Stakeholder Management in Agile Public Projects

Case Study of municipal project “Innoveta KC”

Hui Chen
Lina Lvova

Degree of Master Thesis (1yr),
Stockholm, Sweden 2011
Executive summary

Innoveta KC is a truly innovative project run by Sambruk municipalities and their software developer Jayway, investigated by University West (Högskolan Väst, HV) and sponsored by Vinnova, in order to develop a common Customer Center (Kundcenter, KC) for citizens in Sambruk municipalities. Started from scratch and without concrete specifications, technical part of the project (system development itself) has been managed according to the agile methodology (Scrum) which is very unusual for public sector projects and influenced Innoveta and its stakeholders very much. This approach has gained to the project management significantly but at the same time caused some challenges during the project.

This master thesis aims at investigating stakeholder management in public IT projects as well as figuring out on the example of the Innoveta project, how agile methods influence it in comparison to the traditional approaches. The expected research results should reveal what impacts agile methods have on all projects participants in the public project – both involved and not involved directly with agile system (product/service) development – and relationships/interactions between them.

Two research questions were formulated to express the main objectives of the work:

- What benefits can a public project gain from agile methodology in terms of stakeholder management?
- What are challenges and how to solve them/improve stakeholder management in the agile public project?

Research design of the thesis project can be described as qualitative, explanatory & exploratory, and inductive whereas case study was chosen as a research strategy. The main focus of data collection was set on documentation analysis and interviews, where 9 key project participants were interviewed.

The empirical study was based on the investigated project processes covering interactions and relationships between all key project stakeholders. Analysis of project activities and conclusions drawn from the interviews helped to formulate main benefits and constraints of the agile methods implemented in public environment as well as to state challenges they bring. Thus, the main challenge while organizing a public project in an agile way concerns management of communication and interactions between different key stakeholder groups used to work in a traditional manner. Another one is a lack of particular technical knowledge on the customer side which might require significant training and education.

Analyzed pros and cons of the agile methods in public projects together with challenges and constraints have been complemented with overview of the project’s strengths and successes. Finally, specific suggestion for improvements and general recommendations were made.

The pilot municipality, municipality of Jönköping, was studied for the purposes of the current research work. Thus, the results might vary from those acquired from analysis at other municipalities. The same should be mentioned relatively other public entities and countries that Swedish municipal institutions. Moreover, the scope of the research is predetermined by its objectives and cannot cover all subject related issues.
Acknowledgment

With this foreword we would like to express our gratitude to people whose incredible support helped us to start and make this big journey. The whole project would be obviously impossible to conduct without your attention and participation which turned our initial ideas and plans into real practical achievements. It has been a great experience for us and we are happy to meet all of you! We also hope that results of our collaboration will be somehow useful for you in the future.

First of all, we would like to thank our supervisor at Sambruk Anna Öhrwall Rönnbäck, who initiated the collaboration with the Innoveta KC project and supported us all the time. Tack så jättemycket Anna! We are very thankful to you for all you have done for our research to succeed!

Our sincere gratitude to the excellent supervisor and organization development consultant Charlotta Torke, who was enthusiastically supporting and directing our work from the very beginning! Vårt största tack, Lotta! We appreciate your professionalism which contributed significantly to our thesis. Thank you for your encouragement and feedback!

We are outspokenly thankful to all the interviewees who devoted their time and attention to our work, participants from municipality of Jönköping, Jayway and West University. Namely, Madeleine Eckerström, Anneli Jacobson, Lennart Östblom, Jan Nilsson, Per Flensburg, Kerstin Grundén, Irene Bernhard, and Henrik Oskarsson. Thousands of thanks to all of you! Without your help it would be hard to perform any practical investigation or analysis. We are acknowledged with all information you have provided to us both personally at the interviews and in form of already existing documents and investigations we used as primary data sources.

We are also grateful to Claes-Olof Olsson, Thomas Rosenfall and Lotta Ruderfors from Sambruk for various supports during the project work.

We are lucky to have access to this innovative and unusual for its environment project, and to deal with people who have built it all up!

Finally, we would like to thank people who were not directly participating in our study project but were always supporting us among them – our parents and other relatives, friends and classmates. And of course, we are thankful to our examiner Roland Langhé who provided us with guidelines and recommendations at the final stage.

Thank You all so much!

Sincerely yours,

Lina & Hui
# Table of Contents

1 INTRODUCTION  
   1.1 BACKGROUND  2  
   1.2 PROBLEM OVERVIEW  2  
   1.3 GOAL STATEMENT  3  
   1.4 SCOPE AND DELIMITATIONS  3  
   1.5 TARGET GROUPS  3  
   1.6 MILESTONE PLAN  4  
   1.7 RELEVANCE OF RESEARCH AND KNOWLEDGE GAP COVERED  5  

2 METHODOLOGY  6  
   2.1 RESEARCH QUESTIONS  6  
   2.2 RESEARCH DESIGN  6  
   2.3 RESEARCH STRATEGY  7  
   2.4 DATA COLLECTION  7  
   2.5 MODEL FOR DATA COLLECTION AND ANALYSIS  8  

3 THEORETICAL BACKGROUND  9  
   3.1 CONCEPTS AND LITERATURE PARAMETERS  9  
   3.2 PUBLIC PROJECTS: KEY STAKEHOLDERS  9  
   3.3 AGILE METHODS: ORIGINS  10  
   3.4 STAKEHOLDER MANAGEMENT: TRADITIONAL PM APPROACH  11  
   3.5 STAKEHOLDER MANAGEMENT: AGILE METHODOLOGY  13  
   3.6 COMPARISON: TRADITIONAL VS AGILE APPROACHES  14  
   3.7 PRACTICAL IMPLICATIONS  15  

4 PROJECT DATA COLLECTION  17  
   4.1 SECONDARY DATA COLLECTION SOURCES  17  
   4.2 PRIMARY DATA COLLECTION  17  
      4.2.1 Observation and participation in the events  17  
      4.2.2 Summary of the interviews and questionnaire  18  

5 EMPIRICAL STUDY RESULTS  21  
   5.1 PRESENT SITUATION: OVERVIEW  21  
   5.2 KEY PROJECT STAKEHOLDERS  22  
   5.3 PROJECT PROCESSES  24  
      5.3.1 Organizational processes  24  
      5.3.2 Technical processes: agile system development  25  
      5.3.3 Project research  28  

6 DATA ANALYSIS AND INTERPRETATION  30  
   6.1 STAKEHOLDER MANAGEMENT IN THE PROJECT  30  
      6.1.1 Project planning for stakeholders  31  
      6.1.2 Project communications: different perspectives  34  
      6.1.3 Project leadership: style and involvement  36  
   6.2 PROS AND CONS OF AGILE METHODOLOGY IN THE JKC PROJECT  38  
   6.3 PROBLEMS/CHALLENGES IN MANAGING JKC’S STAKEHOLDERS  40  
   6.4 STRENGTHS OF THE PROJECT AND SOURCES FOR IMPROVEMENTS  42  

7 FINAL DISCUSSION  44  
   7.1 CONCLUSIONS  44  
   7.2 RECOMMENDATIONS  44  
   7.3 FURTHER RESEARCH  45
# 1 Introduction

First chapter of the current research study is developed according to its main purpose – to provide introductory information about the subject of interest. This is done by presenting a general description of the chosen area to a reader in the beginning (sub-chapters Background and Problem overview), and proceeding with more specific details about it further on. All information related to the methodology of the research is presented in the second chapter. Its final section contains a model for processing information acquired while conducting the study in terms of both theories and empirical data. It serves as a bridge to all the chapters afterwards and reveals the logic of the work.

The following vocabulary and abbreviations used in the project are important to be aware of from the beginning (listed in a logical order):

- **Sambruk** (sv. Föreningen Sambruk, kommunal verksamhetsutveckling i samverkan) – association of more than 80 Swedish municipalities and SKL (sv. Sveriges kommuner och landsting) established in 2005 aimed at developing IT solutions for public sector. Sambruk’s core mission is to provide an effective collaborative platform. (Olsson & Öhrwall Rönnbäck, 2010) Sambruk is the initiator of the Innoveta project.

- **Innoveta Kundcenter** (sv. Innovativa e-tjänster för kompetensutveckling & verksamhetsstöd för kundservice) – initial name of the project studied, eng. innovative e-services for competence development and performance support in customer service.

- **KC** – Swedish abbreviation for several alternative names used by different project participants Kundcenter (Customer center), Kundtjänst (Customer service), Kontaktcenter (Contact center) and similar; will be used in the paper to cover all these alternatives.

- **JKC** – abbreviation used for the contact center in Jönköping, the first succeeded pilot municipality.

- **Vinnova** (sv. Verket för innovationssystem) - Swedish Governmental Agency for Innovation Systems, is Sweden’s innovation agency whose aim is to increase the competitiveness of Swedish researchers and companies. (Vinnova, 2011) Vinnova is a sponsor of the studied project.

- **HV** (sv. Högskolan Väst) - University West, one of Swedish universities located in the West Sweden (Västra Götaland). The university is one of the project key stakeholders and provides project research. Original abbreviation HV will be used in the paper.

- **Stakeholder management** - the process of communicating and working with stakeholders to meet their needs and addressing issues as they occur. (Project Management Institute, 2008, p.59)

- **Agile methods** – originally refer to iterative and incremental approach to software/system development based on often and small releases; close collaboration between self-organized teams and customers; limited documentation and initial specifications; flexibility and openness to changes, etc. Here generalized to project (stakeholder) management methods.
1.1 Background

The starting point of any research effort is some idea or observation that attracts attention and initiates speculation (Ghauri & Grönhaug, 2005). In the case of the current research study, the idea was to continue working in the field of IT projects in public sector. This area was already familiar and interesting to both authors from their past study (research) experience. The master thesis offer received from Sambruk was exactly the one needed and looked for. After a couple of meetings and negotiations, the Innoveta project was chosen as a case study for the thesis and the work process was initiated in January 2011.

Initially agreed topic of stakeholder management in public IT projects was kept and developed in terms of agile methodology which became obviously necessary after first interviews with stakeholders. Thus, these two issues – stakeholder management and agile methodology, were accepted as building concepts while working with the chosen project. Another aspect figured out while working is that the Innoveta project is not a typical IT project as it made impression in the beginning. It goes far beyond the framework of IT system development and connects together serious organizational changes and significant research contribution.

Thus, the final topic was formulated as Stakeholders Management in Agile Public Projects: Case Study of municipal project Innoveta KC. Preliminary research questions were formulated in the beginning to guide the research and reformulated and narrowed down later. As a result this study is expected to provide a clear picture of the Innoveta project supported by existing theories and practices in terms of stakeholder management in agile projects for public sector. The result can be estimated as achieved if the established research questions are answered and purpose of the work (including sub-goals) is reached.

1.2 Problem overview

Innoveta is a project run by Sambruk municipalities and its software developer Jayway, sponsored by Vinnova and investigated by University West (Högskolan Väst) in order to develop a common Customer Center (Kundcenter, KC) for citizens in Sambruk municipalities. It is aimed at restructurining organizational processes and IT system infrastructure within municipalities in the way their operations become more efficient and they can better serve their citizens. New system developed by Jayway in close collaboration with municipalities is meant to help both – citizens with better service, and municipal workers as a unified channel for information and experience exchange. New Customer Center is also planned to be a good learning platform for people employed there and at the same time a working tool for management to monitor and control variety of municipal activities related to customer (citizen) service.

Started from scratch and without concrete specifications, technical part of the project (system development itself) has been managed according to the agile methodology which is very unusual for public sector projects and influenced Innoveta and its stakeholders very much. This approach has gained to the project management significantly but at the same time caused some problems (e.g. delays in delivery) during the project. This master thesis aims at investigating stakeholder management within public projects as well as figuring out how agile methods influence it on the example of Innoveta in comparison to the traditional approaches.
1.3 Goal statement

As it becomes clear from the title of the work, the purpose of the current study is to investigate stakeholder management in agile projects for public sector, and particularly the effect of the agile methods on traditional public organization. Nevertheless, there are several important sub-goals (objectives) that have to be stated and explained in order to clarify this generally formulated overall purpose of the current research. These sub-goals are:

- To study existing stakeholder management practices/theories and approaches in public sector - development of a theoretical background;
- To investigate the Innoveta project in terms of stakeholder management and how it is influenced by the agile methods chosen, to identify challenges and problems;
- To analyse collected empirical data and information and relate them to the theories gathered (especially focusing on comparison of traditional and agile approaches);
- To develop appropriate solutions and suggestions for improvements to the problems and challenges identified.

In order to fulfill these sub-goals a number of research methods are employed as discussed in the sections 2.5-2.5.

1.4 Scope and delimitations

The current study is concerned with accomplishment of the objectives stated above. Nevertheless, it is important to mention from the beginning that number of municipalities participating in the project now and following it in the future is quite big. The ambition of Sambruk and the business interest of Jayway is to involve in this project as many municipalities as possible so it would be very hard to cover all of them in a detailed analysis. Thus, at the moment KC is already implemented in Jönköping, Järfälla, Skellefteå and Botkyrka. As a pilot municipality and the first one succeeded in this implementation, Jönköping municipality was chosen for the detailed analysis.

Moreover, the scope of the study is predetermined by several dimensions. First of all, the case study is focusing on two areas of interest within public projects, namely stakeholder management and agile vs traditional approaches. There might be many related issues that cannot be covered within one study due to its purpose, time frame, very limited labour resources as well as school requirements to its content and length. Mentioned dimensions (delimitations) should be taken into consideration while working on this research project. In other words, the study scope implies conducting all necessary activities to fulfill the purpose of the study predetermined by the sub-goals and delimitations of the work. Besides, not all information conducted was possible to include in the analysis, so for more details it might be useful to look up Appendices.

1.5 Target groups

The results of the current research are first of all interesting to the key stakeholders of the Innoveta project, namely Sambruk and its pilot municipalities, software developer Jayway and research side of the project presented by University West. Moreover, other municipalities following the pilot ones in introduction a new customer center can gain much from this study as
well. Such reading can be also interesting for politicians and Vinnova’s representatives participating in the project.

Being written as master thesis, this paper follows all main principles of academic writing and is supposed to be studied for academic/learning purposes by people familiar with and used to academic literature. However, at the same time its logical structure, clear language and straightforward manner of presentation are easy to comprehend and process even for the reader who does not need a background in the area or academic education. Thus, anyone interested in the subject and related topics (such as agile projects, public sector projects, etc.) can find more or less useful information and feel comfortable while reading this research study report.

### 1.6 Milestone plan

In January-February 2011 a milestone plan for the thesis work was established as a set of the following scheduled activities:

<table>
<thead>
<tr>
<th>Meeting date</th>
<th>Event and contributions/results</th>
</tr>
</thead>
<tbody>
<tr>
<td>First meeting</td>
<td>Sambruks’s Steering board meeting (Stockholm)</td>
</tr>
<tr>
<td>25-01-2011</td>
<td>- General discussion about Sambruks’s projects and gathering information from the meeting.</td>
</tr>
<tr>
<td>Second meeting</td>
<td>Seminar in practical research (Linköping) with Bossanova participating</td>
</tr>
<tr>
<td>09-03-2011</td>
<td>- Thesis title and content were preliminary negotiated and approved.</td>
</tr>
<tr>
<td>Third meeting</td>
<td>First interview with Innoveta’s key stakeholders - Sambruks and Jayway (Malmö)</td>
</tr>
<tr>
<td>07-04-2011</td>
<td>- Pre-study, thesis proposal (project description, problem, purpose, methods, etc.) and gathering information about the project</td>
</tr>
<tr>
<td>Forth meeting</td>
<td>Sambruks’s annual spring conference (Stockholm, Arlanda)</td>
</tr>
<tr>
<td>13-04-2011</td>
<td>- First interview results and thesis plan to be presented, more information to be gathered</td>
</tr>
<tr>
<td></td>
<td>- Interview with the project manager to be conducted</td>
</tr>
<tr>
<td>April-June 2011</td>
<td>Theoretical study and interviews with project stakeholders (Stockholm, Malmö, Jönköping)</td>
</tr>
<tr>
<td>May 2011</td>
<td>Bossanova’s Management board meeting</td>
</tr>
<tr>
<td></td>
<td>- Presentation of first results, discussion</td>
</tr>
<tr>
<td>July-August 2011</td>
<td>Empirical study and analysis</td>
</tr>
<tr>
<td>September-October</td>
<td>Gathering feedback from stakeholders, finalization.</td>
</tr>
<tr>
<td>2011</td>
<td></td>
</tr>
<tr>
<td>November 2011</td>
<td>Thesis presentation at Sambruks’s annual autumn conference (Gothenburg)</td>
</tr>
<tr>
<td></td>
<td>Thesis presentation at KTH (Campus Telge)</td>
</tr>
</tbody>
</table>

**Table 1 Milestone plan for the thesis work**

Thus, February and March 2011 were devoted to the pre-study and theoretical background development; April and May were intensive in terms of interviews; summer months were spent
on data interpretation and analysis; and finalization of the work including its presentation was being performed in November 2011.

1.7 Relevance of research and knowledge gap covered

This research is concerned with a very relevant subject which is collaboration between public sector, researchers and commercial institutions (companies) on the base of agile system development. Sambruk association’s projects, and particularly Innoveta, very well illustrate how such collaboration can be performed. Managerial approaches used in commercial organizations become applicable to the public sector institutions. Especially interesting in this context is organization of municipal activities as agile projects which is an absolutely new phenomenon for public sector as well as other innovations related to optimization and efficiency of municipal performance.

One of such innovations is development of a unified customer center in Swedish municipalities to replace traditional contact centers. This is done for the first time in Sweden and thus is a hot subject for discussions and innovatory activities. There are similar investigations and projects in other countries: for example, John Saddon’s approach (UK) was taken as a theoretical basis by Innoveta’s founders. There are also many publications devoted to the municipal government and citizens’ values in special periodicals such as International Journal of Public Sector Management. But none of these sources could provide a clear model or detailed description for projects like Innoveta. This is probably one more reason why agile methodology was chosen to manage the project.

This study is aimed at revealing the essence of this agile public project which can contribute significantly not only to its understanding but also to other similar projects in future. The specific feature of the work is that it covers all key project stakeholders including project management team, steering board, developer and the academic research side.
2 Methodology

The Methodology section includes several sub-sections developed to reveal the logic and the framework of the current study in terms of research methods employed. Thus, research strategy, research design and data collection techniques are presented and described in this chapter which opens with research questions as a starting point for choosing appropriate research methods.

2.1 Research questions

When a pre-study was conducted and some initial data were gathered, the purpose (and the sub-goals) of the study was determined as well as preliminary research questions were formulated to become a starting point for the further critical literature review and empirical data collection:

- **What benefits can a public project gain from agile methodology in terms of stakeholder management?**

First question identifies and interconnects all basic concepts of the research. It examines the difference between traditional and agile approaches in terms of stakeholder management. Analysis takes place in the context of public sector, more specifically – Swedish municipal environment. Especially interesting here is to investigate differences in relationships, communication and daily activities between project stakeholders. This question also implies investigation of overall impact of the chosen approach on the project performance including different parties’ points of view.

- **What are the problems and challenges and how to solve them/improve stakeholder management in the agile public project?**

Second question focuses more on “how” rather than “what” aspect. The purpose of the research is to determine problematic and challengeable issues in the chosen project and then, which is most important part, to suggest appropriate solutions to them or prepare possible improvements in the project stakeholder management which can be useful for other similar projects.

On the base of these research questions further development of the research methodology becomes possible and logical when choosing research design and strategy.

2.2 Research design

The current degree project can be classified as a qualitative research due to its focus on qualitative data collection through interviews, observations and literature review. While gathering necessary information for further drawing conclusions or making suggestions for improvements the focus is to be made on analytical procedures and explanatory approach to existing municipal practices by means of qualitative research methods.

According to Yin (2003) there are three types of research: exploratory, explanatory and descriptive. All these approaches are used in the current research study. Descriptive procedures are mainly used when preparing a case study of the Innoveta project and literally describing the project on the base of existing project documents and interview results. Exploratory and
explanatory techniques are employed when digging into the current situation with the project and figuring out details as well as analyzing them to further draw conclusions and recommendations.

