UNIVERSITY OF GOTHENBURG
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Master Degree Project in Innovation and Industrial Management

# How Building a Climate for Creativity can Promote Innovative Activities

A case study

Emma Weiner

**How building a climate for creativity can promote innovative activities – A Case study**
By Emma Weiner

# Abstract

Innovation is most commonly associated with the process of implementing useful ideas to create value-adding products, services and processes in an organization. However, what most organizations fail to recognize is the importance of idea generation, and thus creativity, as a fundamental part of the innovation process and essentially a precondition for innovation. Companies and organization in general put great focus on innovation, but are perhaps less equipped to work with creativity. However, seeing that creativity is such an important part of working with innovation in the long run, companies should pay more attention to creativity as a first step of generating new ideas.
The purpose of this thesis is to observe the organizational climate of a business unit at a multinational vehicle safety company that recently began developing a new innovation department. The aim of the new department is to build a climate that foster creativity and innovation in the long run. Therefor, the research aim to identifying activities and success factors crucial for building a creative climate and promoting creativity as a key factor for innovation. The findings show how the organization works with several different activities and it provides a foundation for how to continue the work with creativity, and successfully build a creative climate.


**Keywords:** *Innovation, Creativity, Idea Generation, Creative Climate*

# Acknowledgements

# TABLE OF CONTENT

## LIST OF FIGURES

Figure 1: Authors´ Thesis Disposition
Figure 2: Outline of the Theoretical Framework
Figure 3: Organizational climate as an intervening variable
Figure 4: The impact of the organizational climate on creativity
Figure 5: A six-step-model for qualitative research

## LIST OF TABLES

Table 1: Activities and success factors for building a creative climate
Table 2: List of research participants and respondents
Table 3: Success factors for organizational support
Table 4: Success factors for Motivation
Table 5: Success factors for work-group design
Table 6: Success factors for resource allocation
Table 7: Success factors for building a creative climate
Table 8: Success factors with potential for improvement

# 1. Introduction

*T*he introductory chapter aim to provide the reader with the background for this thesis. It therefor introduces the general research topic, the problematization and the project sponsor – the OE-supplier organization[1]. Furthermore, the chapter also explains the purpose, state the research question, limitations and present the overall thesis disposition.

## 1.1 Background

Today, as a business student you cannot escape the word, the concept of, innovation. It is buzzing with excitement, as it seems to provide the potential for businesses to create new ground for success. (Dodgson et al., 2008)

In general terms, innovation can perhaps best be described as the capability that allows organizations to see beyond the present and can thus be helpful for businesses to prepare for and build a future. The increasing pressure on organizations to adopt to market changes and competitor moves means an emerging need for organizations to rethink their business strategies in order to build and sustain a future competitive advantage. In today's extremely competitive business environment, companies can no longer shield themselves from change and here innovation has become a key driver for organizations ability to adapt to new conditions. Simply put, innovation is an engine of change. (Ahmed, 1998)

Innovation can be found in many places in an organization e.g. the products, services, policies or even entire processes, but the boundaries between what constitute an innovation can be somewhat blurred between industries, companies and sometimes even within the same organization. Innovation can be an outcome, e.g. a new product, but at the same time, innovation can also be a process involving managerial decisions and organizational structural change. To add to the complexity, innovation can also be divided into different types with different dimensions. Hence, innovation can involve minor incremental changes and improvements to a product or system, or innovation can be radical, involving more advanced changes to a product or an entire production system.
Depending on the business, different types and levels of innovation and innovation processes create different challenges as well as opportunities for managers. (Dodgson et al., 2008)An interesting observation, relate to how innovation most commonly is though of as a process, in which new ideas are generated and transformed into implementable business concepts, products and services. The innovation process then stretches from idea generation through to the invention of an actual product or service ready for use. However, it has been argued that the focus of innovation is mostly concerned with the process of idea implementation and generating a usable and sellable end product. While innovation has more to do with the end product or service, creativity on the other hand refer the generation and development of new and useful ideas. Coming up with new ideas and solutions on the other hand has more to do with being creative. (McAdam & McClelland, 2002)
Isaksen and Ekvall, (2010) argue that since the fundamental core of innovation is coming up with new ideas, in order to be innovative it is also important to understand creativity. Therefor, part of managing for innovation is creating an appropriate climate in which people can share and build upon each other's ideas and suggestions. Similarly if creativity can then be correctly harnessed, it can provide a company with a significant competitive advantage.

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[1] Since the project sponsor wishes to remain anonymous, OE-supplier organization is a fictive name for a division within a large company in the automotive safety industry. Furthermore, the thesis will purposefully exclude any detailed information specific to the company or the organization.

