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CHANGE MANAGEMENT COMPETENCE – KEY CONTRIBUTOR TO PROJECT SUCCESS

Case: Nokia Solutions Networks / key project managers

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ABSTRACT

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Nowadays majority of the work in telecommunications industry is done in projects, work has become projectified. Project managers are the key contributors to making things happen in the organizations. Therefore they play vital role in achieving the goals and targets of the organizations. Change management is a structured approach to transform individuals, teams, and organizations from a current state to a desired future state. The current definition of change management includes both organizational change management processes and individual change management models, which together are used to manage the people side of change (Creasey 2009).

Strategic target is to improve change management competence in the projects. The ultimate goal is that by enhancing the change management competence, key project success rate in NSN operations could be improved. The objective of this thesis is to support this strategic target by collecting valuable data from key project managers. Based on this valuable data, practical recommendations are done to management team how to enhance the change management competence in projects.

Considering the objectives of this thesis and the target organization, the most suitable research method was qualitative interview study; more precisely focused interview or theme interview. Theme interview is focused on planned themes. It aims to gather in-depth information. It is planned in advance and it has clear purpose. The most essential thing is that interview is carried out in themes, not in exactly planned detailed questions. The interaction in the theme interview creates the meaning for the researched issues (Hirsjärvi & Hurme 2001, 42-48).

Based on the research results, project execution could be improved in NSN. There are lots of good elements and projects are managed well with strong focus on technical side of the project issues, but currently project managers are not leading the change the way they should to gain successful results. Improvement could be made by improving the project manager's capabilities as change leaders and ensuring proper change management resourcing for projects.

Keywords: project management, change management, project manager, competence, change management team

CONTENTS

1. INTRODUCTION

Currently project management is seen too much as engineering science. Therefore the importance of softer skills of project manager is highlighted in this thesis. The importance of change management is acknowledged but the implementation is not carried out successfully. Change management competence is not in place the way it should be to ensure successful change implementation in the projects. This chapter describes the background how this thesis research was initiated. It also describes the objectives of this thesis and provides basic information about the utilized research method. Thesis structure is also presented in this chapter.

1.1 The Background of This Thesis

Nowadays majority of the work in telecommunications industry is done in projects, work has become projectified. Project managers are the key contributors to making things happen in the organizations. Therefore they play vital role in achieving the goals and targets of the organizations. Majority of the project teams are nowadays virtual teams. Team members which are located in different parts of the world are interacting with each other's via telecommunication channels.

Change management is a structured approach to transform individuals, teams, and organizations from a current state to a desired future state. The current definition of change management includes both organizational change management processes and individual change management models, which together are used to manage the people side of change (Creasey 2009). The challenge today is that change is not an "engineering" problem. Change involves people and once dealing with people, one must take into consideration emotions, uncertainties and inconsistencies. Therefore, simply managing

change is insufficient; successful change requires strong leadership and proper change management competence.

Telecommunication industry is currently in turmoil. The whole industry has gone through major change within the last ten years. Telecom is less about the voice and more about the text and images. The fastest growth comes from services delivered over mobile networks. Government monopolies are now privatized and industry is filled with new innovative rivalries in operator field. This requires totally new thinking also for network equipment providers like Nokia Siemens Networks (NSN). All players in this industry must be innovative and agile. The key issue is to change in order to stay in the competition. (Investopedia 2013, search date 28.10.2013).

Operational environment for NSN is changing rapidly and therefore multiple changes are ongoing within the company. Project managers are responsible for leading the key change initiatives in NSN Operations organization. Portfolio management follows on monthly basis all key project statuses. Project managers report the project status and also explain the root causes for possible problems and delays in portfolio meetings. It can be said, that portfolio meeting has overall understanding about the key project issues. (NSN portfolio meetings 2009).

It has been noted, that many of the key projects face difficulties in build phase of the project (between E2 – E3 milestone). In this phase of the project, people who are affected by the change, that project is implementing, are starting to become part of project organization. Project managers have identified that lack of change management competence is one of the key root cause for problems in the projects. Also the feedback from the key project's customer organizations is clear: change management is not managed on proper level in the projects. (NSN portfolio meetings 2009).

The work that is done in the projects is crucial for NSN. Therefore NSN project managers are regularly trained and their competencies are constantly further developed. Based on the findings in portfolio management meetings, change

management is identified as one of the key strategic competencies for project managers. To support this strategic target, this research was initiated. This is the first research made on this subject on NSN (NSN portfolio meetings 2009).

1.2 Objective of this Thesis

Strategic target is to improve change management competence in the projects. The ultimate goal is that by enhancing the change management competence, key project success rate in NSN operations could be improved. The objective of this thesis is to support this strategic target by collecting valuable data from key project managers. Based on this valuable data, practical recommendations are done to management team how to enhance the change management competence in projects.

This research was initiated on 2009. It was agreed in portfolio management meeting that key project managers from Global operations would be the focus group for this thesis. These project managers are leading the key change projects. Therefore they play vital role in achieving the goals and targets of the organization and are providing excellent information for this research. By the time I was doing the interviews, I worked as project manager in this team; I interviewed my colleagues.

1.3 Research Method

Considering the objectives of this thesis and the target organization, the most suitable research method was qualitative interview study; more precisely focused interview or theme interview. Theme interview is focused on planned themes. It aims to gather in-depth information. It is planned in advance and it

has clear purpose. The most essential thing is that interview is carried out in themes, not in exactly planned detailed questions. The interaction in the theme interview creates the meaning for the researched issues (Hirsjärvi & Hurme 2001, 42-48).

Current understanding level of the target organization was collected by theme interviews during January 2009 and September 2009. Project managers were located in Finland and Germany. Totally 5 project managers were interviewed. Theme interviews were all conducted face to face in Espoo, Finland. One workshop was also organized as telepresence meeting where wider group of project managers were invited to exchange ideas regarding this topic. In addition, change management specialists and project management methodology owners from NSN were interviewed. Their interviews are utilized as reference material and guidance material in this thesis, in chapter change management in NSN.

1.4 The Structure of the Thesis

Thesis consists of eight main chapters. The whole structure of the thesis is presented in the figure 1.
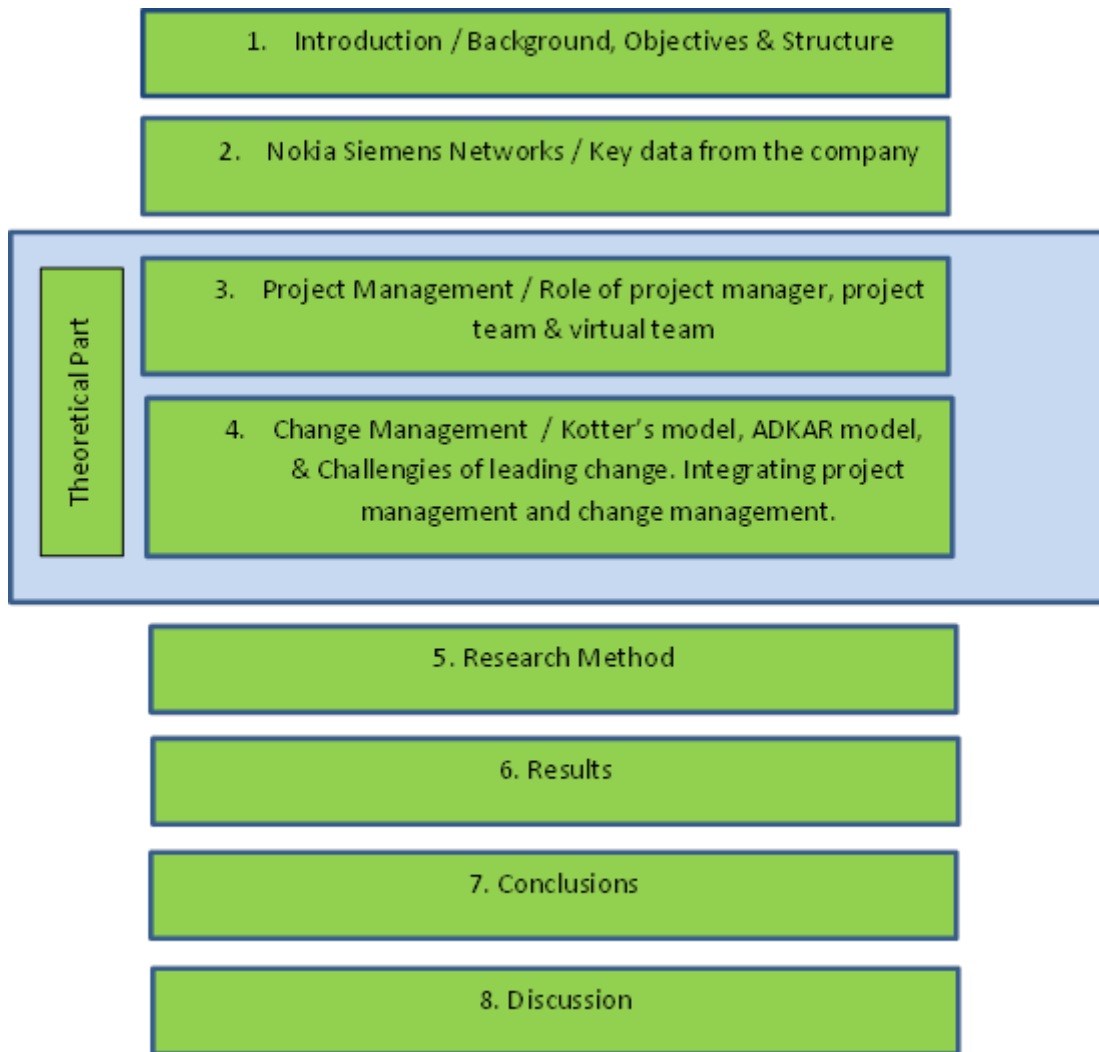
Figure 1. The Structure of the thesis.