**Inductive research** was chosen as a way of reasoning when conducting the study which is qualitative and based on empirical evidence. There are three main methods of reasoning while conducting research: inductive, deductive and abductive. Inductive and abductive approaches are often associated with qualitative research, while deductive approach mostly is related to quantitative approach (Ghauri & Grönhaug, 2005; Levin-Rozalis, 2004). Inductive method implies drawing hypotheses and general conclusions from empirical generalizations while observing certain phenomena in the field and thus providing empirical evidence often not covered by existing theories (Levin-Rozalis, 2004). Deductive reasoning refers to drawing conclusions through logical reasoning and hypotheses in this case are built using existing theory. Hypotheses are later rejected or accepted (Ghauri & Grönhaug, 2005). Abductive approach is used when neither inductive, nor deductive approach is suitable for reasoning.

### 2.3 Research strategy

Case study was chosen as a strategy for the current degree project. Generally, case study is a preferable strategy to examine “why” and “how” questions. According to Eisenhardt (1989), case study is reasonable to use for investigation of those research areas for which “existing theory seems inadequate” (p. 548). The case study is a research strategy which focuses on understanding the dynamics presented within single settings. This implies that case study is a good approach when analysing complex social phenomena (Eisenhardt, 1989).

Yin (1994) determines case study as an empirical inquiry, where research focuses on a contemporary phenomenon within its real-life context. In these circumstances boundaries between phenomenon and its context are not clear or evident. Case studies are often used in descriptive or exploratory research and feature certain procedural attributes among which are many variables of interest, multiple sources of empirical data and theoretical scheme which guide collection and analysis of data (Ghauri, 1983; Yin, 1994). Furthermore, case study is preferred method if there is a possibility of using additional sources of evidence such as direct observation of the events and interviews with the persons which are involved (Yin, 2004, p. 7) and when the study concerns specific characteristics of an uncommon situation in which the organization finds itself or when the researcher wants to study a rarely analysed situation or organization which are unique in its nature and contribute with new findings or important information (Yin, 1994).

As it was already mentioned, the subject of the current research is unique and unusual for public sector. This is why the case study strategy is the most appropriate one. The necessity to collect primary data is obvious and it is possible to do while conducting observations, interviews and surveys at the stakeholders’ sides.

### 2.4 Data collection

Both secondary and primary data collection are employed in this research study. Literature review is a key technique for secondary data collection, whereas observation, interview, questionnaire and critical literature analysis are used for primary data collection. Theoretical
study on stakeholder management and agile methodology will provide general ideas of how the management of stakeholders in public IT project differs from other sectors, and what kind of problems and challenges may occur when implementing agile methodology. The study will also provide guidelines to analyse and evaluate stakeholder management process in the Innoveta project. Primary data collection techniques are in turn supposed to provide a detailed description of the current situation and past activities in the project which are necessary to form a clear picture and answer the stated research questions.

2.5 Model for data collection and analysis

The model presented in the section represents the activities and steps in the thesis work. It starts from the development of a research idea based on the pre-study and proceeds to the investigation of the chosen subject by means of theoretical and empirical studies. When all data and information will be collected they have to be interpreted using problem solving and model development techniques. When this analysis will be performed conclusions and recommendations for similar projects have to be developed. The model includes methods for secondary and primary data collection which will be discussed in details later in the paper.

Figure 1  Research model for data collection and analysis

The model’s elements/steps correspond to the according chapters of the thesis presented in the same order further on.
3 Theoretical background

This chapter presents findings obtained from external (outside the Innoveta project) literature sources. Concepts and literature parameters open the chapter in order to frame available body of literature according to the key subjects within the area of interest and criteria of search. Further on, in regard with the established key concepts, theories and models are presented in separated sub-chapters.

3.1 Concepts and literature parameters

In order to structure all theoretical findings and build an appropriate framework of references, it is critical to develop a clear set of concepts that would guide the whole work while selecting and analyzing existing theories and working out new models. In this sense, the following concepts are building blocks of the current research study:

- Public sector
- Stakeholder management
- Agile methodology

Bell (2005) points out how important it is to be clear about the following parameters of the literature (theories) search: language of publication, subject area, business sector, geographical area, publication period, and types of literature. Literature selected for current analysis has the following parameters:

- Language of publication – English, Swedish;
- Geographical area – European Union countries (preferably Sweden), USA;
- Subject area – Traditional and Agile Project Management, Stakeholder management, IT projects;
- Business area – public sector (mostly), developers, consultancies, project management;
- Publication period – since 1990s;
- Literature types – books, articles from academic and professional journals, theses and other academic papers.

3.2 Public projects: key stakeholders

Public projects are often referred as government founded non-profit orientated projects which focus on citizen value and manage relationships between associated actors. “Actors” in the public project are those who have a right to act because he has a stake in the issue, another express of the word “actor” is “stakeholders” (Binnekamp, Gunsteren, & Loon, 2006, p. 6).

PMBOK defines stakeholders as “persons or organizations (e.g., customers, sponsors, the performing organization, or the public), who are actively involved in the project or whose interests may be positively or negatively affected by the performance or completion of the project.” (Project Management Institute, 2008)
In the context of IT project, stakeholders are persons or organizations, who have a vested interest in the IT project and provide their share of funds to complete the project. “They will use all or part of the system products. They also generate requirements and use cases. Stakeholders form a team with users and customers to monitor the success of the project, participating from the beginning to the end. They participate in all phases of system development and provide input for the success of the project. Stakeholders reuse the system products cost effectively.” (Sodhi & Sodhi, 2001, pp. 13-14)

Key stakeholders in public IT project according to Nyfjord (2008), consist of managerial or technical roles participating in a project, such as government agencies, project managers, developers, testers, maintainers, product owners, business analysts and managers, quality managers and support personnel; and some other roles, such as customers, contractors, suppliers and sponsors.” (Nyfjord, 2008, p. 72)

3.3 Agile methods: origins

As it was already hinted in the Introduction, the current research study doesn’t aim at investigation of agile software or system development methods themselves. Instead, it refers to them as a basis for that unique “agile” environment which occurs when they are being implemented at the technical side of the project.

Thus, the development of the common Customer center in Sambruk municipalities was supported by Jayway and their Scrum techniques when developing the Streamflow system. So Scrum itself is not the main focus of the current research, but its impact on project participants and activities is critically important. Therefore, it is meaningful to provide general introductory information about agile methods in the original sense.

Since 1980-es different forms of “lightweight” methods have been occurring as opposite to “heavylight” (waterfall model) methods and later in the early 2000-es they evolved into “Agile Manifesto” some of whose members then formed the “Agile Alliance”. The Agile Manifest was founded by representatives from Extreme Programming (XP), SCRUM, The Dynamic System Development Methods (DSDM), Adaptive Software Development (ASD), Chrystal, Feature Driven Development (FDD), Pragmatic Programming and others. Among authors of the Agile Manifesto there are: Kent Beck, Stephen J. Mellor, Ward Cunningham, Ken Schwaber, Martin Fowler, Jeff Sutherland.

Another alternative to the waterfall model is well known as LEAN. The theory came from Japanese manufacturing industry (derived mostly from Toyota Production System) and is focused at creating more value with less work: reducing loses, incorporating continuous learning, delaying decisions until they are needed, delivering software as soon as possible, focusing on the whole system and integrity. The term itself was first introduced by John Krafcik in 1988 in his article “Triumph of Lean Production System” (Sogeti AB, 2011). Later in 2000-es, Mary and Tom Poppendieck published their books “Lean software development” (2003), “Implementing Lean software development” (2006) and “Leading Lean Software Development” (2010). The official web site of the authors can be visited for more information: Poppendieck LLC - http://www.poppendieck.com.
Kanban – card or board - is a visual approach to workflow management in Lean software development system. The technique can be used together with other more prescriptive methodologies such as Scrum (CapGemini, 2011). Standard Kanban includes 5 positions: user stories, acceptance, development, testing, deployment; and 2 status zones – work in progress (when work has been started) and buffer (when work is finished at current stage and moves further).

For the purposes of the current study the most interesting among agile methods is Scrum since exactly this approach was chosen by Jayway to guide their collaboration with the municipality. Kanban was also employed at later stages, but to a less extent.

According to Schwaber and Sutherland (2011), Scrum is “a framework within which you can employ various processes and techniques. The Scrum framework consists of Scrum teams and their associated roles, events, artifacts, and rules.” Two obligatory roles are scrum master and product owner, the rest is the development team where equal participation, self-organization, commitment, respect, openness, focus and courage are the core values. Optimal size of the team is 4-9 people.

The well known important concepts and techniques within the Scrum framework are: backlog, sprint, definition of done, burndown chart. “Sprints contain and consist of sprint planning meeting, daily scrums, the development work, the sprint review, and the sprint retrospective. One sprint is normally about one month” (Schwaber and Sutherland, 2011). Scrum’s artefacts include product backlog, progress tracking (burndown, burnup charts), sprint backlog. When tasks are being moved within the product backlog to the “done” status, it is important that definition of done is clear and always in use.

Generally, there are several agile techniques mentioned in the beginning of the section, but all they are evolving along with a number of common agile principles and values, namely: customer satisfaction, motivation and trust, self-organizing teams, technical excellence, continuous learning and improvement, visibility and transparency, simplicity, close collaboration with customers, often deliveries of working software, face-to-face communication and openness to changes. These principles should be applied whatever particular agile methodology is chosen. Details can in turn differ, for example, Scrum provides a thorough process framework, XP supports with a technical toolkit, Lean focuses on creating value and reducing losses, etc.

3.4 Stakeholder management: traditional PM approach

In PMBOK stakeholder management is described as “the process of communicating and working with stakeholders to meet their needs and addressing issues as they occur.” (Project Management Institute, 2008, p.59 ) The efficient management of stakeholder is claimed to be a key to project success. (Karlsen, 2002; Berman et al, 1999)

According to Hass (2007) and Adjei & Rwakatiwana (2009) traditional Project Management approach is charactorised by its well-organised sequenced steps for development, and the stress on the importance of predetermine stakeholder requirements in the beginning phase. Traditional Project management often comprises five process: “Initiating, Planning, Executing, Monitoring and Controlling, and Closing.” (Project Management Institute, 2008, p. 6) The role of
A stakeholder in traditional project is to set project requirements and demands on scope, time, cost, and quality.

Stakeholder management in traditional project management also shares the predetermined and well-organized character. Steps of stakeholder management in traditional project management approach (Project Management Institute, 2008, p. 246-265) are summarized below:

1. Identify Stakeholders – collect identification information, assess major requirements/expectations/interests, categorize into groups (Internal/external, supporter/neutral/resistor, etc.).
2. Set Stakeholder Management Strategy - defines an approach to increase the support and minimize negative impacts of stakeholders throughout the entire project life cycle (tool: Stakeholder Analysis Matrix, Appendix 10).
3. Plan Stakeholder Communications - the process of determining the project stakeholder information needs and defining a communication approach. Identifying the information needs of the stakeholders and determining a suitable means of meeting those needs are important factors for project success.
4. Manage Stakeholder Expectations – the process of communicating and working with stakeholders to meet their needs and addressing issues as they occur; involves communication activities directed toward project stakeholders to influence their expectations, address concerns, and resolve issues.

Compare to traditional projects, IT projects have some unusual characteristics:

“• At the early design stages, the intangible nature of most software leads to difficulties in communicating design and vision in an easily-understandable way.
• Progress is often hard to assess, given the intangible nature of the deliverables.
• They are usually trying to create unique products with few available analogues for comparison.
• The tools for building software (programming languages) are constantly changing, often midway through the project.
• The building blocks (computer hardware, operating systems) are constantly changing.
• The industry standards that the software must support are constantly changing.” (Aguanno, 2005)

Leybourne (2009) stated that the initiating process of traditional project according to PMBOK emphasizes on the need for documenting stakeholder’s business needs/requirements before starting the project, and by doing so, it promotes the predetermination of stakeholder requirements. But Aguanno (2005) argued that this early “lock down” of stakeholder requirement can have a “retrogressive effect” if predetermine environment change or stakeholder arises new demands afterwards.

Traditional approach to stakeholder management implies active planning for stakeholders, thorough consideration of communication channels and different techniques that help to build and control stakeholder relationships. For example, Freeman et al (2007) explained how to use seven everyday techniques to better manage stakeholder relationships. These techniques include:

“1. Stakeholder assessment
2. Stakeholder behavior analysis
3. Understanding stakeholders in more depth
4. Assessing stakeholder strategies
5. Developing specific strategies for stakeholders
6. Creating new modes of interaction with stakeholders
7. Developing integrative value creation strategies"

Traditional project management approach can be used fully or partly depending on type, objectives and priorities of a project. Nevertheless, it is very useful to keep in mind its best techniques and practices in order to use some of them when it can increase effectiveness of project organization.

3.5 Stakeholder management: agile methodology

Agile methodology is defined by Haas (2007) as “a management principle that uses iterative development techniques at regular review points with emphasis on closer collaboration among the client, stakeholders and small autonomous development teams in a flexible way that allows the system to evolve towards the true project requirements at a particular point in time under a specific contextual.” (Haas, 2007)

Projects that implement agile methodology are people oriented, iterative development focused, and delivery driven (Adjei & Rwakatiwana, 2009); agile methodology can be implemented when the project fulfils these conditions: a clear project value, active stakeholder participation throughout the project, stakeholders are co-located, incremental feature-driven development (Haas, 2007).

According to Stober & Hansmann (2010), agile drive project does not require a predetermined and sequenced stakeholder management process, because stakeholders are “needed to be heavily involved in the project to be able to provide the information and details that the project team needs in a timely manner”. The chart below (Figure 2) illustrates a model of agile project life cycle.
Figure 2  Agile Project Life Cycle Model

Source: Haas (2007)

Compares to traditional project management approach, stakeholder’s initial requirement in agile projects is not “locked down”, project model design is flexible and and extensible, the project team can add on new features to support new stakeholder requirements (Aguanno, 2005). Stakeholder’s active participation and continuous review of project iterations will provide an early validation of project, and force project team to meet the customer’s expectations (Stober & Hansmann, 2010).

Fitsilis (2008) agile stakeholder management is giving emphasis in the following areas:

• Scope Management, since emphasis is given in managing requirements.
• Human resource management, since emphasis is given in team work.
• Quality management, even though not formally defined, use of standards, testing and frequent reviews are promoted.” (Fitsilis, 2008, p. 383)

3.6 Comparison: Traditional vs agile approaches

The table below summarizes the differences of stakeholder management between traditional project management approach and agile project management that are identified from reviewed literatures:

<table>
<thead>
<tr>
<th>Stakeholder’s role in project</th>
<th>Traditional Project Management</th>
<th>Agile Project Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stakeholder management approach</td>
<td>Set project framework and requirements. Mainly involved during requirements gathering and delivery phases.</td>
<td>Focus on developing process and documentation.</td>
</tr>
</tbody>
</table>
Change management
Changes are managed according to predetermined procedures. Change order establishment is facilitated by hierarchical organizational structures.

Changes are managed with flexible and adaptable procedures. Change order is established as a result of continuous and voluntary interaction in complex systems.

Stakeholder management process
Well-organized and predetermined. The reductionist task breakdown and allocation is necessary for solving problems.

No predetermined plan. Use iterative approaches to selected tasks with continuous feedback from team members and stakeholders result in valuable incremental progress in a short time.

Management/Leadership style
Controlling type of management.

Management role is to facilitate and give support.

Project team dynamics
Members work individually within teams, less collaboration. Employees are interchangeable “parts” in the organizational “machine”.

Team members collaborate in all aspects. Employees are an important part of the organization whose contribution is necessary.

Communication management
Predetermined and documented before project execution. Emphasis on process planning and understand stakeholder’s expedition.

Flexible in planning, emphasis on active collaboration with stakeholders, to meet their needs.

Table 2 Comparison of stakeholder management approaches in traditional and agile PM

Source: (Adjei & Rwakatiwana, 2009; Aguanno, 2005; Berman et al, 1999; Binnekamp et al, 2006; Fitsilis, 2008; Haas, 2007; Karlsen, 2002; Leybourne, 2009; Nyfjord, 2008; Project Management Institute, 2008; Sodhi & Sodhi, 2001; Stober & Hansmann, 2010)

3.7 Practical implications

While exploring literature available on the studied subject, the fundamental concepts mentioned in the chapter’s beginning serve as reference points. Thus, basic theories on public projects, stakeholder management and agile vs traditional projects are presented step by step. The theoretical study shows that stakeholder management in agile project is more open and flexible; and has some distinct characteristics which can positively influence on project management compare to traditional project management approach.

These distinct characteristics of agile methodology will be used as foundation to explore and analyse stakeholder management process of the Innoveta project. The stakeholder management of the Innoveta project will be discussed in terms of traditional and agile approach aspects as presented in Table 2: stakeholder’s role in project, stakeholder management approach, and change management, stakeholder management process, management/leadership style, project team dynamics, and communication management. It will be done in order to identify problems and challenges, and to find relevant solutions or give suggestions for further improvement.

Moreover, specific project related issues will be applied to the models and findings not presented in the theoretical chapter but widely used by practicing experts nowadays. This mostly concerns leadership, conflict management, communication problems prevention and other things that can be characterized as personal issues essentially differing from technical ones. Such issues should be considered from different perspectives supported by real practical experience of consultants in
such areas as human resources, organizational and personal development, team building, conflict management, leadership, etc. Among other models there will be discussed:

- What and how (content-process) model
- GMR (goals-methods-resources) model
- Experiential learning
- Role of a project leader
- Five classic approaches to conflict management/conflict mode matrix
- Five stage model of team development
- Team effectiveness assessment
- Decision triangle (speed-quality-ownership model)

The name of above listed models may vary in different resources due to different authors interpret them according to own experiences and examples. For the purposes of the current study, these models will be discussed and applied to the particular project issues together with theories investigated. Both fundamental (academic) theories and practical models are important to use when analysing the project, especially its problematic issues, in order to suggest different alternative solutions and tools to the existing problems and challenges.
4 Project data collection

The chapter presents the sources of data collection – both secondary and primary – as well as data themselves generally discussed and interpreted for further analysis. This chapter could be also named Fact gathering as it is focused at both the process and the content of gathering information.

4.1 Secondary data collection sources

Secondary data collection techniques were employed in the thesis work in order to gather general information about the project, its stakeholders and activities. Thus, the following documentary and electronic sources of information are important for the analysis:

- Project documentation
  - Project plan;
  - Application to Vinnova for a sponsorship;
  - Innoveta Project’s webpage at Sambruk’s website;
  - Other project documentation.
  - Project meetings reports (“meeting minutes”);
  - Jayway’s publications (e.g. brochure about Streamflow);

- Research documentation
  - Evaluation reports of the municipalities provided by the research group;
  - Surveys about citizens and employees at KC;
  - “Handbok Kundcenter” (www.e-cirkel.net) developed by the research group;

- Books and articles about
  - Project management
  - Stakeholder management
  - Agile methodology

The sources of information mentioned above are either literally quoted in the text or indirectly referred. First five chapters of the thesis are totally based on the information collected from secondary and primary sources.

4.2 Primary data collection

During the thesis work much focus was set on primary data collection. It was done by means of the following research methods: interview, observation and questionnaire. Observation in turn included not only looking at the working KC, but also participation in the events organized by Sambruk and related to the investigated project Innoveta.

4.2.1 Observation and participation in the events

As it was initially planned and included in the milestone plan (section 1.6), there have been conducted four thesis related events besides the interviews.

On 25th of January 2011 one of the authors of this work was participating in the Sambruk’s Steering Board meeting where all current Sambruk’s projects were presented and discussed.
After this meeting several projects were chosen to be considered and select one for the further in-depth study.

Another event was organized in Linköping (9th of March 2011) with participation of the researchers from different universities as well as Sambruk. It was a seminar in practical research which provided a good overview on the research practices currently taking place in the Swedish research environment and related to public sector. After this meeting with the researchers it was decided to focus on the Innoveta Kundcenter project for further investigation and thesis writing.

