

Assessing the Strategy Process in the Unit Operating under the Lapland University of Applied Sciences
Case Study: Lapland University of Applied Sciences

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Master's Thesis of the Degree Programme in International Business Management Master of Business Administration

TORNIO 2014

LAPLAND UNIVERSITY OF APPLIED SCIENCES, Business and Culture

Degree programme: International Business Administration

Writer: Anita Narbro

Thesis title: Assessing the Strategy Process in the Unit Operating under Lapland University of Applied Sciences

Pages (of which appendices): 64

Date: December, 2. 2014
Thesis instructor: Esa Jauhola

The main objective of this Thesis research is to distinguish the relevant meaning of the sustainable strategy concept for the case study organization operating under Lapland University of Applied Sciences. The focus is on identifying the key elements that make the strategy sustainable. Sustainability in this Thesis research is defined by the ability to last for a long time, and to remain relevant. Therefore, the following research questions are addressed:

- 1. How should an organisation approach the strategy process?
- 2. What are the key factors to consider for encouraging a sustainable strategy process in the case organization?
- 3. How do the key factors influence the case organization?

The research in this Thesis is qualitative and based on the case study methodology. The empirical data was collected through observations, interviews and relevant documents. The data was analysed by qualitative methods. The Thesis is a discussion between the theory and the empirical evidence.

The results of this research indicate that the strategy development process in the matrix organization is the process of analysis and synthesis. The organization studied in this Thesis research is a matrix type of organization. In the strategy process of the matrix organization all the elements of an organization should be aligned to work in coherence. Understanding the relevant strategy concept is an indispensable element to ensure the sustainable strategy process. The matrix organization requires that staff of the organization is able and willing to change and learn on a permanent basis to insure the organizations ability to remain relevant to the stakeholders. The ability to change and learn is embedded in the attitude of people and the right attitude should be nurtured. The matrix organization is best lead by an umbrella strategy and controlled through individual projects. The human relations management is a significant skill of the manager of the matrix organization as conflicts arise among the experts and the conflicts need to be addressed adequately.

Keywords: strategy process, strategic management, relevance

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1 INTRODUCTION

The general area of this work is strategy development processes and strategic management in the matrix type of organization (hereinafter unit) operating under Lapland University of Applied Sciences (hereinafter Lapland UAS). The main outcome of this research is identified key elements to support sustainable strategic management in organization. The key elements are identified through the review of the strategy formation process both in theory and practice. In this case study the sustainability refers to the ability to last for a long time. In addition, this Thesis research includes the assessment and the analysis of the economic and political operational environment surrounding the organization. The surrounding environment has influences on the sustainable strategy formation process. According to Wilenius (2008, 66), the ability to read weak signals and signs of change, and convert them in to a ability for renewal and regeneration, is one of the key success elements in the current business environment.

This chapter covers the discussion of the motivation of this Thesis research and describes the background of why has the author selected this particular topic. The chapter covers the research objectives and opens up the three research questions that is the central focus of this Thesis research. The research methodology is shortly described in this chapter, as the chapter three is fully dedicated to this discussion. The research assumptions and limitations are included. Additionally, the Thesis structure is introduced.

1.1 Motivation and Background

In 2010, Lapland UAS announced the unit as strategically important for improving the link between the teachers, the students and the business environment. At the beginning of 2011, the development of the unit started, including the work for strategy formation. The initial responsibility for developing the strategy was assigned to the author of this Thesis. Due to the lack of better knowledge, the author thought to approach the strategy process by defining the vision, goals and activities. Following the defining of the strategy would come committing staff to the vision and goals, and then the implementation. The activities where regarded as simple and easy. Early in the strategy formation process the author found these assumptions to be wrong. Deriving from the new perception, several issues, which where done for the strategy work, appeared as

emergent actions rather than well pre-designed processes. After searching for backup for managing the required activities and learning about the strategy, and strategy work, it became apparent that thinking that strategy work is simple and easy was a misconception. While collecting the knowledge on the topic, understanding and perceptions of sustainable strategy started to crystallize. The sustainable strategy process is the focus of this Thesis research.

Strategic management has been current issue since the 1960's and has been an important area of study in business theory and practice. Even though this area of research is rich with theories, Mintzberg, Ahlstrand and Lampel (1998, 9) argue that "a strategy is one of those words that we inevitably defined in one way yet often also use in another".

The strategy formation process has evolved from the "brilliant visionary" top down process starting in the 60's to "professional planning departments" in the 70's. The operational improvements approach was fashionable as the key to value creation in the 80's. Eventually arriving to more democratic bottom up strategy approach in the 90's, involving more people in the strategy process and focusing on creating the corporate future. (Szulanski & Amin 2001, 539-540.)

The rich history of this field gives an opportunity to learn from the different approaches. The history itself is not important for the actual strategic planning process, but the strategic perspectives, which come with the different lessons learned through the decades, should be considered.

1.2 Research Objectives and Research Questions

The objective of this Thesis research is to understand the relevant meaning of the strategy concept, and to find the key factors that distinguish the difference between the strategy as a formal document, and sustainable strategy process. Substantial effort is given to search for the meaning of the strategy concept and the perspectives on the strategic management. Therefore, the first research question is as follows:

1) How should an organisation approach the strategy process?

In order to answer this question, the theory is reviewed to gain the general understanding of the different levels of the strategy concepts as well as the strategic management perspectives. The theory review is carried out by comparing definitions of the strategy from the perspective of the different schools of thought. The objective of this research question is to outline the strategy concept based on theory compared to practice, which is relevant to this particular case study. In practice, to answer this question, the review of the strategy development process of the unit is carried out through interviews. The theory and the practice are compared and the gaps between the theory and the practice are identified. The identified gaps, as well as the identified good practices provide the starting point for the second research question.

2) What are the key factors to consider for encouraging a sustainable strategy process in the case organization?

The aim is to describe the strategy as a process that leads to sustainable results. The outcome of this research question is a selection of the key factors and the strategy formation elements. In addition, an important result of this research question is the operational environment study. That study provides the context of the Thesis research case, and the justification for the strategy perspective. It is important to locate the organisation in its actual changing environment before making strategic choices and decisions (Wilenius 2008, 68). Previous experiences are important for organisational learning and they should not be overlooked in the background study. Experiences need to be taken in to consideration when planning strategy.

When the strategy is viewed from the sustainability perspective it becomes more of a process than a document. When talking about the strategy as a process, related management issues arise. The strategic management issues are discussed through the identified key factors. The manager, as a leader, plays an important role in the organization, and in the formation and implementation of the strategy (Beerel 2010, 220). Therefore, it is important to pinpoint managerial aspects of the key factors. The discussion about the identified key factors aims to answer the third research question:

3) How do the key factors influence the case organization?

The unit is recognized as a matrix type of organization in this study. The human resources are the source of core competencies of a knowledge-based organisation,

making them the main asset of the organisation. The management of the human resource management becomes as one of the key managerial issue in the matrix type of organization (Senge & Sterman 1992, 137-150; Pitcher 1993, cited in Mintzberg & Quinn 1998, 219; Beerel 2010, 220). To have an actually implemented strategy, the staff should not only be aware of the strategy, but rather should become a part of the strategy. The RQ3 is answered in conjunction with the RQ2. The answers are in form of a discussion of the identified key factors. Where possible, the key factors are compared to the practices in the unit.

The strategy work is complex and challenging. Making sense of the different available views in the strategy process is important for organizational management. This Thesis research aims to provide practical information and knowledge, including tools, for sustainable strategy process management related to the matrix type of organization.

1.3 Research Methodology

This Thesis research is based on qualitative research methods incorporating the case study methodology. The literature review provides the bases for the theoretical justifications that are used to compare to the case study object. The case study is the most appropriate methodology for this study as it concerns one organization in a natural setting. The context is built around the case from the relevant documents, interviews and observations. The primary data collected for this study is qualitative data from multiple sources.

This Thesis research is not expected to have an added value in a general strategic management theory. Anyhow, it can assist other matrix type of organizations that are in the process of the strategy formation. This Thesis provides an overview of the strategy formation process and highlights some key elements to consider. Additionally, it provides basic understanding of the general Nordic operational environment and highlights the potential of this environment.

1.4 Research Limitations and Assumptions

The main assumption of this Thesis research is that the strategy is important to an organization to succeed. The success in this case is defined as relevance of the organization to its stakeholders including owners, target groups and customers, to name

few. The relevance refers to the ability to add value through all possible means, not only financial gain.

Another prevailing assumption of this research is that change is the permanent state of life. The change, therefore, should be taken as a perpetual form of the operational environment. This is an important assumption to justify the need for the environmental scanning.

The limitation of this research is the access to the most relevant information from the unit. The current understanding of the actual situation in the unit is based on documents, discussions and interviews. While the named methods should provide good general level information, the important tacit understanding is missing. Conversely, the lack of direct involvement is an advantage that gives space and freedom to look at the case organization from a distance.

1.5 Structure of Thesis

This Thesis consists of six chapters. In the first chapter, the reader is introduced to the research background, motivation, challenges and limitations. The second chapter creates the picture of the related operational environment. At the end of the second chapter the roles of the unit from the system thinking approach are identified. The third chapter discusses the research methodology and describes the information collection methods, processes and presentation. Further, in the chapter four, the RQ1 is answered, and this chapter discusses the strategy concept and the strategic management perspectives. In addition, it debates the concept of sustainability, as interpreted in this Thesis research. Chapter five answers the RQ2 and the RQ3, and deliberates the key factors related to the sustainable strategy process. Chapter six is the concluding chapter, and it completes the work by summing up the main findings and further research possibilities related to this case study.

The structure of this Thesis is a discussion between the theory and the practice. While searching for justifications in the theory, the practice is closely linked to the assessment of the related theory.

2 BUILDING THE CONTEXT

The chapter 2 introduces the reader to the unit, and the wider operational environment that surrounds it. Collis and Hussey (2009, 82) indicate the importance of the context and say that it will enhance the sensitivity to the qualitative research. Additionally, Wilenius (2008, 66) indicate that the surrounding environment does influence the organisation and should be considered when planning strategy. This chapter is important for the context as well as the strategy perspective. The systems thinking approach, disclosed in chapter 4, is used to assess the environment. Based on the Beerel's theory (2010, 47, 146) the findings are expressed in form of roles for the unit.

The unit is part of Lapland UAS located in Northern Finland. Lapland UAS is governed by a complex management structure that is described in this chapter. Lapland, as part of Finland, is a member of several geopolitical and economic unions. Main strategically important unions identified in this Thesis research are the Nordic Co-operation and the Arctic. Each of the union has their own political and economic specifics and the development strategies. To analyse the unit thoroughly, it is important to understand the direct operational environment as well as the wider economic and political environment. This chapter offers short analysis of the operational environment based on the statistical data from 2014 and relevant reports available at 2014. Additionally, the future strategies relevant to the identified environments are analysed to distinguish the roles for the unit.

2.1 The Unit

The organization studied in this Thesis research is the unit specialized in winter and cold-climate technology. The unit was established to improve the performance of the laboratory that has been running since 2003. The laboratory initially was established through European funded investment project to support companies and meet their needs for testing and development of components related to the cold-climate technology. The laboratory was a property of Rovaniemi University of Applied Sciences, governed by Rovaniemi Municipal Federation of Education.

In 2010, the laboratory was expanded and the scale of the activities enlarged. More financing to the laboratory was attracted through European and the Finnish Funding Agency for Innovation funds by several projects. The activities in the laboratory grew towards more sophisticated product development, business, marketing and management.