(McAdam & McClelland, 2002)

Recently, a greater interest has been raised for how the organizational environment, the organizational climate, influences innovation in the organization. Employee and management relations are getting more focus as the individual is considered an important contributor influencing idea generation and creativity in an organization. (Yu Kyoung Park et al., 2013) The topic of creativity and idea generation as a fundamental first step in the innovation process is now rather considered as a primary driving factor for innovation and corporate success. (McAdam & McClelland, 2002) Innovation is thus ultimately thought of only as the successful implementation of creative ideas in an organization. (Amabile et al. 1996)

The role of individuals in the creativity and innovation process of an organization cannot be denied. It is the innovative people that are able to identify opportunities for new processes, products or services and find new uses for existing methods and new solutions for existing problems. Individual creativity and innovation can thus be the engine of change that can provide an organization with the opportunity to build a competitive advantage against any competitors. (Moghimi & Indra Devi Subramaniam, 2013)

From this standpoint, taking a managerial decision to become more innovative is not enough to be successful. Rather, it is crucial that a decision to be innovative is properly supported by actions that create an organizational climate in which individual members of an organization are actively guided and encouraged to be creative and engage in innovative activities. (Ahmed, 1998)

Therefor, apart from being e.g. productive and efficient, also curial for business success is the generation of new ideas. New ideas lead to the development of new inventions that can be implemented into new products, processes etc. that have the ability to create additional value for the company. Actively working to maximize business imperatives such as productivity, coordination and control can, however unintentionally, undermine creativity and innovation in an organization. It is therefor more common for creativity to get killed than to get support in an organization. (Amabile, 1998)

Creativity – the generation of new and useful ideas in an organization – should rather be emphasized because of its potential to create benefit for all functions in an organization, and to generate positive and profound impacts on the business as a whole. In order for a company to become truly successful through innovation, it must therefor actively work to foster a climate in which business imperatives are attended to and in which creativity can properly supported. (Amabile, 1998)


## 1.2 Problem Description

As a result of globalization, the competitive environment in the automotive industry has become increasingly complex. In a growing global market place with a highly dynamic competitive landscape, companies face changing consumer demand and intensifying competitive pressure. This irregularity of the market influences the nature of innovation. To accommodate a variety of different needs, both from slow moving mature markets and the more volatile emerging markets, innovation takes many forms. (Townsend and Calantone, 2013) The rapid development of new technologies has disrupted the dynamics of the automotive safety industry, introducing the new concept of active safety. With this change came a whole new product line vastly different from the more mature passive safety technology. This development has not only allowed for intensified competition as new actors have entered the market, but it has also meant a shift among established actors. Automotive vehicles still need the basic safety functions such as seatbelts and airbags, but with the new

technology, new products with more advanced safety functions and changing consumer demand patters is putting increasing pressure on the automotive safety manufacturers and suppliers. (Nakamoto, Watts and Zhou, 2013)

The original equipment manufacturer supplier, OE-supplier organization, is a globally active actor in the automotive safety industry. Historically, a primary factor of success has been innovation, and by continuously developing and introducing new technologies and products with higher value-added features the company have successfully outpaced their competitors and built a strong competitive advantage through its innovative activities. (OE-supplier organization, annual report, 2014) Today, in a market constantly disrupted by rapidly developing technologies, changing consumer preferences and demands the OE-supplier organization experience fierce competition. Following the market trends, the OE-supplier organization has increased their R&D efforts to develop more advanced technologic features, and has also pursued several more radical innovation projects in the active safety area. The need to stay updated and to understand the market developments is strongly emphasized, and a great challenge facing the company today is to remain an innovation leader and defend its strong position on the market.

Demonstrating a clear ambition to remain in a competitive position the OE-supplier organization continuously works to develop new innovative projects that can help differentiate from the market competitors. Part of this development process is to foster an organization wide climate for innovation and curiosity. It is emphasized that new ideas and initiatives provided by employees are considered a key element to the company's continuous innovation work. Thus, boosting the innovative spirit among all employees will allow the OE-supplier organization to maintain their position as strong vehicle safety provider in the automotive industry.

Having invested heavily in following the market trend towards producing radical innovation in the active safety technology, concern is now expressed about the need not to fall behind in the field of passive safety. Passive safety technology is a basic but essential feature of vehicle safety. The market for passive safety is constant, but relatively matured. This makes it difficult to compete on differentiation, and it is more common to only developing incremental innovation and changes to existing products. (Nakamoto, Watts and Zhou, 2013)

As a vital part of the organization, the OE-supplier organization express concerns regarding the recent neglect for innovation in the passive safety departments. It is emphasized that since innovation is such an important factor in building a competitive advantage, and should therefor be part of the entire organization. Innovation therefor needs to be incorporated in all aspects of all divisions in the organization. It is important to make sure that innovation in divisions working with passive safety technology is not neglected.

Emphasizing, the OE-supplier organization articulates the importance of working with creativity as a means for becoming more innovation throughout the entire organization.