Later on, on 13th-14th of April 2011 Sambruk’s Spring conference took place in Arlanda where representatives from almost all member-municipalities and universities were participating. One place at the conference was kindly offered by the supervisor of the thesis from Sambruk side – Anna Öhrwal Rönbäck. The main purpose of this participation for the authors of the current thesis was to eventually meet all participants of the Innoveta project, get in contact with them, negotiate further interviews and of course collect more information about the project. By that time only one interview with the project key stakeholders was conducted, namely with Jan Nilsson representing Jayway (system developer) and Claes-Olof Olsson, initiator of the project from Sambruk.

Thus, besides the project meeting which was extremely useful for the thesis work that was just began, another benefit of participating in the conference was conducted interview with the current project manager Lennart Östblom and getting in contact with the research side of the project – Högskolan Väst (University West, Trollhättan).

Finally, on 9th of November 2011, the thesis was presented at Sambruk’s autumn conference in Gothenburg. Presentation was held twice, in two different groups: OSS-group (Sambruk’s representatives not involved in the Innoveta project) and Innoveta-group. Participants’ feedback helped to make final changes to the paper.

Moreover, pure observation also took place as a research method while working with the thesis. After the interview in Jönköping, the authors had a chance to observe how a real KC works there. It was mostly about looking how everything is organized there and what the work processes are, including call taking, e-mail correspondence and working with a recently developed Streamflow system which was used in parallel with different other systems and databases (more than 10 in total).

4.2.2 Summary of the interviews and questionnaire

In total 7 interviews were conducted. All the interviews are summarized below one by one. Detailed transcripts of the interviews are presented in Appendix 1-5.

Interview with Claes-Olof Olsson and Jan Nilsson in Malmö, 7th of April 2011
The first interview was conducted in order to prove already collected information and collect more data while talking with the project initiator and the representative from the system development side. It was an in-depth interview, unstructured in other words, aimed at understanding the project activities, involvement of different parties and actual system development from different perspectives. On the base of the first interview and secondary data collection, the project stakeholders were identified and essence of the agile methodology applied
was revealed. It was also discussed why this project is so unique and important for further citizen-oriented development of municipal processes and practices.

**Interview with Lennart Östblom in Arlanda, 13th of April 2011**

The second interview was conducted with the project manager during the Spring conference in Arlanda. Lennart Östblom became a project manager in the Innoveta project in January 2011. The interview was semi-structured as initial questions regarding project management, stakeholders, communication, project challenges and other issues were prepared. Agile methodology, project planning and citizen perspective were also discussed. Some of the outputs of the interview are organizational project structure and ranking of the key stakeholders from the project manager’s point of view.

**Interview with the research group in Högskolan Väst Trollhättan, 16th of May 2011**

One of the key project stakeholders in the Innoveta project is the research group, namely four researchers: Per Flensborg (research leader and accountable to Vinnova), Kerstin Grundén, Iréne Bernhard and Henrik Oscarsson. The group interview was mostly structured with the only specification that each of the prepared basic questions resulted in an open group discussion where all participants’ opinions were asked and analyzed in comparison to each other. Issues discussed at the interview included: the role and objectives of the research group in the project, interaction with other stakeholders, project challenges, citizen perspective; connection between research, project management and system development in the project, and some others. Several part-projects of the research group were discussed. One of the critical research sub-projects is a development of a learning platform for the municipal KC. It has evaluated from e-circle concept and method into e-learning materials which came in a more practical, visual and understandable way comparing to the first more academic study.

2 **Individual interviews with the researchers after the group interview at HV**

After the group interview mentioned in the previous paragraph, session of individual interviews was conducted opened by Kerstin Grundén and finished by the research leader Per Flensborg. At this interviews already asked questions were discussed in details and extended to some new areas in order to gather independent individual opinions of the researchers. Discussions concerned the research project planning and leadership, interaction between different stakeholders and involvement of the group members, external criticism of the first educational sub-project “e-circle” and related problematic issues as well as future plans of the group members regarding the project. One of the very important outcomes of the interviews was a project process chart developed by Per and covered three main project processes – research, organizational and technical, and interactions between them. This model will be presented in the section 5.3 of the current work.

2 **Individual interviews in Jönköping, 20th of May 2011**

There were two individually performed interviews in Jönköping: one with Madeleine Eckerström, ex-project manager of Innoveta, and another one with Anneli Jacobson, supervisor and employee at the KC in Jönköping. The ladies work in a constant cooperation with each other and at the same time with system developers and researchers. Thus both interviews focused on similar issues, namely: communication and stakeholder interaction management, problem solving, organizational processes development, changes and problems in the project, education of the KC employees, agile system development, citizen perspective etc. Many unclear so far aspects of the KC work were clarified and discussed in details. It was a very intensive and
productive session which gave a lot of practical insights from the internal perspective, very useful for further data interpretation and analysis.

**Questionnaire**

After all interviews were conducted and collected data were analyzed, a questionnaire was developed in order to gain extra information when needed and clarify some uncertainties occurred. This questionnaire consisting of 8 open questions divided into main and supportive ones was sent to all interviewees with different questions marked to be answered by each participant. Its full text together with answers is presented in Appendix 6.
5 Empirical study results

This chapter contains the interpreted results of the conducted data collection activities. There have been formed two sections according to the specific areas of interest such as stakeholder management and agile methodology. Moreover, current project situation is presented as an introduction: first – generally, and more in details in the sections about project processes and project research. These subjects are considered to be very important for the reader’s understanding.

5.1 Present situation: overview

When the current thesis work was initiated, the Innoveta project already entered its final phase. At the moment, in the chosen for the current analysis municipality of Jönköping KC is successful working and the project participants are now concerned with the learning materials development.

Initial project organizational structure translated from the project plan

Figure 3 below presents the project organization including key project objectives and sub-projects. Thus, the following project areas can be identified: project research led by HV, system development performed by Jayway, organizational changes and learning at JKC as well as pre- and after-project activities at the pilot municipalities such as planning, evaluations and competence development.

![Initial project structure of IKC project](source: Project plan)

As it was already mentioned, main part of the system development is finished in Jönköping and maintenance including some minor ongoing changes and improvements goes on. Several more municipalities have started implementation of Streamflow. Technical part of the project is presented more detailed in the section 5.3.2. Research project is still in progress while some its sub-projects such as surveys and evaluations are finished and reported. Section 5.3.3 is devoted
to the research processes. What concerns Jönköping municipality, the key pilot municipality of the project, KC has already been working there since year 2009. “The Innoveta project is now finished for Jönköping but we are a small part in the e-learning project”, - commented Madeleine Eckerström, project leader in Jönköping and ex-project manager for the whole Innoveta project. Organizational activities at JKC are discussed more detailed in the section 5.3.1.

5.2 Key project stakeholders

One of the main interest of the current work as set from the beginning is to define key project stakeholders and analyze stakeholder management in the project. In order to do it two methods were used. First of all, the interviewees that took part in the thesis work were asked to list and possibly rank the key stakeholders of the project. Secondly, both ex- and current project managers were asked to draw the organizational structure of the project to compare the models to each other and with the initial one presented in the project plan. Moreover, it would help to consider relationships between different parties in more details.

All interviewees came to the point that the key project stakeholders are: pilot municipalities (Jönköping and Järfälla), system developer (Jayway), researchers (Högskolan Väst) and Sambruk. The most important party among the mentioned are pilot municipalities where KC was actually developed and implemented. There are also other stakeholders participating indirectly in the project including Vinnova, following municipalities and citizens.

As it was already mentioned, second method consists in comparing different organizational structures to see the relationships between different stakeholders and their evolution if any. Three different organizational structures are presented below.

Organizational structure presented by Madeleine Eckerström

The structure in figure 4 is presented and discussed by the first Innoveta’s project manager Madeleine Eckerström. It focuses very clearly on the internal project stakeholders and connections between them.

Thus, the project manager is accountable to the Steering group and has a responsibility to control research and technical activities which are accordingly performed by the research leader and his team on one hand, and system development team from Jayway on another hand. Research project included four sub-projects which all should be applied to the municipalities participating in the project. As an initiator of the project Sambruk interact with all other stakeholders.

Figure 4  Project organisational structure presented by M. Eckerström
Organizational structure presented by Lennart Östblom

The second model (figure 5) is presented by the current project manager Lennart Östblom and describes stakeholder relationships more in details. It also reveals some more hierarchy. For example, the project manager has higher position and authority than the research leader, but the research leader in turn has more authority that individual researchers and system developers. This model also includes external stakeholders such as the project sponsor Vinnova and the project beneficiary citizens. Moreover, it distinguishes between pilot municipalities which are the most important key stakeholders and following ones.

Figure 5  Project organisational structure presented by Lennart Östblom

From the models presented above it is easy to notice that the upper levels are drawn in the same way. Differences appear in the middle and low levels. Both models presented by the project managers are easy to understand and interpret from stakeholder relationships perspective. In general, all models include the same key stakeholders already mentioned in the section and thus can serve as one more evidence of correct identification of them.
5.3 Project processes

During the individual interview with Per Flensburg, different project processes were discussed and it resulted in a model created by the research leader presented below (Figure 6).

![Diagram of project processes]

**Figure 6  IKC project processes**

Source: P. Flensburg, 2011, interview at HV

The technical processes support the organizational processes studied by the research processes. The last ones can in turn indirectly support the technical processes. By the technical processes the system development is meant, while organizational processes for the researcher deals with acceptance the idea of KC by the municipalities, its implementing and further development. The research processes describe the project experience (technical and organizational processes) in a proper scientific way. “Management of these processes should be performed in completely different ways” (Flensburg, 2011, interview at HV).

Organizational processes are investigated by the research processes as it was already said. It is done by means of the following research methods mentioned by the research leader: social constructivism, case study, metatheory and action research for process development. More detailed project research activities will be discussed in the section 5.5 later on.

### 5.3.1 Organizational processes

Organizational processes in the case of Innoveta KC project include changes in decision making, reorganizing working activities at KC, active learning and training together with development of new learning materials, new ways of communication and information sharing.

From the research perspective, organizational processes are more about accepting the idea of the KC and its further development by the decision makers and people involved: “organizational processes are about how to get the municipalities accept the idea of KC, how to convince them and then construct, implement and develop KC”. (Flensburg, 2011, interview at HV).

For the municipalities in turn, organizational processes deal with relocation of stuff and budget and changes in day-to-day activities: “the project focuses very much on internal work processes
in municipalities that have to be changed, which is very challengeable, e.g. to relocate budget to pay for the contact center, etc.” (Olsson, 2011, interview) Twelve operators and a process manager are now working at the KC in Jönköping. It was a new team recruited either from outside or from other municipal departments. When the staff was formed, new employees had a 6 week training in different aspects of work at KC, i.e. processes, activities and system when it was built (Jacobson, Eckerström, 2011, interview). The main requirement to future employees was that they have to be service-minded: “New workers should be service-minded and knowledge can be added while using the system. After working at the contact center employees become very well skilled and educated”. (Olsson, Nilsson, 2011, interview)

Comparing to the system development, they think that organizational changes are much more difficult and so more important: “Organizational development is the more important and the most important, but you can’t separate it from system development; it must go at the same speed. There had been many issues about how an errand should flow in the whole organization here, from our contact center out to the different persons at works. You have to develop the internal processes, because otherwise we wouldn’t be efficient and deliver good service.” (Eckerström, 2011, interview)

Another important aspect of the project and its organizational processes is that it was from the beginning covering both internal and external changes. Last ones in turn concern shifting focus towards citizens: “it’s a change in how you see, how you look at the citizen” (Eckerström, 2011, interview); and involving other municipalities as participants and followers: “The idea was to cooperate between many municipalities to avoid the same mistakes and so on. There are municipalities that follow the project very closely”. (Olsson, 2011, interview) This idea was expressed in the term “cooperative learning” which implies information sharing and mutual support.

Organizational changes are always painful at least for some employees. In the case of Innoveta project the following reasons for resistance were taken care of from the beginning: people do not want to change positions; budget relocation is needed; system redesign and significant changes in the infrastructure have to be learnt; people have their day-to-day work and not always want to spend much time on renovations (Olsson, Nilsson, interview). In this sense, the chosen agile approach was the right one as it helps to significantly reduce resistance and allowed users being a co-workers and co-creators of at least technical processes from the beginning.

5.3.2 Technical processes: agile system development

Agile methodology in system/software development is one of two key concepts investigated in the current work. This section presents different perspectives on this methodology and its practical implementation provided by different project stakeholders.

First references to the agile method can be found in the application to Vinnova and project plan. The application says: “It is important that the municipality owns the program (e-services) and can itself easy modify it based on new regulations or changed situation in the municipality”. This concerns so called case handling system (in Swedish: ”ärendehanteringssystemet”) which should be developed for KC. Many municipalities support the idea of OSS which is a lower cost alternative allowing the organization to be independent on one particular software provider. The
development of a case handling system for KC was entrusted to one of Sweden’s leading Java developing companies – Jayway and the system itself was called Streamflow.

Summarizing from different sources of secondary and primary data collection, the following objectives of the system were specified as necessary to achieve:

- It is citizen-oriented (e.g. it helps to fill in different forms on the web; it is adapted for people with disabilities and works in different languages, etc.);
- It performs administrative function (e.g. authority can publish new forms in the system);
- It guarantees that incoming messages (calls, e-mails, etc.) achieve a right person and as many of them as possible are answered from the first time;
- It accumulates data about finished cases and this history can be used for statistical analysis;
- It provides top- and middle-management with aggregated information they can use for further analysis;
- It is a reliable support and learning platform for the employees at KC.

System development was included in the project plan as a sub-project. Methods used in this sub-project are: “brainstorming, literature research, interview, observation, testing, prototyping and demonstration, etc.” (Nilsson, 2001, interview).

The system was thought to be both external customer (citizens) and internal user (employees) support: “A customer does not need to be only a person with a problem that calls in. This new system takes care of case handling or problem handling in a fairly radically different way than traditional case handling systems. You also provide employees at the customer center with better supportive information.” (Olsson, 2011, interview)

The Streamflow system was built to provide a good supportive environment for people employed at KC at several levels:

- basic level, case handler/operators
- managerial level (evaluation on the base of aggregated information)
- municipal level (KC as a main source to enhance efficiency in the whole municipality)

While working towards achievement of the established goals the following agile aspects of Streamflow development took place:

- A desired functionality to be built was not fully specified before the system development started. This attribute of agile development is controversial to the traditional Waterfall approach where all requirements and specifications should be developed before the development itself.
- Often small deliveries: “We received deliveries of new functions at iterative sprints (demo and prioritization meetings) with 2-3 week intervals between them. Of course, we didn’t launch new versions after every sprint, it took longer time.” (Madeleine Eckerström, PM at JKC)
- Active customer involvement and regular meetings: “We were and still are very active in the development of Streamflow as product owner. We were cooperating closely with
Jayway and the development team on a daily base at that time.” (Madeleine Eckerström, PM at JKC)

- Agile techniques and tools used: Scrum (regular sprints, product back-log, etc.), Kanban. Scrum was chosen as a main approach in the development project, but few other agile techniques were also applied and tried.

All project stakeholders come to the point that the chosen system and methodology suit the project requirements very well. Several comments collected from different interviews are presented below:

“‘It’s a very successful project in terms of agile work and long-term cooperation. We propose and prototype things for them and we never lack feedback. But we don’t depend on single persons – we have many persons involved from different departments.” (Jan Nilsson, Jayway)

“Agile methodology allows involving customers as coworkers and co-creators which reduces significantly resistance. Customers see that they gain from it and get more efficient system.” (Claes-Olof Olsson, project initiator from Sambru);

“I was very skeptical in the beginning and the progress was very slow. But suddenly in last several weeks they put some extra efforts and here it is. So I was impressed when they presented final version and it seems to work extremely well. “(Per Flensburg, research leader, HV);

“I think it is a very good method but the only thing is that we are not used to it. When it is done several times then people know how it works and then there are not so many problems. One problem can be when you haven’t seen any progress and you have to grope your way forward (touch moving) unless you know approximately where you are. So it seems to be a little bit messy and uncertain from the beginning. But when everything is finished everybody becomes satisfied.” (Lennart Östblom, project manager);

“I haven’t worked with Agile before, but I think it’s a very good method. It goes a little bit too slow, of course; but we have the possibility to change things after how we want it to be. Agile is much better than traditional approach because you have the insight of the project day by day, you have a personal contact, it’s very important, and there are no surprises. In general, it hasn’t been any problem working with Agile here. I would like to implement it in other areas as well, such as process development. In this project, I don’t think we could do it some other way because when we started our KC was very new, we didn’t know what we wanted, we didn’t know what we should be in future. So this was very suitable for us.” (Madeleine Eckerström, ex-project manager);

“I was never worked like this before. But for me it was only positive, I think it’s great. Because you can affect, you can change the system to get it as you need it. Before I only worked in a system that you buy in a box, and then, maybe you only use a part of the system, cause you don’t need the rest, and it doesn’t meet all your needs, you couldn’t have all those (functions) you need, and maybe you didn’t know from the beginning you are going to need different things when you are working in the system for a while. But it is of course, difficult for those who don’t like working with computers when the system changes quite often. I’m not afraid of changes and I know that all changes that we do are for the better. So, I’m positive, I think it’s really great.” (Anneli Jacobson supervisor at KC, Jönköping).
More detailed analysis of pros and cons of the agile methodology in general and in this or similar public projects is presented in chapter 7.

5.3.3 Project research

As it was already mentioned the research in the project is presented by the group of four researchers from Högskolan Väst (West University): Per Flensburg, Kerstin Grundén, Iréne Bernhard and Henrik Oscarsson. Research project is a part of the whole Innoveta project and four out of six part-projects belong to it: “we have part-projects and for each of them there is a person responsible” (Flensburg, 2011, interview). Thus, four sub-projects within the research project according to the initial project plan are:

- Process mapping and analysis of implemented KC (Per Flensburg)
- Creating a web-based learning material for competence development, e-circle (Per Flensburg & Annika Nåfors)
- Continuous evaluation of KC and e-circle (Kerstin Grundén & Iréne Bernhard)
- Preparing a guidebook (“metodhandbok”) to develop and implement KC and a final report (Per Flensburg)

Moreover, the active research support all over the project was planned from the beginning.

When the project was launched and development of KC had been started, the research project was being performed in parallel with system development. Initially, researchers and system developers had more cooperation – at planning and forming a project team stages – having meetings and discussing together technical and organizational aspects of the project. Then starting with quit of the first project leader at the development side almost the whole team formed during the planning phase was changed: “In the end that team at Jayway was completely changed” (Flensburg, 2011, interview). Since that time there is no interaction between researcher and system developers, interaction is only at the project management level. “There was some exchange but not so meaningful” - commented by the researchers. Nevertheless, the research group has performed evaluation of the Jayway’s system Streamflow which can be considered as their contribution in technical side of the project as well.

Not only relationships between the research side and the development side were changed. Major internal changes within the research project also took place. It concerned both participants and sub-projects. For example, previously working at the project Annika Nåfors, a PhD student employed 100%, quit her doctoral studies and the project. A new member Henrik Oskarsson came in January 2011 and since that time has been participating in the e-learning sub-project which is aimed at preparing visual and practical materials for competence development at KC.

This change in staff was connected to the change in project activities. Namely, the concept (and the sub-project) of e-circle established as an educational base for competence development at KC was replaced by a new sub-project called e-learning.

E-circle – the concept developed by HV from the Swedish term “study circle” (sv. studiecirkel) implemented by the County Academy of Sweden and implying an approach to learning when individual assignments are balanced with group work and feedback from students has a strong impact on studies. (Grundén, 2010) Eponymous web site e-cirkel.net was created by HV to place there the research findings and learning materials (“Handbok Kundcenter”). The concept of e-
circle was replaced by e-learning and changed focus from purely academic to more visual way of learning materials presentation.

“The steering group wanted a new organization of this part-project. Then we hired Henrik and focused more on e-learning and visual approach such as videos. We tried to listen more to the municipalities which were not really involved before.” (Grundén, 2011, interview) Thus, the purpose of the reorganized sub-project is to develop new learning materials, more visual and practical instead of previous ones rejected by the municipalities. They were considered as too academic and hard to understand and implement: “When they (representatives from 25 municipalities) came to the meeting they didn’t understand what’s in it for them. It was a culture difference we could not predict. One of big mistakes was that we presented it to the people incorrect organizational level (those who are making decisions)”, - was a comment from the researchers at the interview.