Chapter one leads to the thesis key topics. In second chapter, the key data from NSN is presented to give the overlook of the company. Theoretical part is presented in chapters three and four. Third chapter describes the role of project manager and provides important theories how to lead the project team and virtual team. Fourth chapter handles the change management. I have chosen Kotter's and Adkar models to be the backbone theories. Additionally I have utilized wide range of current articles which are describing aptly the challenges that change leaders globally are facing. This topic is very current. In chapter five utilized research method is presented. In the sixth chapter results are presented

by themes. In the last chapter I present the conclusions which are formed by utilizing both the theoretical and empirical data.

2. NOKIA SOLUTIONS NETWORKS AND PROJECT MANAGEMENT METHODOLOGY

Nokia Solutions Networks is briefly presented in this chapter to give the overlook of the company. It provides the understanding of the working environment where interviewed project managers are working. PM methodology is also presented in this chapter. It is guiding project manager's daily work and is therefore crucial element to be introduced.

2.1 Nokia Solutions Networks in brief

Nokia Solutions Networks (NSN) is one of the world's largest telecommunications infrastructure companies. NSN has 55 000 employees in more than 150 countries and 600 account teams serving operator customers globally. NSN is currently serving more than 600 operator customers globally in seven regions; North America, Latin America, West and South Europe, North East, Middle East and Africa, Greater China and Asia Pacific. 75 of the top 100 operators are NSN customers. Totally over 1.5 billion people connect through networks that are provided by NSN. (Nokia Solutions Networks, search date 18.11.2013).

Executive Chairman of the board is Jesper Ovesen and Chief Executive Officer is Rajeev Suri. Operational headquarters are located in Espoo. NSN has strongly focused on mobile broadband. NSN helps mobile operators to grow profitable businesses that realize the extraordinary potential of mobile broadband. (Nokia Solutions Networks, search date 18.11.2013).

During past few years, NSN has gone has gone through several major changes. In 2007 Nokia Networks and Siemens Communications joined operations. Consolidation of these two companies took lot of effort. Project managers that were interviewed for this thesis were strongly making this consolidation happen. They led key projects related to the consolidation. Building new company from two major companies is the most challenging change there is. Building new company requires unified values, leadership styles and business processes. (Valpola 2004, 24).

During 2009-2011 NSN was undergoing very difficult times. New strategy was launched 2011 and company focused strongly on mobile broadband. NSN is now strong in Japan, South-Korea and United States which are leading countries in mobile broadband development. (MTV Talous, search date 19.11.2013).

On September 2013 Nokia announced that it has signed an agreement to enter into transaction whereby Nokia will sell substantially all of its Devices and Services business to Microsoft in EUR 5.44 billion all-cash transaction. Rajeev Suri said that:

> "Today marks an important step for our parent company Nokia and they have all our support. For NSN it is business as usual. We remain focused on executing our strategy and completing restructuring and delivering industry-leading innovation to our customers every day. With Nokia's renewed financial strength, NSN is well positioned."

(Nokia Solutions Networks, search date 19.11.2013).

2.2 PM Methodology

PM Methodology is single common methodology for programs and projects for Nokia Solutions Networks Business Excellence (BE) and Information Technology (IT) topics, worldwide. It is pre-customized for several types and sizes of projects (project type and mode). It provides common language for

Nokia Solutions Networks BE and IT - common understanding for former Nokia and Siemens employees. (NSN PM Methodology)

PM methodology clearly defines process interfaces to NSN. It also defines roles and responsibilities in programs and projects, fitting to NSN operational model. It provides templates and instructions; based on best practice selection from former Nokia Networks and Siemens Communications. Utilizing same methodology in each project within NSN, it ensures that project management fulfills compliance requirements e.g. SOX and ISO 900x. (NSN PM Methodology)

PM methodology provides the framework how projects are successfully and systematically run from process improvement idea into successful implementation as presented in figure 2. Everyone in the company is allowed to present process improvement ideas. All presented ideas are first evaluated in demand management team meeting. Ideas are then either rejected or approved. Once approved, project is launched. PM methodology provides the guidelines for project manager, project team and steering team how to run the project so that organization can be changed from as-is process into to-be process. Project is always given the mandate to execute the approved change. Once project is approved and launched, it goes through milestones from planning phase into final deployment. (NSN PM Methodology)
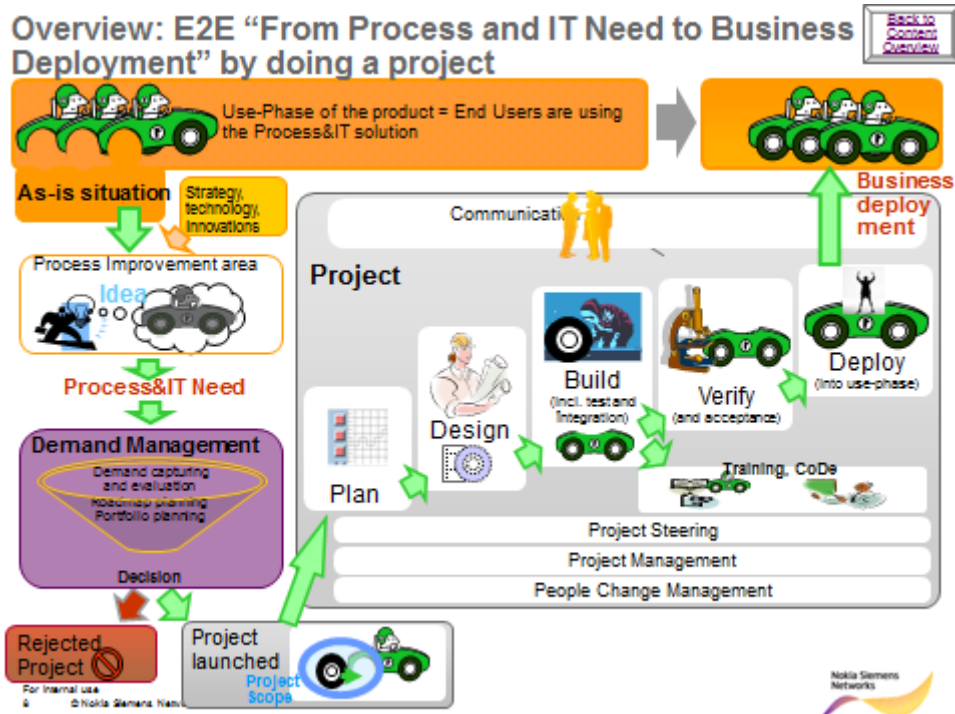
Figure 2. End-to-end overview: From Process and IT need to Business Deployment by doing a Project (NSN PM Methodology)

PM methodology has clustered all tasks in projects into areas that are presented in figure 3. Usually all sub-teams in the project are also clustered this way, so the project organization follows these clusters. Project manager is responsible for ensuring that all tasks in all areas are fulfilled in proper manner. (NSN PM Methodology)

Project manager is usually responsible for management-area documentation and tasks. If there is change manager in the project, he/she is responsible for change management task execution. Unfortunately there seldom is dedicated resource for these tasks and project manager is also taking care of these tasks with the capabilities he/she has. IT project manager is responsible for technical side of the project, meaning engineering development and use-phase preparations areas in the methodology. (NSN PM Methodology)

Element 1 – PM Methodology Areas: Overview

All tasks (and related materials/templates) in programs/projects are clustered into 4 Areas, according to the methodologies used in traditional projects

Project Management Area (Management methodology)	MA	Manage the change Implement ation	Tasks for managing and controlling the program/project (plan, organize, monitor, control ...) and project risk management. • MA-tasks during a specific project phase • Ongoing MA-tasks through all project phases • Special MA-tasks triggered by certain events
Engineering/ development Area (Specialist methodology)	EN	Produce the changed solution	Tasks of engineering/development and verifying & validating a solution
Change Management Area (Specialist methodology)	CM	Make people ready for the change	Tasks for Stakeholder management, Process roles implementation, CoDe/Training, Communication and Change measuring.
Use-phase Preparation Area (Specialist methodology)	UP	Make use-phase ready for the change	Tasks for preparation of the use-phase of a solution, e.g. in IT projects: preparation of IT operations, IT support, IT service management etc. E.g. in process project: set up of the process management and the process support which shall happen in the use-phase

These letters also used as prefix for templates identifications

Note: "Solution" is a neutral umbrella-term for all kinds of IT or Process parts which are end-result of a project, i.e. a "solution" can consist of IT system, Infrastructure, workplace-setup, SW, HW, Process, any end-user/support/supplier/technical documentation, training material....