A crucial step in the OE-supplier organizations strive to promote innovation is therefor building an organizational climate that encourages creativity and actively supports innovation. Working to promote creativity and innovation in the organization, initiatives have been taken to start up new innovation departments. The main objective for the innovation initiative is to enhance the creative environment throughout the entire the organization, not just divisions working with active safety. Also, creating a synergy between different divisions and functions would allow for greater knowledge transfer and information sharing in the organization, thus increasing the possibility to be creative and work with innovation in the organization.

The main challenge is to foster an organizational climate in which creativity is encouraged and viewed as a key factor in building innovative activities among all the company´s divisions.

## 1.3 Research Objective

The purpose of this project, as suggested by the OE-supplier organization, is to observe the organizational climate at OE-unit with a newly started innovation department. The aim is to gain a comprehensive view of how the organizational climate at this OE-unit working primarily with passive safety technology, contributes to fostering creativity and innovation in the organization.

Gaining a comprehensive understanding of the current organizational climate will allow for identifying activities used for promoting creativity and idea generation among the individual employees. Furthermore, it is also important to understand what successfully drives and encourage creativity in each activity. Therefor identifying success factors specific to each activity is crucial for the OE-unit to continue working to promote creativity as a key factor for innovative activities.

The findings of the research aim to illustrate the importance of creativity for innovation and also how building a creative climate can promote creativity as a key factor for innovative activities. Also, understanding how creativity and a creative climate can contribute to working with innovation long-term. By mapping activities and success factors that make up the organizations creative climate, the research aim to provide a comprehensive understanding of how to successfully continue working with creativity and innovation in the future.

## 1.4 Research Question

Building on the discussion above, the following research question was formulated to guide the research;

**How can the climate at OE-unit promote creativity as a key factor for innovative activities?**

Given that the main research question aim to explore the overall organizational climate at the OE-unit, it was decided to add two more specific sub-questions. These aim to provide a deeper understanding of how working with creativity can build an organizational climate that promote innovative activities. Furthermore, understanding the importance of creativity in the innovation process will enable the OE-unit to more efficiently work with innovation and build a sustainable competitive advantage through innovation in the long run.

- What are the main activities building a creative climate?

- What are the success factors for building a creative climate?

## 1.5 Limitations

Due to time constraints, this research project does not investigate how to manage the entire innovation process in an organization.

Numerous studies have been conducted on the innovation process and techniques for the innovation implementation process in organizations. Therefor, this thesis will not be covering these areas, but will instead be focusing on the very initial phase of innovation –idea generation and creativity. Moreover, it focus on providing an understanding for how the organizational climate can be useful to successfully generating new and creative ideas as a first and fundamental step in the innovation process. The growing demand for organizations to innovate and adapt to fluctuating market conditions have resulted in a recent increase in studies focusing on factors that either hinder or stimulate creativity and innovation in organizations. (Ekvall, 1999) For this thesis, however, the primarily focus is on how different activities that positively affect and stimulate creativity and innovation in the organization. Although there is a discussion of improvements and relevance of different activities, those actively inhibiting creativity will not be discussed at length in this thesis. In addition, even though the company as a whole manufacture and sell automotive safety products in both the active and passive product category, this thesis will concern innovation for passive safety product development.

Answering the research question will be achieved by interviewing employees and managers of the OE-unit, and more specifically, the engineering department. This is because of the newness of the innovation initiative in the organization, and the fact that not all divisions are currently working with innovation. It should furthermore be emphasized that the thesis will hence obtain an internal perspective of the creative climate of the OE-unit. This makes the research somewhat subjective and hence limits the possibility to generalize the results.

## 1.6 Thesis Disposition

Figure 1 below outline the thesis´ disposition by clearly presenting each chapter headline and also shortly explaining the content of each chapter. Following a set structure will give the reader a good holistic picture of the general discussion and also ensure transparency throughout the thesis.

| Introduktion | • Introducing the background, problem, purpose, research question and limitations |
| Methodology | • Research method and design, data collection, data analysis and research quality |
| Theoretical Framework | • Defining the fundamentals; Creativity, innovation &Creative Climate<br>• Activities and successfactors for building a creative climate |
| Empirical Findings | • OE-unit |
| Analysis | • Incorporating theory with empirical findings for analysis |
| Conclusion | • Summerizing<br>• Future reseach and considerations |

**Figure 1: Authors´ Thesis Disposition.**

# 2 Theoretical Framework

*The theoretical framework chapter outlines all the relevant theory this thesis builds on. The purpose of this section is not to question the existing theory and previous research on the topic of creativity, innovation and creative climates.*

*The reader should also be aware that the purpose of this section is not to give a complete overview of the concepts, and it should be emphasized that it does not reflect the entire complexity of the research area. Rather the aim is aims to provide a simplified but at the same time exhaustive view of the most consistent views and theoretical discussions.*