Despite of this not so successful beginning of one part-project, the rest of the work performed by the researchers didn’t meet criticism and was very valuable for the project. Thus, surveys and evaluations performed at the pilot municipalities are considered to be very helpful for further development of KC and can be extremely useful for the following municipalities in future. The mentioned surveys had primarily two focuses: customer and employee perspectives and were conducted by Irène Bernhard and Kerstin Grundén accordingly. After coming to an agreement regarding the learning materials, the work in this direction is also very successful. Moreover, the Guidebook which is being developed mostly by the research leader seems to be very supportive for already implemented and future KCs.
6 Data analysis and interpretation

Referred to Marshall and Rossman (2006), data analysis can be defined as “the process of bringing order, structure and meaning to the mass of collected data”. Qualitative research is usually overwhelmed with huge bodies of data and information. Thus, one of the main objectives of analysis is to divide up or break down some complex whole into its constituent parts in order to gain understanding, clarify problems and test hypotheses (Ghauri & Gronhaug, 2005). There is of course no universal and the only appropriate approach to qualitative data analysis but there can be different analytical procedures (components) distinguished as for examples the ones suggested by Miles and Huberman (1994, p.23) in their iterative model for data analysis (presented in Appendix 7):

- “Data reduction,
- Data display and
- Conclusion drawing/verification”.

Following this model, data reduction consists in selecting, focusing, simplifying, abstracting and transforming the data that appear in writing up field notes or transcriptions. Data display is an organized and compressed assembly of information permitting conclusion drawing and action taking; can be in form of figures, matrix, graphs, etc. (Miles & Huberman, 1994) On the base of reduced and displayed data conclusions of the study should be made.

“Analytical procedures are applied to manipulate data. Compared with data analysis interpretation tends to be more intuitive and subjective. Through interpretation the researcher makes sense of the collected and manipulated data. A key point is that data make sense by using some concepts, perspective or theory.” (Ghauri & Gronhaug, 2005). Extracted from the authors’ reasoning, the stated above arguments clarify the essence of analytical and interpretive procedures and explain to the reader how collected data are treated in the current work.

The previous chapter presented the main ways and objects for data collection in a form of narration with minor elements of analysis and interpretation. For example, such analytical procedures as data reduction and display were already implemented when presenting present situation in the Innoveta project and its different processes. It was done mainly to provide a detailed enough overview and introduce the reader to further more detailed analysis which also imply applying empirical study results on the theoretical findings and forming a base for future conclusions and recommendations.

6.1 Stakeholder management in the project

This section aims at identifying main characteristics of stakeholder management in the project. It is important to understand weather stakeholder management itself is being organized in agile way or it rather follows traditional approaches. This is needed in order to reveal if there is any influence of the chosen agile system development approach on the project’s stakeholder management.
Among the interviewees, four people can be defined as belonging to the top management level in the project:

- Claes-Olof Olsson, project initiator from Sambruk’s side and project leader in the beginning
- Madeleine Eckerström, first project manager of the Innoveta project, employed oct 2009-dec 2010
- Lennart Östblom, current project manager of the Innoveta project, employed since jan 2011
- Per Flensburg, research leader, responsible for the research results in the project and accountable to the project’s sponsor Vinnova

Having both Innoveta’s project managers together with its initially leading originator and leader of one of the key stakeholder groups, it is obviously possible to fairly characterize project management practices and activities in the project. Talking about the last ones the focus is to be set on stakeholder and communication management as well as leadership styles. Moreover, appropriate project documents are to be analyzed, especially while discussing project (stakeholder) planning.

6.1.1 Project planning for stakeholders

When the project idea emerged in Sambruk was shaped and considered thoroughly enough to be presented in front of sponsors, a need for key project groups became clear, namely: system developer, research provider and pilot municipalities where these efforts could be applied. At the first (planning) stage when the application to Vinnova was sent and a project plan was being written, stakeholder management and communication management were rather spontaneous, flexible and result oriented than planned and process focused.

In project management practices – both traditional and modern schools – planning is always considered as a crucial element of project management. "In the classic definition of management (plan, organize, direct and control), the leading term is plan. Top managers are said to devote half their time to planning. Several experts identify planning as the most profitable activity of mankind. Taking action on plans leads to consequences, and well-made plans acted upon properly lead to good results." (Muther & Nadler, 2011)

Planning in the Innoveta project took quite a long period of time – more than one year - as it is officially stated for the project plan: 28th of October 2008 – 3rd of December 2009. In fact, the idea of the project was developed even earlier: already in August 2008 the application for sponsorship was sent to Vinnova. These two documents can be considered as the main, if not the only, planning documents in the project.

The application to Vinnova preceded the project plan and should be classified as a project charter in terms of traditional approach: project charter is “a document that formally authorizes a project or a phase and documenting initial requirements that satisfy the stakeholder’s needs and expectations” (Project Management Institute, 2008). The project plan prepared on the base of the project charter includes all subsidiary plans and actions necessary to define, prepare, integrate, and coordinate them. “The project management plan becomes the primary source of information for how the project will be planned, executed, monitored and controlled, and closed” (Project Management Institute, 2008). The following processes are integral parts of the
project plan development: requirements collection, scope definition, schedule development, cost, quality and risk planning, HR planning and communication planning.

Stakeholder management planning process in traditional project plans basically includes two sub-parts: stakeholder identification and communications planning. According to the traditional approach presented by PMI, stakeholder identification should take place right after the project chapter is developed – this is exactly what was done by Claes-Olof Olsson and the steering board of the Innoveta project. Stakeholders were identified after the project idea emerged in Sambruk: HV and Jayway were chosen for cooperation and Jönköping municipality became a pilot which is mentioned in the project plan. Most often, it is not enough just to mention project stakeholders. A good way of looking at stakeholders is to map all the primary and secondary stakeholders (see example in Appendix 8) and explain relationships with and between them including methods of information exchange and spread, conflict management, leadership style and negotiation techniques, etc. This would be a good base for building reliable stakeholder relationships when all of them know that their interests and values are taken into consideration and are aware from the beginning of leadership and problem solving styles.

Further on, a useful tool when stakeholders are identified (mapped) is to prioritize them and their interests. This can be done in form of a power/interest grid with stakeholders (Project Management Institute, 2008) presented in Appendix 9. As a result from the interviews such prioritization was performed by the Innoveta’s project managers when pilot municipalities, Jayway, Sambruk and HV were classified as the key stakeholders listed according their importance for the project.

Moreover, an important output from stakeholder identification process is development of a stakeholder management strategy. According to PMBOK, “the stakeholder management strategy defines an approach to increase the support and minimize negative impacts of stakeholders throughout the entire project life cycle.” (Project Management Institute, 2008, p. 251) The following elements can be developed:

- Key stakeholders who can significantly impact the project,
- Level of participation in the project desired for each identified stakeholder, and
- Stakeholder groups and their management (as groups).

A common way of representing the stakeholder management strategy is a stakeholder analysis matrix (Project Management Institute, 2008) as presented in Appendix 10.

Stakeholder management strategy should cover management of stakeholder interests, expectations and values. “Managing for stakeholders” is a common term nowadays reflecting the previously stated aspects: “Adopting the stakeholder mindset means understanding that business just is creating value for stakeholders. The key insight of managing for stakeholders is that their interests must go together over time” (Freeman, Harrison & Wicks 2007, p.10) However, it is rather a difficult task “to find a way to accommodate all stakeholder interests. It is easier to trade off one versus another” which is according to Freeman, Harrison & Wicks (2007, p.10) a source of troubles and failures.

From the interviews with the project management personnel it became clear that they are really “stakeholder minded” and creating value for citizens and employees is one of the main project
focuses. Still, it is important to document these thoughts and state what values and interests of stakeholders are considered, how their expectations are managed and how the potential interest or personal conflicts should be solved. It is often being discussed that the project is aimed at creating value for stakeholders but it might be interesting to explain the way it is done and how it influences the relationships between stakeholders. One way to do it is to use the techniques presented by Freeman et al (2007) presented in the theoretical chapter.

When stakeholders are identified and general stakeholder management strategy is developed, it is time to think in details about communication with and between stakeholders as groups and individuals. The purpose of development the communications plan is “to determine the project stakeholder information needs and define a communication approach” (Project Management Institute, 2008, p. 243).

There are two short sections developed in the project plan covering to some extent stakeholder/communications management:

- Communication and quality assurance;
- Information plan.

These sections focus on description of documentation and information handling (reports, Sambruk’s web site, HVs and Innoveta’s web pages), working activities organization (workshops, conferences, pilot development). It is even stated that project results are going to be spread through broadcasting channels. Thus, no stakeholder management plan, or at least stakeholder management strategy supposed to be developed when stakeholders are identified, is presented in the project plan although they are critical to manage people involved in the project.

To develop a proper communications plan the following tools and techniques can be used ((Project Management Institute, 2008, Chapter 10):

- communication requirements analysis where type and format of information and information channels are considered as well as need for specific information and its quality;
- communication technology including specific features of communication with people involved and different factors influencing it;
- communication methods such as interactive pull or push communication.

All these parameters of stakeholder management and communication planning can of course vary from one project to another and are not obligatory to employ. Nevertheless, when properly treated they can contribute significantly to the project planning and reduce future risks related to stakeholder management. As any other type of project planning, stakeholder management planning “reduces the likelihood of failure and the seriousness of mistakes made” and provides better results when follows some recognized processes or procedures corresponding to variables involved (Freeman et al, 2007).

Generally, based on traditional project management guidelines the Innoveta project can be characterized as a project with very basic planning and minimum documentation. This phenomenon can be explained by modern tendencies dominating in traditional project management evolution influenced public environment as well. Project management “is moving
away from a preoccupation with project planning and control tools as the keys to success, and towards the management of people and their performance.” (Briner, Hastings, & Geddes, 2009)

Such people management is often being performed in a flexible way relying mostly on project leadership and capabilities of participants involved.

6.1.2 Project communications: different perspectives

Communication planning was discussed in the previous section. It was concluded that overall project planning is quite basic and stakeholder management has to relay mostly on project leaders’ experience and capabilities as well as depends a lot on spontaneous events and all participants’ involvement. Several sources of information were employed in order to describe and analyze communications within the Innoveta project. First of all, project meetings reports and other project documents were retrieved and considered in details. Extremely useful information was collected during interviews with project leaders who explained communication related issues from different points of view. Moreover, important observations were made at real KC in Jönköping and while participating in project events.

Project documents investigated for the purpose of the current study, particularly project meetings reports, have showed that steering group meetings have been held on a regular base, in average once a month. Nevertheless, much more often project participants could meet in sub-project groups or for example, between two sub-groups such as HV and Streamflow or HV and Sambruk.

The main communication channels in the project are: steering group meetings, sub-project group meetings, Sambruk’s conferences, project reports and other documents published on Internet. Moreover, project results are going to be spread through broadcasting channels. Many project meetings are organized as telephone or even Internet conferences. Issues that need further work are being actively discussed via e-mail and skype. Moreover, Moodle and Sambruk’s web-site (Innoveta’s web-page) as well as “KC Handbok” are also used to share and spread information.

Besides project documents and related Internet resources, different project events and interviews with project participants were participated and analyzed. Observations at project events and discussions with project participants allowed noticing that there is very low level of interaction between members of different sub-groups. Interaction is mostly being performed at project management level. Moreover, there have been quite many changes in staff since the project started. It concerns all levels of personnel in resulted not only in delays but also hindered cooperation between different sub-groups as it was mentioned by Per Flensburg.

Some personal misunderstandings also took place in the research group but mostly they did not hinder the researchers to provide desirable results in the project. For instance, Per was initially supposed to be just a group leader but in fact he had got a lot of research work too. This increased his work load and resulted in some over-timing comparing to 15% project employment stated in the application. Moreover, it affected results of at least one sub-project and group relationships.

Different problematic group situations could be resolved by employing some team building activities from the beginning and during the group work. “Team building does not mean solely focusing on the team members’ technical skills, which, obviously, are crucial for the team’s success. It also emphasizes team skills— the skills involved in working together. How are the
Different team building techniques and activities can be used to better introduce team members to each other, to increase the level of creativity in the team, to stimulate trust and openness between team members or for some other purposes. It is easy nowadays to find enormous amount of materials available on team building both on the Internet and in printed sources such as books and journals about leadership, project and HR management and related subjects. Among suggested team building techniques and activities it is always possible to choose some that suit exactly your team at one or another stage of team development.

Moreover, it would be useful to conduct group effectiveness assessment that would indicate problems and sources for improvement. Both team building activities and effectiveness assessment can help very much to solve problems related to communication within and between project sub-groups if appropriately applied.

A very useful model to follow in order to increase team effectiveness from the very beginning and reduce group misunderstandings and delays in group performance is the G-M-R model (Effectiveness Consultants, 2009). Consultants advise to use this easy and effective planning and problem-solving tool in groups when approaching a new task or trying to solve a problem. The essence of the model is to determine and agree upon goals that need to be accomplished in order to develop a plan or solve a problem. Then alternative methods to reach the goals are to be identified and prioritized. For the best alternatives required resources have to be specified. If there are not enough resources for the best method, the alternative ones should be considered until it is possible to find resources to apply one of the alternative methods appropriate to reach the goals. Otherwise, the goals should be reconsidered. Also whenever common understanding is lost or participants feel confused they can turn back up to the first step and start negotiating goals again until the mutual understanding and trust are reached.

Thus, the most important practical implication of the G-R-M model is that it allows developing and maintaining the common understanding of the goals to be achieved. Group brainstorming on goals, methods and resources opens more alternatives and details that are very important to discuss all together. If such algorithm is performed in the beginning of planning or problem solving the further group work will be much easier, faster and comfortable since that very moment when mutual understanding is achieved and all group members have the same picture in their minds. This model would be extremely helpful to use in the Innoveta project both in groups and at the top management level. As it was already mentioned there were some misunderstandings not only in the research group concerning different members’ roles and results but also as noticed by Madeleine Eckerström, in the beginning it was not clear what roles different municipalities and people have in the project.

Another related issue to keep in mind when planning and performing communication management is conflict management tools and techniques. If personal misunderstandings and communication problems were not resolved in the beginning they disturb the performance during the whole project. Most conflicts arise because of different project objectives between different parties in the project (Kerzner, 2003). Conflicts can occur in different areas such as project priorities, scheduling, technical issues, communication, personality conflicts, unclear roles and
responsibilities, cultural differences, budget, etc. (Kerzner, 2003; Fuller, Valacich, & George, 2008; Project Connections, 2010). Fuller et al (2008) argue that conflict is a natural part of project teams and organizations and it does not mean they are always negative. Quite often conflicts in the project can be used for better if properly handled, for example they can stimulate competitiveness and increase efficiency, provide different pictures of the same situation and thus different solutions to the same problem, etc.

Depending on the conflict nature and potential effect, different conflict management techniques can help. A classic example is five common approaches cited and interpreted by different authors: avoidance/withdrawal, problem solving/confrontation/collaboration, forcing/stimulating and sharing-compromising, smoothing-accommodation. The reader can find more information about conflict management and resolution techniques in many literature sources, for instance the following: Blake & Mouton (1973), Borisoff & Victor (1989), Pinto & Kharbanda (1995), Cleland (1999), Samarah et al (2002), Kerzner (2003), Cleland & Ireland (2007), Antvik & Sjöholm (2007), Fuller et al (2008). These approaches can be also presented as models such as for example Thomas Kilman’s conflict mode matrix (Thomas & Kilmann, 1974).

6.1.3 Project leadership: style and involvement

It is fair to mention that: “No single topic takes up more space on business bookshelves than that of leadership. The truth is, we don’t know very much about leadership despite all of the studies and examples from history that we have.” (Freeman et all, 2007) However, it is also obvious that the role of project manager or project leader is extremely important in projects of any type since they deal not only with technical side of the project, but also handle a great variety of tasks from inspiring and controlling project teams to building networks outside the organization and accommodating interests of all project stakeholders.

Briner et al (2009, p.15) state that “there are common characteristics in every project leader’s role, not necessarily found in other managerial roles”. This conception can be explained by the model of six lookings which includes looking upwards, looking downwards, looking forwards, looking backwards, looking inwards and looking outwards. These sub-roles cover different directions of project leadership from self-management and team management to sponsor and client management including planning and monitoring progress.

A common vision of the project manager/leader’s role in the project does exist in Innoveta. It can be seen from the different versions of the project structure chart presented earlier in the paper. It can be also formulated as being the one responsible for the final result, coordinating and guiding project participants, active participation in top management meetings and conferences as well as daily processes observing and controlling working activities and providing a reliable support for others. It can be referred to competencies of project leader discussed by Briner et al (2009) which involve ability to communicate with others complicated things in a simply language, being not prone to panic and ready to face problems, keeping eye on the big picture and every member simultaneously.

While talking to the Innoveta’s project managers it seems so as there was no officially established leadership style, roles or norms for behavior/activities. However, every project leader earlier or later involved in the project had developed his/her own leadership style and had quite clear perception of the project leader’s roles. Thus, project leadership in Innoveta can be
characterized by the following terms: democratic and firm at the same time, flexible, rational, involved in project activities, oriented on personal contacts and networks.

Thus, Madeleine Eckerström commented that she was going out to different sub-projects (research and system development ones) and was taking quite active part there. Moreover, she characterized her own leadership style as following: “I think I am quite clear with what I want, I try to listen and to see things even beyond my responsibility. As a person I am quite focused on results and always try to follow plans and deadlines to deliver on time. However, when the quality is low it becomes more important than deadlines”. (Eckerström, M. , interview)

A similar tactics was chosen by Lennart Östblom when he started at Innoveta as a project manager after Madeleine. At the interview in Arlanda, he said that especially in the beginning he was often outside in different project locations: “I have of course travelled to the pilot municipalities to meet and get in contact with project participants there and look at their customer centers in Järfälla and Jönköping. And I also went to Trollhättan, to the West University. And this is very important, I think – to meet each other personally. If it’s not needed or possible to meet then it can work out with skype. And also this Moodle system can be for us a good support in the project” (Östblom, L., interview)

Per Flensburg, the research leader in the project has probably a bit different approach. He follows a traditional, academic way, of planning and performing tasks. Being the one responsible for planning in the research group he physically prepares such plans using Excel sheets and divides responsibilities within the group. The group consists of four people assigned to different sub/projects, but still some uncertainty occurs when trying to understand what the initial idea was and by whom it was developed. Per sets milestones and is quite much concerned with deadlines which caused some controversies with other researchers who are arguing for better quality instead.

Traditional project management literature advises that a project manager should be “identified and assigned as early in the project as is feasible, preferably while the project charter is being developed and always prior to the start of planning. It is recommended that the project manager participates in the development of the project charter, as the project charter provides the project manager with the authority to apply resources to project activities.” (Project Management Institute, 2008) The Innoveta project in contrast, has had three project managers from the beginning which influenced both planning and performing activities. Madeleine Eckerström commented that the project leader should be involved “from the first step until the last, but especially in the beginning. Innoveta has suffered from different project managers”. (Eckerström, M. , interview)

From the interviews with different project participants it was possible to conclude that such changes in project staff, especially top management, influenced significantly project progress. It also concerns planning, because every new project manager spent quite a lot of time on reviewing already developed plans, changing and implementing them. Moreover, it can change relationships between different stakeholder groups. It happened for example, when the project leader at system development side quit in the beginning of the project and after that developers and researcher could no longer cooperate: “with the first team (at Jayway) we had good discussions and began to understand each other. Then the project leader there quit and the team
was also completely changed. Came a new guy who was more project leader in business consulting and it was impossible to discuss technical details anymore” (Flensburg, P., interview). “These two parts (research and system development) were split. It was a pretty much personal issue, I think.” (Eckerström, M., interview) Moreover, there were changes in staff all over the project life cycle and it also had some negative effects, especially in terms of project information and relationships lost.

From the discussed above, it can be concluded that the project would demonstrate a faster progress and better efficiency if it was not “suffering” from different project managers and staff changes. Moreover, project management was mostly concerned with technical side of the project and organizational changes in the pilot municipality, whereas interaction between different stakeholder groups was extremely important to take care of. Thus, cooperation between the municipality and system developers went very well following the agile methodology, but it could be improved between system development and research groups as well as between the research group and the municipality. By the end of the project the situation was improved but it took relatively longer time than it could take.