For internal use
17   © Nokia Siemens Networks   PMM fundamentals

Nokia Siemens Networks

Figure 3. PM Methodology areas.

PM methodology also describes the project lifecycle from planning phase in to successful deployment and finalization of the project as presented in figure 4. In NSN PM methodology there are five phases and six different milestones that all projects must go through. The approval of the milestone is always done on steering team. Steering team is responsible for ensuring that project manager has provided all the needed deliverables and materials for each milestone. In steering team meeting project manager presents all the key tasks and explains how and where all needed tasks are executed and approved. (NSN PM Methodology)

Element 2 - Project Lifecycle: Phases and Milestones - Overview

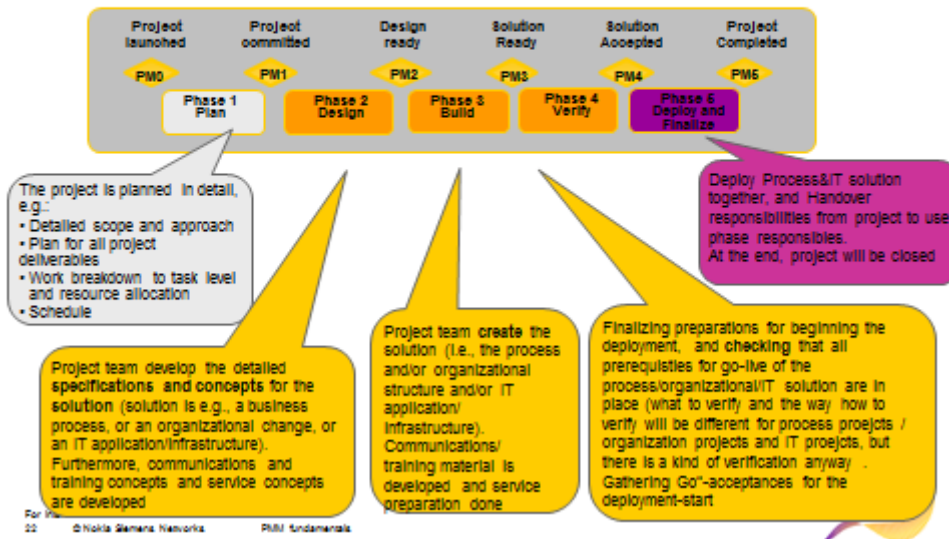PM Methodology project lifecycle structures the progress of the project into 5 phases and 6 milestones

The project is planned in detail, e.g.:
- Detailed scope and approach
- Plan for all project deliverables
- Work breakdown to task level and resource allocation
- Schedule

Project team develop the detailed **specifications and concepts** for the solution (solution is e.g., a business process, or an organizational change, or an IT application/infrastructure). Furthermore, communications and training concepts and service concepts are developed

Project team **create the** solution (i.e., the process and/or organizational structure and/or IT application/ infrastructure). Communications/ training material is developed and service preparation done

Finalizing preparations for beginning the deployment, and **checking** that all prerequisites for go-live of the process/organizational/IT solution are in place (what to verify and the way how to verify will be different for process projects / organization projects and IT projects, but there is a kind of verification anyway . Gathering Go"-acceptances for the deployment-start

Deploy Process&IT solution together, and Handover responsibilities from project to use phase responsibles. At the end, project will be closed

Figure 4. Project lifecycle, phases and milestones.(NSN PM Methodology)

PM methodology provides good framework for project managers on how to manage the project. The view is that project management is engineering science. Focus is clearly on technical side of the project management; how to resource the technical side of the project, how to plan the engineering and use phase preparation tasks, how to budget, how to plan activities for each milestone etc. Therefore it is also easier to understand that project managers are currently succeeding well in this area. But in order to be really successful and utilize fully all the potential of the project manager and his team, PM methodology should provide more information on how to support project manager in forming the well working team, how to identify different roles within the team, how to lead virtual team, how to ensure successful communication in multicultural and virtual team? It could be said, that unfortunately these softer issues of project management are currently lacking from PM methodology.

3. PROJECT MANAGEMENT

Nowadays majority of the work in telecommunications industry is done in projects, work has become projectified. Project managers are the key contributors to making things happen in the organizations. Therefore they play vital role in achieving the goals and targets of the organizations. There are less and less line managers and more and more project managers in each of the organizations. Tuomo Saari from Project Institute states that the future of the company and the capability to adapt rapidly into needed changes are depending on the success rate of the projects. Therefore it is vital to invest into project management. (Fiilin 2006, 36.) Project management is key strategic competence in current telecommunications industry. Typically project managers are leading key change projects: projects are changing organizational structure, implementing new processes and tools and introducing new improved ways of working.

3.1 Project Manager

Project manager has the overall responsibility about the project, change project. Project manager needs to balance with the "magic triangle" of the project: scope, time and cost. He/she also needs to ensure the fluent communication to stakeholders, project owner/sponsor and to steering team. Project manager is also responsible for the operational management of the project. He/she needs to plan and monitor the project objectives, tasks, resources and schedule. Key tasks are also the quality ensurance, risk management and project documentation. (NSN /PM Methodology). Especially on full-scale projects, the documentation needs to be on excellent level. This is really important in

international companies, where many projects are run simultaneously and are affected by one another.

Project manager's role is challenging and rewarding at the same time in numerous ways. In my view, Tom Peters's essay "Pursuing the Perfect Project manager" describes these conflicting dilemmas well. According to him, project manager needs to master following eight dilemmas: total ego/no ego, autocrat/delegator, leader/manager, tolerate ambiguity/pursue perfection, oral/written, acknowledge complexity/champion simplicity, think big/think small, impatient/patient. Tom Peter states, that companies should address these paradoxes in their training programs for project managers. I must agree; after attending several project management training sessions that focus on future project manager's trainings should be on analyzing project managers own working style and understanding how to master these dilemmas. It is fair to say, that competent project manager must understand that different situations require different behavior in different phases of the project. Therefore the focus on trainings should be more on developing the instinct that which one is appropriate at which time. I agree with Tom Peter and believe that in mastering these dilemmas lies the key to project effectiveness. (Peters 1991, search date 23.5.2013)

According to Jokinen project management is often seen as engineering science. Focus tends to be in planning, budgeting, scope management, risk management, documentation, in essential harder skills of project manager. Instead of this, focus should be more on softer skills like leadership, communication and teamwork. Once project manager is able to combine these skills successfully, he/she can fully utilize the potential that is in his project team. This applies especially to projects, where team consists of highly educated experts. (Jokinen 2005, 10).
.
Robert Goffee and Gareth Jones have discovered in their 25 years lasting leadership research that inspirational leaders share four unexpected qualities. They selectively show their weaknesses. As they show vulnerability, they establish trust and help people get on board. This also builds solidarity. They

rely heavily on intuition to gauge the appropriate timing and course of their actions. They have good sensors on when to reveal a weakness or a difference. They manage employees with tough empathy. Real leaders empathize fiercely with people they lead and care intensely about the work their employees do. They reveal their differences; they capitalize on what's unique about them. (Goffee et al 2000, 1-8). I participated into NSN leadership training on 2009. This essay was discussed in NSN leadership training with our lecturer Torkel Stalhand. In my view, it captures well the unique characteristics of an inspirational leader. Project managers are always driving the change in their projects and therefore they should always be inspirational in order to get the people on board. There is always change resistance and that can be minimized if the message is given by an inspirational leader.

3.2 Project Team, fundamentals for understanding how the project team is formed

All the project teams are different. They are formed according to the tasks that project needs to fulfill. Project team also typically changes during the project lifecycle: in the beginning once project is launched and is in planning phase, project core team is formed. Then, once project is fully launched and implementation phase begins, more people are coming onboard.

Tuomo Peltonen (2008, 49) has listed following characteristics for project teams:

- Project team is temporary
- Different working styles needs to be combined – this is usually challenging
- Team members are located in different locations/countries (virtual teams)
- Project stakeholders have usually different expectations and goals

Once project team is formed, team tends to move through stages of development. During these stages, team develops rules and norms and focuses towards the assigned task. These stages are called forming-storming-norming-performing and adjuring (Tuckmann et al 1977, 419-427).

Forming is the initial stage in which project team members must feel accepted by the group so that they identify with the group. It is typical that people feel uncertainty as they are facing new social situation. In this stage, all members are looking for their own place in the group. In the storming stage group clarifies its goals and determines the roles each member will have in the group power structure. In this stage members are concerned about expressing their ideas and opinions and finding their own place. One or more members may begin to challenge the formal leader's position on issues. This stage is vital. If managed well, it can lead to open discussion and new productive ideas and working styles. According to my own personal experience, many project manager's overview this stage and try to avoid it, without understanding the vitality of this stage. In the next stage, group identifies the rules and norms. All members also find their own place in group hierarchy. Once team is performing well, all skills, knowledge and abilities of all members are combined to overcome obstacles and meet goals successfully. In adjuring stage project is ended and team members are typically starting to work already in other projects. In this stage, they decide do they maintain interpersonal relations that they have developed during this project. (Tuckmann et al 1977, 419-427).