- 2.1 Defining the Fundamentals

- 2.2 Building a Creative Climate

- 2.3 Activities and Successfactors for a building a creative climate
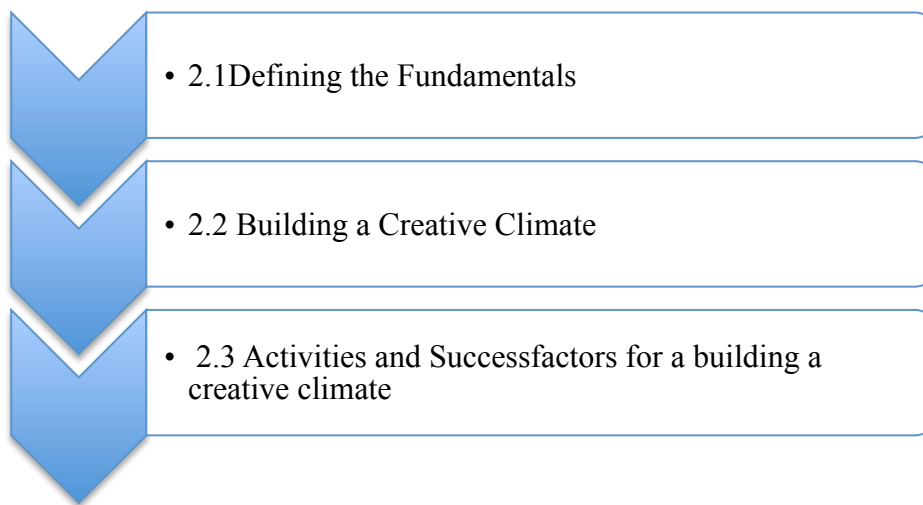
**Figure 2: Outline of the Theoretical Framework.**

## 2.1 Defining the Fundamentals

### 2.1.1 Creativity and Innovation

A general definition of "creativity" state that creativity is "The use of imagination or original ideas to create something" (Oxford Dictionaries, Accessed 2015-08-21)
Amabile (1988) further define creativity as the generation of new and useful ideas. A creative idea can be though of either by a single individual or individuals working together in groups. It can be anything, ranging from ideas regarding new products, services or processes within the organizations line of business, to ideas regarding new policies or procedures for the entire organization.

Oxford dictionaries further define "innovation" as the introduction of new things, ideas or ways of doing something. (Oxford Dctionaries, Accessed 2015-08-21)
McAdam & McClelland, (2002) explain the concept of innovation as the process in which new ideas are implemented and transformed into products and services. Furthermore, an Innovation can be either coming up with a new idea, something never thought of before – radical innovation, or it can be working to improve an existing product or solution or a diffusion of an existing innovation into a new application – incremental innovation. (Dodgson, Gann and Salter, 2008)

However, regardless of the type or form of innovation, all innovation start with creative ideas. A successful implementation of a new product, service or program primarily depends on an individual or group first having had a good idea. Innovation is thus simply the successful implementation of creative ideas in an organization. (Amabile et al., 1996)

The distinction between the concept of innovation and creativity is to some extent blurred in the existing literature. (Moghimi & Indra Devi Subramaniam, 2013) This is because the two concepts are highly related in that both deal with the generation of and the implementation of new and useful ideas in an organization. (Mathisen, et al., 2012)
Early research on the topic of creativity and innovation has primarily been concerned with how individual characteristics such as personality traits and motivational activities affect innovation. (Yu Kyoung Park et al., 2013) It was often suggested that creativity was connected to intelligence and a primary focus was thus to examine what specific traits and characteristics promoted creativity with what was considered to be highly creative people. (McAdam & McClelland, 2002) Some of the most fundamental research on creativity dates back to the 1960s, but since the 1990s the volume of research have increased dramatically. This mean McAdam and McClelland (2002) relate to the concept of creativity becoming increasingly recognized as a key factor for building corporate competitive advantage, and has thus become increasingly popular within the field of management.

Today, it seams commonly agreed that innovation can be beneficial for business success, and that creativity is a crucial part of the innovation process and thus important for building a competitive advantage in an organization. (McAdam & McClelland, 2002)
The conception that only "creative people" have the ability to be creative is today being questioned. Amabile (1997) among others have rather emphasized that given the right conditions, anyone with normal capability can be creative, and that level of intelligence is not directly related to creativity. (McAdam & McClelland, 2002) Rather, Amabile, (1997) suggest that the level and frequency of creativity rather relate to influences in the surrounding organizational climate. It has also been suggested that for an organization to become truly innovative, it must also be creative. Creativity is important for continuously generating new and useful ideas, while innovation has more to do with the process of implementation and turning creative ideas into actual innovation and more specifically, useful inventions. (Mathisen, et al., 2012)
Therefor, it is pointed out that successful organizations must understand the importance of actively building an organizational climate that support and promote innovative activities and success factors. (Moghimi & Indra Devi Subramaniam, 2013)