### 6.2 Pros and cons of agile methodology in the JKC project

According to Creswell’s suggestion on qualitative study, the data analysis processes of interviewees’ perceptions of JKC project were divided into four steps (Creswell, 2007, p. 156):

Step 1: Review interview transcripts and project documents to identify “significant statements” that are relate to the pros and cons of Agile Methodology, and challenges of stakeholder management.

Step 2: Group the statements into themes.

Step 3: Describe “what” the participants had experienced with the phenomenon, and “where” the experience occurred.

Step 4: Concludes findings.

<table>
<thead>
<tr>
<th>Emergent themes and Sub-themes as identified</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Themes</strong></td>
</tr>
<tr>
<td><strong>Pros of Agile Methodology</strong></td>
</tr>
<tr>
<td>Open and flexible to changes</td>
</tr>
<tr>
<td>Total involvement of key stakeholders</td>
</tr>
<tr>
<td>Promote mutual trust among stakeholders</td>
</tr>
<tr>
<td>Achieve customer satisfaction</td>
</tr>
<tr>
<td><strong>Cons of Agile Methodology</strong></td>
</tr>
</tbody>
</table>
Relies on technically experienced personnel | Project plan, research leader, researcher, ex-project leader, project leader
---|---
Adaptation takes time and efforts | JKC supervisor, ex-project leader

**Problems/challenges in managing stakeholders**

<table>
<thead>
<tr>
<th>Communication management</th>
<th>Project manager, ex-project leader</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interaction among stakeholders</td>
<td>Ex-project leader, project leader</td>
</tr>
</tbody>
</table>

**Suggestions for improvements**

<table>
<thead>
<tr>
<th>Project leader should be fully involved in the project</th>
<th>Researcher, ex-project leader</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus more on needs and workers should be service minded</td>
<td>Ex-project leader, project manager</td>
</tr>
<tr>
<td>Knowledge should be recorded and shared</td>
<td>Project manager, JKC supervisor</td>
</tr>
</tbody>
</table>

Table 3  Emergent themes and sub-themes on agile methodology

From the analysed data, the pros and cons of employed agile methodology in JKC project were concluded as following:

**Pros:**

**Open and flexible to changes.** In Agile project, it is possible to change an on-going process or any component of the project, even the project scope. As mentioned in chapter 4, one character of agile methodology is that it is open and flexible to changes; in agile project, the project scope is not “locked down” and does not require a detailed work breakdown structure, so the project can be initiated with fundamental requirement and a roughly cost and time plan proposed by the customer, then, a trail iteration can be executed for the key stakeholder groups to review and refine the scope based on the trail result, therefore, to determine the operation for next iteration. Identified issues can be fixed in the next scheduled iteration; the project in such way will be continuously improved through its agile lifecycle. Madeleine, JKC project owner and ex-project leader, stated that “when we started, our KC was very new, we didn’t know what we want, what we should be in one year, or two years, […] It is quite often that you learn something from the journey; (in agile project) the ‘learning’ has been worked in the results; that’s good.”

**Total involvement of key stakeholders.** The key stakeholders can have a holistic view of the project progress in agile project, in which they are not limited on what they are assigned to, but can also have access to other parts of the project, and always be informed about the project status. Because of all key stakeholders are involved in the project development, it is easier to monitor and control the result of each project component, once a problem is identified, the project team can directly get in touch with relevant personnel to report the issue and work together to find solution.

**Promote mutual trust among stakeholders.** The total involvement of stakeholders also increased mutual trust among project members, as the project owner stated “in agile project you
have the insight of the project day by day, you have a personal contact, it’s very important, and there is no surprise. [...] And you have the confidence with other people; you have a great amount of trust in Agile.”

**Achieve customer satisfaction.** In Agile project, the customer actively participates in every project process, they can influence on project results, as JKC’s supervisor stated “cause we can affect, we can put add-ons, we can say we need these functions as well otherwise it’s not good for us, and then, they will fix it; and if they can’t fix what exactly we want, we can always have an answer why, and they can have another solution, and it always turns out very good.”

**Cons:**

**Relies on technically experienced personnel.** The mostly mentioned constrain from interviews and reviewed project documents was the implementation of agile methodology highly depends on experienced personnel. In Innoveta’s project plan (Sambruk & Högskolan Väst, 2009, p. 12), it is clearly stated that “lack of accessibility to key personnel for the system developer” and “key personnel disappear” would have major impact on the project; the researcher group had experienced difficulties when one major member quit from the team; the project manager and supervisor of JKC also commented that the lack of experience of working with Agile methodology hindered the project performance a little in the beginning, but when they overcome the issue and familiar with the process, the project was running in a productive pace.

**Adaptation of the methodology takes time and efforts.** It concerns first of all those who never worked in agile way before. It is challengeable for them to switch from a traditional way of working and management style to the agile ones where all participants depend on each other and are accountable to each other. Progress is being monitored constantly and customer works in close collaboration with provider, often on daily base. In the case of Innoveta, no one from the customer (municipality) side had previous experience of agile way of working, so it was unusual for them and took some time and efforts to change organizational routines and personal perceptions of daily work.

### 6.3 Problems/challenges in managing JKC’s stakeholders

The frequently mentioned challenge by interviewed stakeholders was communication. According to Claes-Olof, in Innoveta project, the requirements and decisions could come from “politicians, CEO and heads of departments as well as all employees”, to make sure all those requirements and decisions were informed and well understood by the stakeholders was quite a challenge, managing communication was extremely important for project success; Stober & Hansmann (2010, P8) claim that the success of Agile team collaboration highly depends on “clear and unambiguous communication “of project requirements.

Lenart Östblom mentioned that there was “no exact planned and predetermined (document) to guide how communication should be organized”, the planning of communication was “focused more on development, technical aspects of the project”. Reviewed project documents also indicate that communications between stakeholders in technical and organizational processes were more frequently compare to research process. A structured agile communication approach – “Scrum meetings” were implemented to manage communication between Jayway and JKC, according to Jayway’s CEO Mats Weidmar, the meetings include:
1. Daily meetings (maximum 15 minutes), organized and monitored by project team itself, participants should answer following questions to review and report work progress: “What did you do yesterday? What will you do today? Do you see any obstacles?”

2. Review meetings, organized within or after each iteration in which project team can present iteration results to stakeholders, and receive feedbacks.

3. Retrospective meetings, organized before starting a new iteration (approx. every 2-4 weeks), in which project teams, product owners and stakeholders were gathered to evaluates the collaboration, methodology, procedures; following questions were asked to summarize pro and cons of previous iteration, and provide guidance for the next iteration: “What should we start doing? What should we stop doing? What are we continue on to?”.

Stakeholder’s needs and project performance were constantly reviewed and improved in these Scrum meetings. According to JKC Supervisor Anneli’s comment, the communication in technical and organizational processes were effective and satisfied most stakeholders: “I think it’s really great, cause we can effect, we can put add-ons, we can say we need these functions as well otherwise it’s not good for us, and then, they will fix it; and if they can’t fix what exactly we want, we can always have an answer why, and they can have another solution, and it always turns out very good.”

However, communication in research process was managed more close to traditional project management process. According to reviewed project documents and interviews, in research process stakeholder’s research needs were given to research group at the project initiation stage, then, the research works were reviewed in project seminars, workshops and monthly Steering Group Meetings, the communication in research process between researchers and other stakeholders were less frequently and somehow passive comparing to other two processes of the project, this different communication pace caused stakeholder’s expeditions were less updated in research process. As stated in PMBOK, actively managing stakeholder’s expectations can help project team to “address concerns that have not become issues yet”, “clarify and resolve issues that have been identified” and “decreases the risk that the project will fail to meet its goals and objectives” (Project Management Institute, 2008), also, according to Thiry’s (2010, p.6) Agile Management model, understanding and updating stakeholder’s expedition is critical to project performance. The development of “e-circle” in research process was hindered because of “didn’t meet stakeholder’s expeditions” (Eckerström, M. 2011, interview in Jönköping).

The different communication pace might affect the interpretation of stakeholder’s expedition, and could cause misunderstanding of customer needs which would lead the project to a wrong direction, hence, to improve future project performance a balanced communication plan is needed. PMBOK stated that “communication plan allows the project manager to document the approach to communicate most efficiently and effectively with stakeholders. Effective communication means that the information is provided in the right format, at the right time, and with the right impact. Efficient communication means providing only the information that is needed.” (Project Management Institute, 2008, p.252) Tools and models for developing communication plan were mentioned in section 6.1.2.
Managing interactions between stakeholder groups

Another challenge was to manage interaction between different stakeholders by the project manager. Both project managers mentioned that they faced difficulties when managing interactions at the beginning, it was due to “limited time in the beginning”, ”key stakeholders had never cooperated as a group before “, and “lack of backup plans”; the solution proposed by Madeleine was to “have the people to do what they are good at ” which requires the project manager to have a good knowledge of each stakeholder group’s competences, and be able to utilize them in an optimized way; Lennart stated “that is why the role of the project manager is also different in the agile project –he or she doesn’t only coordinate but should also be a ‘people connoisseur’.”

6.4 Strengths of the project and sources for improvements

This section discusses issues which either were approached very well and successfully or could be improved in the Innoveta project. They are good to be aware of when organizing and performing a similar public project. Suggestions were developed based on project members’ opinions and theories analysed. In other words, themes and details considered in the preceding chapters are summarized and concluded here.

Strengths of the project:

- Collaborative and supportive leadership, engagement of top management in all project processes;
- Service-minded workers to be able to provide support to co-workers and handle frequent change requests;
- Comprehensive research including pre-study, process mapping and analysis, surveys and evaluations, learning materials development;
- Agile approach not only as the chosen software development strategy but also in terms of flexible stakeholder management: project results are very good according to HV’s evaluations and current analysis;
- Successful organizational changes including staff relocation and recruitment, process reengineering and setting a major focus on citizens’ needs;
- Continuous improvement of project quality to maximise stakeholder’s satisfaction.

Generally, the Innoveta project seems to be very successful for all its key stakeholders. Nevertheless, some sources for improvement were revealed during the analysis. Recommendations below can help to improve performance and overall efficiency in a similar project referring to Innoveta’s example.

**Suggestion 1.** It is important to keep in mind that even being both public institutions, municipal and state organizations differ quite a lot. When planning and performing a public project its management should select the most important tools, technique and activities regarding type of the organization especially when it comes to education and learning.

**Suggestion 2.** Project leader should be fully involved in the project, most desirably from the very beginning of the project until its end. “The project leader should lead that project on a big part of the project, and should be involved from the first step until the last” (Eckerström M., interview).
Project leader’s active involvement in the project could improve the problem solving process, and have positive influence on team member’s commitment to the project. Projects “suffering” from many changes in staff especially at top management level tend to have lower speed and more communication challenges/problems.

**Suggestion 3.** Project manager/leader and the whole project team should focus more on needs from different stakeholder groups. Agile project management highly depends on the collaboration among all stakeholders and is driven by their requirements, so it is very necessary to understand the concerns and needs before initiate the project as well as all over its life cycle.

**Suggestion 4.** Another improvement suggestion proposed by JKP KC Supervisor Anneli and project manager Claes-Olof was that the knowledge should be always shared and recorded. The planning and execution phase of agile project relies on experts and professionals, it would increase the productivity and efficiency if their experience and knowledge could be documented and shared among co-workers and with the followers later on. By doing this, it will also mitigate the negative influences of personnel rotation.

**Suggestion 5.** To improve planning and problem solving processes goals, methods and resources should be properly negotiated and accepted by all project/team members in order to create a common understanding in the group. When everybody shares the same picture or what and how has to be done it is easier to agree upon further details.

**Suggestion 6.** To increase project team and sub-team’s effectiveness and manage personal misunderstandings and potential conflicts in a better way, different team building activities and team effectiveness assessment techniques (Appendix 11) can be employed.

Besides the improvements suggestions proposed by interviewed stakeholders, upon the observation and investigation of Innoveta Project, general recommendations were also to ensure more efficient implementation of agile methodology and better stakeholder management.
7 Final discussion

The aim of this research study was stated as to investigate agile methodology when applied to public projects and benefits it brings in terms of stakeholder management and project performance comparing to traditional approaches. Moreover, it was needed to detect challenges the agile approach causes and give suggestions to solve them, thereby improving stakeholder management in agile public projects. This was achieved by means of conducting an empirical study of the project processes covering interactions and relationships between key project stakeholders in JKC, analysis of project activities and findings drawn from the interviews.

7.1 Conclusions

Thus, the research questions stated in the beginning of the work were answered, which can be summarised in the following.

RQ1: What benefits can a public project gain from agile methodology in terms of stakeholder management?

Comparing to stakeholder management in traditional project management approach, the agile approach was more open and flexible to changes (stakeholder’s change requests), its iterative workflow not only ensured fast delivery of project results but also allowed stakeholder to monitor and control the progress; the total involvement of key stakeholders throughout all project phases helped to create a collaborative working environment, and promote mutual trust among stakeholder groups; the iterative workflow of agile project also ensured continuous improvement of project quality to maximize stakeholder’s satisfaction.

RQ2: What are the problems and challenges and how to solve them/improve stakeholder management in the agile public project?

The study also found that stakeholder management in agile project highly relied on communication and collaboration between key stakeholders. The main challenges while organizing a project in agile way were management of communication and interactions between different key stakeholder groups who used to work in a traditional manner; and the lack of particular technical knowledge on the customer side which might require intensive training and education. To overcome these challenges the authors suggest that it is necessary to develop a communication plan to guide the participants in the project to avoid misunderstanding and loss of information; the project leaders can employ different team building activities and assessment techniques to increase project team’s effectiveness and manage personal misunderstandings and potential conflicts.

7.2 Recommendations

General recommendations for better stakeholder management in agile public projects, concerns more thorough analysis of project stakeholders when initiating a project, namely:
1. A pre-study of project stakeholders should be conducted before developing the project scope. The pre-study could help the management team to identify key stakeholders, prioritize their concerns and requirements, and what kind of competences are needed to achieve project objectives.

2. Though agile approach allows initiating projects with a draft scope and/or a rough plan of cost and time, and refine them gradually through several iterations; it is very important for the project manager to think “big enough” before setting plan for each iteration, the time schedule and cost must be carefully controlled; when adjusting the scope or receive any change requests, all key stakeholders must be informed and allowed to make comment to avoid misunderstanding. And, of course, all changes must be documented.

3. A competence analysis should be conducted when forming the project team, the analysis could help the manager to locate the “right people” to do the ”right thing”, and be able to identify the needs for improvement, hence, to arrange resources or training to support the needs.

4. Highly relying on communication and collaboration between key stakeholders, agile projects need to be supported by a clear and well developed communication plan to guide the participants in the project to avoid misunderstanding and loss of information. The project processes should be accessible to key stakeholders for them to review and control the progress.

5. It is important to realise that not all project participants are able to change their work styles towards the agile way. Especially it concerns those stakeholder groups that are used to work in a totally different way (e.g. academic) and simply cannot switch to any other alternative. Thus, it is crucial to balance all different styles in agile manner and support interaction between them. In other words, agile methods can be expanded from pure software development to project management approach but cannot always cover all project activities and thus should be treated carefully in terms of balance with other approaches used in the project.

7.3 Further research

Though the study was focusing on the municipality of Jönköping as IKC pilot municipality, its results as well as proposed suggestions and recommendations can be used to guide other projects if they share similar context. Additional research should be conducted when the context changes. It would be interesting to investigate other Sambruk municipalities, both following Jönköping in adapting Streamflow, and taking some other ways (e.g. Järfälla). In this sense, following municipalities are interesting to observe to understand if their work will be the same agile as in Jönköping when developing Streamflow from scratch.

Due to the scope of the research predetermined by its objectives, the study results do not cover all possible related issues of managing stakeholders in agile projects. Moreover, it would be useful to continue with the current research until the project officially closes and its final results are announced. It unfortunately goes beyond the established time frame of the current research study. However, its results will be hopefully useful to draw conclusions when closing the project.
References


46
Today, 9(5).
Muthér, R., & Nadler, G. (2011). 100 years of project planning: Distilling a century's worth of experience into 10 key points. Industrial Engineer, Institute of Industrial Engineers.
http://www.sambruk.se/download/18.33d4878b127b4538e2f80004611/Projekplan%2Bversion%2B1.1_091208.pdf
Sogeti AB (2011) Introduction to LEAN, Agile and SCRUM course presentation.
Appendices

Appendix 1: First interview protocol

Within the master thesis “Management of stakeholders in IT project for public sector: Case study of Innoveta” by Lina Lvova and Hui Chen, KTH 2011

Date: 7/4/2011
Scheduled time: 13.00 - 15.30
Place: Malmö, Jayway
Participants:
Claes-Olof Olsson (Sambruk, project initiator)
Jan Nilsson (Jayway, project software supplier and developer)
Interviewer: Lina Lvova

Interview objective - to collect general initial information for further answering preliminary research questions:
   a. What is Innoveta project form its stakeholders’ points of view?
   b. What is special about IT projects in terms of managing stakeholders, what types of stakeholders there are and how they interact?
   c. How IT projects in public sector differ from ones in other fields/business areas/industries?
   d. What are problems and challenges and how to solve them?

Text of the interview

Project description (Jan)

Innoveta is a project that has been run for some time with a number of different participants. Number of Swedish municipalities takes part in the project. When it started, the project was meant to look at different things related to building a customer contact centers… and there was a research side looking at how contact centers are built today, how they work, difficulties and so on… and that research has been done by Högskolan I Väst… and then it was also how to work together, how to integrate between municipalities, someone who builds a product to support municipalities and also the research part of it. So there has been a triangular of key stakeholders in the project.

Existing contact centers issues: citizens side (Jan, cont’d)

One of the first things in the project was a research done by Per when they visited number of municipalities, they studied existing customer care centers in Stockholm area… then we had a lot of discussions also about what is important for customers in contact center and there were a lot of studies in that area. One of the persons and methods we studied were from John Saddon from the UK. He has published a number of books on how to work with value that is important for citizens and conclusion he has come to is that the important thing for citizens when they contact the municipality is to have both - to be guaranteed that they are taken care of, that they reach the person they would like to reach; and also that the case that they have will be taken care of, that they will get a result they want. What we could see from Per’s studies in the beginning was also that many citizens didn’t reach a right person, or didn’t reach any person… municipality can be very large and if you are not familiar with how it’s built from inside,
it can be not easy to get in contact with a right person/department. It is important that citizens are taken care of all the time. When they contact municipality they could either get an immediate response from someone that solves their question/case, but also if it couldn’t be resolved immediately they could get information about what is going to happen or what happens to their case until its results. What J.S. saw and what we studied also is that if they don’t get their problems solved immediately they call again and again and again. So you load a system with unnecessary demand, “failure demand”. What we trying to achieve with this new contact center is that citizens either get fast response as they call in, or after a while that they can follow the case and don’t have to come back to the municipality unless it’s needed. And that’s how you get a good customer satisfaction also. That’s one of the key things with this project.

Municipal workers side (Jan, cont’d)

They could be definitely a customer. What we have seen is also that since the municipality is such a big organization, they do have internal service organization inside. In Luleå for instance they use Streamflow for internal customer support where the customer is then someone who is actually employed by the municipality. So it could be used both – internally or externally. No difference actually.

- When you consider internal or external customers does it make any difference for building a system?

Claes-Olof:

A customer does not need to be only a person with a problem that calls in. This new system takes care of case handling or problem handling in a fairly radically different way than traditional case handling systems. You also provide employees at the customer center with better supportive information. E.g. what does he have to do in order to take care of the problem that comes from an external party like citizen. So the system is built to provide a good supportive environment for the handler employed at the customer center – at the basic level. Then you have the managerial level. Based on the aggregated information collected in the system they can make evaluation both performance-wise in the center itself and also individual handler assessment. And also the center as a whole – do we have a right staffing? Do we need some further training? (qualitative) As well as quantitative (volume-wise) – do we have a sufficient number of people employed? System provides a history that for example certain time (e.g. Monday or Thursday afternoons) there is a high work load and so they can actually schedule people to work according to a forecasted work load.