The laboratory started transforming towards complex business unit operating under Lapland UAS.

Initially, the laboratory provided services to few local customers and few students of Lapland UAS, which occasionally came to carry out tests for their applied research projects. At present, the unit has 11 active projects and the laboratory facilities including hardware and software (Arctic Power 2014). In addition, it has the vehicle test track, and intense involvement of students in the testing, and the project related work.

The staff numbers in the unit are changing according to projects as stated by the manager of the unit Ari Karjalainen. New staff members join as the need for certain expertise appears while old members leave. It implies that keeping "good" staff employed is challenging, as the project funding ends, according to the manager of the unit. Projects change, and with that change also the requirements for the staff members with their qualifications and experience.

Currently, there are 15 staff members (Arctic Power, 2014) where only one has long term contract with Lapland UAS. The staff consists of about 80% of engineers that are specialized in IT, Electronics, Mechanical Engineering and Construction. About 90% of the staff has Bachelors level education. Additionally, about 60% of the staff on average is of age 24-29. The organization is highly masculine where all employees are male. These facts are borrowed from the unpublished pre-study of a project "Development Project for the Center of Expertise in Cold & Winter Technology".

The signs of change in the management of Lapland UAS started appearing in 2009 and more prominently in 2012. Since 2014, Lapland UAS with its complex management structure owns the unit.

2.2 The Owner Organization

The unit operates under Lapland UAS that belongs to towns of Rovaniemi, Kemi and Torni as well as Kemi-Torniolaakso Municipal Federation of Education, Training Consortium Lappia, and Rovaniemi Municipal Federation of Education, and University of Lapland. The board of Lapland UAS organisation consists of mayors of all three towns and directors of Municipal Federations and the chairmen of the board of Lapland University. (Lapland University of Applied Sciences 2014.)

During 2012, Prime Minister's office decided on the changes in the legislation concerning the funding and the administration of Finnish Universities of Applied Sciences (UAS). The new legislation offers an opportunity for reinvention by giving UAS the rights of becoming an independent legal person. Practically implying that starting from 2014, all Finnish UAS are limited companies. This change happens during the period of shortfall of the national economy, which in practice translates in to cuts of 2030 starting places in all Finnish UAS, starting from year 2013. In the decision issued by the Ministry of Education and Culture in March 2012, the total amount of starting places from 2013 in Lapland are cut by 210 student places. That is 10% of the total cut issued by the Ministry of Education and Culture. (RAMK Annual Report 2012, 4; Opetus- ja kulttuuriministeriö 2012 a, 1-2; Opetus- ja kulttuuriministeriö 2012 b, 4-5.)

Lapland UAS was established in 2014, combining the two previous Universities of Applied Sciences, Rovaniemi University of Applied Sciences and Kemi-Tornio University of Applied Sciences. This change was initiated after the Ministry of Education and Culture issued the decision on the cuts, and the need to shift to limited company status. Currently, the new Lapland UAS ltd. is in the transition stage merging the two organisations located in three different towns, with different work cultures, administrative practices and management styles (Interviewee 4 2014). For a visual overview see figure 1 that is adopted from the webpages of Lapland UAS for the purposes of this Thesis research.

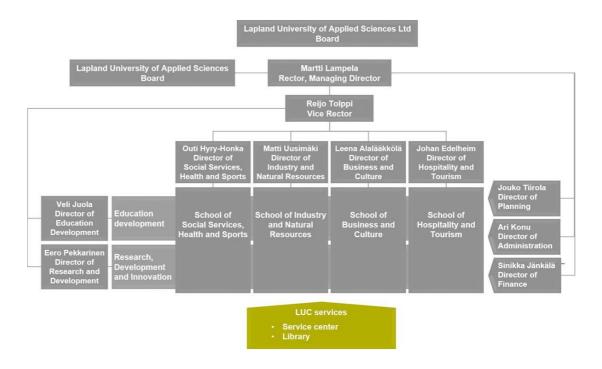


Figure 1. The board of Lapland University Consortium (Lapland University of Applied Sciences 2014)

Lapland UAS has a turnover of 43 million euros, 560 employees, and 5 618 students. It has four main fields of expertise: the wellness services, business and culture, tourism services, and industry and natural resources. (Lapland University of Applied Sciences 2014.)

Although Lapland UAS is in the process of refining its strategy, the main operational areas (Lapland University of Applied Sciences 2014) are announced as follows:

- Managing distance
- Smart use of natural resources
- Safety and security
- Arctic cooperation and cross border expertise
- Service business and entrepreneurship.

The same operational areas are presented in the figure below, which has been adopted from the webpages of Lapland UAS for the purpose of this Thesis research.

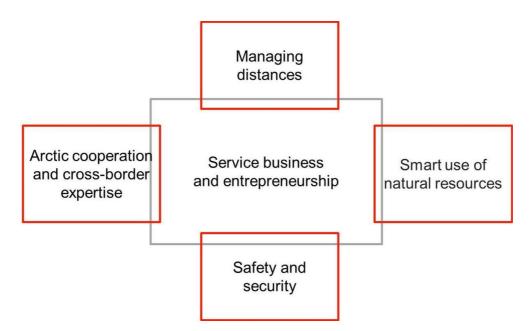


Figure 2. The areas of emphasis of Lapland UAS (Lapland University of Applied Sciences 2014)

Previously, each of the UAS owned laboratories to support the student work and to implement the applied research. Currently, these laboratories are being converted to research groups. The unit analysed in this Thesis is one of the new research groups,

starting from September 2014. This poses challenges for the unit, as it changes the perspective of the work. The direct management of the unit has remained unchanged while the Head of the Research Development and Innovation, which has the overall responsibility over the research groups, comes from the previous Kemi-Tornio University of Applied Sciences.

The view of the research groups now substantially differs from the view the unit had before the UAS was merged. Previously, the unit worked with wide perspective while now the research groups are expected to have narrow top class expertise (Interviewee 4 2014, Interviewee 5 2014).

The initiative to work jointly on the research, development and innovation issues between the Higher Education Institutions (HEI) in Lapland has started earlier. Lapland University Consortium (LUC) has been active since 2009. LUC (Lapland University Consortium 2014) comprise University of Lapland and the new Lapland UAS and states that "...its mutual task is to combine education, research, culture and other expertise into a high-quality and impressive entity, which will serve Lapland, Finland and the World."

The HEIs of Lapland through the LUC have common innovation programme since 2009, which guides and focuses the areas of the research, development and innovation. While the innovation programme has been common for both UAS before, the work culture and the management of both UAS has been different, at times even competitive. (Lapland University Consortium 2014; Interviewee 4 2014.)

In the autumn 2010, what used to be Rovaniemi University of Applied Sciences (RAMK) started the process of KOTA that is an abbreviation of the Finnish words for the Keys to the Future by Learning from Experience. KOTA process was aimed to change the RAMK's view of learning and teaching. The goal of RAMK was to have completely new curricula, by the end of 2012. The new education programs based on the Problem Based Learning philosophy, was intended to start in the autumn of 2013. (RAMK Annual Report 2012, 4.)

While the UAS are limited companies the funding still largely is dependent on the Ministry of Education and Culture. Ministry evaluates the UAS and allocates the financing based on principals of effectiveness, ability to influence, and efficiency. These principals are expressed in the following indicators:

- UAS diploma per year/ teaching and R&D staff
- Students that have reached at least 55 study points per previous year
- Study points achieved through R&D projects/ present students
- Publications and Audio-visual material (Groups A-E and publication type)/ teaching and R&D staff
- External R&D funding/ total funding
- Income from sold Services/total funding
- Staff mobility/ teaching and R&D staff.
 (Opetus- ja kulttuuriministeriö 2012 c, 3.)

2.3 Finnish Lapland

Sparse population and remoteness are recognized as major specifics of the Nordic regions in the European context that bear influence on social and economic developments. This region is suffering lack of volume in business activities, access to social services as well as poor infrastructure in terms of cities and towns. Sparsely populated areas are characterised by higher unemployment rates and a higher degree of dependence on public sector employment (Gløersen & Dubois & Copus & Schürmann 2005, 5-25). In 2011, the public sector employed 33% of the total employed people in Lapland (Lapin Liitto 2014 a, 4). The business structures in the Nordic regions are generally small or medium size with very few large industries. According to the Lapland Economic Review (Lapin Liitto 2014 a, 4), the main industries in Lapland are mining, metal processing and tourism.

Lapland has gone through the process of recovery from the recession, which affected Europe in 2009. Lapland followed the general recession pattern where first the industry and construction fields suffered and later the service and the trade sector (Lapin Liitto 2011, 15). The industry sector started to recover from the worst downfall in 2011, and other sectors has slowly followed. In 2013, the public sector was again able to employ more people than the previous years.

Lapland is specified with its cold climate - long and dark winters, low temperatures, sow and ice. Lapland has succeeded in utilizing its challenging natural environment to strengthen the business areas. For example, the tourism industry benefits from the natural environment of Lapland. The cold and winter technology business area seeks to utilize it similarly.

The cold and winter technology business area is small accounting for 290 million euros and 680 employment years in 2013, making it the smallest of the business areas distinguished in the Lapland business review. Anyhow, it has been one of the strongest growing business areas during the last 5 years, increasing in volume by 70%. Since 2009, the cold and winter technology business area has been able to employ more people, by now reaching 40% increase since 2009. (Lapin Liitto 2014 a, 11.)

The facts of the business review state slow but steady growth in the area, and specifically good opportunities for the cold climate and winter technology field development. Taking challenges and turning them in to opportunities has proved to be successful approach also for the cold and winter technology business.

While the growth is expected to continue slowly, the industrial strategy 2030 (Lapin Liitto 2014 b, 17) envision Lapland as an attractive operational and industrial environment and internationally appreciated partner that is able to sustainably refine natural resources, innovate and has strong Arctic competence. The policy states that fast reaction capacity or agility towards noticing signs of change in operational environment, and being prepared to respond to them, is one of the key elements for success. The policy demonstrates understanding of the continuous learning and growing of the intellectual capital. The strategy of Lapland promotes the respect for nature and finding compromises, which promote the conservation of nature and indigenous culture while allowing thriving industry.

Lapland is the closes external operational environment to the unit. Interpreting their need statements should be an important part of the strategy process of the unit. In this Thesis research the strategy of Lapland is evaluated by applying the systems thinking approach, further discussed in the chapter 4. As the outcome of this analysis, the roles for the unit are earmarked. The roles highlighted are based on the obvious capabilities of the unit and the needs of the Lapland, stated in the strategy of Lapland 2030.

The roles identified are as follows:

- Innovator, challenging the standard trade off (cost versus differentiation) by searching for new compromises for thriving industry and preservation of natural resources and indigenous cultures
- International partner with agile and innovative Arctic competence
- Aware and capable actor continuously increasing own knowledge and capacity.

(Lapin Liitto 2014 b, 17).

2.4 The Nordic Cooperation

The Nordic co-operation is the first and the oldest cooperation forum. The Nordic co-operation consists of two main bodies, the Nordic Council established after the World War II in 1952, and the Nordic Council of Ministers representing the governmental co-operation, established in 1971. The co-operation is built on common values and a willingness to achieve results. The Nordic co-operation is financed with tax revenues from Denmark, Finland, Iceland, Norway, Sweden and autonomous Regions of Faroe Islands, Greenland and Åland. The Nordic Council of Ministers has the observer status in the Arctic cooperation. (Nordic Council of Ministers 2011, 7-15.)