All project managers should pay attention to these stages, allow the team to take time and form itself properly. This means, that team needs to have time to get to know each other are properly before they are able to produce new ideas together. According to my personal experience, it is vital for team to meet each other's face-to-face regularly during the project and properly organized project kick-off workshop in the beginning of the project is vital so that the team starts to form itself successfully.

In order to understand properly the functionalities of the team, project manager also needs to understand the roles that are typically formed in all teams. "A

team is not a bunch of people with job titles, but a congregation of individuals, each of whom has a role which is understood by other members. Members of a team seek out certain roles and they perform most effectively in the ones that are most natural to them." Belbin has identified nine different roles. According to Meredith Belbin, key is the balance. Each of the roles is needed to successfully fulfill the assigned tasks for a project team. Belbin roles are presented in Table 1.

Project manager should have time to get to know the people in the project and ensure that they are having the most performing role in the project. Currently people are just resourced to the projects based on the technical skills. In my view, the role of the people should be more carefully analyzed and ensure that they are in suitable role in the project. For example I have experienced problems with sub-project leaders who are not capable to run sub-project. Instead they are remarkable specialist on certain area, but not good sub-project leads. This type of analyzing should be made and should be taking into use. Resources should be analyzed based on their working styles and role characteristics, not just based on their technical skills. This way project execution could be improved. (Belbin 2012, search date 28.5.2013).

Team Role	Contribution	Allowable Weaknesses
Plant	Creative, imaginative, free-thinking. Generates ideas and solves difficult problems.	Ignores incidentals. Too preoccupied to communicate effectively.
Resource Investigator	Outgoing, enthusiastic, communicative. Explores opportunities and develops contacts.	Over-optimistic. Loses interest once initial enthusiasm has passed.
Co-ordinator	Mature, confident, identifies talent. Clarifies	Can be seen as manipulative. Offloads own

	goals. Delegates effectively.	share of the work.
Shaper	Challenging, dynamic, thrives on pressure. Has the drive and courage to overcome obstacles.	Prone to provocation. Offends people's feelings.
Monitor Evaluator	Sober, strategic and discerning. Sees all options and judges accurately.	Lacks drive and ability to inspire others. Can be overly critical.
Teamworker	Co-operative, perceptive and diplomatic. Listens and averts friction.	Indecisive in crunch situations. Avoids confrontation.
Implementer	Practical, reliable, efficient. Turns ideas into actions and organizes work that needs to be done.	Somewhat inflexible. Slow to respond to new possibilities.
Completer / Finisher	Painstaking, conscientious, anxious. Searches out errors. Polishes and perfects.	Inclined to worry unduly. Reluctant to delegate.
Specialist	Single-minded, self-starting, dedicated. Provides knowledge and skills in rare supply.	Contributes only on a narrow front. Dwells on technicalities.

Table 1. Team role summary descriptions

3.3 Virtual Teams

Majority of the project teams are nowadays virtual teams. Team members which are located in different parts of the world are interacting with each other's via telecommunication channels. Teams are crossing several different boundaries: organization, geography and time. It is typical that virtual team members rarely see face-to-face each other's. Virtual teams typically also include subcontractors, consultants and freelance-workers In NSN all project teams are global virtual teams, scattered worldwide.

There are several challenges in managing a virtual team. Not all team members are capable for utilizing the telecommunication channels as fluently as would be needed to successfully run the tasks. All team members must learn to express themselves verbally and via telecommunication channels. This is not natural for all team members. Team working skills in virtual team are more demanding than in face-to-face communication. To find suitable timing slots for common meetings and workshops can be difficult due to several time zones. This especially requires lot of flexibility and usually takes time once the common rhythm is found. Also the different cultural backgrounds are impacting and team members should learn to understand the differences in different cultures once you are not able to see each other's regularly. This might lead into severe misunderstandings if not taken properly into consideration. (Peltonen 2008, 51-53).

However, virtual teams can be really efficient, especially if the virtual team members are already used to this type of working mode. For instance in my last project where I had personnel in ten different countries, in several time zones, we utilized short morning and evening calls to catch up on daily basis and exchanged ideas and issues. We always shared material before the meeting and we had rotating turns on which issues were handled. This was really

powerful way to work in multicultural environment and we gained excellent results by working this way.

Project manager needs to ensure that all team members have social capabilities to work this way and he needs to promote self-leadership across the team. It is also crucial to enable for team to meet face-to-face on regular basis. I have also found that certain phases in the project are crucial to me done on face-to-face collaboration. The most important one is the properly organized project kick-off workshop. Project manager also need to foster global culture. This means that there is unified way of doing this. It is crucial that project manager him/herself acts as an example on this issue (Siebdrat et al. 2009, search date 15.8.2013).

4. CHANGE MANAGEMENT

Change management is a structured approach to transform individuals, teams, and organizations from a current state to a desired future state. The current definition of change management includes both organizational change management processes and individual change management models, which together are used to manage the people side of change (Creasey 2009).

The change curve, presented in figure 5, was originally introduced by Elisabet Kubler-Ross in 1969 to illustrate how people react once they are told that they have terminal illness. Nowadays it is utilized to describe any kind of crisis that we as individuals go through. It is useful tool for change project managers to understand what phases people go through in their journey from current state to desired state, through change process. All people go through these phases: denial – anger – exploration – acceptance. Change leader needs to diagnose the phases and tailor the needed support to the entire organization accordingly (EBA 2013 search date 15.9.2013).

In every organization there are early adopters and late majorities. It is vital for change leader to understand this and also the fact, that early adopter is not always early adopter, it depends on the change. (De Jager 2005, search date 3.10.2013) Sinickas also states in his article, that the change curve is useful as an overview about the phases that employees will go through, but as each change project is unique, there is no template for the development of the message and its communication. Change management needs to be sensitive to people's reactions and plan effective communication accordingly. (Sinickas 2007, search date 15.8.2013).
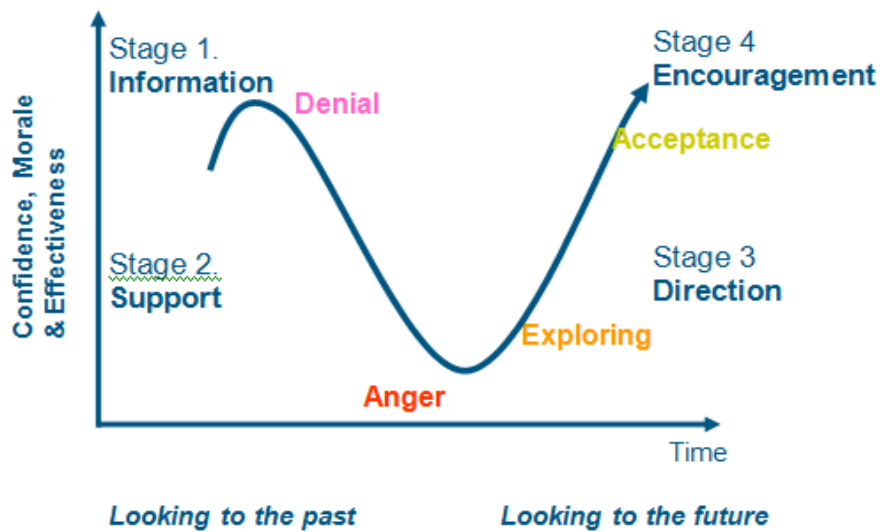
The Change Curve

Figure 5. The Change Curve

The challenge today is that change is not an "engineering" problem. Change involves people and once dealing with people, one must take into consideration emotions, uncertainties and inconsistencies. Therefore, simply managing change is insufficient; successful change requires strong leadership and proper change management competence.

4.1 Kotter's model for leading change

Greek philosopher Heraclitus has stated that "Change is the only constant". This was true 2000 years ago and still is. Nothing is more certain than change in every organization. Change management has been widely discussed topic since 1995 once Kotter published his book Leading Change. Many theories and ideas still are originated from Kotter's model.