And you have a third level that successful cities have regardless of system actually. They look at the customer care center as a main source to enhance efficiency in the whole municipality. When you take away some work load from people who are just answering the phone (repetitive questions on already logged in case such as “when am I going to get my well fair payment? When are you going to fix my street?”) you have the back office staff, the experts, that can do really important things.

Jan:

If you look at the municipality it is divided into different departments and they normally act as some kind of “pipelines”, they might not know what people do in other departments. Thus, management of the municipality has a very little possibility to know actually what is going on in different departments and they have a few possibilities to see how the work load is for the whole organization.

If you get statistics of all things that are happening concerning your relationships with your citizens you can see the work load and what is actually being done within the municipality, how the organization or processes can be changed to serve the customers in a better way and that is something that open up when you have statistics. So this new system is a big help also for someone who would like to manage the organization.

- Do all levels of employees have the same access to the system, its databases, applications, statistic data and so on?

Jan:

Well, they could have, it’s up to users actually… We have the statistics database and so on with reports and things like this which are accessible. If they would like to have the information from the database, what customers
(municipalities) normally do… they create reports suitable for their needs… and how they spread data within the organization it’s up to themselves. Natural thing is for instance, that the departments get information about what kind of cases they solve and in many cases they use statistics. They must know what kind of work load they have because the contact center is paid by departments.

- Is it a new thing for municipalities – this information and statistics in the data bases – or they had some similar things before?

Jan:

No, that’s normally not a case. In some municipalities they have done investigations during certain time periods. In this case, you have perhaps people that are looking in the cases that are coming in for the switch board and you have people that have been sitting behind the operators and taking notes. But that has been done during a very limited time period, for instance – week or two weeks. And then they had calculated and seen that “…we probably have something like that”… you can’t see actually what kind of cases you have done because you just see when they come in… and you don’t have any case numbers and cannot track them… but you can see how many people that are calling in, that are calling in for the second time, third time and so on… if you ask them.

Claes-Olof:

Overwhelming number of municipalities does not track in-callers. They just regard it as an incoming flow of phone calls. The switch board can only say “this many calls per hour or per day” but they have no information and they don’t gather or aggregate information of who is calling, for what reason, from where or anything like that… So what happens is that people in the switch board are mostly women (such pretty clever) and they set up their own little database of frequently asked questions. In larger cities they actually have an IT system for that. So they have some sort of knowledge database. But it is still a very local system and no one accesses it apart from the switch board personnel – possibly their manager, but nobody else. So it’s a huge number of investigated “know how” but it has not been harvested in a structured way. /in case of problem or infrequent questions operators call to the back office and decide how to solve them – precedential way/. This is probably a case for about 275 municipalities out of 280 in Sweden… /when data saving is dependent on individuals (operators) it’s a big chance that all the data will disappear when the person gets out of his/her job/

This project is unique in four different aspects (Claes-Olof)

1. Focuses very much on internal work processes in municipalities that have to be changed (very challenging) e.g. to relocate budget to pay for the contact center
2. Changes in existing IT system’s infrastructure (earlier there were SILOs that are hardly “integratable”). Implementation of Streamflow: integration and new design of infrastructure
3. Despite that so much money were invested in the project from both sides, it started without predefined concrete specifications – agile (⇒ mutual trust, reduction in resistance)
4. The idea was to cooperate between many municipalities to avoid the same mistakes and so on. But there are municipalities that follow the project very closely – cooperative learning. But there is also a research side in between.

Notes:

Reasons for resistance:

- People do not want to change positions
- Budget relocation
- System redesign and significant changes in the infrastructure
- People have their day-to-day work and not always want to spend much time on renovations

Agile methodology allows involving customers as coworkers and co-creators which reduces significantly resistance. Customers see that they gain from it and get more efficient system.
New system as learning platform for those employed at the contact center. New workers should be service-minded and knowledge can be added while using the system. After working at the contact center employees become very well skilled and educated.

The idea with this new contact center to that every problem/question should be resolved the first time, except those situations when you have to come physically or some authority is needed. All incoming cases must be recorder, not just from time to time.

It’s a very successful project in terms of agile work and long-term cooperation. We propose and prototype things for them and we never lack feedback. But we don’t depend on single persons – we have many persons involved from different departments.

**Methods in the project:**

Brainstorming, literature research, interview, observation, testing, prototyping, demonstration, etc…

**Communication**

Communication is extremely important

The decision comes from politicians, CEO and heads of departments as well as all employees should understand that changes are for their benefit.

Communication processes will be clear form reports prepared by Högskolan i Väst.

Real communication plan is not really a part of this project (started in Jönköping) which is about implementation. Nevertheless, we work with communication outside it – while having some seminars with politicians and municipal representatives.

Initiation – is more like a puzzle. One initiative come from one side, another one – from another side, etc. when all these parts fit together and time is right– things happen.

**Business interest for Jayway:**

Despite that the product is open source software, return on investments will be earned by means of maintenance, support, service, add-ons, extensions, etc. interested in more municipalities to join the project.

**Are you aimed at growing, attracting more municipalities?**

Claes-Olof:

Yes. We do different marketing activities, we use all possible channels such as external conferences, our partners and members talk to other municipalities doing promotion while regional meetings and such, personal networks also…

**How this municipal project differs from other IT project (in commercial organizations)**

Jan:

Working with open source and cooperatively with customers (agile) is not uncommon for Jayway. There is a difference only in the way the project has been formed and organized – so many things come together in one project.

Claes-Olof:

Business model doesn’t differ from other companies . The unique thing of this project is that the source (even though it’s open) was developed from the scratch.

Jan:

We don’t build all the code, we also use libraries and so for standard things.
Results interpreted from the Interview transcripts (excl. above directly answered questions):

1. Key Stakeholders of INNOVETA project (as listed in table 1):

<table>
<thead>
<tr>
<th>Stakeholder mentioned</th>
<th>Role in project</th>
<th>Involvements in the project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Swedish</td>
<td>Customer</td>
<td>Key stakeholder, final user</td>
</tr>
<tr>
<td>municipalities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Högskolan I Väst</td>
<td>Researcher</td>
<td>Research on how contact centers are built today, how they work, difficulties… how to work together, how to integrate between municipalities, someone who builds a product to support municipalities and also the research part of it… Form Communication reports</td>
</tr>
<tr>
<td>Sambruk</td>
<td>project initiator</td>
<td>Conduct marketing activities, use all possible channels such as external conferences, talk to other municipalities doing promotion while regional meetings and such, personal networks</td>
</tr>
<tr>
<td>Jayway</td>
<td>Supplier</td>
<td>Design Software, provide maintenance, support, service, add-ons, extensions, etc.</td>
</tr>
<tr>
<td>Per</td>
<td>Researcher</td>
<td>Visit customer, conduct study on existing CCs</td>
</tr>
<tr>
<td>Citizen</td>
<td>One of the Product</td>
<td>External user. Use and comment on the product</td>
</tr>
<tr>
<td></td>
<td>User Groups</td>
<td></td>
</tr>
<tr>
<td>Municipal workers</td>
<td>One of the Product</td>
<td>Internal user. Use and evaluate the product</td>
</tr>
<tr>
<td></td>
<td>User Groups</td>
<td></td>
</tr>
<tr>
<td>politicians, CEO and</td>
<td>Decision Maker</td>
<td>Making decisions and changes</td>
</tr>
<tr>
<td>heads of departments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>as well as all</td>
<td></td>
<td></td>
</tr>
<tr>
<td>employees</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Key stakeholders of INNOVETA project
Appendix 2: Second interview protocol (a)

Within the master thesis “Management of stakeholders in agile projects: Case study of municipal project Innoveta” by Lina Lvova and Hui Chen, KTH 2011

Date: 13/4/2011
Scheduled time: 17.00 - 18.30
Place: Arlanda, Sambruk’s annual conference
Interviewee: Lennart Östblom, project manager since January 2011
Interviewer: Lina Lvova

Interview objective - to collect general initial information for further answering preliminary research questions:
- a. Who are the key stakeholders in the project? Ranking (more important, influencing and less), relationships between them
- b. How do you manage them and communication between them?
- c. What are problems/challenges in project management?
- d. How the key stakeholders are involved in project problems (e.g. delays), how they respond, how such problems are solved?
- e. Where objectives/initiatives come from?

Text of the interview
What challenges have you faced in the project:
First direction and money came from Vinnova and we tried to develop a project according to this direction. West university in fact had not the same direction. That is why the project was developed in the wrong way from the beginning. They wanted to investigate e-circles, e-learning, evaluate e-circles and so on, which is an important part of this research. But there was actually no municipality that had progressed so much (went so far). In the aspect of the research it went not so good in the beginning. But it was not so much about project management, because project statement/situation was good just disturbed a bit.

Problems with e-circles:
- Ex-pm was unsatisfied with results
- Education for supervisors and employees didn’t pass
- Low quality of research, was no demand for what was developed

How to overcome it?
In the beginning it was not too much wrong but it took a while. Last autumn some parts of the project and project plan were reworked, moreover, some people were rotated and received new responsibilities. Now after this time they went though, the pilot municipalities finally have achieved something to evaluate. For example e-learning can become a reality: now there are two customer centers where such education can be applied.

Who are the most important stakeholders in the project?
First of all, it concerns the pilot municipalities Järfälla and Jönköping which are entirely involved in the project. Secondly, system developer Jayway. Third place can be shared between West University and Sambruk. The results we have obtained from the research side are very important and this information can be spread between municipalities in the country.

If we consider all project stakeholders (Jayway, Sambruk, Pilot municipalities, Vinnova, West University) who plays more and less important roles?
Jayway is of course important, at least when we talk about Jönköping, and they are going to be even more important. Then, pilot municipalities.
...which is number one and which number 2?
1. Pilot m-s
2. Jayway
3. West university, Sambruk

Sambruk as number 3. And West university is also at the third place.

What do you think about citizens as project stakeholders? What is their role from the beginning?
Those who are involved in the project had already decided that citizens are important and it feels not needed to emphasize it again and again. We are of course oriented at them; “with customer in focus”. They are in focus but we probably don’t need to name them in this ”rating”. This is like a prerequisite.
How do you manage communication in the project, all stakeholders and relationships between them as the project manager?

Well, only two months I am the project manager so communication was not so intensive yet. But I have of course travelled to the pilot municipalities to meet and get in contact with project participants there and look at their customer centers in Järfälla and Jönköping. And I also went to Trollhättan, to the west University and met those who are here at the conference these days. And this is very important, I think – to meet each other personally. If it’s not needed or possible to meet then it can work out with skype. And also this Moodle system can be for us a good support in the project. Through Moodle or Sambrukakademin we can share a lot of information, e.g. videos.

Was it difficult to start in the middle of the project? Other already knew each other and worked together

I actually knew them before I joined the project anyway. I even participated in the first project meetings in Sandviken and then we also had a teleconference with West University. It was about three years ago. Afterwards we also met at conferences. I knew them anyway. So it was not a problem.

Agile methodology is very unusual for public projects and project documents prove that some problems occurred. What do you think about this method in public sector projects?

I think it is a very good method but the only thing is that we are not used to it. When it is done several times then people know how it works and then there are not so many problems, I think. One problem can be when you haven’t seen any progress and you have to grope your way forward (touch moving) unless you know approximately here you are. So it seems to be a little bit messy and uncertain from the beginning. But when everything is finished everybody becomes satisfied. So it is a better method.

For example, those systems we have installed now in Sandviken municipality, they are very bad IT systems that don’t appeal/correspond to people intuitional abilities, but with iPhone it’s difficult to make a mistake because it is simple to handle.

Agile projects differ from traditional ones in that sense that project work is being done by experts in the last ones whereas in the agile project ideas come from all participants constantly collaborating including customer. That is why the role of the project manager is also different in the agile project – he or she doesn’t only coordinate but should also be a “people connoisseur”. Moreover, in the case of Innoveta project leadership is shared between the leader of the project and the leader of the research.

Is it any planning in the project form the pm side? Did you have any idea about it when you came into the project?

There was a project plan from the beginning which I took and followed since I came into the project. Latest version from October-November 2010 focused much on implementation of Moodle and e-learning platform.

- There are no documented plans about communication, such as how you plan meetings, conversations, etc?

Yes, it’s possible that such things are not exact planned and predetermined how they should be organized. I didn’t really have enough time for that, I focused more on development, technical aspects of the project. Generally, we communicate through mail, our websites, Moodle. We are going to meet for education purposes, to create a content for the e-learning platform. Moreover, Sambrukakademin will be another way to communicate with a lot of information, films, etc.

There are of course some initial rules, objectives and regulations from Vinnova. But what initiatives come from just you as a pm?

We had just recently discussed some very important issues with Andre in Järfälla. I think that it is incredibly important to be able to process and use further information that comes in KC. One master student in HV is currently working in this direction. His project deals with use of BI for KC data processing. So this idea comes partly from me.
Project organizational structure
Project group: Lennart (Sandviken, pm), Andre (Jrfl), Mickel (Jnkp), HV researchers
Appendix 3: Second interview protocol (b)

Within the master thesis “Management of stakeholders in agile projects: Case study of municipal project Innoveta” by Lina Lvova and Hui Chen, KTH 2011

Date: 13/4/2011
Scheduled time: 17.00 - 18.30
Place: Arlanda, Sambruk’s annual conference
Interviewee: Lennart Östblom, project manager since January 2011
Interviewer: Lina Lvova

Interview objective - to collect general initial information for further answering preliminary research questions:

a. Who are the key stakeholders in the project? Ranking (more important, influencing and less), relationships between them
b. How do you manage them and communication between them?
c. What are problems/challenges in project management?
d. How the key stakeholders are involved in project problems (e.g. delays), how they respond, how such problems are solved?
e. Where objectives/initiatives come from?

Text of the interview

What challenges have you faced in the project?

First direction and money came from Vinnova and we tried to develop a project according to this direction. West university in fact had not the same direction. That is why the project was developed in the wrong way from the beginning. They wanted to investigate e-circles, e-learning, evaluate e-circles and so on, which is an important part of this research. In the aspect of the research it went not so good in the beginning. But it was not a mistake of project management.

How to overcome it?

In the beginning it was not too much wrong but it took a while. Last autumn some parts of the project and project plan were reworked, moreover, some people were rotated and received new responsibilities. Now after this time they went though, the pilot municipalities finally have achieved something to evaluate. For example e-learning can become a reality: now there are two customer centers where such education can be applied.

Who are the most important stakeholders in the project?

First of all, it concerns the pilot municipalities Järfalla and Jönköping which are entirely involved in the project. Secondly, system developer Jayway. Third place can be shared between West University and Sambruk. The results we have obtained from the research side are very important and this information can be spread between municipalities in the country.

If we consider all project stakeholders (Jayway, Sambruk, Pilot municipalities, Vinnova, West University) who plays more and less important roles?

Jayway is of course important, at least when we talk about Jönköping, and they are going to be even more important. Then, pilot municipalities.

...which is number one and which number 2?

1. Pilot m-s
2. Jayway
3. West university, Sambruk

Sambruk as number 3. And West university is also at the third place.

What do you think about citizens as project stakeholders? What is their role from the beginning?
Those who are involved in the project had already decided that citizens are important and it feels not needed to emphasize it again and again. We are of course oriented at them; “with customer in focus”. They are in focus but we probably don’t need to name them in this “rating”. This is like a prerequisite.

**How do you manage communication in the project, all stakeholders and relationships between them as the project manager?**

Well, only two month I am the project manager so communication was not so intensive yet. But I have of course travelled to the pilot municipalities to meet and get in contact with project participants there and look at their customer centers in Järfälla and Jönköping. And I also went to Trollhättan, to the west University and met those who are here at the conference these days. And this is very important, I think – to meet each other personally. If it’s not needed or possible to meet then it can work out with skype. And also this Moodle system can be for us a good support in the project. Through Moodle or Sambrukakademin we can share a lot of information, e.g. videos.

**Was it difficult to start in the middle of the project? Other already knew each other and worked together**

I actually knew them before I joined the project anyway. I even participated in the first project meetings in Sandviken and then we also had a teleconference with West University. It was about three years ago. Afterwards we also met at conferences. I knew them anyway. So it was not a problem.

**Agile methodology is very unusual for public projects and project documents prove that some problems occurred. What do you think about this method in public sector projects?**

I think it is a very good method but the only thing is that we are not used to it. When it is done several times then people know how it works.

Agile projects differ from traditional ones in that sense that project work is being done by experts in the last ones whereas in the agile project ideas come from all participants constantly collaborating including customer. That is why the role of the project manager is also different in the agile project –he or she doesn’t only coordinate but should also be a “people connoisseur”. Moreover, in the case of Innoveta project leadership is shared between the leader of the project and the leader of the research.
Appendix 4: Third interview protocol

Within the master thesis “Management of stakeholders in agile projects: Case study of municipal project Innoveta” by Lina Lvova and Hui Chen, KTH 2011

Date: 16/5/2011
Scheduled time: 11.00 - 15.30 (lunch break 12.00 – 13.00)
Place: Högskolan Väst (West University), Trollhättan
Interviewees:
- Per Flensburg (research leader and accountable to VINNOVA)
- Kerstin Grundén
- Irene Bernhard
- Henric Oskarsson (from jan 2011)

Interviewer: Lina Lvova, Hui Chen
Interview objective - to expand empirical data gathered from previous interviews and create a picture of the research side in the project.

a. What were your objectives and tasks in the project? Did they change over time?
b. Where objectives/initiatives come from? How did you negotiate the work with Vinnova?
c. What are problems/challenges in the project research?
d. Which other project stakeholders you are mostly interacting with?
e. Could you divide the project into some phases according to the research work development?
f. How do you perceive citizens and how you work with them?
g. Have you investigated agile methodology or it is more about technology and not really related to your job?

TEXT

Project roles

Per – management, integration
Irene – citizen perspective
Kerstin – employee perspective
Henrik – technical aspects, Moodle, films

Project objectives and tasks

- changed over time

Per: When the application to Vinnova was written, there were certain goals expressed. After we got approval for receiving money, the project manager from Sambruk Claes-Olof started making some kind of project plan seen from their perspective. He had some slightly different goals and objectives from what we negotiated. In most of the cases we agreed to what he suggested but in some cases no. It was cooperation from the beginning. The application was written mostly by me. Goals are described in the project plan.

Objectives from the research perspective:

Per – management perspective plus producing some research material.

Article about framework of IT system for the project

About the system Jayway and Jnkp decided together. Different points of view from research and development sides: Research – system should be developed at the final stage, Jayway – system development should be started immediately. The research side was not actually involved in the system development.

58
How did you balance between agile approach from Jayway’s side and your research?

We run in parallel. We started doing the investigation to describe some existing customer centers, and they run their project in turn. There was some exchange but not so meaningful. We didn’t actually suggest the system, we investigated different existing ones (e.g. the systems of authorities) and then evaluated part of the Jayway’s work.

We had interviews with employees and managers. We have some articles and the report for JKPG municipality and we are to finish the same for Jrfl. Per prepared a process map afterwards. It was funny because in Jkpg they had already implemented and started using their KC and then realized that they have to map their processes to see if they fit together. So that was done in the latest stage. It worked well especially in context of process description.

In Jrfl: integration failure, Streamflow as an OSS was incompatible with existing system including OS (Windows). It was totally impossible to use. IT department didn’t want to adopt it and chose another one instead. But other municipalities use it, probably because they need less advanced integration. Such advanced integration in Jrfl would take a lot of time and money so maybe that is why they thought it’s better to take an existing system. Things also depend on whether you implement the system for the whole municipality or just for some of its departments.

Contributions to the project:

A survey among citizens was performed by Irene in Jkpg. It was a good and important contribution to the project.

BI solutions (processing data collected from incoming citizen calls) within the master thesis from HV.

Relationships with Vinnova

- Reports twice a year (schedule, budget, tasks performed, explanation when smth didn’t work)
- Mostly they just approve what we say we are going to do and review economic reports
- They supervise
- Mostly the research group contacts Vinnova, Per is the one responsible and accountable
- Budget distribution
- They come here sometimes but more in the way of friendly discussion
- Tasks are stated in the application but work can be done another way and negotiated
- Vinnova is quite satisfied so far

Other project issues

The project leader was changed and it affected the work, there were some people who quit and we got new members.