On an average, all Nordic countries are characterised by small primary business sectors, shrinking industrial sectors and large – and generally expanding – service sector. In spite of the continuous economic growth in the region, the energy consumption is still among the highest in the world (Statistics Finland 2011).

The high demand for energy is explained with the need for heating because of the cold climate, sparse population and greater need for individual transportation. From 1990 the economic development in the Nordic Countries has become increasingly dependent on innovation and knowledge-related activities. Immaterial investment in human capital, research and development, education, organisational development and branding has increased. Although the investment in innovation and knowledge economy is comparatively high, the transfer of that innovation in entrepreneurial output is still challenging. (Nordic Council of Ministers 2011, 10.)

The vision for the Nordic region promotes the entrepreneurial competencies in the cultural and the creative industries. The entrepreneurial competence is aimed at to increased competitiveness of the business fields. The highlighted production of new knowledge and stimulating the growth of markets indicate a search for new market openings and continuous learning. Combining the knowledge and the skills to develop new goods and services is placed at the centre of activities, remembering the emphasis on climate smart solutions. (Nordic Council of Ministers 2014, 9.)

The roles identified through the systems thinking approach from the Nordic Cooperation Programme for Innovation (Nordic Council of Ministers 2014, 9) relating to the unit are as follows:

- Expert, linking different industries such s culture and creative industries to assist them in becoming more competitive
- Active actor in producing new knowledge continuously
- Actor, challenging the standard value trade off to stimulate market growth (Nordic Council of Ministers 2014, 9).

2.5 The Arctic

The interest in the Arctic region has increased over the time. Initially, the Arctic was an important NATO borderland with Russia. Currently, the economic potential, including the natural resources and new transport routes triggers the interest. The Finland's Strategy for the Arctic Region (Prime Minister's Office 2010, 26) foresees it to become a major energy reserve and transportation channel for Europe. Finland takes pro-active approach in the Arctic issues through its strategy (Prime Minister's Office 2013, 8).

The new Finland's Strategy for the Arctic Region (Prime Minister's Office 2013,8) is strong base and relevant tool for the unit. The strategy addresses the unit through the priority of education and research by assigning tasks and roles as follows:

- Active Arctic researcher in low-temperature condition management
- Educator, in business opportunities related to low-temperature conditions
- Internationally connected actor, specialising in management of low-temperature issues
- Actor, able to act sustainably
 (Prime Minister's Office 2013, 22-25).

2.7 Summary

The recent years have been particularly turbulent in the surrounding environment of the unit. The owner organization has gone through the merging of two different Universities. The ministry has made financial cuts, and demanded the change of the legal status. The teaching ideology is shifting in the Lapland UAS. Furthermore, the new strategy of the Lapland UAS is broad and not specific enough to interpret it in

activities (Interviewee 2 2014; Interviewee 4 2014). The actual indicators used to assess the success of the unit are based on the Ministry of Education and Culture issued evaluation criteria that are not directly linked to the strategy.

From the perspective of the unit, it is important to understand and decode the statements of the different level strategies. In this Thesis research, the environment assessment is done by systems thinking approach, highlighting roles for the unit. The individual strategy level roles now are combined to form an integrated picture. Through this synthesis process it is possible to distinguish seven potential roles. The roles are as follows:

- Arctic environment technology researcher
- Business incubator linked to the arctic technology research
- Incubator linking industries and producing new knowledge
- Internationally connected agile and innovative partner
- Able and skilled actor in cold environment management
- Aware and capable actor continuously increasing own knowledge
- Innovator searching for new market opportunities by challenging the standard value trade off and aligning that to promote the sustainable Lappish environments.

The roles potentially could be used for the umbrella strategy based on the assessment done in this Thesis. The umbrella strategy is the best-suited strategy approach for the unit that is further discussed in chapter 5. The roles identified are suggestions that should be continuously updated, according to the changes in the environment and the perception of the people.

3 RESEARCH METHODOLOGY

This chapter introduces the reader to the methodology used in this Thesis research. It covers the aspects of the qualitative research including the limitations associated with the case study methodology. The case study methodology is the methodology used for this Thesis research. The data collection methods and sources are listed. Additionally, the data presentation is explained.

The purpose of this Thesis is to increase the knowledge through systematic and methodological process of investigation by analytical applied research method. This research was intended as action research due to the involvement of the author in the strategy process of the unit. The changes that appeared during the Thesis process required shifting the intended action research to case study. The Thesis research was finalized by the case study methodology. According to Ghauri (2004, 109-111), case study is the most commonly used method when implementing the business research. The strategic management, as a field of study, is based on opinions and perceptions and it is impossible to point out one truth. This Thesis is a study in the management field based on analysis and interpretations of the relevant and the available data.

3.1 Qualitative Research and Case Study

For this project the primary data collected was qualitative. Some secondary data for the contextualization (Collis & Hussey 2009, 143) was quantitative, for example the economic reviews. The best-suited data for the selected methodology is the qualitative data. The collected data includes documents, observations and interviews. Qualitative data is normally understood only within the context and associated with interpretive methodology (Collis & Hussey 2009, 143). The main challenge for the qualitative research is the data analysis as there is no clear and accepted set of bonds (Collis & Hussey 2009, 163).

In this Thesis research substantial effort is made to collect the information about the surrounding environment of the unit, and describe the context. The importance of the context is essential (Collis & Hussey 2009, 82). This applied research is aimed to assist the studied organisation by highlighting key elements from the findings of the research. The

time limitation (Roper & Millar 1999, 5-6) of case study methodology was not restrictive factor in this research because the results of the research are not expected to last beyond the needs of the unit. Anyhow, some conclusions are made at the end of the research that are less case bound and indicate about the general trends in current business environment related to the matrix type of organization.

3.2 Data Collection and Analysis

The data collection for the case study was done in two larger attempts. One was done at the beginning of the research process, when the unit prepared for the strategy process, and the other, at the end of the process, when the strategy in the unit was finalised. The data was collected from multiple sources including documents, direct observations, and interviews to give better opportunities for study (Yin 1994, 78-99). The documents include meeting minutes, reports, pictures, emails and proposals. Documents are describing the operational environment, the owner organisation as well as the unit. The observations were done at the beginning of the process, and the interviews with relevant people, at the end of the process. In addition, Internet based data has been used including webpages of the organisations, and document downloads. The interviews have been carried out in an online environment and recorded. The interview videos are not public. Interviewed for the Thesis research where 2 project managers, one lecturer, the head of the Research and Development, and the manager of the unit.

The people interviewed were selected on basis of involvement with the unit, involvement in the unit's strategy process, and the involvement with the owner organisations strategic management level. Selected people where easy to approach and they were willing to contribute. The online interviewing was successful without any major problems. The interviewed people had allocated sufficient time and gave satisfactory answers to questions asked. Anyhow, the collection of nonverbal data was limited due to the accessibility. The case is analysed on the data that was available to the author.

The Interviews where intended as open discussions. Guiding questions where prepared and in most interviews also used. These interviews consisted of three main parts. First, describing the process of the strategy development. Second, the tools used for the strategy development process. Third, the motivation behind the choices of the tools and methods

used. In addition, the background of each participant was asked. Additional questions where asked to describe what strategy means to them, and what is the unit's strategy.

The data analysis of the qualitative data in this research is seeking to present the depth of the collected data. Therefore, the scope (Collis & Hussey 2009, 166) of the study was limited to concrete issues and few interviews. The analysis of the data is carried out using qualitative methods of data reduction, restructuring and detextualization (Collis & Hussey 2009, 166). For example, the chapter 2 presents the context by sharpening the reports, focusing reports on concrete field of expertise and includes facts that present only the meaningful information for this case study. Through the data analysis stage the comprehending and acquiring full understanding of the case was the core. Morse (1994, 23-43) argue that pre-knowledge is not desirable in the case study methodology. This Thesis research partly is relying on the observations made during the involvement in the strategy process. Anyhow, the comprehension and the synthesis of the data were carried out without involvement in the strategy process. This research is not adding to the general management knowledge field. No data analysis software was used for this study.

3.3 Data Presentation

Collis & Hussey (2009, 306) say that presenting qualitative data can be difficult because it requires synthesis of different data sources. "Including quotations gives text authentic and vibrant feeling and helps the reader to identify the world that the researcher is analysing" (Collis & Hussey 2009, 306). In this Thesis research the data presentation is approached by writing the analysis in text and by including quotations from the interviews and documents where appropriate. In addition, figures are used to present data synthesis visually, where possible. All data sources are referenced including the interviews. Interview transcripts are not published.

4 SUSTAINABLE STRATEGY

The discussion about the sustainable strategy concept is opened by the consideration of the perception of the strategy. Following the consideration of the perceptions of the strategy concepts the different strategic management perspectives are debated. The conceptual viewpoints on strategic management outlined by Miller (1998, 37) are contemplated and

the different dimensions and schools of strategy discussed. The supply stage analysis is applied to the case organization. Using the center of gravity concept, the organizations structures and its location in the supply chain is distinguished. The organizational structure should be aligned with the view to strategy. Additionally, this chapter covers the concept of the sustainability, and what it denotes in the strategy process. The concept of change and how the change influences the sustainable strategic management is included in the discussion of the sustainability. The conclusions are drawn at the end of the chapter. The conclusions discuss the concept of sustainable strategy in relation to the case organization. The conclusions are based on the theory study combined with the case analysis and the environment assessment from chapter 2. This chapter answers the RQ1.

4.1 Perceptions of the strategy concept

The strategy most often has been regarded in terms of what the management of an organization plan to do in the future. Commonly, the strategy formation with this comprehension tends to be an analytical process for establishing long-range visions, missions, goals and action plans, separate from implementation.

When asked what strategy is, all participants of the interview, excluding Interviewee 5 2014, indicated towards the analytical perception saying that strategy is a plan, or a roadmap. The analytical perception of the strategy is common when the strategy concept has not been thoroughly considered (Minzberg & Quinn1998, 10). It indicates individual perceptions of the strategy concept, not a deliberate choice to approach the strategy as a plan. Some extracts from the interviews presents the likeliness:

"...we approached the strategy the standard way. We developed vision and mission. At the same time, I did the background studies of people skills in the organization. I realized that the staff did not have any previous experience in strategy work, neither any understanding of strategy as such." (Interviewee 2 2014.)

"We have a road map that states our plan for one-year, three-years etc." (Interviewee 1 2014.)

"...It is an implementation plan. It should not be just a vision and mission and a values that is not leading to concrete steps." (Interviewee 3 2014.)

As important as planning the intentions might be, several authors argue that the analytical view on strategy is rather limiting because it discards all other varied ways that strategies actually take shape (Mintzberg & Quinn 1998, 257-272; Miller 1998, 60-63, 315; Cummings & Willson 2003, 2-5). For example, in many cases the actual value of an organization can come from the emergent actions. The emergent strategy is illustrated in the figure 4. Some studies show that the efficiency of the planned strategy can be as little as 10% (Kaplan & Norton 2008, 3-6). It seems that the intended strategy, if not adequately approached or correctly deliberated, can often lead to poor implementation.

Allegedly, if the intended strategy provides for 10 % of the implementation, the remaining results achieved should be responses to emergent actions. That way, the responses to emergent actions, in reality, constitute the main share of staff time and efforts at work.