Kotter's model includes eight steps. The first step is to create sense of urgency. This means that organization needs to understand that why change is needed. This requires open and honest dialogue among the whole organization; facts and figures about competition and marketplace. Typical mistake is that small dedicated group starts to plan the change and it is not discussed widely enough. The whole organization needs to understand the root causes behind the change in order to be motivated. According to Kotter 75% of the organization needs to be behind the change after step one to ensure the success. This means that great deal of effort needs to be resourced for successful step one. However 50% of the organizations fail in this phase. They want to start the change process too soon. (Kotter 1995, 59-67)

Step two is to form a powerful guiding coalition. This is the core team behind the change and it continues to build the urgency and momentum for the change. It is crucial to ensure that there is good mix of people from different parts of the organization. This team requires exceptional team working skills as it includes representatives from all levels of the organization. This team needs to include key line managers to be successful. If only senior managers are selected for this team, change effort will fail. (Kotter 1995, 59-67)

Step three is to create clear vision for the change. To ensure the success of the change, guiding coalition needs to formulate clear and easy to understand-vision for the whole organization. It must be short (only few sentences) and clarifies the direction in which an organization needs to move. Step four is then to communicate successfully the created vision. Communication needs to be open and honest. Guiding coalition needs to also listen to the voices of the organization; their fiers and anxieties. Those have to be responded. Communication must be frequent and constant. Change messages should be included in daily meetings and information sharing sessions. This way change message comes part of the daily business. (Kotter 1995, 59-67)

When moving forward in change process, step five is to remove the obstacles from new vision. There will always be change resistance and that must be dealt with. Communication is crucial, but not sufficient. Obstacles; human or

otherwise must be removed. Usually organizational change is needed to support the new vision. Also job descriptions and compensation systems must be modified to better support the change. The key is to identify the change resistance and help them see the root causes behind the vision. There are always people who like the things the way they are and are reluctant to change. Also the people who are supporting the change should be recognized and rewarded. (Kotter 1995, 59-67)

Sixth step is to create short-term wins. Real transformation takes time. They must be well planned, so that during the journey there are visible and concrete performance improvements seen. Short-term wins ensure that organization can see the benefits behind the change. People are more committed to the long-term wins, if there is motivating steps on the way. (Kotter 1995, 59-67)

Seventh step is to build on change. The crucial mistake is to declare the victory too soon. Real change runs deep. After every short-term win, organization should analyze what went right and wrong. There is always room for continuous improvement (Kaizen). Ideas should be kept fresh by bringing new people to the guiding coalition during the journey. (Kotter 1995, 59-67)

The last step is to anchor the change in corporate culture. In practice this means that the values behind the vision must be seen in daily working routines. Organization should also ensure that all leaders understand the change, also the new comers in the organization. (Kotter 1995, 59-67)

4.2 ADKAR model to support individual change management

The ADKAR model, presented in figure 6, was first published by Jeff Hiatt of Prosci in 1998 after research with more than 300 companies undergoing major change projects. This model describes five required building blocks for change to be realized successfully on an individual level. In my view, this is crucial

point. Once conducting large organizational change, project managers and change management teams tend to forget, that all employees need to change. The fact is that change happens on individual level and that if we want to change organization which has 1000 employees, we need to have 1000 times awareness, desire, knowledge, ability and reinforcement.

Change management team should also understand that every person looks the change from his/her own standpoint. Until personal career issues like will my job continue, will my benefits stay the same, will I have new responsibilities, will I have new boss etc. are resolved, employees are too occupied with their own issues. Company issues and major change project is not the first issue on their agenda. These are the key issues to be answered at the beginning to get people onboard. (Pritchetnett, 2013, search date 29.8.2013)

Project manager and change management team also needs to understand the importance of the questions to be answered in each phase of the change project. This ensures that change starts to happen on right level at the right time.

Prosci ADKAR® Model	
Building blocks of change / phase of the change project	**Questions answered:**
Awareness / important in planning phase of the change project	► **Awareness of the need for change** Why is the change happening? Why is the change happening now? What is the risk of not changing?
Desire / important in	► **Desire to participate and support the**

concept and design phase of the change project	**change** What are the personal motivators and organizational drivers that would cause me to support the change?
Knowledge / important in implementation phase of the change project	**► Knowledge on how to change** What knowledge, skills and behaviors are required during and after the change is implemented?
Ability / important in implementation phase of the change project	**► Ability to implement required skills and behaviors** How do I demonstrate the ability to do my job the new way? What barriers may inhibit me making the change?
Reinforcement / important in post-implementation phase of the change project	**► Reinforcement to sustain the change** What will make the change stick? What are the rewards, recognition, incentives and consequences?

Figure 6. Prosci ADKAR model

Project manager who leads change initiative has to understand that he needs to consider every single individual that project is impacting. Concentrating on awareness, desire and knowledge, like a solid foundation in a new building, provides the base for the acceptance of change and the ability to successfully implement the new process. With this positive base, change project is able to provide the ability and follow up with strong reinforcement. (Prosci 2013, search date 29.6.2013).

4.3 Challenges of leading change – why transformation efforts usually fail

The importance of change management has been recognized for half a century. Companies worldwide have invested in tools and trainings. Kotter's work has been seminal, his model is used as guideline in majority of the companies. Still the most recent studies show, that failure rate for change projects is still 60-70%, as it was by the time Kotter introduced his change process. Askhenas states that the content of change management models is correct, but the crucial mistake is that there is no managerial capacity to implement the change on the level that e.g. Kotter's and Prosci's models are describing. (Ashkenas 2013, search date 29.8.2013). Keller and Aiken are stating in their article, that majority of the change project managers struggle with employee attitudes and management behavior. The inconvenient truth about people is that they are irrational in many predictable ways. Change management practices are in need of better understanding of the irrational and often unconscious nature of how humans interpret their work systems and choose to act (Aiken & Keller 2008, search date 20.10.2009).

Project team and the project manager are usually responsible for driving the change project in the organization. In order to succeed, project has to be supported by executives and senior managers, line managers and project support functions. Lipman states in his article, that CEO must roll-up the sleeves, senior management has to walk the talk (not talk the walk), middle management need to know in their bones the reason for the change and the organization must be in for the long haul (Lipman 2013, search date 15.9.2013)

Project manager should also have change management resource or team. Reality is seldom this. If there is dedicated resource, he/she is usually outsourced consultant, external resource or part-time worker from human

resources department. This approach seldom works. Instead of doing this, managers' capacity to lead change should be improved and enhanced. Change can't be led by externals and consultants. (Ashkenas 2013, search date 29.8.2013). Experience, especially in the management of change is significant factor in project success. In managing projects, it is important to know how to handle both the tools and people and to achieve balance between the two. (Hyväri 2007, search date 12.3.2013).

Change management tasks should be integral part of successful project, not something that can be added later on afterward. Many times change man agent tasks are underestimated. They are usually not integrated closely enough to the project plan. Change management tasks are more successful if they are led by internal dedicated resource that understands the business drivers and goals of the project and will have to live with the results along with all the other users. Outside consulting company can be useful in building the change management strategy and plan, but they should not be the ones responsible for change management execution. (Melbye 2011, search date 30.3.2013).

No change project goes completely according to the plan. Project manager needs to be prepared for the unexpected. People will react differently and there will be resistance in unexpected levels of the organization. Therefore constant reassessment is needed. Cultural landscape should be assessed. Typical mistake is that culture is assessed too late or not at all. Thorough cultural diagnostics can assess cultural organizational readiness to change, bring major problems to the surface, identify conflicts and define factors that can recognize and influence sources of leadership and resistance. Once culture is understood, it should be addressed as thoroughly as any other area in change project (Aguirre et al. 2004)

Change management is bigger than leadership. If the successful change is needed, the work systems around the people that should be changed must be changed: organization, workplace (physical or virtual), tasks, people's skills and orientation, rewards, measurement, information distribution and decision

allocation. Successful change leader can convert these eight work systems into eight levers of change. (Shea et al 2013, search date 15.8.2013)

Towers Watson Survey reveals that managers are catalysts for successful change. Companies should better prepare all level managers in their role as change leaders. Companies must ensure that they are focusing on informing, engaging and enabling their employees. Managers need to understand better the reasoning behind the change resistance. They also need to involve the employees to create the change (Towers Watson 2013, search date 1.10.2013).

Sirkin et al. introduce remarkably interesting viewpoint in their article, the hard side of change management. They state that DICE should be taken into consideration while leading change. DICE stands for project duration (particularly the time between project reviews), performance integrity (capabilities of the project team), the commitment of the management and the target organization (where the change is impacting) and the additional effort that employees must make to cope with the change. Boston Consulting Group has used these variables successfully to predict the change success rate.

4.4 Integrating project management and change management

When change project is started, both technical (project management) and people (change management) side should be considered from the beginning. Project management and change management should be integrated closely to gain effective results as presented in figure 7. Project management ensures that technical solution is developed, designed and delivered. Change management ensures that change is embraced, adopted and utilized. Project and change management are complimentary disciplines with common objectives (Prosci 2013, search date 15.3.2013).

People dimension	Integrating on the people dimension requires architecting the relationship between the project team and the resource or resources dedicated to change management - integrating at the "who is doing the work" level. In the simplest terms, the change management resources either sit on the project team or sit outside of, but in support of, the team.
Process dimension	Integrating on the process dimension involves sequencing and aligning the technical side activities with people side activities - integrating at the "what work is being done" level. The process dimension has a key role in determining when change management begins during the project lifecycle.
Tool dimension	Integrating on the tool dimension involves identifying particular tools that can be extended to include both a technical side and people side component - integrating at the "what tools are being used to do the work" level. Risk assessments and communications plans are two common tools that can be effectively integrated.
Methodology dimension	Integrating on the methodology dimension moves beyond "in project" integration and toward the creation of a common set of steps applied by any project that addresses both the technical side and the people side of the change. There is value to an integrated project delivery approach that addresses both the technical and people elements, but hard wiring a "one-size-fits-all" methodology also has potential risks.

Figure 7. Dimensions for project and change management integration by Prosci.