Citizen perspective

Irene: I did one survey in Jkpg and stayed there for 2 days. The KC at that moment had been working for 4 weeks. When citizens called to the KC they were asked if they can talk with the researcher to answer some questions about services and so. I interviewed 21 citizens in the semi-structured way. This was the only survey that concerned just citizens. We also had evaluations where we interviewed different categories of personnel about citizens who contact them and thus we collected some kind of “secondary” opinions.

- Are all results yours or you also used some other’s surveys/data?

Most municipalities also make their own investigations about customer satisfaction. There are some other investigations that we could read (e.g. Skellefteå, Stockholm). So some questions were also based on their investigations but as well on our own evaluations. Research documents in Shellefteå were prepared by the scientist from Umeå.

- Is there enough investigation from the citizen perspective, has the project met its objectives?

The project is successful but there is of course a need for further investigation of citizen needs. And it is going to be one of our conclusions.
Other issues

Guidelines on the web (Kundcenter Handbok) are realistic and show what has been really implemented.

The result was that employees actually did a good job.

People employed at KC were previously working in other department. The survey shows that there is a need for further competence development and education.

**Education and learning issues:**

Henric is working on developing films for educational purposes and there is a big demand for it.

- Do you get some guidelines from Sambruk about it?

Henric: I’m working with the municipalities and I get information from them. We are going to publish these films through Moodle. Almost all applications I’m using are OSS.

**“Conflict”/misunderstandings between research and system development sides**

We developed a first project plan and then we had to follow it up. It took considerably more time than we had scheduled. So that was a problem. Project plan from Claes-Olof was too optimistic. He used to hurry but we adjusted to such way and it was a good cooperation. We agreed upon the content and the issue to discuss was time.

**Content:**

The research group was never asked to participate in the system development. The project group didn’t participate (was asked) in the development of the e-learning platform. We could just follow the development in Scrum meetings. We had a master student who was supposed to participate more and document things related to the system development but she quit. After that we changed the direction and focused most on e-learning. We had several alternatives for the municipalities but it was not easy for them to apply and understand how to use e-learning.

The concept of e-circles was borrowed from the state organization County Academy and even though it also belongs to the public sector, its culture differs significantly from the one in municipality. This is what we didn’t have enough time to think about and develop in details. This is one of the reasons why it was not as successful as we thought it would be. Municipal workers are not so used to learn from written materials. Now we focus more on visual materials such as videos because they ask for it.

Moreover, decision making processes in municipalities are extremely slow and taking initiative is not really popular way of behavior. We have learned a lot how we should present for them our results as really learning material. We asked them before many times about their requirements to this learning material but they never came up with any. Besides, it was a misunderstanding - they didn’t understand the concept e-circle. When they (representatives from 25 municipalities) came to the meeting they didn’t understand what’s in it for them. It was a culture difference we could not predict.

One of big mistakes was that we presented it to the people incorrect organizational level (those who are making decisions). We as researchers could know what we have done and what it is about but they did not. It was too much in the academic way. We had to put much more time on pre-study.
Appendix 5: Forth interview protocol

Within the master thesis “Management of stakeholders in agile projects: Case study of municipal project Innoveta” by Lina Lvova and Hui Chen, KTH 2011
Date: 20/5/2011
Scheduled time: 09.30 - 12.30
Place: Jönköping Kontaktcener

Interviewees: Madeleine Eckerström, ex-project manager
Anneli Jacobson, Supervisor and employee of Jönköping Kontaktcener
Interviewers: Lina Lvova, Hui Chen

Interview objective - to collect general initial information for further answering preliminary research questions:

a. Roles of key stakeholders in the project, relationships between them.
b. How did the project manager manage different stakeholders and communication between them?
c. What are problems/challenges in agile project management, how the decisions are made?
d. How the key stakeholders are involved in project problems (e.g. delays), how they respond, how such problems are solved?
e. The current status of Kontaktcener project.

Text of the interview
Abbreviations: L: Lina Lvova M: Madeleine Eckerström H: Hui Chen S: Supervisor of Kontaktcener
PM: Project Manager KC: Kontaktcener SF: Stream Flow

First session interview with ex-Project Manager
00:00 our main focus is to figure out about the initial phases of INNOVETA project, and we are interested to know more about PM perspective from you as the 1st Project Manager. We would like to focus on how did u manage communication between different parties, and what the problems were.
M: I wasn’t the 1st Project Manager, Claes-Olof was before me. So I took PM about a year later after him.
L: It was 2010 or 2009?
M: 2009, October.
L: We have read on the web that u left the project after you finished your 2-year contract.
M: It was 1 year… I had one year and a couple of months more.
L: If you can tell a bit more about your role as Project Leader, and your planning or communication between different people.
M: I had two roles in the project, as project manager and project owner for Jönköping municipality. So half time I was PL for Sambruk. So I was very much involved in the whole process, and different parts, and different roles, we took different use of the project of course. But the research part was not so much involved, it was more project between Jönköping and Jayway in the beginning. […] Yes, but this system development was quite in another way from research, and that was not the thinking from beginning, and we wanted to be more like this.

03:35 H: Can you tell us about the original plans of this project, what are the differences between the original plan and the current?
M: No…not really. Maybe a bit, but these two parts were split, and it was done before. I think it was pretty much personal issue […]

04:10 L: So you think it was (due to) misunderstanding between personal relations, or it was a lack of planning or a lack of communication?
M: A lack of planning also, mostly communication. Because the researchers had one picture of what they should do that was very focused on research, and this is a commercial company, they have a number of goals with the project.

L: When they [researchers] introduced the evaluations of the project, did it help (the project) to go to the right direction?
M: The research project was developed in another direction, and we were quite active here in Jönköping. We have had researchers here in our contact center, and we started that.
L: Your own researchers or them?
M: Them. And also a researcher called Gunnar, He’s not in the project directly… he was here helping us with the processes. And Annika Närkos was also here doing some interviews.
L: The PHD student from HV which was canceled from the project in 1 year?
M: Hm, more than 1 year.
06: 40 L: How did you manage this communication and misunderstanding, how did you solve the problems?
M: [...] I try to get good support in our system from that side, and we try to get good support from researches from what they are good at. So, I think when forming the project idea (ID), they weren’t thinking long enough, as big enough.
L: So, it’s more about planning.
M: Yes, I think they should have some more time to work with the idea (ID), It is a good idea how should we move forward. The e-circles was quite good example… because HV have worked with E-circles in some other projects, and they just took that idea and put it in KC project, and the need wasn’t there. They didn’t go out to look for the needs of KC. And their analyses of the needs were not in the latest state either, so … it was a little bit apart from the project.
09:30 L: Was it you who finally rejected this idea (e-circle), and suggested to do smth else?
M: Yes, I saw that it wouldn’t be successful, so we have to stop, and do smth else.
09:51 L: Do you think it is a kind of breaking moment in the project that something was already finished and some other thing had to be changed? Did it make a big change during the project time, or it just a minor moment or something that did not influence the result?
M: No. it have influenced the result quite a lot, because “e-circle” was a great part of the project, and that we saw would not be successful; so it’s a major impact.
10:35 H: Did this replacement of e-circle affect the final results? Because you mentioned that this “e-circle” was a great part of the project in the original plan, and after you replaced this major part, did this replacement action affect the project performance?
M: It’s quite often that you learn smth from the journey, so the “learning” has been worked in the results; that’s good, and I think the new way in “e-learning” (is developed) in a more simple way, maybe, more near the reality, we work fine. And there is a need (for e-learning), we have many people that want to come here and study our KC, if we could spread this (from e-learning) in a simple way, it would be very good for us.
12:05 L: Are you still in contact with researchers and people as a member of Jonkoping municipality?
M: Yes, a part of the project.
L: So you are still working in this project, you didn’t leave after you left the project management team.
M: Not so very much, but some, some of the project members.
L: And do you see real changes comparing to the time when you worked?
M: I think, from outsider’s perspective, the researchers deliver not (changed) so much, it’s very slow process.
L: And about system development?
M: They are more involved, we are going together, and that cooperation is getting stronger and stronger. It’s quite important, the personal relationship, as we have developed. And there we have a goal that we share. The researchers, the reality here is not always the same goal.
13:32 L: And, uh, when we talked to other people, most of them think there are two parts in this project, IT technical part and organizational change, what do you think is more important part and what is more difficult to manage, and your thoughts about it?
M: Organizational development is the more important and the most important, but you can’t separate them, [...]and organizational development must go at the same speed as IT development.
14: 22 L: And what challenges did you face while working and integrating these parts?
M: There had been many issues about how an errand should flow in the whole organization here, from our contact center out to the different persons at their working places.
L: To experts, and support, or more often managers/head of departments?
M: Both - managers, but also supervisors, and very much how you see in an errand and how you see in citizen; the citizens’ opinions (are) important, and what we shall do with that opinion or errand? what do we deliver; is the internal process more important or the service against the customer more important?
L: So, what do you (think is the more important)?
M: [laugh] I work with contact center, so it’s quite obvious [the service to the customer is more important].
15:45 L: But does it strengthen internal process when you have strong external support for the citizen?
M: You have to develop the internal processes, because otherwise we wouldn’t be efficient and deliver good service. But… it’s a change in how you see, how you look at the citizen.
16:15 L: Did you try to study by yourself the citizen’s perspective, or you just use other’s surveys or research? How did you approach this?
M: Researchers have looked at the citizen’s perspective, and that’s very good, may be the part that was most useful for us, cause it’s very difficult to know what citizens think. I go from my perspective and my needs, and maybe the persons I have around me, and many people in Jönköping.

17:00 L: Could you maybe distinguish some phases in the project, from the very beginning from the management perspective, how the project was being developed? Was there any clear boarder between planning, introduction, and some different parts, or it was just going through this sequence?

M: In the beginning there was not so much planning, the project plans were already done, there were also old, so my first step was to work with project plans again, and to setup and lead a group […] for the project, and that was very important part, because the project needed quite a lot of leadership; and my most important role I think became to be(able) to form a structure.

18:35 L: We had one picture about project organizational structure from Lennart who is the current project manager , if you don’t mind, we would like also to have your view of this project organizational structure from the highest level to the lowest level, how do you see it? After your explanation, we could probably show you the previous one, so then we can make a comparison.

M: (The project)It required much structure, and it required a project leader go into the researcher ’s projects, the different parts, and take quite active part there also.

20:00 L: If we try to draw this from steering group downwards [start drawing on paper], how would you describe blocks in the projects?

M: (I will)Give it a try [start drawing].

21:40 L: the one we have, it’s pretty the same, the system development is in a higher level than research, maybe the same reason because the research was not really enough and well developed; but the rests are the same from steering group, and development, research, and then we come to municipalities.

M: [Nod] Yes, of course, we have many of these projects in Sambruk, [Swedish…23:00_23:20] that project in INNOVETA is finished.

[L: but just for Jönköping.]

M: Jönköping, Oskarshamn, Järfläa.

[L: in Järfläa, it’s in progress , it not yet finished]

M: No, they are not part of this, they were part of that in the beginning, but they pulled out.

[L: yeah, we heard that they could not integrate Jayway’s system, it wasn’t compatible to some extent.]

M: No, it wasn’t. They want on-the-shelf project. They would (like to) have the full support.

L: And now this is actually that will be start up for a new project in other municipalities which would like to follow probably, or it will be changed a lot, because what Jayway is planning that this system that they have already produced for Jönköping, are there any other municipality that haven’t use it, they could sell it to others, and provide support, maintenance to them again. So, it’s kind of this is starting point for a lot of new project in many other municipalities.

24:43 M: yes, that is Jayway’s project. But during this year, Jönköping is an active part.

L: You are absolutely finished with this development, now just maintenance, or?

M: No, we are, I am part of Jayway’s projects, if you say so, but not INNOVETA project.

L: But INNOVETTA for Jönköping is finished.

M: Yes. But we are small part in the e-learning project.

L: But you don’t do it in parallel, you first introduced a new system, and then you trying to introduce new e-learning concept. So, it was not really integrated in the beginning.

M: The e-learning was not in the quality that we can use when we started it with Per.

L: But was it able to start before any education was done?

M: Yes, of course. You don’t need e-circles to start the KC. […] They didn’t ask if there was a need for it when they start, so we have to stop it (e-circle).

L: And this e-learning, how do you plan to introduce it in this KC?

M: The e-learning that we produce, we haven’t verify it, shouldn’t be used in KC, should be used outside in different (units). Because it’s quite a lot of education, there was social work in this process, in the flow of the errant. So, I hope to use that material when educating that kind of persons.

L: Was it you who educated those who work now in KC or was it some other person?

M: No, it was people outside in different work areas.[…] I think they were educated in 6 weeks, full time, before they started. And the people working outside in different areas, I have educated them half a day. So, that’s not so much need.

L: So it’s like “expert training”, from you as an expert.
M: Yes, but it’s about the system, how you work in the system, halftime; and the other parties, how the process should work, how long time you have before you give an answer, how you do with statistics, and do most of it.

28:10 L: **How did you prepare this training?** According to the system was already developed together with Jayway, or it was some kind of external support guidelines, regulations? How did you develop these learning materials if you didn’t have this e-circles or e-learning?

M: We have done it step by step, here (in KC) is in classroom, ordinary education, but how we develop the process, it’s step by step.

L: Where did you get all the information, was it from you?

M: From me, and from the KC. […] Based on the system and process.

29:18 L: And this process change, was it some special change management approach? Or you just did it also step by step with this organizational process? Because in system development, its more clear, you make requirement, then you work together with Jayway, but how do you manage this organizational change is still not clear to us.

M: You have to do it in cooperation with people that are involved, and it was quite a lot of meetings, because when you need to choose process like this, that cut right through everything, every organizational structure, you discover a lot of problems, and the problem itself, when they were[it was] brought up, everybody saw there is a problem here, then we make discussions about that, and after that, if (the discussion) was successful we make a change in the process. But it is very small step. You ought to have a little better support from the top level.

31: 00 L: **Did you have any supervisor in the very beginning from the top management board? Or they just came later when you had plans or something?**

M: In the development of?

L: In these organizational changes.

M: They were part of it from the beginning.

L: **And what were their roles, if you managed everything and had meetings together, brainstorming?**

M: Most of the time I called for a meeting, their leadership and ability to form a group among these issues. There were many old conflicts, so they came to us, and we were neutral, and cause of that, we came forward.

32:30 L: **And what was the role of supervisor in this project?**

M: They form more in details, how we should work, they have the knowledge. And managers were also part of it.

L: So there are different levels of management, like top manager, project manager, supervisors.

M: It is very hierarchical. […] Very many mangers at many levels.

L: Supervisors are not from managers, they are from some other places.

M: No, they work.

L: So they are more like specialists or experts. And, managers are just managers.

M: They might also be a part of the errant flow.

H: **How do you manage all those managers from different level towards a final decision about the changes?**

M: It depends on which level you have the change. Maybe you have to make decision from high level in the organization.

H: So, it’s like a top-down management.

M: Yes, top-down very much.

L: So, it’s you say “we can do this”.

M: No, I can have a lot of opinions and I can make proposals, but the decision is most theirs.

L: So you don’t have this right to make decision without them.

M: No.

M: I didn’t have authority to make some decisions. […](The research managers) They have more power against VINNOVA who founded the project. I could influence them on the case, but I couldn’t decide.

L: And here also, you didn’t decide?

M: Here I decide over the system development, because I was product owner, and product owner has the power.

L: But not over the process changes?

M: No, not the internal. The head of KC has power to do that. If I had a decision I want to go through with it, and I didn’t have power to do it, I have my steering group, and I could put it that way, they could take the decision and so on.

L: So, It’s kind of easier to influence.

M: Yes.

L: It’s more like a democratic voting or something.

M: Yes. And, me and Per we had a dialogue, and I think I had quite great influence on his decision also. Because this is a great project, and many people are involved, we have to have someone look from the above.
38:35 L: Can you explain your method of leadership?
M: No, not really, but I think I’m quite clear with what I want, I try to listen, and I try to see things, even things beyond my responsibility. The group of researchers, sometimes there are conflicts in that group and I have the responsibility to do what I can. Otherwise, I’m quite focused on the results as a person. I think it’s good when you are a project leader. You have to be quite structured and try to follow the plans, and to follow the deliverables, so you deliver on time.

39:38 L: Did you focus more on deadlines, or on quality and postponed the deadlines?
M: When the quality was low as in e-circles, then it’s more important than deadlines.
L: What would you like to change from the beginning? What would you like to do in other way?
M: I would focus more on the needs; going out to meet with different members in Sambruk, and spend more time on looking their actual needs.

42:00 L: Can you maybe remember some other problems in the project about this with research, something else, that was challengeable and you managed it?
M: One problem was that it wasn’t very clear what the different Sambruk municipalities should do in the project. When they come to our meeting, how should they participate, what should they give, what could they use, it wasn’t handled quite good during the time of the project. And it was quite hard, because some of them haven’t started something to do with KC, some have been doing this for year 2,3 or more, so they hadn’t a common need, [...], maybe they just want to listen to Andre from Järflä, the practical view is more interesting in other research view, it was hard to get this together as one project. I think the different members also noticed.
L: It was not really stated in the beginning that how many of them will start or follow, it just like we will do this and we will go.
M: We will go[laugh]. It was quite high speed in beginning. Maybe a lower speed in the beginning we could communicate further.
L: Other problems?
M: No, wasn’t just problems. Things that very important is the network, that has started among these person. Maybe the project was a little bit early, now there are more municipalities starting their own KCs.

47:07 L: Are you satisfied with this Jönköping municipality results?
M: Yes, we are. We would like to go even further.
L: What would you continue with this?
M: Just to measure how citizens think about with the change. I think it’s the most important.

48:40 H: Do you have any suggestions for the similar projects in the future, from manager’s perspective, how a similar project should be managed in the future?
M: The project leader that should lead that project on a big part of the project should do from the first step until the last. But especially from the beginning, because I think INNOVETA has suffered from many project leaders in the beginning. And, work much with the needs, work much with the scope of the project before you start.

49:30 L: How do you think this Agile methodology you have chosen, was it the best one from the alternatives, was it easier, or difficult? What was good, what was bad?
M: I haven’t worked with Agile before, but I think it’s a very good method, and would like to implement it in other as process development. I don’t think we could do it some other way, because when we started ,our KC was very new, we didn’t know what we wanted, we didn’t know what we should be in < year, or two years; so, this (method) has been very good for us. And supervisors at KC have been part of the development. They think its goes a little bit too slow, of course; but they have the possibility to change things after how they want it to be.

50:45 L: Is it to work in this public sector where there are certain old rules, traditions, hierarchy and bureaucracy or something? Is it changing things?
M: No, it’s quite slow (in) organization. But it hasn’t been any problem working with Agile here.
L: They accepted this in the beginning?
M: Yes. (In)System development no problem, maybe in organizational change, things may have problem with that, we haven’t tried it really.

51:45 H: As the final question, for this Agile methodology compare to the traditional management, do you see any difference?
M: Agile is much better, you have the insight of the project day by day, you have a personal contact, it’s very important, and there are no surprises. I have the possibility to change my priority, because something that happened in the other project when I worked in the traditional ways, I took our demands to some wrong way, it was quite half a year, and when the product comes, and the product was not what I expected, we came also a couple of months late.
And I didn’t know why it was late. But in Agile, there are no surprises for me. [...] And you have the confidence with other people, you have a great amount of trust in Agile. I think that’s very important.

[55:00 END]

**Second session interview with the supervisor at KC Jönköping Anneli Jacobson**

00:26 L: Our objective is to know the project management, the internal one, and the external one with citizens, and **how do you as a supervisor manage this interactions between different people in one project, what was your role, how do you work?**

A: My role…uh, actually I used to be a supervisor, I used to be a member of the KC, I also answer the phone, answer the questions that the citizens have; but then my role changed a little bit, so, I got more and more duties, more and more to work with the system that we use, we register all the information we give and take when contact with citizens. And, we work with a system called “Streamflow”(SF), I don’t know if M mentioned to you?

L: Yes, and we talked to Jan also.