While approaching the strategy from the planning perspective, the unit actually is operating by managing projects. Each project has its own aim, objectives and action plans. Project managers are responsible for the project implementation. Project financing, while mainly aimed at the individual project goals, contribute to the wealth of the unit through allowing to hire more people, develop the infrastructure and increase the know-how. While each project is individual, in conjunction, they are expected to find the common platform for the unit to expand their vision and strategy. Project priorities often depend on the funding sources and their requirements. Furthermore, the individual projects actually are accountable to the Lapland UAS and they should follow the administrative practices of it. Based on this description, it is easy to note that the unit is in fact a matrix organization (Mintzberg 1979, cited in Mintzberg & Quinn1998, 310). According to Mintzberg (1979, cited in Mintzberg & Quinn 1998, 310), in a matrix type of organization commonly it is the emergent strategy that prevails. With this notion the gap between the proof of the research and the case practice is identified. Having an understanding of the organizational structure, and knowing how to match the strategy to the structure, would assist in avoiding the frustration and unnecessary expectations exemplified by the statements by three interviewees as follows:

"I am satisfied with the contents but we failed to commit the owner organization..." (Interviewee 1 2014.)

"Strategy should be more." (Interviewee 3 2014.)

"Initially I wanted different approach." "The strategy process was tool long and slow..." "The process was not very satisfying." (Interviewee 2 2014.)

As identified by Miller (1998, 36), strategic management has three wider perspectives that one could use to approach the strategy work. The perspectives are classified in the scale where at one end is the rational planning, and the other end incrementalism and in between organizational learning. Table 1 adopted from Miller (1998, 36) for the use in this Thesis research illustrates the continuum of strategic management perspectives.

A Continuum of Perspectives on Strategic Management, Miller A. 1998							
	Rational Planning	Organizational Learning	Incrementalism				
Description	Attempts to move an organisation to a new strategic position and maintain that position as efficinetly and directly as possible	Typically move to new strategiac positions and maintain those positions by making continuous adjustments.	Organizational drift, from one strategy to next, depending on the unfolding of events beyond manager's control.				
Assumption	Organizational strategy lends itself to intellectal analysis and formulation , the environment is predictable, and organizations are controllable	While there will be many mistakes, organizations can benefit from them by discovering new ways of moving towards goals	Managers lack the ability to forecast or enforce the developments essential to developing a pre-ordained strategy, and therefore must continually adjust				
Benefits	Has led to the development of many useful planning tools and techniques	Emphasizes broad-based involvement in management of the firm and encourages risk taking by "legitimizing" mistakes	Encourages flexibility and concern of strategy implementation				
Limitations	Plans may be quickly outdated by unexpected developments; formal planning often breaks down in implementation stage	May be stressful for individuals not used to unlearning the status quo and learning new ways of manaing	Does not encourage productive efforts to control the organization's future or destiny				
Mnemonic Icon	Devise the shortest path	Search for what works	Wander about				

Table 1. A Continuum of Perspectives on Strategic Management (Miller 1998, 37)

Rational planning has become as one of the most commonly used practices in the business world. A big influence supporting the rationalism comes with Porters ideas and contributions (Mitzberg & Quinn 1998, 257). While the rational planning is useful in some cases, it is not applicable to every type of organization.

According to Miller (1998, 36), there are several conditions for being able to implement the rational planning. Among the conditions are the absolutely necessary conditions and motivating conditions. The first of the necessary conditions is the stability, explained by the

predictability of the business operations and its ongoing ways of operation. The second necessary condition is the simplicity, which is explained with the mechanistic approach and clear inputs and outputs. The motivating conditions are industry maturity, capital intensity, tightly coupled operations and external control. (Miller 1998, 36-37.)

According to the business review of Lapland (Lapin Litto 2011), the business sectors in the north and particularly in the Finish Lapland tend to be small in scale. Companies in the north often rely on their know-how as the main competitive advantage not on the scale of operations, making them knowledge-based organizations. Small companies have a strong need for innovations in their operations and products or services. Innovative organizations with their expert culture, in turn, calls for organic and decentralized structure (Mintzberg 1979, cited in Mintzberg & Quinn 1998, 315). Small companies rarely have a mechanistic approach to carrying out their tasks as the products and services need to be tailored to the customers' needs. The operations often are varying corresponding to the available support funding and the projects need to be tailored to the requirements of the funding sources available. Based on this assessment, a conclusion can be drawn that the operational environment of a small organization in the North is neither simple nor stable. Based on Miller's (1998, 36-37) perspectives of strategic management it is hard to justify the overly used rational planning in the described environments. However, these strategic management views seem to be ignored frequently and the strategic management approached from the planning perspective. That, in turn, increases the probability of failing strategy. An organization operating in changing environment should not aim for static strategy, but think of ways to make strategy as an adaptable process.

The unit analysed in this Thesis research has approached the strategy process by using mixed methods. While the strategy is composed of rather standard statements of mission, vision and action plans (Interviewee 2 2014) indicating towards the rational planning style, the staff involvement in the process (Interviewee 1 2014, Interviewee 2 2014, Interviewee 3 2014) implies the realized need for participatory tactic. Combining the standard analytical process to the participatory approach the strategy process could be rather similar to what Miller (1998, 36-37) calls an organisational learning, although the changing environment and the adaptation of the strategy to the changes is not quite thought over (Interviewee 1 2014, Interviewee 2 2014). The risk taking in the history of the unit has been limited by the

inflexible owner organisation. When carrying out the interviews, it was not clear how the strategy should be implemented argued by an interviewee 3 (2014) as follows:

"We don't have an implementation plan for the strategy".

All of the evidence discussed above points towards the unclear view on what a strategy should be. It seems that some issues have been sensed subconsciously, such as the participatory approach, but the strategy process as a whole, has not been thoroughly considered in the unit. Can be argued here that, establishing wider view on the strategic management perspectives should be the backbone of any organisation approaching strategy work, to avoid unnecessary effort and frustration in regards to strategy process.

4.2 Overview of schools of strategy

In management theory the understanding of the strategy concept is highly varied. In fact, there is no right way to define a strategy. The view on strategy depends on the theory and the standpoint it takes. Knowing about the different views helps managers to find relevant tools and mindsets to avoid unnecessary challenges and overcome obstacles. In addition, it assists in dealing with the people issues by focusing on the right aspects in the human resource management.

In a broad overview, in this Thesis research three main views are recognized. First, the rational planning and second, the emergence theorists view. While in some ways these two views are opposing, there exist similarities. One of the most distinct similarities is the prevailing assumption that an organization needs to compete. In a different dimension operates the third view, the blue ocean strategy. The main differences of the three views are pointed out in this sub-chapter because they set the background for the diversity in the theory and allow analyzing the case organization from a broad perspective.

Ansoff, Andrews and Chandler represent the classical or the rational planning school, to name few. The strategy, in this view, is about developing the most accurate map of the environment, then orienting or positioning the company in it, and formulating rational plans for future (Cummings & Wilson, 2003 16-17).

Porter builds on this classical approach and is one of the most recognized classical school representatives (Cummings & Wilson, 2003 16-17). Similar to the early thought of the design school, Porters defined strategy is a statement of the position in a given marketplace and it is competitive. Explicit strategy statement exists. Porter's theory is based on the analysis of the marketplace and finding the right position in its rather unique niche. An organization is analyzed in the context of the market, and the position decided for the organization after which the decisions are again communicated down to employees and the plan is implemented. While the strength of the classical design school theory is the analytical process, the weaknesses are separating the thinking from acting and the people implementing the strategy (Mintzberg et al. 1998, 82-90).

On the opposing end of the spectrum are the emergence theorists group including "strategy gurus" such as Mintzberg, Hamel and Prahalad (Cummings & Wilson 2003, 19). The emergence theorists do not explicitly define the strategy but add to the design schools definition the concepts of patterns, perspectives and ploys (Mintzberg et al. 1998, 9-15). In the emergence theorist view the strategy is a perspective - a fundamental way of carrying out practices, the position in the market, the plan of how to reach this position, as well as a pattern – consistency in behavior over time, and a ploy for competing with the opponent (Mintzberg et al. 1998, 175-180). In addition, Minzberg et al. (1998, 195) argues that real strategy does not come from the top, but rather emerges bottom-up, on contrary to the classical approach.

In both previous views the prevailing assumption is that a company needs to compete to succeed. That is known as the red ocean approach.

Entirely different approach to the strategy is the value innovation, or the blue ocean approach. Instead of focusing on competition, the focus is on the value innovation. Competition is made irrelevant by creating uncontested market space that is difficult to imitate. The demand is created rather than sought for by breaking the standard value-cost trade off. The main difference is in the thought that one does not need to either differentiate or lower costs, but can do both. The whole organization is aligned to a new approach and it opens new possibilities. The success, in the blue oceans approach, is determined by the strategic moves explained by managerial actions and decisions made. (Kim & Maubourgne, 2004, 81.)

Providing these views indicate the understanding that neither of the strategic perspectives described should be viewed as dominant. The match of the strategic view to the operational environment, the age and the size of the organization, power and culture in the organization is what should define the approach to the strategy. Once the strategic view is determined the relevant body of knowledge can be consulted and the appropriate methods of strategy development selected.

4.3 Location in industry

Before approaching the strategy process it is important for an organization to understand its location in the supply chain. There are substantial cultural differences between the organizations operating in the upstream and the downstream side of the supply chain (Galbraith 1983, cited in Mintzberg & Quinn 1998, 134-135). The location in the industry chain will help to further clarify the approach to the strategy.

Organizations have a centre of gravity i.e. the driving force (Galbraith 1983, cited in Mintzberg & Quinn 1998, 134-135). The centre of gravity is located in the industry the organization operates in. The theory of the driving force typically is applied to the manufacturing industry, as the stages there are clearly visible and easy to distinguish. The service industries also have the supply stages, but research is scarce on the supply chain in the service sector, and specifically in the education industry. In this Thesis research, the author applies the concept of the centre of gravity to describe the unit's role and location in the education supply chain, in relation to Lapland UAS.

Supply chain stages in the manufacturing industry include the raw materials, primary manufacturer, fabrication, product producer, market distribution, and retailer. This theory divides the supply chain in two segments, the upstream and the downstream categories. Galbraith (1983, cited in Mintzberg & Quinn 1998, 135) states: "...While there are differences between each of the stages, the differences between the upstream and the downstream stages are striking."

The upstream stages add value by producing flexible, predictable and modifiable products from which later the downstream products are made (Galbraith in Mintzberg and Quinn, 1998, 135). "The downstream stages add value through producing a variety of products to

meet the varying customer needs. The downstream value is added through advertising, product positioning, marketing channels, and R&D." (Galbraith 1983, cited in Mintzberg and Quinn, 1998, 134-137.)

Interpreting this theory in general terms, the upstream stages are more foreseeable and predictable while the downstream stages are more innovative. The upstream stages are more process oriented while the downstream stages are customer oriented. Based on the authors' generalisation of this concept, the stages of the education industry in the supply chain continuum are illustrated in figure 3.

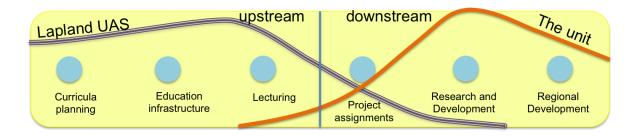


Figure 3. Supply chain in education industry

According to the analysis, the education supply chain could be divided in to six stages. The stages are as follows:

- Curricula planning
- Education infrastructure including facilities, hardware and software and teaching material
- Lecturing
- Student project work
- Research, development and innovation, including both the Thesis research of students and the staff involvement in the R&D&I activities
- The regional development including direct support to companies through both, the student work and the staff.