The Standish Group and Gartner, organization that tracks Information on project implementations globally, have clearly stated that a significant contributor to project failures is overlooking the need to address employee adoption and resistance jointly. Yet, many projects do not include change management team or resource to handle these issues. Moreover, project might not even have change management issues on its scope. In majority of the organizations idea is, that project manager, external resource or business analyst will handle these issues besides their other responsibilities even though they are not properly trained to execute change management tasks. This type of approach results project failures. Project management and change management must be integrated. In success stories they are well integrated and change management even continues after technical side of the project is ended. (Hornstein 2012, search date 30.9.2013)

Managing change is challenging. However, change project can transform the attitudes and the behavior of the target organizations by applying psychological breakthroughs that explain why people think and act as they do. This requires that change management competence is in place in the project resources and project management and change management are integrated. There are four conditions that can change how people behave: there must be a purpose to believe in, reinforcement systems must be in place to support the change, the skills must be in place and consistent role models must support the change. (Lawson et al 2003, search date 18.8.2013)

4.5 Change management in NSN

Change management is part of NSN PM methodology. There are five elements of change management described and PM methodology provides altogether 39 different templates for project managers in change management area to support the implementation of change management in Operations projects.

First element is stakeholder management. Objective of the stakeholder management is to ensure that all relevant stakeholders are informed about the status and the approach, understand the needed changes and are committed to the goals. Main tasks are identification of the relevant stakeholders, conducting stakeholder analyses and managing workshops with key stakeholders. (PM Methodology)

Second element is communication. Objective of the communication is to ensure that all relevant parties receive the required information and have channels for questions to ensure the correct understanding of the change and its impacts to the organization and individual. Main tasks are communication plans on global, regional and local level and establishing communication channels in place. (PM Methodology)

Third element is roles and responsibilities implementation. Objective of roles and responsibilities implementation is to establish clear roles and responsibilities according to NSN operational model as a prerequisite for operations. Main task is roles and responsibilities meeting and workshops with line management to kick-off the nominations for critical roles in target organization. Important is also to follow-up and ensure successful implementation of the roles and responsibilities. (PM Methodology)

Fourth element is training. Objective of the training is to ensure that all relevant users are trained about the NSN operational model, processes and systems to ensure that people have needed skills to do their daily work according to NSN operational model. Main tasks are comprehensive training of relevant users (key users and end users) on operational model, processes and system usage. (PM Methodology)

Fifth element is change monitoring. Objective of the change monitoring is to follow-up the progress of the change and enable early proactive actions to make change permanent. Main tasks are change surveys, closed loop feedback and training participation follow-up. (PM Methodology)

While reviewing NSN change management framework against the theoretical part of this thesis, NSN has good framework for change management in place. It clearly defines the elements that should be taken care of in the projects to manage the change. NSN change management elements are following fairly well the guidelines that are given in Kotter's model and Adkar model. In the PM methodology it is integrated into project management as recommended by Prosci.

Even though the framework is in place, change management is not integrated into projects on proper level while they are running. Change management issues are not integrated with technical side issues from the beginning. If they are recognized, they are handled in E2-E3 phase while problems are starting. Usually the problems are starting once more people from target organization become part of the project organization; business development managers, key users etc. come part of the project organization. They are the once who are impacted by the change. They are the ones who are left with the changed working environment once technical side of the project is over. Without proper change management tasks execution, problems are starting. Currently PM methodology, change management section, does not include these kind of tasks at all. Project manager is not able to find concrete tips how to include new members to the project team? How to successfully lead the change so that new

and very important people are fully behind the change and are in the future acting as change agents in the target organization?

Also, the clear feedback from the project managers is that PM methodology provides lot of templates for change management but not detailed level instructions on task execution how to handle the change and change resistance successfully in the projects. As stated in the theory part, change management is not an engineering problem, different templates are not the issue. Issue is that there has to be capability in the projects to successfully lead the change. Therefore it is clear that update is needed for change management part of the PM methodology and more training is needed for project managers and other key resources who are dealing with change management in the organizations. Also steering team members should be trained to properly evaluate the project status. There is no point to approve E1 and E2 milestones to go forward in the project schedule, if change management issues are not part of the project scope.

5. RESEARCH METHOD

Objective of this thesis was to clarify the current understanding level of the key project managers about the change management and based on the results create plan how to further develop the competence. Ultimate objective is to improve the understanding level of the project managers about the change management and by doing so improve the quality of the NSN key projects. Ultimate target is that success rate of the change projects could be improved.

Research problems were as follows:

- According to key project managers, what is change management?
- Based on their experience, what is successful / unsuccessful change management – best practices from their point of view?
- How project managers could utilize change management in their projects to gain better results? Possible problems in change management implementation?
- What should be done to successfully further develop change management competence of the project managers?

5.1 Research Method

Considering the objectives of this thesis and the target organization, the most suitable research method was qualitative interview study; more precisely focused interview or semi-structured interview.

Qualitative research is comprehensive and the research material is collected in natural situations. It aims to gather in-depth understanding of human behavior

and the reasons that are causing particular behavior. The qualitative method investigates the why and how of decision making, not just what, where, when. Therefore, smaller but focused samples are more often needed rather than large random samples. Target is that the views and the voices of the focused samples are heard and therefore interviews are typical format of qualitative research. In this thesis sample size was 5 experienced project managers (Hirsjärvi et al 2009, 164).

Theme interview is not as formal as interview with questionnaire form and more structured than an open interview. Focused interview is semi-structured as all the interviewees are given same specific themes and subjects of which are discussed during the interview session. Interviewees are expressing their own views on the discussed issues without tight control in which order to progress. During the focused interview session, there is time and space for free discussion, eventhoug the themes are decided in advance and the same themes are discussed with all interviewees. Although, it must be noted, that not all of them are discussing the same themes on the same level; the experience, personal interests and the understanding level of the interviewees are all impacting on the form and the level of the discussion. Interviewees view points and interpretations are taken into consideration; to some of the interviewees certain themes are more significant than to others. (Eskola et al 2000, 86-87)

Researcher has only few notes in the session; the focus must be on the discussed topics, not on the papers. Therefore it is crucial that researcher has knowledge about the themes so that the discussion is fluent. Themes can be listed with bullet points. It is also good to guide the discussion by utilizing key words or additional questions to ensure that the interviewees are discussing about the right issues. (Eskola et al 2000, 86)

Theme interview requires thorough preparations and understanding about the status of the interviewees. Discussed themes are chosen based on the preparations. Research problems must be properly formulated prior to interview sessions to take place. Researcher must also select the interviewees in a focused manner; they must be able to provide enough information on the

selected themes. I chose five project managers so that they are representing well project managers diversity (Hirsjärvi et al 2001, 66-67).

5.2 Selection of themes and formulation of research problems

The objective of this thesis was to clarify the current understanding level of the project managers about the change management and based on the results create plan how to further develop the competence. The research problems were first discussed with the line managers. Based on the research problems, following themes were chosen for the interview sessions:

- Basic information of the interviewees
- Definition of change management
- Best practices on change management
- Key problems in the projects regarding change management

In addition to this, all interviewees were later on invited into a common workshop, where larger group of project managers globally discussed last theme. Last theme was:

- Further development of change management competence

5.3 Data collection and analysis

Five project managers were selected to be interviewed. All of them are leading key projects within NSN Operations. All their projects are consolidating business processes and systems for NSN. These type of project are very demanding as they replace totally old processes and tools

and replace them with new common ways of working. Three of the interviewees are from former Nokia Networks and two of them are from former Siemens Communications. One of them is located in Oulu, two of them in Espoo and two of them in Münich. All of them have more than ten years of experience in the industry and all of them have been leading projects more than five years. All of them express them fluently in English, which was the interview language. They all were my colleagues, so I could fully understand their status and relate to the themes and topics that were discussed during the interview sessions. All of the selected interviewees wanted to participate and were motivated to spent two hours for the interview session and on top of that two hours for the telepresence meeting. All of them thought that this thesis topic was really important.

All of the interviews were conducted face to face in Espoo, which was easy to arrange as all of them (including myself) are frequently visiting Espoo. All of the interviewees muted their phone and did not take laptops into the session. All of the interviews were conducted in peaceful environment in the idea room (not typical conference room), where there are sofas instead of normal conference room chairs and no conference table. This was arranged to ensure more relaxed and not too typical working environment for the sessions. As a researcher I wanted to create an atmosphere where it is easy to focus on the interview session themes, not on hectic project issues.

All of the session times were arranged in cooperation with the interviewees to ensure that the timing is from their project point of view suitable for the session. They all were informed in advance about the themes. In addition to that in the flip chart in the idea room, the themes were written so that they were visible during the interview session and were reminding us during the session about the topics to be discussed. All of the interviews were recorded as it is impossible to focus on the interviewee and simultaneously try to write all the important issues down as notes. Also while recording one is able to better observe the body language of the interviewees.

The interviews resulted lots of data as all interviewees discussed actively about the chosen themes. Once the interviews were conducted, interview material was analyzed. The most typical approach is to analyze the material by themes. Recursive abstraction was utilized as analysis method; recorded interviews were summarized one by one. Summaries were then further summarized. The end result is in the end more compact summary that would have been difficult to accurately observe without the preceding steps of distillation. Results-chapter was then formulated based on the compact summary. .(Hirsjärvi et al 2001, 143-144).

