identity – legitimizes the community – inspires members to participate – and contribute – guides learning and gives – reasons to act – sets boundaries for members – as what to learn – enables participants to realize the possibilities in hints and half-baked ideas
Community	– ensures the frame of the learning community – assists in interaction and relations based on mutual respect and trust – encourages to explore ideas and reveal individual failings as well as expressing difficult questions –encourages listening to others and gives the feeling of belonging somewhere
Practice	– is the combination of common boundaries, ideas, tools, information, style and documentation shared by the members of the community – is specific knowledge created, shared and maintained by the community – ensures the effectiveness of the common work.

Source: [22]

The three building elements closely cooperate in the desired way and so they ensure the ideal operation of the learning organization. The absence or weakness of any of the components threatens the functioning professional community.

The joint development of the three elements is vitally important from the point of view of change management. If there is an inevitable change in any of the elements, the stability present in the others may facilitate the survival of the overall change of the organization [17].

Based on the researches of the American Productivity and Quality Centre (APQC), there are four basic strategic aims based on which we can talk about the four types of professional communities [14].

- Assisting communities: their basic aim is to ensure good relations between colleagues.
- The communities of the best practice: the aim is to validate and spread the best practices.
- Knowledge organizing community: they are charged with finding, organizing and distributing knowledge.
- Innovative community: their main objective is to encourage innovative thinking and to ensure its realization.

However, it is not easy for a practical-minded expert to differentiate the above listed communities from other groups of the organization which may be completely different

oriented regarding their tasks and aims. To facilitate distinction, we presented a comparison Table VI which makes the differences obvious and easy to recognize [21].

TABLE VI
PROFESSIONAL COMMUNITIES COMPARED TO OTHER FORMS OF ORGANIZATION

	Informal Network	Project Team	Operative Team	Organizational Unit	Professional Community
What is the aim?	Acquiring and transferring information, knowing who is who	Completing a specific task	Continuous operation, supervision	Selling products or services	Creating and spreading knowledge, individual development
Who takes part?	Friends, business partners, friends of friends	People playing direct roles in the implementation	People designated by the management	Everyone who is answerable to the leader	Voluntary choice based on profession or interest
What are the boundaries?	Undefined	Obvious	Obvious	Obvious	Blurred
What is the cohesive force?	Mutual needs and connections	Aims and milestones of the project	Shared responsibility for the operation	Labour expectations and common goals	Passion, commitment, identification with the profession or the group
How long does it last?	As long as people feel the need to keep in contact	Until the end of the project	Intended to be continuous	Until the next re-organization	Until the professional field is relevant or there is a shared interest in learning

Source: [21]

Professional communities are a unique source for organizations wishing to utilize knowledge because they can provide values for individuals and the organization at the same

time and they are equally capable of creating value in the short and the long run as well.

VIII. SUMMARY

The organizational groups, expert teams/knowledge communities are the foundation – stones of the successful collaboration in an organization. They have a giant significance in case of the companies which want to fit the economic challenges of the present and which want to build up their knowledge management system.

The conditions of a successful team management were formulated by some researchers in former papers. In this paper these conditions are completed by new ideas, reflections according to the expectations of a knowledge management system building. These new expectations have some significance beyond professional competencies. They harmonize personal features, team roles to satisfy the demands of team development, team effectiveness, EQ and knowledge management system simultaneously.

The result of cooperation between individuals and groups is naturally reflected in the successful or not so successful operation of the organizations. The next paper will be about what and how the company management should do to assist learning organizational operation and the preparation for creating a knowledge management system.

REFERENCES

[1] C. Argyris:*On Organisational Learning* Blackwell, Cambridge, MA 1994.
[2] C. Argyris – D. A. Schön.: *Organizational Learning, A Theory of Action Perspective* Addison-Westley, 1978.
[3] C. Argyris – D. A. Schön: *Organizational Learning II., Theory, Method and Practice* Addison-Westley 1996.
[4] Gy. Bakacsi. :*Szervezeti magatartás és vezetés* KJK Budapest 1999.
[5] M. Belbin: *A team avagy az együttműködő csoport* SHL Hungary Kft. Budapest 1998.
[6] A. Bencsik: Csoportfejlődés és csoportszerepek érvényesülése a tanulószervezetben, *Mátrix*, Vol 4, pp. 13- 27. 2003.
[7] A. Bencsik :*A tudásmenedzsment emberi oldala*. Miskolc Z-Press Kiadó Kft. ISBN: 978-963-9493-47-6. 2009.
[8] A. Bencsik – K. Bognár: Tanulószervezetek változásmenedzsmentje a tudásmenedzsment felé vezető úton *IME* II. Vol. 5. 6. p. 24-30. 2003.
[9] A. Chapman: Review and code [1995-2005]: Bruce Tuckmans's 1965 Forming Storming Norming Performing team-development model 2006. http://www.businessballs.com/tuckmanformingstormingnormingperform ing.htm
[10] Deutsch – Morton : Constructive Conflict Resolution: Principles, Training, and Research, *Journal of Social* Issues, 50, pp. 13-32. 1994.
[11] P. Fehér:Tudásmenedzsment: Problémák és Veszélyek *Vezetéstudomány*, Vol 34, No 4, pp. 36-45.2002.
[12] A. Edmondson.: Psychological safety and learning behavior in work teams, *Administrative Science Quarterly*, Ithaca Jun. 1999.
[13] W. D. Hitt : *A mestervezető, Vezérfonal a cselekvéshez*, OMIKK 1990.
[14] KM Conference, Amszterdam, 2003. november 10-12.;
[15] R. Kreiter –A. Kinicki: *Organizational Behavior*Mc Graw-Hill Com. 1998.
[16] K.Lewin: *Field Theory in Social Science* New York, Harper 1951.
[17] E. Noszkay.: *NVOs (Networked virtual organizations) and form other forms of networks small and medium – sized enterprises in the „web" of new cooperation forms*. Paper presented at the Club of Economics in Miskolc Theory – Methodology – Patrice Miskolc 2007.
[18] P. Senge: Az 5. alapelv. *A tanuló szervezet kialakításának elmélete és gyakorlata*. Budapest HVG Rt. 1998.
[19] P. Senge: *The Leaders* New York: Building Learning Organization, *Sloan Management Review, Fall* 1990.
[20] Cs.Titkos: *Csoportmunka a 90-es években*, Janus Pannonius Tudományegyetem, Carbocomp Kft. Nyomda, Pécs, ISBN 963 641 539 0, 1998.
[21] J. Tomka: Hogyan és milyen módszerek felhasználásával építhető ki egy valódi tudásmegosztó team? *MTA SZVTB Tudásmenedzsment Albizottság* workshop prezentáció 2005. február Budapest
[22] J. Tomka –G. Segesváry : A szakmai közösségek jelentősége a szervezeti tudás építésében; *KPMG-BME Akadémia,* Budapest, a Közigazgatási Továbbképzési Kollégium által akkreditálva 2005.
[23] J. Tomka : *A megosztott tudás hatalom* Harmat Kiadó Budapest ISBN:978-963-288-006-8, 2009.
[24] B. Tuckman : Famous Models – Stages of group development 2001. http://www.chimaeraconsulting.com/tuckman.htm
[25] E. C. Wenger –R. McDermott –W. M. Snyder: *Cultivating Communities of Practice*, Harvard Business School Press 2002.