In the model shown in figure 3, the stages are divided in to the upstream and the downstream categories by evaluating the types of activities. Based on the observations and the experience, conclusions are drawn that curricula planning, education infrastructure and lecturing are process oriented and aimed to provide flexible, predicable and modifiable

outputs. For example, the curricula are planned for long periods of time, to suit groups of students. The education infrastructure, including the teaching material, is recycled year after year with only small adjustments covering many student groups. The teaching staff of Lapland UAS works in the upstream side of the education industry. The downstream activities, such as project work and Thesis research, are individually oriented processes. The main focus in the project work and Thesis research is on innovative and personalized outcomes.

When considering the type of work the unit does it is possible to distinguish that it mainly covers the downstream side of the education supply chain. The unit works mainly in the regional development and the R&D sector. In addition, it partly covers the student project work. The teaching staff of the Lapland UAS excluding the research groups, covers the upstream side of the supply chain by planning the curricula, providing the educational infrastructure and lecturing. Some teaching staff is responsible for the project work and the Thesis research, although it constitutes only small share of their activities.

Based on the theory, the upstream and the downstream operators are substantially different. The differences are in beliefs and values, the base of operations, the structure of the organization, the use and application of R&D, the managerial processes, and the dominant functions. (Galbraith 1983, cited in Mintzberg & Quinn, 1998, 134-137.)

Educational organisations in Finland are assigned to be research and development organisations actively involved in regional development. As identified in this research, the teaching staff of the Lapland UAS excluding the research groups, is mainly operating in the upstream side of the supply chain of the education industry. For the purpose of clarity the upstream side of the Lapland UAS further on in this Thesis research is referred to as the school.

The regional development work is challenging to implement from the upstream side of the education supply chain, as it is actually located in the downstream side of the education supply chain. Therefore, the research groups, which connect to the downstream side of the education supply chain, are important for the school. The school should view the unit as a tool to implement the downstream activities. Based on the observations, the unit perceives it difficult to integrate the R&D activities of the unit and the results of the R&D activities in

the activities of the school. Deriving from this difficulty recognized, the unit should view the school as an evaluation net through which only the relevant and the innovative ideas pass through. The needs of the school should be clear to the unit and these needs should be the driving force for the research, development and the innovation activities implemented. This is one of the key relevance indicators that the unit should follow.

According to the research, the actual meeting point of the two operators in the model is slightly in the downstream side at the student project work. According to the analysis, it is at this stage that the full potential to cooperate should be exploited. Based on the theory, the culture in the downstream and upstream organisations are substantially different. The R&D stage seems to be too far in the downstream side of the education supply chain for the teaching staff of the school to be comfortably involved.

With this analysis the main differences of the two organisations -the school and the unit is explained. At the school side the criticisms is that the unit appears as "a separate engineer office", not relevant and far from the education needs (Interviewee 4 2014). The unit perceives it difficult to get teaching staff of the school actively involved in the R&D activities, excluding few cases. These conflicts arise from the differences noted in the downstream and upstream side of the supply chain of the education industry.

The differences of the supply chain are natural because of the work culture and the needs of the particular stage in the supply chain. Creating an understanding of the supply chain and the differences it imposes on the upstream and the downstream players might be beneficial starting point for recognizing the strength and weaknesses of each player. Additionally, finding common activities, in this case, the student project work, should serve as valuable platform to get more involvement and improved participation from both sides of the supply chain.

4.4 Sustainable is to remain relevant

The organizations strategy essentially should be its plan for how to remain relevant. Remaining relevant means to be useful. In addition, to remain relevant, means to be able to detect and respond quickly to new realities. (Beerel 2010, 9.) New realities, as defined by Beerel (2010, 9) are the forces that indicate about change. The strategy becomes much

about following and interpreting changes, reviewing and assessing stakeholders continuously, setting goals, updating them as the situation changes and implementing them. It becomes an ongoing process of change management.

4.4.1 Change management

Already in 1996 professor P. Kotter (1996, 176) argued that the amount of change in business world is not going to relax, but on contrary, the organizations will be presented with "more terrible hazards and wonderful opportunities". The organizations real challenge becomes to remain relevant and valuable to its stakeholders including customers (Miller 1998, 5). The relevance and change has been an overlooked issue in the case study as reasoned by the interviewees:

"In this standard approach the change has not been noticed very well." (Interviewee 2 2014)

"...But we have no strategy how to adapt to change and we have not really mapped what are all the changes." (Interviewee 3 2014)

"The ability to respond to changes depends on people. Also in the unit there are different people. At the moment it feels like the majority of the people want to continue to work in the same unchanged way as before." (interviewee 4 2014)

Often people talk about the change as an extraordinary event occurring against the norm of their predictable life. In change theory the traditional approach to change are dominated by assuming stability routine and order as the norm. Conclusively, the stability becomes the norm and change is the exception. Colville (2010, 236) proposes to reverse the priorities and look at the change as the norm and the stability as an exception. Viewed this way, the change becomes the reality (Colville 2010, 236). This view implies that change is continuous and always present.

The preparedness for continuous change should be immersed in attitude of people. People that are working with the strategy should be able to respond to the change and see it as a

norm. In matrix type of organization it is everyone in the organization that should be working with the strategy.

New developments, technologies, virtual possibilities and the change within the organization should be considered continuously. The current environments request that people adapt to new situations and processes continuously and fast. To remain relevant implies adopting new mindset. (Beerel 2010, 1-9.) The new mindsets includes the willingness and the ability to learn or and change. Kotter's (2008, 1-5) research indicates the importance of the sense of real urgency in the change process. The sense of urgency can be nurtured and developed, stimulating the change process and driving people to search for new and better solutions (Kotter 2008, 1-5).

Organizations are their people. Therefore, the transformation and change refers to the human process of deep learning, changing the values, beliefs and testing the sense of self. The essential part of the development is about changing the behavior of people. Behavioral changes happen mostly by speaking to people's feelings (Beerel 2010, 14-16). Based on Gardner's (2006, 1-19) findings we can speak to people's feelings in multiple ways utilizing the complex human way of processing information.

Gardner (2006, 1-19) designates human mind in appliance to its performance and functions, and says that world is highly interlinked including human perceptions. One human has more than one form of intelligence it can process information through. Understanding and being able to utilize more than the verbal and logical forms of intelligence is important for coping in complex environments (Gardner 2006, 1-19).

4.4.2 Stakeholder assessment

For an organization to remain relevant, one of the main responsibilities is to assess its stakeholders including owners, trade associations, suppliers, customers, the public at large, governments, local community, as well as employees (Miller 1998, 5-11). When an organization operates under an umbrella organization (Mintzberg & Waters 1985, 263) one of the most important stakeholder groups becomes the owner organization. If the owner organization does not see the unit as relevant the unit's existence can be endangered. For stakeholders to see organization as successful or sustainable, the organization needs to remain relevant to the stakeholders changing needs. It is difficult to strike the balance

between the stakeholder groups, as often they can be conflicting (Miller 1998, 5). Anyhow, remaining the balance between the stakeholder groups is one of the most important management roles in an organization (Miller 1998, 7). There are many tools available to assess the stakeholder groups, but often the tools are rather limiting and static. Assuming that change influence stakeholders on permanent basis would be appropriate if the change is taken as the norm of life. In this comprehension, static stakeholder analysis becomes obsolete. Instead, more process driven approaches should be sought after. Solutions could be sought for in systems thinking approach.

4.4.3 Systems thinking

Systems thinking in management propose to view any organization or an individual as a part of a whole. All are connected and interrelated to each other (Beerel 2010, 36; Jackson 1951, 181). Stakeholders should be viewed as a part of the organization. When internalizing the stakeholder's needs as part of own business, the meaning of the needs change. These needs become tasks and roles to the organization to fulfill (Beerel 2010, 47). The challenge of this approach is in the intellectual competences of the individuals versus the varied and challenging operational environments (Jackson 1951, 109). Senge and Sterman (1992, 139) propose that this gap between the needs of the changing environment and the human capabilities can be overcome by organizational learning.

Stakeholder assessment is an obvious issue to tackle although, in practice, it is often overlooked. In the interview the manager of the unit acknowledges that the surrounding change processes are not sufficiently recognised in the strategy process. In addition, the representatives of the owner organization level had not been involved in the process of strategy (Interviewee 2 2014; Interviewee 3 2014; Interviewee 4 2014). Manager suspects upcoming problems with the main stakeholders. Namely, the challenges are suspected with recognition of the strategy by Lapland UAS (Interviewee 1 2014; Interviewee 2 2014). From the perspective of sustainable strategy, this is a considerable overlooked issue, as the concept of relevance is prevailing, based on this research.

4.5 Summary

Concluding on the findings of the research, an organization should approach the strategy process by creating an understanding of its location in the industry it operates in, and the type of organisation it is. This process implies the analysis of the supply chain and the location of the organization in either the upstream or the downstream side of the relevant industry supply chain. Through the process of the analysis of the supply chain, the main stakeholders of the organization should be recognized. Stakeholders should be approached and involved in the strategy development process to insure the relevance. The organization should be assessed and the type of the organization distinguished. The type of organisation, the culture, the environment, and the facts about the actual type of work done at an organization should be used to find the right perspective of the strategy concept. The varied strategy concepts should be understood. The manager should be aware of the different schools of thought in management literature. The staff should be educated on these different concepts of strategy. The relevant concept of strategy should be selected based on the assessment of all the elements. The adequate common view will help in selecting the right tools and methods to approach the strategy process including remaining the relevant level of expectations.

This type of strategy process should provide good background for the organisation to remain relevant not only to the environment, stakeholders and the industry, but also to themselves. It is important that organisations realize the need for continuous learning, in substance, and management practices, including the strategizing. In addition, the strategy should evolve together with the people in the organization. As the organization learns, the strategy becomes more sophisticated, appropriate and relevant.

5 KEY FACTORS FOR SUSTAINABLE STRATEGY PROCESS

The strategy process should be unique and specific to each case and each organization because the environments and needs vary from case to case. Anyhow, several key factors for sustainable strategy process can be identified through the literature review and the case study of this Thesis research.

In this chapter, the key sustainability factors are specified and considered. In management literature, the work on strategy often concerns explicitly the planning stage. Hrebiniak (2013, 6), argue that planning is not the key element to the successful strategy. This chapter considers the strategy perspectives further, which where partly covered in chapter 4. The importance of the continuous learning is discussed. The organizational structure including the culture of the organization is disclosed here. Communication of the strategy is often overlooked issue in theory as well as in practice. Communication issues are considered in this Thesis research from two perspectives. This Thesis covers the communication of the strategy inside the organization and the communication of the organization to the outside world. The liaison is covered under the managerial tasks. The implementation of the strategy is discussed in a separate sub-chapter. Additionally, the evaluation of the strategy is suggested as one of the key elements for sustainable strategy process. This chapter covers the discussion of the seven identified sustainability elements and answers the RQ2 and the RQ3.

5.1 View on Strategy

When an organization realizes the need for strategy a work for finding the right strategic perspective and aligning the whole organization to the same understanding of a strategy should be prior to selecting the method and tools for the strategy design (Miller 1998, 35-37). This is important because it aligns the whole organization to a common perspective and sets the platform for any further development work.

The strategy perspectives vary from the rational planning to the incrementalism explained in table 1. Rational planning is widely used method, and it has diverse selection of tools for strategy planning. The rational planning approach contributes to the common view of the strategy as a plan. Incrementalism, as opened up by Miller (1998, 37), is characterized by

organizational drifting following the impacts of the environment. The organizational learning covers the grounds between the opposites.