### 2.1.2 Creative Climate

The climate metaphor is used to describe and explain organizational processes and their effects. (Ekvall, 1999)

The definition of organizational climate in the literature is not unanimous. (Mathisen, et al., 2012) Many researchers view the organizational climate as an attribute of the organization itself, something existing inside the organization as a sort of social-psychological reality. Other researchers mean that the organizational climate rather relates to attitudes, behavior and feelings that in turn characterize the life inside the organization, and among its members. (Moghimi et al., 2013, & Ekvall, 1996)

Therefor, there has been much controversy about the concept of climate. (Mathisen, et al., 2012) The organizational climate influence organizational processes such as problem solving, decision-making, co-ordination, controlling, and communication but also processes such as learning, motivating, creating and commitment. As a result the organizational climate can exert strong influence on the organizational business success. (Ekvall, 1996)

Ekvall (1999) further explain how an organizational climate arises as a result of individual behavior in combination with organizational routine and procedure. Individual members of an organization will follow some set routines and regulations, but they are also likely to interact and react with each other, which in turn influence and affect the organizational climate. Furthermore, the theoretical discussion is further complicated by the close link between climate and culture in an organization. The organizational culture relates to the organizations deeply rooted belief systems. These in turn influence the organizational climate through norms and values. Compared with culture, the organizational climate is however easier to observe as it is composed of recurrent patterns of behavior, feelings and attitudes among the individual members of an organization.

A climate tends to be highly specific and varied between organizations, but also internally between departments or even workgroups. The variation in climate, even within the same organization using the same or similar tasks, work routines and formal regulations, often has to do with local management. Most often, local managers have enough freedom to influence the climate substantially using different management practices and skills for utilizing resources. However, even though the climate is observable, changing it is not so easy, at least not in the short run.
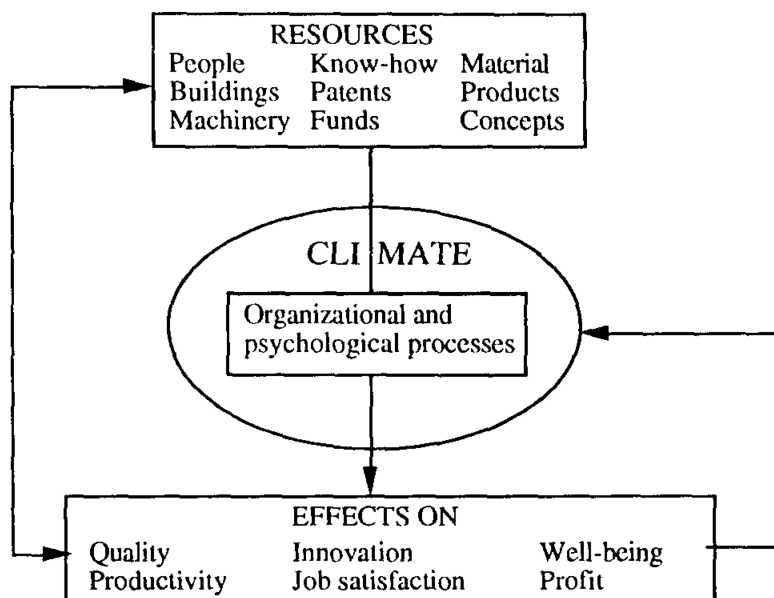
(Ekvall, 1999)



**Figure 3: Organizational climate as an intervening variable.** (Ekvall, 1996)

### 2.1.3 The Importance of a Creative Climate for Innovation – The Innovative Organization

"Creativity is a prerequisite for innovation" (Ekvall, 1999)

An innovative organization has the capacity to adapt to and survive changes in its surrounding business environment. Such adoptions, i.e. product, service, structure or process development, require an organizational climate that stimulate creative activities. Summarizing the previous discussion, the climate influence organizational outcomes by impacting the use of organizational resources such as people, machines and finances.
In a creative climate resources are properly utilized towards creative activities and innovation.

Promoting a climate for creativity will effectively result in increased innovative activities and achievements. Individuals in this type of organization tend feel they can identify with the goals of the organization and the activities they perform. They also feel their jobs are meaningful and challenging and as they are more likely to feel their own needs being met and stimulated in their work. They are eager to see the company succeed and therefor strive to promote potential improvements and now solutions. Consequently, the increased innovation activities will stimulate and encourage to continued creativity and innovation in the organization. (Ekvall, 1999)

## 2.2 Building a Creative Climate

As discussed, the organizational climate is shaped by the combination of organizational routines and structure and the interaction between individuals. Ultimately, however, it is the individual members of an organization that carry and manifest the climate. The drive, ambition and motivation of groups and individuals represent both the limits and the potential for an organization to develop a creative climate. (Ekvall, 1999)
It is clear that individual creativity can be greatly influenced by the overall organizational climate, which in turn is greatly influenced by upper management. The overall emphasis on creativity and innovation in an organization, by e.g. providing sufficient resources for creative activities or establishing appropriate evaluation and rewards systems, influence how creative the organizational climate have the potential to become. (Amabile 1988)