I did this analyzing phase twice, first on 2009 and second time on 2013. In my point of view, it was easier to analyze the data more objectively once I was no longer a colleague to the interviewees. This time my own project issues were no longer impacting on the themes. I could more profoundly listen to the interviewees as I was not involved with these topics myself anymore. It was good that I fully understand the themes and the issues that they are discussing and I share the same experiences, but on 2009 I was still too heavily involved with these issues to be able to objectively observe the interviewees viewpoints. I could not listen to the interviewees the way researcher should listen.

Hirsjärvi states that sometimes it is good to take some distance to the themes (Hirsjärvi et al 2001, 135). Hirsjärvi also states that sometimes subjective attitude may prohibit versatile search of data. We interpret our experiences personally and search the world from our own point of view. Person is only interested about the issues that are familiar for him and are impacting his own life (Hirsjärvi et al 2009, 19). I must fully agree based on my own experience. I think this research is now more versatile and comprehensive as I took the time and looked the data second time with more objective eyes.

6. RESULTS OF THE THEME INTERVIEWS

6.1 Basic information of the interviewees

Interviewees were 35-50 years old. One of them was female and four of them were males. All of them have been studying engineering and / or business in University of Applied Sciences or in University. All of them had also participated into former Nokia or former Siemens and NSN training courses which were focusing on project management and leadership. Only one of the interviewees had received training related to change management.

All of the interviewees have been working more than ten years in former mother companies and in NSN. All of them had more than five years of experience in leading projects. Apart from senior level project management competence, all of them have deep understanding and knowledge about NSN business processes and tools as all of them are leading NSN Operations key projects. Their special competencies are related to logistics and manufacturing.

All of the interviewees have fluent English skills as they all have been working in multicultural environment for the past ten years. Four of the interviewees have been living abroad one or more years during their career in IT industry. All of the interviewees find their work interesting and challenging. All of the interviewees are leading multicultural and virtual project teams, which are located in several countries.

6.2 Current understanding level about the change management

As all of the interviewees are experienced and competent project managers, they all had basic understanding about the change management; they all understand that change management is needed to change the way people are behaving into a desired state. They all understand that it is very important competence for project manager, but regardless only one of them had participated voluntarily into change management training which was offered in former Nokia Networks.

All of them stated that it is very challenging area for the project manager to tackle in the project, especially as project manager has so many other issues on his responsibilities. While discussing about their daily routines, they all mentioned, that majority of their time is invested on management; planning, budgeting, organizing and problem solving. This is understandable in that sense, that the whole industry is having tough times and there is lot of focus currently on tight cost control; projects budgets are followed very closely.

None of them listed leadership tasks while asked how their time is spend in normal working day; none of them mentioned establishing direction, motivating, inspiring people. None of them discussed about forming well performing project team. None of them discussed about the different roles in the project team during the project.

All of them know the change curve as it has been utilized in NSN change management materials. All of them pointed out, that they haven't utilized that as basis while planning their own project. With all of them I ended up discussing that it could be powerful tool while planning project and especially project communication. All of them have heard about Kotter, none of them about Prosci

and ADKAR model. All of them stated that they would like to know more and utilize change management more profoundly in their projects. During the project execution there just isn't time to learn about the new theories by yourself as project manager's role is so demanding. Common clear framework would be needed.

When discussed, that what is change management in NSN, all of the interviewees mentioned stakeholder management and communication. Only the trained one listed also the rest of the elements; roles and responsibilities implementation, training and change monitoring. The trained one also pointed out, that leadership skills are vital for successful change management.

6.3 Best Practices

All of the interviewees pointed out, that lately there hasn't been too many best practices to be shared as currently there are no resources in the projects to successfully manage the change. Project manager should do this, but they don't have enough time and they don't have competence as they are not trained. The general view was, that change management is regarded as important in the beginning of the project, but then during the system solution creation phase of the project, it is totally forgotten. The current change management tasks are not done systematically, but merely too late in the deployment phase of the project. Change management is again important in E2-E3 phase once problems are starting, but then it is far too late to successfully lead the change. Change management tasks should be done from the beginning till the end and with systematic manner.

According to one former Siemens employee, change management part in the PM methodology is not on detailed enough level guiding the project managers. He pointed out that for instance in the management area of the PM

methodology tasks are clear and understandable, but not in the change management area. There are too many templates and it is not clear to project manager what is mandatorily required in each of the projects.

One former Nokia Networks employee pointed out that in the Nokia Networks time there was always resources available for key projects and therefore the change management was done on totally different level; there was own resource handling each of the five elements in the project; change was more successfully implemented as target organization was aware of the change in advance on the needed level.

Best practices that were pointed out by the interviewees are presented in consolidated format on figure 8. Best practices are divided for each element in NSN PM methodology.

Change Management Best Practises

Change Management Element	Best Practises
Stakeholder Analysis	Proper analyses made in PM0 phase of the project and then updated for each milestone together with key people from target organizations
Communication	Utilize existing and already approved communication channels. Involve key people from target organization to formulate the message. Nominate change agents to deliver the message succesfully.
Roles & Responsibilities Implementation	Workshops with line managers should be organized early enough to ensure that roles and responsibilities are understood correctly.
Training	E2E process trainings should be organized prior to system trainings are started. Face to face session are needed for trainigs.
Change Monitoring	Regular assessments should be made. Open communication between the project organization and target organization. Listen to the people!

Figure 8. Change management best practices.

6.4 Key problems regarding the change management in the projects

All key project managers are leading projects which are changing the way people are working; changing their daily routines. Therefore change management should be very important responsibility area in all of the interviewees' projects. Only three of the project managers had part-time change manager working for them in their project. All these part time resources are external consultants, with no understanding of NSN business processes and PM methodology. Eventhoug project manager would like to resource change management manager into his/her project, there are no resources available. Part-time resource has only time for ensuring fluent communication and this means that project managers needs to provide all the communication material to this part time resource. So the part-time resource is merely an assistant in communication, not really a change management manager. Therefore the responsibility on the successful change management lies totally on project manager's shoulders. In the discussion with the interviewees, everyone pointed out that training and clear instructions are needed. All project managers felt that they don't have enough understanding about the change management to successfully lead the change.

Three of the interviewees pointed out that it would be good to start to share change management best practices in PM community meetings. PM community meetings are global telepresence meetings for all key project managers. In these meetings project managers share ideas and discuss about the current topics. Currently the focus in the PM community meetings is heavily on management, not on leadership and change management issues.

All of them pointed out, that even though we have PM methodology guiding project managers in the change management area; there is no training available and change management part is having so many templates and instructions. It

would be good to review those templates; reduce the amount of the templates and provide only the key message on that kind of format that project managers understands what needs to be done and provide training for the project managers.

Important fact is also, that currently there are so many changes taking place simultaneously in the NSN. Therefore there is lot of change resistance in many parts of the organization. Therefore project managers should have clear tools; how to handle change resistance.

6.5 Further development of change management competence

All of the interviewees were invited into workshop, where further development ideas were discussed commonly. Also wider group of experienced project managers were invited into this telepresence meeting. There was clearly need for this type of session as all project managers participated actively on the discussion.

All project managers feel that the first crucial step is to offer change management training for all key project managers, key stakeholders in the projects and steering group members. All key persons need to understand the importance of change management and needed resourcing for change management tasks execution.

All of them pointed out that change management resources should be available for all key projects. They should be internal resources who have deep understanding about the business processes and supporting IT-systems. None of the project managers have felt that resourcing external consultants to do change management tasks would have been successful solution. This way the project manager ends up doing all the change management related tasks.

Usually these are then done once all the other management tasks are done. This way, change management tasks are not properly in project scope. Project manager tackles them once there are problems (on ad-hoc mode) and not systematically starting from the beginning involving all the necessary people.

All project managers stated that change management part in PM methodology should be further developed to support better change management resources and project managers in their daily work. Clear view is that the amount of deliverables should be reduced. The focus should be on achieving better results from projects with successful change management execution. Project managers need clear guidance how to lead the change, how to deal with change resistance and how to ensure that key people from organization are behind the change.

All project managers feel that focus in currently strongly on technical side of the project issues, especially in budget control. Project managers feel that softer issues of project management as well as the change management issues should be put more on focus. In the project manager's community meetings, best practices and lessons learned regarding change management should be shared.

7. CONCLUSIONS

Currently the focus is too much on technical side of the project execution. Unfortunately change management issues are handled case-by-case as they come along. There are no dedicated resources to lead the change and project managers feel that they don't have enough managerial capacity to successfully lead the change. As the results show key project managers feel that they need more training in order to successfully lead the change in the projects. Also, the resourcing of the change management area tasks must be improved. It should be ensured that all key projects have competent change management team from the beginning of the project. Change management tasks should be put properly on project scope.

Based on the research results, project execution could be improved in NSN. There are lots of good elements and projects are managed well with strong focus on technical side of the project issues, but currently project managers are not leading the change the way they should to gain successful results. Improvement could be made by improving the project manager's capabilities as change leaders and ensuring proper change management resourcing for projects.