The organizational learning perspective is appropriate approach to the analyzed unit. The surrounding environment of the unit is turbulent and has constant changes, as disclosed in chapter 2. The cold climate and winter technology business area, although slowly growing, is still rather unreliable and small. The unit is young and needs to observe and recognize better opportunities. Additionally, the unit is a matrix organization, which commonly represents the incrementalist view when observed (Mintzberg 1998, 159).

In the organizational learning approach, the organizations have developed their goals and visions, but they do not hesitate to move to new strategic positions and adjust the goals continuously. Incremental organizations are even more unpredictable and drift from one strategy to another searching for opportunities as they present themselves. (Miller 1998, 37.)

The difference between the rational planning and the organizational learning is in the philosophy and the worldview. Accepting that plans are suggestive is the right attitude in the organizational learning approach. The organizational learning approach legitimizes making mistakes and encourages risk taking (Miller 1998, 37), as well as wide organizational involvement in strategy formation.

Trough the observations, an indication towards the organizational leaning approach in the unit was recognized. The realized need for continuous stakeholder review although, not implemented in practice in the strategy (Interviewee 2 2014; Interviewee 1 2014), signals about the organizational learning approach. The manager recognizes the importance of the environmental scanning. Additionally, lobbying to the external world and the participatory approach of the strategy development are the elements of the organizational learning that are implemented in the unit (Interviewee 1 2014; Interviewee 2 2014). In interviews it was noted, that neither the stakeholders nor the continuous change is taken seriously in consideration in the current strategy. Currently, the strategy is to be updated once or twice a year (Interviewee 1 2014; Interviewee 2 2014). Based on the assessment, the unit, as a matrix type of organization, requires continuous updating of the strategy. In addition, the described mixed view indicates that the general understanding of the strategy concept in the

unit is not satisfactory. The current view limits the unit and discards opportunities. Additionally, it creates unnecessary pressure towards the strategy. The unit should learn more on the strategy concept and align the understanding across the different actor levels including the stakeholders. Stakeholders should be involved in the strategy definition process. The continuous involvement insures relevance.

The organizational learning approach can be stressful for people, because it requires continuous knowledge acquisition and unlearning of the old ways (Miller 1998, 36-56, 315-319). The organizational learning approach leads to recognizing the following key element.

5.2 Continuous Learning

To remain relevant organizations need to be able to adapt fast. Adaptation requires that people possess the skills and abilities to adapt. These abilities and skills can be developed through continuous learning process. Organizational learning occurs through the learning of individuals, and they need to learn on continuous basis (Argyris 1999, 67, Sessa & London, 2006 ix). Sessa and London (2006) define continuous learning as a "...mentality and behavioral routine that reflects a belief and dedication to learning and change."

"...At the organizational level, learning is demonstrated through changes in vision, strategy, policies, regulations, structures and products or services. Continuous learning is regularly and purposefully acquiring ever deeper and broader knowledge and skills and applying them to new behaviors" (Sessa & London 2006, ix.)

Research suggests that team learning could be one of the most effective organizational learning methods. At the group and organizational levels, continuous learning is demonstrated in restructuring to meet changing conditions adding new skills and knowledge, and creating increasingly refined systems through reflection on processes and outcomes. Team learning occurs when team members create, acquire and share unique knowledge and information, experiment, reflect and discuss errors. Team learning does not occur without feedback. Teams can receive feedback by determining how members feel in the team, observing how others react to their outcomes, or tracking objective indicators of performance. (Sessa & London 2006.)

Organizational learning occurs in two forms as defined by Chris Argyris (1998, 67-91). The two forms are the single-loop learning and the double-loop learning. Single-loop learning is the most common learning style characterized by problem solving. In single-loop learning the activities are adapted to achieve better results. In double-loop learning the goals and the values are reevaluated and reframed. The double-loop learning is characterized with shift in believes, values, mindsets, thoughts and opinions about the reality. By questioning the underlying values of the system, the learning is double-loop. (Miller 1998, 323-324; Argyris 1999, 67-91.)

According to Argyris (1999, 68), organizations should strive for both types of learning. Anyhow, it is the double-loop learning that is requested when organizations need to adapt to highly changing environments. The double-loop learning promotes the innovation in organization (Argyris 1999, 68). The learning happens through the individuals working in the organization (Sessa & London 2006).

Organization plays an important role in the learning process. Organizations facilitate the learning by creating the conditions that support the individual learning. Organizations can support learning by creating adequate environment. The organizational environment should promote and encourage the experimentation similar to the research process. An organization should promote trial-and-error process. (Miller 1998, 329.)

Teamwork can be observed in the unit frequently, and it is encouraged. Working in teams provides opportunities for the organizational learning. Anyhow, substantial part of the learning process is the evaluation of the teamwork, according to Sessa and London (2006). Based on observations, the evaluation of the teamwork in the unit is not implemented. Additionally, the interviews indicate potential risk for the unit of not meeting the requirements of the research groups (Interviewee 4 2014; Interviewee 5 2014). Interviewee 4 (2014) highlights that the credibility of the research done in the unit is not sufficient due to the qualifications level in the unit. Additionally, Interviewee 5 (2014) mentioned improving the staffing of the unit to fulfill the research group requirements.

Concluding, the learning in the unit has to happen urgently. Additionally, alternative ways of making the research more credible need to be sought for. Interviewee 4 (2014) proposes involving even more experts from the school as a potential solution. Creating cross-expert

teams to work on project issues would immediately add credibility to the research, and give the opportunity for team learning. Sessa and London (2006) indicate that team learning is the most effective organizational learning method.

To highlight concrete improvements in the organizational learning process for the unit, further observations and assessment of the learning practices should be implemented. The learning culture of the unit should be analyzed in depth. The author puts forward this topic for further research. Thorough research and adequate suggestions for improvements would result in concrete benefits to the organization. In addition, the further study should explore the occurrence of the single loop and the double loop learning in the unit, and its benefits. The teamwork should be studied, particularly paying attention to the learning occurrence and progress. In addition, observing the feedback efficiency and frequency at all levels of the organization could be included in the further study.

5.3 Organizational Structure and Culture

In systems thinking approach, everything in life is interlinked. Applying the systems thinking to the organizations, the organizations structure, culture and the strategy are interlinked parts. These parts influence each other, and they should work in coherence. The organizational structure refers to the design of the organization including the age of the organization, its size, the type of products, and the surrounding environment (Mintzberg & Quinn 1998, 134-159). Organizations structure should reflect the organizations situation. When changes appear in either of the parts, other parts must adapt accordingly.

Some hypothesis about the phenomena of the organizational structure highlighted in Mintzbergs (1998, 134) research indicated interesting findings. For example, the structure reflects the age of the industry from its founding (Mintzberg & Quinn 1998, 134-159.) The industry that the unit operates in is the education. The education, as an industry is formal, inflexible and hierarchical. Business companies are the other main stakeholder group of the unit. Business companies often need fast, flexible and tailored solutions. The unit is mediator between these two different players, as demonstrated in the education supply chain, in figure 3. Further on, the unit works in project teams, which Mintzberg (1979, cited in Mintzberg & Quinn 1998, 310-320) calls the innovative organizational structure. Experts dominate this type of organization and the structure of it is decentralized. Based on the

assessment done in the chapter 2, the unit is innovative organization. The innovative organizations are found in environments that are complex and dynamic (Mintzberg & Quinn 1998, 159). This type of environment requests sophisticated innovations that demand cooperative efforts of different areas of expertise (Mintzberg & Quinn 1998, 159).

The organizational structure of the unit is well built up for the cross-expert teamwork that it is doing. Anyhow, the cooperation between the different level experts should be pursued even more (Interviewee 4 2014, Interviewee 5 2014). Skepticism through the interviews was expressed on how genuine the cross-expert cooperation currently is. Issues such as time planning from the teaching staff in the school and the fast pace of the project life are the ever-lasting topics of discussion and development. Interviewee 4 (2014) argues in the interview:

"...The last 15 years we are talking about synchronization of the RDI activities and the teaching, but still they are too far from each other. We are all the time going towards it but when will it finally reach the goal I don't know."

For fully implemented and successful teamwork cooperation in the unit work still remains to be done. The cooperation depends on the interest of the teaching staff of the school and the capabilities of the unit to capture that interest to participate in the research and development activities.

Through the strategy work in the unit, operational teams are developed that will focus on a specific area of expertize. These teams are responsible for making the strategy implementation plans. (Interviewee 3 2014, Interviewee 2 2014.) Correspondingly, Mintzberg (cited in Mintzberg & Quinn 1998, 159) note that innovative organizations usually take the matrix structure:

"Typically the experts are grouped in functional units for housekeeping purpose but deployed in small market based project teams to their work."

The organizational culture Mintzberg (1983, cited in Mintzberg & Quinn 1998, 182) calls the unifying power that holds organizations together. Culture infuses many critical aspects of strategy making including the selection of the staff. Bartlett and Ghoshall (1967, cited in Mintzberg & Quinn 1998, 191) argue that the organizational culture should be developed

bottom up in organizations. The structure of the organization should be strengthened by empowering individuals and by creating right organizational culture. The adequate organizational culture can be promoted by a clear sense of corporate purpose. This sense of purpose should not remain in the management but extend to every employee of the organization. The sense of purpose gives meaning to the individual work (Bartlett & Ghoshall 1967, cited in Minzberg & Quinn, 1998, 189-192.)

Although the strategy work in the unit was approached in participatory manner, the actual participation of the staff remained rather mediocre as argued by interviewee 2 (2014)

"Very difficult was to get commitment from all people".

For example, the lack of time was use as an excuse to avoid participation (Interviewee 2 2014). The innovative organization requires high level of involvement in the managerial decision-making by all staff members. The line between the management and the operations level in innovative organization is indistinct (Mintzberg & Quinn 1998, 159). Everyone in the organization is involved in the decision-making and therefore it is important that everyone is involved in the strategizing process.

The involvement in the strategy process of the unit, according to the author, is not properly understood and assumptions are made to explain the low participation. The poor involvement in the strategy process influences the organizations culture and structure. Therefore, the low participation phenomena should be explored further. Thoroughly researched and adequately resolved the participation would add value to the organization. As disclosed in interviews, several of the employees are motivated and interested in the development processes of the unit, but part of the employees is "only at work" in the unit (Interviewee 2 2014). Currently, the employees that are "only at work" are assumed to resist the change. Although, it could be argued that there are other barriers to this phenomena. Few issues identified, that could potentially influence the lack of interest and motivation is as follow:

- Short work contracts
- Unsure future aspects
- Lack of trust in the Lapland UAS
- Lack of trust in management of the unit

- Lack of trust in the unit
- Incompatible employees.

The innovative organization requires careful selection of the staff (Mintzberg 1979, cited in Mintzberg & Quinn 1998, 310). The staffing issue could be studied further. Questions such as how is the staff selected what professional and personality criteria it should possess to complement the current team, and to add value to the unit should be answered intelligibly.

5.4 Innovate ways of communicating strategy

Correspondingly to the case study, theorist in management field agrees that the strategy should be well embedded in the organisation (Galunic & Hermreck 2012, 1-5; Miller 1998, 34; Hrebiniak 2013, 6; Interviewee 1 2014; Interviewee 2 2014; Interviewee 3 2014). Kaplan and Norton (2008, 3-6) suggest that only about 10% of the organizations strategies are understood and accepted by employees. The strategy of the unit is rooted within few of the employees, as claimed by the interviewee 2 (2014). The precise percentage of this phenomenon has not been studied in this Thesis research.