Therefor, since it is the organizational setting that promotes creativity and innovative actions, working to build a creative climate must start with the internal environment. The aim should be to start to develop the organizations internal environment to become more creatively and innovatively stimulating. (Ekvall, 1999)

### 2.2.1 The Componential Theory – A Model for Innovation and Creativity in an Organization

As is evident from the discussion above, the concepts of innovation and creativity are quite similar and are also closely related to each other. In fact, Amabile (1988) argue that both the creative activities among the organizations individuals and the organizational structure are crucial elements for promoting innovation. Thus, a business cannot become successful if it is focusing solely on creativity and idea generation or on innovation and the idea implementation process.

There will be no innovation in an organization without creative ideas, and it is the individuals working in the organization that ultimately provides ideas. It is therefor essentially a two-way influence between the organization and the individual. The individuals within the organization significantly influence what happens in the organization, and the individuals are in turn significantly influenced by how the organization is structured. (Amabile 1988)

The importance of organizational climate as an important predictor for creativity and innovation, should therefor be emphasized for successfully promoting creativity and innovation in an organization. (Moghimi & Indra Devi Subramaniam, 2013)

In order to promote and enhance innovative activities among the individuals in an organization, it is important to promote an organizational climate that values continuous knowledge sharing, learning, positive social interaction and individual employee empowerment. Activities such as these are important for generating a deeper engagement with the innovation process, and increase intrinsic motivation. (Yu Kyoung Park et al., 2013)

The componential theory is a useful tool for understanding how individual creativity and organizational innovation interrelate to form a creative climate that is fundamentally important for promoting successful innovation activities in an organization. (Amabile, 1988)
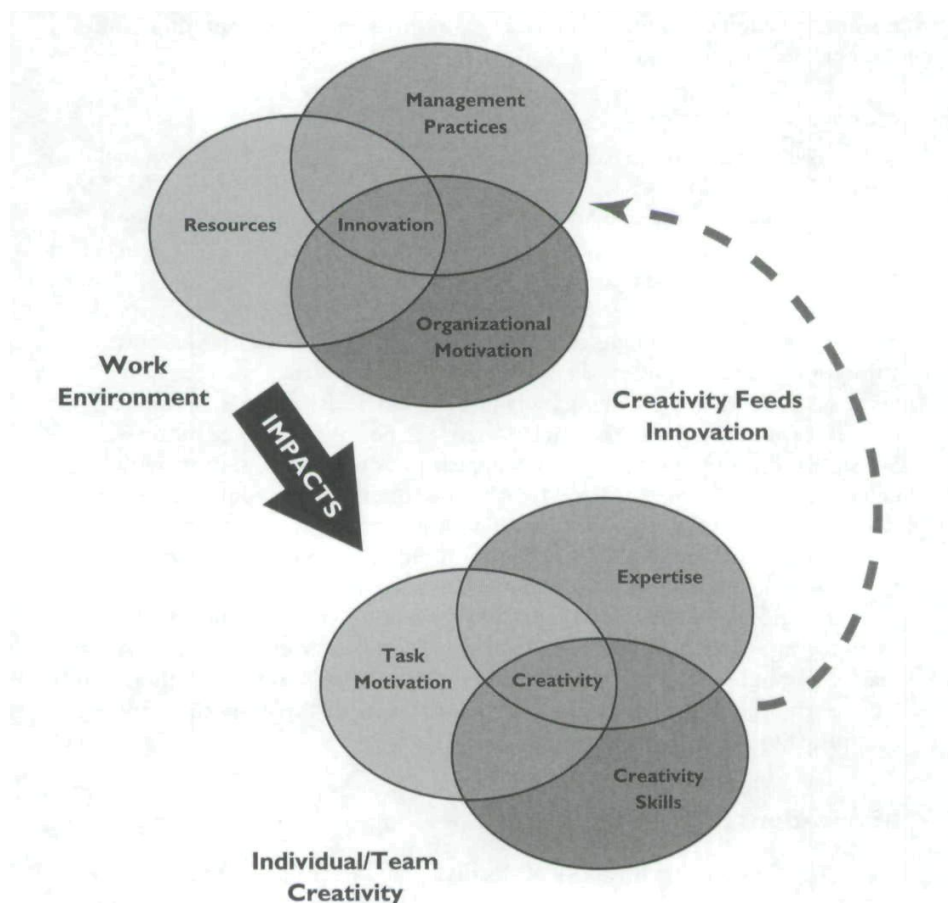


**Figure 4: The impact of the organizational climate on creativity.** (Amabile 1988)

There exist a distinctive relation between the three components of individual creativity and those for the work environment.