A: Ok. So, actually it started like this, they wanted one member from the KC to be on the meetings when they discuss the development of SF, how they should continue to develop this system, they needed someone who worked with the system to get another view, user’s view, the insight. I was the one chosen to be there and to tell our “perspective”. That’s how it started, then it got more and more complicated, I got more and more on my table to “fix”, then, it became 50% of my job only to work with SF and to develop it. Then, since August 2010, that all I do. [laugh] I only work with SF, and I’m not a computer fan from the beginning, I have no education to work with computers, I’m more like service oriented and working with people and helping out, but, well, they think that they need someone who is not educated or not very good at computers to get more useful (contributes) to the (SF) users. So that’s why they picked me.

And, today I change, I build most forms in the system, I put in the information that they want and need, I educate people in the system, every time we begin a new relation with someone out in the municipality, at different offices, I’m the one teaching all the system, they can go to me to get help if they have forgotten how to do, they miss something in the system, or if they need new functionalities, they go to me and M sometimes, and then, we have to decide if this is important to fix and then we make different priorities, in which order we should prioritize different things. If a need is very important and a lot of users feel the same needs, then of course we have to prioritize it very high and then we ask Jayway, Jan, about this to fix it. And, they do, they are amazing, they almost fix everything we need, so, that’s good.

But I guess my role is to help out, to help the users, to program the system so that they have all the different labels and subjects they need to identify different subjects they work with, so they can identify and storage the different subjects on(in) the right way, and I build form as I said to both to collect the right information and as a help or guide to users. As a member of KC you handle so many different kinds of areas and one call could be about how to change school and another one can be how to get your grandma to the facility for older, the next question could be about your garbage hasn’t been emptied, so, to remember what question to ask one who calls in the errant/subject, you have to have different forms, different manuals to follow, and then, I look them together with the specialist out in the municipality that knows what kind of information they really need. They tell us what they really need for information; I put them down in a formula and then well put them in SF and users can use it as a guide or help.

06:40 L: **They work base on their knowledge or on the system?**

A: Actually, it’s a combination, the system is becoming a little bit like…uh, it’s not a Wikipedia, but you can still find information in there, because once you answer the question, what’s the laws if you want to build a garage in your own garden, then, we give them the information and the answers, both from what we have learnt when we have been on different information meetings around, in the municipality, and then, I also from the information that we can find on the internet, on the web page, jokoping.se. All the information is there we can give out as answer, but if I answer you can build a garage on your own garden if you want, but it has to be 4,5 meter from your next neighbor and it couldn’t be more than 15 square meters, (and) different information, the next time (when) you get the same question, if you don’t remember the answer you can always put in the law for building a garage in (the system) and search, and you get all the different subjects that has been about this kind of questions, then you can go in and see “ok, it’s 4.5 meter from next garden”, so, you can use it a little bit like Wikipedia, kind of, but still, we use information from internet and from different specialist out there in the municipality.

12: 34 L: How long have you been worked here as full-time?

A: I work full-time in the KC only 7 months I think, and then they started using me as a member in the developing team for SF.
L: The KC starts from 2009, you worked from the beginning?
A: Yes. […]
13:55 L: Do you feel some changes compare to the beginning when you work in the KC and now?
A: We have actually done some studies on that, before KC started they did this study, they try to estimate how satisfied the citizens were, and the result was not very good. Actually, only 50% of all calls made to the municipality were answered, 50% of all calls that’s horrible, but then KC started, and after a few months, they did a new investigation, a new study, and they did get totally different result, as much as, I think around 90 or 95% were answered. And that’s the beginning, because even if they didn’t get the right answer or the right person, right away they got an answer when someone picking up the phone, because before 50% didn’t get an answer, they call and call and call, they can’t get an answer, but now they have someone who is nice to them and ask them what they could do for them, and help them to come to the right person, and of course, some of the answers were given at the first contact in KC. There is a goal, I think around 70 or 80%, that’s what KC is supposed to finish in the first contact. The goal is to finish 70-80% of all questions in KC. […] Today, I would say around 50% we finish in KC, but still even if we don’t finish 70 or 80%, we don’t give up; we don’t hang up before we know that the citizen will get in contact with the right person who can give them the answer. So, that’s a better service and the study they did before and after the contact center, (shows) people are more and more satisfied.
19:30 L: If as a worker in the KC, how would draw the process map from the incoming call, the first step, till where you go from there?
A: OK. [Draw on the white board]
30:00 L: How do you see the differences between your job, manager’s job and process manager’s job in this structure?
A: Actually, my job is both to educate people and to build the system, put in the information that is useful that they need, my job is also to listen to the users what do they need, and trying to figure out how the system has to be in the future to be useful, and I guess that’s mostly what my job is about.
Then, we have Eva who sits here, she is the process leader/manager, she is the one who is supposed to be, to make sure that the connections between the specialist and municipality KC that it works, she is the one who supposed to decide whether we should close a subject/errant in KC, or send it to a specialist, and (work) together with specialist out there in the municipality to see how the errant/subject should flow in the system.
Then we have M, she is actually more…, she is the owner of the system, [L: she is the one who controls things?] Yes, and she is the one who demands Jan and other guys (in Jayway). M and I tighter, before the release of a new system, we have to test, we have to search for bugs, we have to try the system and then we make a lot of errant/subjects, to test to see if it really works. So, that’s what we do mostly.
32:45 L: And do you have more supervisors or more managers working in KC?
A: Actually in KC, there is one, the chief, the boss…He was at a lot of meetings, and talked outside with people in the municipality,[…], from the beginning, he was the one who hired persons to work in here, he was the one who hold all the meetings, all the educations, and everything. He has to say which part of the municipality will be on SF, he has to say it. I guess most of the meetings were about this, how to get more information to KC, how to close even more errants/subjects in the first connection.
37:50 L: What are the duties of KC operators/workers besides answering calls, are they involved in the system development?
A: There are different duties besides answering the phone, there are 9 different offices in the municipality, and each of the members in KC has responsibility as contact person for those offices, and one of the member out there, she is responsible for the information in KC, and the other ones, they have different responsibilities, different areas they are in charge of,[…] they are on the meetings (in the responsible offices).
L: And, that’s how they contribute to the system, when they understand something is missing?
A: Yeah, they come to me, and say we would like to have this kind of function, and we would like to have this information to make change of this and that.
L: How many people are there working every day in KC?
A: I think there are 12, and the process leader, so 12 of them are answering the phone. Then, we have process leader/manager, and then a personnel leader/HR manager she is the head of employee.
L: Do you go outside for Sambruk’s or Jayway’s meeting?
A: I was at Sambruk’s meetings in Stockholm few times, and in Järfalla, then I discuss KC and SF, so I have been on a few meetings like that. […] I work very close to [names of JAYWAY’s developer] in Jayway. [L: So, it’s like system development and technical support?] Yes.
L: One of our objectives is to investigate Agile methodology, because you know very well how the traditional public project works and this one, I don’t know if this was the first Agile project you worked in? What is your perception about Agile methodology in public area, if it is appropriate, how it works, was it difficult to change during the process of this project?

A: Yes, it was new for me. I never worked like this before. But, I guess, for me it’s only positive, I think it’s great. Because you can affect, you can change the system to get it as you need it. Before I only worked in a system that you buy in a box, and then, maybe you only use a part of the system, cause you don’t need the rest, and it doesn’t fulfill all your needs, you couldn’t have all those (functions) you need, and maybe you didn’t know from the beginning you are going to need different things when you are working in the system for a while, so, this is really good, I think it’s really great, cause we can effect, we can put add-ons, we can say we need these functions as well otherwise it’s not good for us, and then, they will fix it; and if they can’t fix what exactly we want, we can always have an answer why, and they can have another solution, and it always turns out very good. Then, of course, everyone is working in the system, we are different, I’m not afraid of changes, but if you don’t like working with computers and it’s a little bit difficult a little bit hard, of course, it’s not funny when system changes, not every day, but a few times every year, we will continue to change the system until we will be ready, but I don’t think we will be ready.

So, for me, because all changes that we do are for the better, I mean it only gets better every time we change it because the users discover different things that they need or want, that they don’t like with the system, and then we can change it so that they will like it. But I know that some of the users think “oh… not to change again. ” [Laugh] But then, when they have learnt the new changes, the new way that works in the system, then they are happy “Oh, this is great, now I don’t have to do this, now I can find it in this way” or “now this is easier”, so, once you did it, it really great. So, I’m positive, I think it’s really great.

48:45 L: But is it like independent on each individual person, or it’s most your decision, or joint decision like majority vote about the conflicts?

A: Actually, it’s not my decision that everyone is going to use this system, it’s from the higher level, I think it’s [the chief of KC] he said “this is what we going to do”, he had affected the IT and [Swedish 49:30] makes the decision and say that what we want everyone to use , […] and when we want have a change, it also not my decision, I get the feelings from the users, they tell me “what I need, what I miss, what I don’t like”, and I discuss that with M, and we talk together with Jayway, and they tell us how much work it is to change it, if it is not a lot of work, then OK we change it, if it is a lot of work or hard things to change, well then maybe we have to listen again “is it that important or do you feel it is a problem every day, or is it just sometimes”, and if it is just sometimes, we put it lower down on our priority list, so, but I don’t make the decisions on my own.

51:00 L: So before you go to M, if you hear from somebody some problem, do you ask everybody “do we have to change it”, what do others think?

A: yes, we do.

L: So it’s not just you, always you go (round and ask.

A: I have to see it. Sometimes they feel they have a problem in something, maybe it’s because they are not using it in the right way. Maybe they missed some other functionality, then I can show them “Ok, but you can do this instead”, then “Oh, that’s great”, then, it’s not a problem anymore. But it they feel it is a problem , of cause I have ask the others “do you also have this problem, do you like this ”, if no one else thinks it’s a problem, then we will not change it.

52:06 L: Was it difficult to run in parallel this technical reworking and organizational changes in this Agile method, with constant organizational changes?

A: I don’t think there is a problem. Because in the end, except they are moving out to another building in the downtown. I don’t see the roles very different against it was before, so it’s a big organizational change on the paper, but really people do what they always did.

When we started up, we had 7 weeks of education at all different offices in municipality, and had to learn how they work and what we should handle and how to handle, so 7 weeks we were like forced to learn, learn, learn, and it was very tough, but it was fun and very good, informative; and then we also had to learn the phone system, and we had to learn different systems that we are going to use, and of course, there was a women here talking about acting on the phone, how to talk to someone, something like that.

L: Just for reporting, it is 7, because M said it was about 6 weeks.

A: Yes, 6 weeks but also we had this (education of) how to act on the phone and how to use the system, then it’s 7 weeks. So, actually, we started on 31 of August, and we took the 1st call on 15 of October, 2009.

56:50 L: Can you remember some difficult parts that you had to handle?
A: Un… Information is always difficult; I think that what we suffer most here is that we need more information from the specialists to be able to do our work, I mean if they don’t tell us what we shall answer when someone calls and asks “when you come to clean the snow on the street?!” if we don’t have that information we won’t be helping the specialist, and we won’t be helping the citizens. But if we get the information from the experts, we will even help them to handle all the questions for them and we will get the citizen the proper answers. So I guess the lack of information is the biggest problem actually, because once we have the information, we can help both the citizens and the specialists, we will make their life easier, so that they can concentrate on their real job.

59:03 L: Do you think it is possible to predict what kind of questions the citizen would ask?
A: Actually, before the KC was started, like a year before, they sent out a form to everyone, the head contact of citizens, and asked them to fill in what kind of questions do they have to you, how do you answer them, and how many questions do you have every day? So, I think they kind of knew what kind of questions, but then, of course you cannot predict all the questions.

[01:01:46] But then we have another little problem, because some of the specialist out in the municipality, they are afraid that they will lose their jobs if they give all information to KC. It’s a little bit like that actually, because they are afraid that if they let all the information to KC, they won’t be needed anymore.

[Discussion of KC names & tour around KC …01:25:00END]

Appendix 6: Questionnaire

MAIN QUESTIONS

1. Agile development assumes often and small releases, ongoing involvement of the customer and minimizing unnecessary activities, such as for example unnecessary documentation. Please comment on:

a) did you follow any particular model of agile development (e.g. Lean/Scrum / XP/ DSDM, etc) or was it just generally agile as based on agile principles?
Jan: Jayway used Scrum during the project.
Madeleine: We were working with a common back-log and sprint-back-log as a basis for development and prioritization. Now, more recently, we have switched to Kanban methodic and use back-log in combination with kanban table.

b) how often did you deliver software and to what extent was the municipality of Jkp involved in the Streamflow development process?
We were and still are very active in the development of Streamflow and have been acting as product owner from the beginning. We received deliveries of new functions at iterative sprints (demo and prioritization meetings) with 2-3 week intervals between them. Of course, we didn’t launch new versions after every sprint, it took longer time. We were cooperating closely with Jayway and the development team on a daily base at that time. (Madeleine)
Jan: Demonstrations were carried out on a regular basis, normally every third week, just after a sprint was concluded. The demonstration was followed by a planning and prioritization meeting, to plan for the next iteration. Jkp as pilot customer participated very actively with feed-back to the project team.

c) which documentation is being kept and can be reused further in a similar project? The methodology and experience of how we applied it can be for sure used in other projects, but I don’t see so spontaneously if there is some other documentation that can be used in future. (Madeleine)
Jan: The software for the Innoveta project was released in the fall of 2010. The software was built to meet the needs of service software for municipalities. Although that may be very specific for this project, the architectural constructions or principles implemented are more general. The presentations from the general Innoveta project meetings held several per year (presentations made by Jönköping municipality, Jayway, researchers and sometimes other municipalities) could be useful to understand the progress of a project like this.

2. Requirements setting and prioritization: Jan and Claes-Olof asked municipalities, both pilot and following ones, to list and prioritize their requirements to Streamflow. How did they actually participate?

See 1b Madeleine
Jan: Jkp participated very actively during the project, expressing needs, contribute in prioritization and giving feedback. Other municipalities contributed mainly during Innoveta meetings or at demonstrations, where we could gather input and suggestions based on the municipalities needs. Jayway also spent time at customer sites, to talk to municipalities and to interview users.

3. In February 2010, steering group meeting 5, Lars Svensson reminded that he would like to have access to Streamflow. Jan said he would fix it. It is not the first time when researchers stated their wish to be involved in system development. Was it done, how did it go, why?

Jan: Cannot recall this specific situation, but in general:

Researchers participated in the Innoveta project meetings alongside municipalities, some also in product demonstrations and project planning meetings following sprint releases. We did during the project set up a demo installation on a public site, accessible on the internet, and used for product demos after sprints.

4. Why did not Streamflow suit Järfälla? Was it because of the software itself or the agile methodology chosen? Tell us please about Flexite or other software you use instead. Was it developed in the same agile way or purchased?

(JW: Järfälla had a tight time schedule for their KC and could not wait for the project to be completed.).

5. What would you recommend to municipalities that want to develop a new software in the agile way not to fail? Something to pay more attention from the beginning?

Jan: It is important that a stakeholder is involved on a regular basis, i.e. that they do participate with their needs, and that they have resources, mainly people and time, to actively provide feedback and input to the team that develops the software. Involvement is essential, in that way the requirements that are the basis for development are well understood and feedback can be collected on a regular basis from the customer. Jönköping is a good example of a municipality which is actively involved, contributing and having the right people available.

ADDITIONAL QUESTIONS

6. Until the end of 2009 steering group meetings focused mostly on Streamflow development results. At the same time it was often stated at early stages of the project that e-circles are ready to use and evaluate (from project meetings reports). Later on, in 2010, it was noticed that they didn’t suit project needs. How can you explain these controversial conclusions? Were the first ones made before somebody saw the research results?

Do you mean that e-circles were imposed before we really saw them? In this case, it is a misunderstanding. They were presented several times for participating municipalities at among others Innoveta’s meetings, but was not considered as it is absolutely worth. Steering board was aware of its deficiencies.

7. Project results were going to be spread through broadcasting channels. Does it work or is it still planned?

I don’t know exactly what you mean by “broadcasting” channels but the project results are spread in different ways. The software, Streamflow and Surface are licenced under open source rules and available for anyone on internet. The evaluations of five contact centers are available for download on Sambruks webpage and has been spread as news through Sambruks mailinglists, Sambruks Facebookgroup and Twitter. One part of the project is to use and implement a webbased Learning Management System (LMS) for spreading knowledge on different aspects of a contact center. Moodle, an open source LMS has now been implemented for Sambruk and is intended to be used by the Innoveta project but also by the other Sambruk projects and networks under the name of SambrukAkademien. A number of short films on dialogue methods for contact center administrators have been produced and has been published together with follow-up questions. So far only as a test but shortly as part of the education in some of the contact centers.

(Lennart)

8. Business model (affärsmodellen) for Streamflow (May 2010): what it is, where to find it, was it used?
Jan: The business model for Streamflow has evolved. The software which was developed by Jayway during Innoveta was open source software and released in the fall of 2010. It was provided according to an open source license, Apache. Software licenses with opens sourced licenses are provided as is, and a customer may be offered maintenance and support by the developing company.

Jayway has since it ended its role in the Innoveta project continued development. A number of releases have been made; the product family has grown to new software products. The license model for the evolved base (core) products are open source and Jayway provides maintenance, support and training for the product family which is available today (2011). In general, the maintenance and support fees of the core products depend on the extent the products are used. As an example the maintenance and support fees for Streamflow core are based on the number of users, and the fees for Streamflow Surface core (web based e-services) are based on the number of citizens in the municipality.

The original Innoveta releases are no longer supported.
Appendix 7: Components of data analysis: iterative model

Source: Miles and Huberman (1994, p.23)

Appendix 8: Basic two-tier stakeholder map

Source: Freeman, Harrison, & Wicks, 2007
Appendix 9: Example of Power/Interest Grid with Stakeholders

![Power/Interest Grid with Stakeholders](image)

Source: Project Management Institute, 2008

Appendix 10: Sample Stakeholder Analysis Matrix

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Stakeholder interest(s) in the Project</th>
<th>Assessment of Impact</th>
<th>Potential Strategies for Gaining Support or Reducing Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Project Management Institute, 2008

Appendix 11: Team effectiveness assessment

Enormous number of examples of team building and assessment activities can be found in different sources. One simple example is provided here to illustrate the assessment technique:

<table>
<thead>
<tr>
<th>Factors</th>
<th>Effective group</th>
<th>Ineffective group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate</td>
<td>Open, comfortable, safe, more informal</td>
<td>Often tensed, more formal</td>
</tr>
<tr>
<td>Discussion</td>
<td>All members participating actively</td>
<td>Some active, some passive</td>
</tr>
<tr>
<td>Goal</td>
<td>Clear, accepted by everybody</td>
<td>Unclear, not discussed</td>
</tr>
<tr>
<td><strong>Attitudes</strong></td>
<td>Discussed, tested</td>
<td>Not even discussed, neglected</td>
</tr>
<tr>
<td><strong>Values</strong></td>
<td>Respected</td>
<td>Conservative, not shared</td>
</tr>
<tr>
<td><strong>Decisions</strong></td>
<td>Concordance, consensus deviations are discussed</td>
<td>Voting, compromises, run over</td>
</tr>
<tr>
<td><strong>Feedback</strong></td>
<td>Constructive, straight, open, on time</td>
<td>Moralising, judgement right – wrong</td>
</tr>
<tr>
<td><strong>Feelings</strong></td>
<td>Expressed openly, respected</td>
<td>Not shown, inessential</td>
</tr>
<tr>
<td><strong>Roles</strong></td>
<td>Clear</td>
<td>Not clear, competition</td>
</tr>
<tr>
<td><strong>Division of labour</strong></td>
<td>Flexible from competence and needs</td>
<td>Unclear, personal needs, ‘false’ equality</td>
</tr>
<tr>
<td><strong>‘The expert’</strong></td>
<td>Special knowledge is respected and appreciated</td>
<td>Dominance, besser-wisser</td>
</tr>
<tr>
<td><strong>Leadership</strong></td>
<td>Authority, Adapted to the situation</td>
<td>Authoritarian, power is important</td>
</tr>
<tr>
<td><strong>Conflicts</strong></td>
<td>Is managed openly, discussed and solved</td>
<td>Denied, hidden</td>
</tr>
</tbody>
</table>