Typically, the tools used for the strategy process are based on analysis and data subtraction. Drawing charts and making the strategy explicit is the standard approach to the strategy process. In this information reduction process substantial part of the information about the factors surrounding the organization is subtracted and situation is made simpler, to be able to express it in words and charts. Important parts of data are lost due to this subtraction process (Bürgi & Roos 2003, 70).

The unit analyzed in this Thesis appears to have an unclear view on the tools utilized for the strategy planning. When asked about the tools that were utilized in the strategy process, the Interviewee 1 could not name any. Through following interviews several workshop type of activities can be distinguished. The project managers, which had participated in the strategy process, effortlessly named and explained the strategy process tools. No analysis of any kind had been conducted prior to these workshops as argued by the interviewee:

"...No, there could have been much bigger analysis phase for making the strategy. It has been how the people felt. What if the feeling is wrong? It is going to reflect on the strategy." (Interviewee 3 2014)

In the workshop, the units own strength and capabilities where analyzed (Interviewee 2 2014; Interviewee 3 2014). The workshops where referred to as:

"...a good process that has made us to think." (Interviewee 3 2014)

While the participatory approach is important, Bürgi and Ross (2003, 69) argue, that the means of communication of the strategy are significant in the planning process. As defined by Oxford online dictionary communication is the activity of imparting or exchanging information by speaking, writing or using some other medium. It is the meaningful exchange of information between two or more participants. Based on Gardner's (1983, 3-10) extensive research in forms of human intelligence it is now a common knowledge that humans have multiple forms of intelligence. Those forms are as follows:

- Linguistic
- Logical
- Musical
- Spatial
- Kinesthetic
- Intra-personal
- Inter-personal
- Naturalistic
- Existentialistic.

In this Thesis research, a gap is identified between the prevalent way of communication of the strategy, the recognized need for the immersed strategy and the multilevel capability of the human intelligence. Bürgi and Roos (2003, 69-78) in the research indicate that the communication of the strategy is not sufficiently explored in the theory. Bürgi and Ross (2003, 67-78) in their article state that: "If we understand that intelligence has many different forms, then, we can also understand that knowledge can be constituted of many different things – not only words, concepts, or ideas, but also experiences, contexts, etc."

Even though the theory of Multiple Intelligence exists for almost three decades, the way organizations communicate their strategies have not changed substantially.

Identifying the gap between the implemented communication methods, the unutilized human intelligence forms and the need for embedded strategy notes the necessity for alternative forms of strategy communication. For instance, the serious play method (Bürgi & Roos 2003, 72) is successfully implemented to facilitate the strategy planning. The serious play approach requires high participation from all members of the group. Additionally, it builds a platform for a discussion based on individual perceptions allowing everyone to be herd equally. This approach is based on learning theories of constructivism. The serious play approach could be successfully implemented in the unit when approaching the strategy process as it provides solutions for the main recognized problems. It overcomes the participation issue and offers opportunity for equality of opinions among the staff and avoids the subtraction of the complex data.

5.5 Managers Role in Organization

The manager of the unit holds the central role of the organization. Managers are expected to guide, motivate and supervise organizations (Mintzberg 1979, cited in Mintzberg & Quinn 1998, 314). The different forms of organizations require different models of management. Additionally, Kotter (1996, 165) argues that current organization forms need to become leadership incubators developing people who can create and communicate visions and strategies. The staff of an organization needs to know about leadership and management. The knowledge about leadership and management is adequate for people working in the innovative organization. In the matrix type of organization staff needs to be involved in the decision-making process (Kotter 1996, 161-186). In new forms of organizations, such as matrix organization, (Argyris 1999, 109) more control and responsibility is given to project leaders.

The project managers of the unit are the densest staffing layer of the unit. Project managers are responsible for substance, administration and financial flow of the projects. Occasionally, a project manager can have more than one project to manage consequently, also more decision power. Project managers are expected to manage their teams of experts and allocate financing of activities of other employees including also teachers from the

school. Project managers are decision makers in their own project or projects, which contributes to the wellbeing of the whole unit, and to Lapland UAS. Being aligned to the strategy of the unit is crucial as decision power is high and it influences other employees in various forms, including the future of those employees in the organization.

The matrix type of organization needs to be managed. Accrding to Senge (1990) the manager of the matrix organizations should possess three main skills. First, the manager of the matrix organization must be able to build common visions, establish basis for the organization and create values that hold the organization together. Secondly, the manager of the matrix type of organization should identify and confront prevailing "mental models" in the organization. The confrontation of the current mental models denotes challenging of the sense of reality. Senge (1990, cited in Mintzberg & Quinn 1998, 229) argues that: "no one carries an organization, a market or a state of technology in his or her head. What we carry in our heads are assumptions". The assumptions about reality bear considerable influence on the ways people resolve problems, respond to opportunities, identify path for solutions, and make choices. The way people deal with issues are deeply engraved in the behavior of people, because they are tacit (Senge 1990, cited in Mintzberg & Quinn 1998, 229.) Third, the manager of the matrix type of organization should foster systematic pattern of thinking and build the right attitude in the organization.

Conclusively, The management of the matrix type of organization requires deep and thorough commitment to the organization. Excellent human relations management skills and free flow of information are important elements of the management practices of the matrix type of organization. Supervision and control of individual projects is a tool for control of the manager. Additionally, the matrix type of organization is dependent on the liaison with the external world (Mintzberg 1979, cited in Mintzberg & Quinn 1998, 314).

Through extensive research of managerial work Mintzberg (1975, cited in Mintzberg & Quinn 1998, 19) pictures the actual work of managers of organizations saying that managers actually spend 93% or more of their time in verbal communication. Their activities usually are brief, on average lasting less than 9 minutes. Only 1 out of 368 verbal contacts, on average, are related to general planning. Research also indicates that managers have the key role in obtaining and managing the soft external information. This evidence

indicates that managerial work is about managing and processing information that is available only in the brain of the manager.

The manager of the unit prefers verbal communication collecting and disseminating information. In the interview, the manager states that his role in the organization is being a mediator between the Lapland UAS, the unit and the world outside. The unit is highly dependent on the reliable communication channels according to the theory of the matrix type of organization (Mintzberg 1979, cited in Mintzberg & Quinn 1998, 315).

To disclose the managerial practices in the unit the history of the unit is briefly described. At 2010, when the unit was enlarged, the manager was committed to the organizations purpose and fully engaged in the future of the organization. Based on the observations, the manager was able to motivate the staff and worked hard to promote the unit. The speeches of the manager in the staff meetings where motivating and encouraging sharing his visions of the unit. When the unit was enlarged, several of the team members where at the start of their carriers. The confidence levels of the young but motivated staff were low. The manager of the unit worked hard lobbying for the unit inside Lapland UAS, regional authorities, business companies and national organizations. The managers' performance was motivating and inspiring although slight concern about the future was present as signals of change where being sensed.

After four years of work, the unit has developed and become professional. Additionally, the unit has gained status in Lapland UAS.

"The unit is named as one of the research groups. And it is also named as an educational environment in the Lapland UAS strategy. It is an important part of the Lapland AMK." (Interviewee 4 2014)

The expertise level in the unit has evolved. The attitude of the staff has changed, particularly when considering the project manager layer. The change of attitude influences the capacity to learn and develop further in several aspects. Based on observations, the view on reality is not challenged. The attitude is often the cause for conflicts. According to Minzberg (1979, cited in Minzberg & Quinn 1998, 314), "The innovative organization combines fluid working arrangements with power based on expertise, together they breed aggression and conflicts." The manager should guide the conflicts in the organization to

productive solutions, implying that the manager should possess excellent human relations skills (Mintzberg 1979, cited in Mintzberg & Quinn 1998, 314).

An example form the history of the unit is discussed to further illustrate the history. After two years of working together, the staff in the unit started to display signs of developing conflicting views. The unit started to separate in two blocks. One block included only engineers while the other block had people with differing backgrounds such as tourism, management, social sciences as well as engineering. With time, the two blocks seemed to have developed differing views on the unit and the tasks of the unit. The differing views led to conflicting discussions and clashing practices. Currently, most of the people from the bloc with the differing background have either left the unit, or their contracts have been terminated. The manager of the unit remained neutral and incapable of resolving the conflicting situation. Initially, attempts where made to challenge the mental models of people and encourage problem resolution but the process was not implemented thoroughly.

The experience of human relations management and the ability to deal with the conflicts in the matrix type of organization is one of the crucial managerial task. Unresolved conflicts bear further influences on the organizations structure, culture and the strategy. All of the staff has to be aligned to the same view, as the matrix organization is highly dependent on its experts. The staff is expected to rotate in matrix organization. One-sided worldview in fluctuating organizational structure is limiting the opportunities for the organization.

5.6 Strategy Implementation

Foremost, sustainable strategy means being realized and implemented strategy. The execution of the strategy is one of the key issues to the strategic success. Hrebiniak (2013, 10-11) argues that still it is hard to grasp the key elements that make the strategy a success. The barriers to execution, after Kaplan and Norton (2008, 3-6), are the lack of vision, badly aligned resources, management's inability to motivate, and staff commitment to the strategy implementation. Hrebiniak (2013, 5-20) denotes the hindrance to implemented strategy as follows:

Managers qualifications concentrate solely on planning

- Separating top level from the implementation level actors by divided people in "thinkers" and "doers"
- Implementation and planning are separate processes
- Implementation can be extensive in time and therefore requires considerable commitment
- Strategy communication issues
- Execution is a process, a set of decisions and actions that should be aligned.

When strategy is approached from the formal planning process it becomes the planner's responsibility, which challenges the wide participation. In the formal planning approach, the strategy is separated in the strategy planning process, and the strategy implementation. It is proved to be an ineffective approach, especially in innovative organization, where everyone should be aligned to the same goal.

Factors, such as organizational structure and culture, should determine not only the form the strategy takes, but also the way it is implemented and managed. The innovation context in organization requires matrix structure or adhocracy (Mintzberg 1979, cited in Mintzberg & Quinn 1998, 308), which determine the specific implementation challenges. Mintzberg (1979, cited in Mintzberg & Quinn 1998, 308) notes that in the matrix types of organizations the emergent strategy is the most prominent. The emergent strategy is visually explained in the figure 4 bellow that is adopted from Mintzberg and Waters (1985, 263) for this Thesis research.

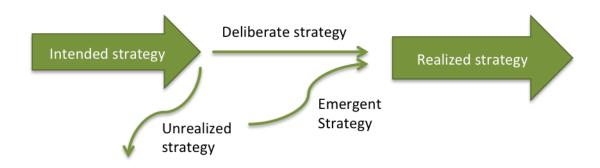


Figure 4. Unrealized and Emergent Strategy (Mintzberg & Waters 1985, 257-263)

According to the research, pure intended and pure emergent strategies are hardly possible to find in real organizations. It is most often the mix of these two types of strategies that prevail in the reality (Mintzberg & Waters 1998, 263). Mintzberg and Waters (1985, 263) suggest that the level of the mix of these strategies found in organizations is the one that distinguish between the implementation approaches. Accordingly, in matrix organizations often it is the emergent strategy that prevails. Therefore, if the strategy consists of elaborate plans in matrix organizations, it is likely that this strategy will fail. Mintzberg & Waters (1998, 314) suggest that the umbrella approach to the strategy is the most appropriate form of controlling the strategy implementation process in adhocracy. The umbrella strategy should define general guidelines for behavior and set some basic boundaries in which individual actors are given freedom to maneuver, search for opportunities and allow the strategy to emerge (Mintzberg & Waters 1998, 314).