Individual creative activities are a starting point for innovation but successful innovation also depends on other factors. The organizational climate in which the individuals dwell can influence both the frequency and the type of creativity. (Amabile et al. 1996)

Furthermore, organizations different resources, both financial, material and those dedicated for human activity, are dependent on each other to create key success factors for creativity to be optimally promoted. However, the most important resource in an organization is its human resources – the individual employees skills and expertise. (Amabile 1988)

The foundation for all creative work is expertise. (Amabile, 1997) Expertise encompasses everything an individual know and can do in an organizational or professional context. It includes all basic and factual knowledge and technical skills relevant for a particular field or profession. (Amabile, 1998) It can in a way be described as an individuals "raw material" for creative production, useful for exploring and solving problems. (Amabile, 1988)

How knowledge and skills were required is less relevant, but it would be impossible to perform a task or come up with a new idea without any previous skill or knowledge. (Amabile, 1998) Most individuals are capable of being creative, however an individual skills for e.g. problem solving to some extent depend on how an individual perceive a situation or problem. (McAdam & McClelland, 2002)

The skill for engaging in creative activities also depends on an individual's style of thinking, working and a general approach to problem solving. (Amabile, 1998) However, even with a certain level of expertise, an individual will be less likely to produce creative work if creative thinking skills are lacking. Creative thinking relates to that "something extra" needed for creative performance, and it is essentially the ability to consider different perspectives to an existing idea. Expertise and the skill for creative thinking to some extent depend on personal attributes, background and education. However, creative thinking skills can be actively developed and improved by learning and by practicing techniques to increase flexibility and intellectual independence. (Amabile, 1997)

Also improved knowledge sharing and creativity enhancing techniques such as brainstorming can be useful tools for improving an individual's creative thinking. (McAdam & McClelland, 2002) Utilizing organizational techniques to promote and train creativity skills and problem solving can thus influence the type of creative activity. *Organizational techniques* and individual *creativity skills* and expertise are all necessary to produce creative output. Without the proper techniques and management practices, in guiding individual creativity, there will either be a lack of new ideas or any new idea may lack relevance for the organization. Likewise, the organizations innovativeness will suffer if the organization is lacking the capabilities to properly capture and implement any new idea. (Amabile, 1998)

Also, no amount of skill or method for creative thinking can compensate for a lack of appropriate motivation to encourage performance. The proper motivation can even compensate for a lack of expertise or insufficient skillsets for creative thinking in an organization. Furthermore, Amabile (1988) continue to argue that motivation is seemingly strongly dependent on the work environment of an organization. This indicates that creativity and innovative activities may vary between different organizational departments or business units. Also, motivation can be the most straightforward tool to effectively work with creativity and stimulate innovative activities.

Thus, motivation makes the different between what an individual can do and what an individual will do. It also relates to which extent an individual will fully engage his or her expertise and creative thinking skills when engaging in different activities. (Amabile, 1997)

An organization can actively work to motivation creativity and innovation by prioritizing a general orientation towards innovative goals. The corporate vision and how top management envision the future for the organization show the organizations overall motivation to innovate. (Amabile 1988) It is important that the organization, as a whole, places value on innovation and actively strives to provide an organizational climate focused on low risk-aversion, installing a sense of pride of work among the organizations members and enthusiasm about their capability to achieve creative work. Openness, active communication of new ideas and information, recognition and rewards for creative work and fair evaluation of work including "failure" are important elements in supporting innovation and creative activities in an organization. (Amabile 1997)

Management is the link between the organizationally inferred roles and regulations and the individuals following them. In order to promote a positive and creative atmosphere it is the important task of management to match the right people, the right expertise, with the right tasks and to facilitate proper resources, support and encouragement. Project supervision is important in setting clear overall project goals through clear planning, good communication and feedback. Also crucial are the resources to fund employee training and organizational development towards better promoting creativity amongst individual employees and thus becoming a more innovative organization as a whole. (Amabile 1988) Therefor, the development of both the organizational and the individual activities for creativity ultimately depend on the availability of relevant and sufficient resources. (Amabile, 1998)

The work environment within an organization is also strongly influenced by management at all levels. This can make the difference between defensive organizational behavior and continuance of old and less productive routines and the generation of new creative ideas promoting innovative business growth. (Amabile 1997) Encouragement of e.g. risk taking and idea generation relate to the importance of an organizations support and understanding of innovation and creative activities from throughout all levels in the organization. Individuals are more likely to feel comfortable enough to be creative and to try new things if encouraged and supported by their organization. (Amabile et al. 1996)

Training in problem solving, brainstorming and so-called lateral thinking can provide individuals with some new tools to enhance creativity in their every-day work situation. However, the time and money required for employee training and skill development can be extensive. As a result, expertise and creative-thinking skills are relatively difficult factors to influence in an organization. Motivation on the other hand is easier to work with as it can be considerably increased by even rather subtle changes in an organizations environment. (Amabile, 1998)