The challenge today is that change is not an "engineering" problem. Change involves people and once dealing with people, one must take into consideration emotions, uncertainties and inconsistencies. Therefore, simply managing change is insufficient; successful change requires strong leadership and proper change management competence.

Key project managers in NSN are given challenging tasks: they need to change the way people do their daily work in an environment which is in turmoil. It is difficult to change the way people behave, especially if there are several changes ongoing simultaneously and at the same time people are afraid that

what is going to happen on them on personal level: will they lose job? Will they lose benefits?. It is hard to focus on major change project when your personal life issues are not clear.

Based on the research results, project managers are now too occupied with managerial issues like planning, budgeting, problem solving and organizing. None of them listed leadership tasks while asked how their time is spend in normal working day; none of them mentioned establishing direction, motivating, inspiring people. It is also worthy to mention, that none of them pointed out team building and none of them discussed about different roles that they have in their team. This is crucial once leading change project, as the project team also changes all the time. Project manager should have time to form the team properly and ensure that all the roles are within the team nourished. It is really important to understand the softer side of project management to be successful.

In an environment like this, change management competence is crucial for successful project manager. It could be said, that is now more important than ever. Change management tasks however are impossible to run by one person, this was clearly pointed out by all of the interviewees. It requires change management team which is part of project organization. Change management team should be headed by competent change manager. He/she should be internal resource who has deep understanding about the business processes and tools, not external change consultant. Experience, especially in the management of change is significant factor in project success. In managing projects, it is important to know how to handle both the tools and people and to achieve balance between the two. (Hyväri 2007, search date 12.3.2013)

To support project managers in building their capabilities, this thesis proposes that PM methodology, management area, is updated with softer issues. Successful project manager must understand how the team is formed and how to lead different types of people, especially in multicultural and virtual environment. Also change management part should be updated and aligned with technical side of the project management. Project managers don't need

just templates, they need clear guidance on how to understand human behavior while leading change.

Change management team should be formed as soon as the project is launched, not in E2-E3 phase while problems are starting. This thesis proposes that steering team would not approve milestone E1 if the change management team is not formed. It should be part of project organization with strong representatives from all levels of the target organization(s). Change management team should be led by internal competent change manager and the team should include line manager(s), team leader(s) and key user(s) from target organization as presented in figure 8. Properly resourced and competent change management team would be a bridge between project organization and target organization.
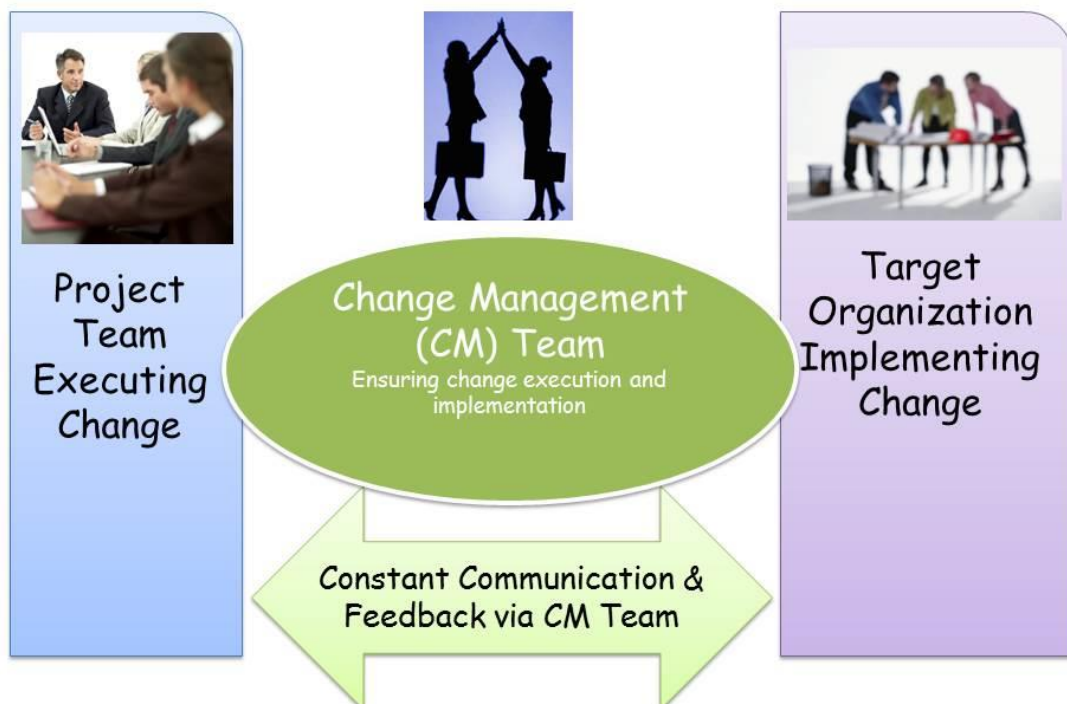
Figure 8. Change management team – bridge between project and target organization.

Change management team would ensure constant and successful communication between the project and target organization. They would define clear vision for the project in the beginning and they would ensure that vision is clearly communicated to the target organization. Currently the communication is done by project managers (assisted by external change manager) and the content is more about the project status, milestones, achievements etc. This type of communication does not ensure the successful change implementation. People in the target organization don't understand that why the change is taking place and what does it mean for me. If the communication would be formulated by change management team it would answer the questions that are presented in ADKAR model and it would follow the guidance of the change curve. Change management team would closely follow the target organization behavior and would do regular change assessments to ensure that change is proceeding and people are onboard. Successful change management would minimize the amount of change resistance and would give clear tools how to deal with change resistance.

Change management team tasks should be aligned with all technical side tasks throughout the project. Change management team should continue their work even longer than technical side of the project. This way, change management team can ensure proper support for target organization. Currently many target organizations feel that they are left alone with problems. All project team members are gone once the real problems are starting with new ways of working. Therefore this thesis proposes new additional milestone for change management team tasks. It would be E6 after three months of project E5 milestone. This way it would be ensured that the change is anchored. Today lot of money is invested in the change projects, but old ways of working still stick in the target organization once the project is ended. This is possible as there is no one to ensure that change is really taking place. All project resources are already executing new project.

Typically people that are executing projects are early adapters and they are easily onboard with the changes as they are more used to them. Whereas

people who are in target organizations are more used to working in stable conditions and typically are late majorities and want to ensure that the change is really reasonable before they are onboard with it. If the project manager is the only one dealing with change management, he/she doesn't have the view of the target organization at all. Therefore the change management team must include several persons from target organization to ensure the successful change acceptance. Change management team can better proactively plan the right change management tasks at the right time.

Conclusions are summarized and formulated into change management competence strategy plan for NSN. Plan is presented in figure 9.

Change Management Competence Strategy Plan for NSN

Action	Owner
Change management training for all key resources (project managers, change management team members, steering team members)	PM Methodology Owners
Resource pool for change management managers	Head of Global Operations & Line managers
PM Metodology / Managament area updated with softer issues of project management (e.g. team roles)	Project Methodology Owners
PM metodology / Change Management area updated: how to lead change, how to deal with change resistance	PM Methodology Owners
E1 should not be approved if change management issues are not in project scope & CM team nominated	PM Methodology Owners (Guidance to Streeting teams)
E6 milestone added to PM metodology (ensures that change is anchored)	PM Methodology Owners

.Figure 9. Change management competence strategy plan for NSN.

It would be interesting to study further this topic and analyze the organization again once the change management strategy plan activities are implemented.

8. DISCUSSION

This research was initiated in portfolio management meetings on 2009. I conducted all the interviews during that year besides my work as project manager. I knew very well the topics that we discussed with the interviewees as they were my colleagues. We had same experiences and we were all actively sharing ideas together.

The research was on hold during 2010-2012 as my personal life changed dramatically, but positively. First I became foster mom with one week notice for one month old foster daughter Sofia. After that I gave birth to my daughter Milja. Once they had grown a little bit, I was able to concentrate again to this thesis and continued the work on 2013. The other big change was that I decided to voluntarily leave NSN on December 2012 and pursue my dream to become a vocational teacher. After working 15 years in the company, I still have good connections to the company and the topic is still important. Therefore I decided to finalize this thesis for NSN. Theory part was totally updated in 2013 as there is lot of interesting articles about the topic. Empirical part was also updated as I noticed that it was much easier to be in researcher role once you were no longer colleague to the people who you had interviewed. I was able to analyze the interview data more objectively as I was no longer part of the organization. As life itself, this thesis journey has been interesting and full of changes.

Based on my experience about the master thesis process, I would recommend that thesis is not done for own team or organization. For me, it was much easier to be on researcher role once I was no longer part of the organization. I was able to me more objective and analyze the data more comprehensively. Therefore I propose that master thesis subjects are chosen so, that the researcher has the knowledge about the topic, but is not too close interaction with the interviewees (e.g. similar organization or company in the same field).

Regarding the writing process of the thesis, I must say, that it would be really nice, if there would be ready-made template to be used for master thesis writers. It was quite on exercise to put this thesis into required format without the template. I'm thankful for the good support I have received from my supervisor during the writing process. There have been moments of despair, but the end result is really good.

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