The analysis of the unit suggests that the strategy is approached from mixed views. The strategy is intended to guide the staff to the success but neither the changes nor emergent actions are noticed in the strategy process (Interviewee 1 2014). Stakeholder involvement has been insufficient and that endangers the relevance of the strategy to the main stakeholder group. The strategy has been planned in participatory approach and it includes the personal goals of some employees (Interviewee 2 2014; Interviewee 3 2014). Some of the employees who have been involved in the strategy planning are committed to the strategy and their strategic thinking has increased also in daily activities (Interviewee 2 2014). The implementation plan of the strategy was not existing when the interviews where carried out, neither it was clear how the process would continue (Interviewee 1 2014).

Conclusively, it would be beneficial for the unit to decide on the umbrella strategy and set the guiding limits. The umbrella strategy would encourage emergent actions to succeed and prosper. With the umbrella strategy the strategy evaluation become a tool for control and follow up. Anyhow, the umbrella strategy can be implemented in the unit after the concept of the strategy is clearly understood and the expectations from the strategy process are relevant. Developing the right attitude in the organization is important for success of the umbrella strategy.

5.7 Evaluating strategy

Rumelt (1980) states that strategy evaluation should be an essential part in the process of guiding an organisation. The strategy evaluation is an attempt to look beyond the obvious and consider the more fundamental factors for business success such as consistency, consonance, advantage and feasibility. Strategy evaluation can be implemented either by external expert, or by an internal on-going process in an organisation. The process of evaluation is expected to influence the adaptation of the strategy. (Rumelt 1980, cited in Mintzberg & Quinn 1998, 55-63.)

The evaluation process of the strategy in the unit has not been recognised in this Thesis research. Carrying out regular strategy evaluation processes might denote issues that the unit needs to tackle. While external strategy evaluation would not be appropriate to the unit because of its structure and strategy form, the internal on-going process of evaluation would be highly motivated.

As defined by Rumelt (1980): "One of the fundamental tenets of science is that a theory can never be proven to be absolutely true. A theory can, however, be declared as absolutely false if it fails to stand up to testing." Accordingly, the strategy can be tested for critical defects. The strategy that fails to notice one or more of the critical aspects of the key functions of a business can be strongly suspected for its soundness (Rumelt 1980, cited in Mintzberg & Quinn 1998, 55-63).

Rummelt (1980) suggests the following evaluation criteria of the strategy:

- Clear, decisive objectives. Clearly understood, decisive and attainable overall goals.
- Maintaining the initiative: Does the strategy preserve freedom of action and enhance commitment? Does it set the pace and determine the course of events rather than reacting to them?
- Concentration: Has the strategy defined precisely what will make the enterprise superior in power? What will make them best?
- Flexibility: Has the strategy purpose built in resource buffers and dimensions for flexibility and manoeuvre.

- Coordinated and committed leadership: Does the strategy provide responsible,
 committed leadership for each of its major goals?
- Surprise: Has the strategy made use of speed, secrecy and intelligence to tackle exposed or unprepared opponents at unexpected times?
- Security: Does the strategy secure resources? Does it develop an effective intelligence system sufficient to prevent surprises by opponents? Does it develop the full logistics to support each of its major thrusts?

Important is to have the evaluation as a light process, as heavy evaluation model would only make matrix organization burdened with more tasks and give no real impact. On contrary, the evaluation should feel light and easy and integrated in the other tasks of the daily work.

5.8 Summary

Through this research seven key factors are distinguished that influence the sustainability of the strategy. The organizations should align their view on strategy by building common strategy concept and perspective. The current pace of life and the turbulent environments challenge organizations further, and only by an ongoing process of continuous learning organizations are able to respond to the changing environments. Organizational learning happens through teamwork and individual learning. While organizations cannot learn themselves, they should provide supportive environment for the learning process. That environment in the organization should encourage experimentation. Feedback is the critical element of the learning process.

Organizations that align the whole system to the changing environments have the chance to succeed. That system implies the organizations structure, culture, roles and the strategy process as well as the communication issues. While the understanding about the strategy has increased over the decades, the way people develop the strategy has remained unchanged. New forms of strategy require new forms of communicating the strategy. When deliberating the strategy perspective an important question to consider should be what tools to use to implement the strategy process, and what approach to use to communicate the strategy. The tools and communication methods should support the selected strategy perspective.

The communication to the outside world is important in the matrix type of organization. The liaison is the responsibility of the manager of the organization. The manager's role in the matrix type of organization is liaison with the outside world, collecting, processing and disseminating information. Additionally, human relations management is a significant skill a manager of the matrix organization should have.

Sustainable strategy is implemented strategy. The implementation determines the success of the strategy. For the matrix organization, the emergent strategy is the most suitable form of strategy. In the umbrella form, the strategy is not pre-planned but denotes only guiding principals. Implementing umbrella strategy is responding to the change. For matrix organization, with its guideline type of strategy, an important issue is evaluation of the strategy. The evaluation should happen inside the organization. The evaluation should be a process that considers the most critical factors that insure the relevance. This process should be a part of every staff members work.

Additionally, stakeholders should be involved in the development activities in the organization. The environment should be scanned continuously and any signs of change should be brought up to a discussion and strategy opened up to the changes, if found necessary. The continuous scanning for change should be a standard part of the strategy process in the matrix type of organization. The process described here is how the author pictures a strategy as a sustainable process in a matrix type of organization.

Problems identified	Evidence	Analysis	Solution
View on strategy is not considered	Strategy is a plan	Too narrow view that is not adequate for unit's structure and assumedly also culture.	Learn about strategic views and find better-suited approach align whole organization to it
Level of qualifications in unit	Staffing might have to be reconsidered. Research results are not credible enough.	The new role of research team and focused specialization places higher pressure to produce higher-class independent research.	Multi dimensional cross- expertise teams Encouraging experimenting and feedback Clear and implemented staffing requirements
Concept of relevance has not been considered Stakeholders have not been involved	We did the strategy among our own team the lobbying was not successful	In innovative organization the strategy should be the process, tightly linked to the implementation and the stakeholders	Moving the unit to the main building Involving stakeholders in project planning and any further development work
Strategic approach is a mismatch between the organizations structure and culture	Analysis is not carried out Changes are not included in strategy Low participation	Strategy is static while the organization is adhocracy that require high participation of all employees at all levels of the organization and fluid structure.	Further study is required to address the problems behind the low participation
Strategy is not accepted	Workshops that require verbal communication that in turn require that information is deducted and simplified	Human sense making is a complex process that utilizes different ways of information channels Strategy involves futures of many people	Consider different ways of communicating strategy For example serious play approach
Lack of commitment to the strategy	Unresolved conflicts in the unit, staff feelings, sloppy follow up of promises with actual activities	Human relations aspects have been left unresolved Staff has been treated unequally	Learning human relations management Establishing fair and honest organizational culture

Table 2. Problems identified with the key factors and solution ideas proposed.

6 CONCLUSIONS

This chapter consists of two topics. First, this chapter discloses the research findings on how the case organization can improve their strategy process. The research findings are backed up with relevant theory. Secondly, this chapter puts forward the further research suggestions that have been identified through the Thesis research.

To conclude, it is important to understand that strategy process should be an individual process in every organization. First, it is the human factor behind the strategy process that will make the strategy sustainable. Second, the strategy process should be an integrated process reflecting the type of the organization, its size and age, culture and power and the operational environment. Third, it is crucial to realize that no organization is a silo. That means that everything, at all times, is connected, and the change in one element will influence everything else to some extent. Therefore, it is important to view organizations surrounding the unit from the systems thinking approach. Only that way the unit is able to remain relevant and needed for the stakeholders.

Based on the findings of this research summarized in table 2 the process of developing the strategy in the unit should be a process of analysis and synthesis where all the elements of the unit should be aligned to work in harmony. This process should start by assessing the industry the unit operates in. Deriving from the assessment of the industry, the operational environment should be analyzed. The structure of the unit should be understood by simply observing the way people work and interact in the unit. The manager of the unit should have the necessary knowledge about the relevant management practices in the identified organization type. These conclusions are based on Galbraight's supply chain theory (cited in Mintzber & Quinn 1998, 134-137), and Quinn's and Mintzberg's (1998, 143-162) organizational structures.

Finding the relevant view on the strategy is the core to ensure relevant strategy process. Irrelevant view on the strategy, wrong tools and methods used create unnecessary frustrations, false expectations and disappointment concerning the strategy. The strategy requires considerable effort and permanent commitment from all members of the staff through their daily work. In addition, it requires that staff is able and willing to change and

learn on permanent basis. To remain relevant to the stakeholders is managing the change as well as adapting and challenging own views on the reality. These conclusions are base on the findings from Miller's (1998, 37) strategic management perspectives, Galunic's and Hermreck's (2012, 1-5) as well as Hrebiniak's (2013, 5-20) commitment to the strategy; Kotter's (2008, 1-5) change theory, Argyris's (1999,67) as well as Sessa's and London's (2006, ix) continuous learning, and Beerel's (2010, 9) theory of relevance.

The Managers' approach to leading the unit should depend on the type of the organization lead. The matrix type of organization is best lead by an umbrella strategy and control of individual projects. For matrix type of organization the adequate human relations management is critical. Communication of the strategy is an important topic that has not been studied in theory in depth. Still to this day mainly the verbal and the logical human intelligence forms are used to develop strategies. Communication is one of the main tasks of the manager of the unit, especially communication to the external world. Liaison is crucial in the unit as information flow inwards and outwards insure the relevance. These conclusions are based on Mintzberg's and Quinn's (1998, 314) manager's approach, Bürgi's and Roos's (2003, 69-78) limited communication forms in strategy process, and Gardner's (1983, 3-10) forms of human intelligence.

When considering the case organization in this research it is important to note the industry the unit operates in. The main industry recognized is the education industry with a specialization in the cold climate and winter technology. While the education industry is rather limiting and inflexible, the cold climate and winter technology is a growing business field in Lapland. This field is connected to several of the roles identified through the operational environment studies. This is an area the unit should focus on to develop further its top class expertise as it is expected to specialize by the definition of the research groups. This area of specialization would allow the unit to excel and bring in the top class expertise in the education. The student work and the research should be utilized to implement the integration based on the supply chain analysis. This is an assumption based on the findings of the environment assessment from the systems thinking approach and the supply chain analysis.

First, in this Thesis research the operational study assessment is only suggestive, which implies that further and more in depth study should be carried out. The roles identified

through the operational environment assessment should reflect the organizations perceptions and views on reality. The appropriate operational environment study should be done in conjunction with the strategy process and continuously updated by the process of organizational learning.

Second, the supply chain in the education industry is based on the author's observations and assumptions. The model of the supply chain in the education industry should be studied and developed further. In addition, this model has a potential to be developed in to theory, as thorough study of the supply chain in the education industry is lacking. The study could present how the supply chain of the education industry interacts and what the specific upstream and downstream challenges are in the education industry.

Third, the organizational learning processes in the case organization have not been studied. As identify in the chapter 5.2, there is potential for further study to explore the single loop and the double loop learning and its benefits. The teamwork practices should be studied, paying specific attention to the feedback frequency and effectiveness.

Fourth, as was discussed in chapter 5.3 the low participation of the staff in the strategy process would be worthwhile to study. This topic was brought up in the interviews, and was noted through the observations. Making wrong assumptions on this issue can potentially endanger the organization's well being. This issue should be studied in depth to discover the actual reasons for the scarce participation and the observed lack of interest in the strategy process.

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