## 2.3 Activities and Success Factors for Building a Creative Climate

"A change process aimed at raising the creative and innovative competence of the organization should start with a look at the internal environment." (Ekvall, 1999)

The research on creative organizational climate is not conclusive. There is no definite model for which activities and success factors best promote a creative climate and innovative activities. (Ekvall, 1999) However, since the role of individuals for creativity and in the innovation process of an organization cannot be denied, most activities revolve around how to enable individuals to be creative. (Moghimi & Indra Devi Subramaniam, 2013) Managers should be aware of the connection between organizational structure and individual creativity, as discussed in the componential theory. (Amabile, 1998)

Amabile, (1998) present six general categories for how managerial practices affect creativity. These are; organizational support, supervisory encouragement challenge, work-group features, resource and freedom. In addition, motivation for creativity and innovation is very important and is therefor also included as an important activity for promoting creativity and innovative activities.

Furthermore, these factors can also be divided into four activities crucial for building a creative climate, promoting creativity and innovative activities in an organization. These are; organizational support emphasizing the importance of creating an organization wide understanding of the importance of innovation, motivation, providing sufficient resources for creative activities and carefully design work-groups and teams to work efficiently with innovation.

### 2.3.1 Organization Support

Frist off, creativity is most efficiently promoted when the entire organization support it. Creativity just like the innovation process should therefor be communicated as a top priority throughout the entire organization. (Amabile, 1998)

When innovation is made a priority by the company, or rather upper management, individuals throughout the organization are more likely to be creative as they feel freer to think differently, come up with new ideas and take time for reflection and trying out new things. If what is stressed is efficiency and short-term profits, individuals become more preoccupied with speed and routines and risk loosing the motivation to be creative. (Ekvall, 1999)

An organization should also actively and consistently recognize and reward creativity. (Amabile, 1998) Being recognized for ones work and receiving appropriate feedback and reward for ones effort will give the individual a sense that conducting creative work can be beneficial. (Amabile 1988) Providing rewards for creative work can even enhance creative activities as individuals feel validated and encouraged to continue do creative work in the future. (Amabile et al. 1996)

Not providing sufficient recognition for creativity can however spawn negative feeling within the organization, and risk leaving the employees feeling underappreciated or even used. In such cases, it becomes rather difficult to enhance intrinsic motivation and to work with truly creative projects.

Furthermore, a pressing dilemma with developing creative ideas in business is the need for any new idea to be useful. The pressing issue relate to the fact that one cannot know which idea will be successful beforehand. However, not knowing what "works" can also be very enlightening and useful in many business situations. (Amabile, 1998)

Innovation activities often imply uncertainty about an outcome. Innovation involves risk, and consequently some degree of risk-taking mentality is needed for innovation. However, important to emphasize is that the risk-taking refers to operations, not to the individuals' performance. An individual will only dare to take a risk on a new idea if he or she feels safe that any mistake or failure will not mean a personal catastrophe or punishment. In order to motivate creativity, there is thus a need for tolerance and greater allowance for mistakes. Hence, the uncertainty of innovative activities becomes more tolerable and even stimulating because of the trust between managers and co-workers and the personal security. (Ekvall, 1999) It is therefor important to generously recognize creative work done by both individuals and teams, keeping an open mind and provide genuine feedback on creative new ideas. (Amabile, 1998) Feeling the support of the organization and more directly, management is thus an important feature contributing to intrinsic motivation for creativity. Good project

management and encouragement for new ideas creates an atmosphere that is free of threatening evaluations. (Amabile 1988) Trust and openness is essential for individuals to dare put forward opinions and ideas, (Ekvall, 1996) and supervisory support for new ideas show the importance of the role of management in a creative climate. (Amabile et al. 1996) With the support of management, the threat of negative criticism or evaluation, which is likely to undermine the intrinsic motivation necessary for creativity, is minimized. (Amabile et al. 1996) Support creates a sense of security but debate should be encouraged, as it often is a source of new idea generation. (Ekvall, 1999)

In a supportive and open climate, people listen to each other, encourage initiatives and management supports new ideas. The atmosphere is positive and constructive with open communication between organizational levels, business units and individuals. The organizational climate is then a perfect setting in which new ideas are continuously generated. (Ekvall, 1996)


### 2.3.3 Motivation

Motivation is emphasized as the most important factor in the componential theory. (Amabile 1988) This is because the skills and expertise of any individual will only determine what can potentially be achieved, but not what will actually be done. Here motivation is crucial. The same is true in the organizational perspective, sufficient resources and techniques or management practices lay the foundation for promoting creativity, but it does not mean that there will be any creative and innovative activities. (Amabile 1988)

Hence, motivation can be the most straightforward activity to effectively promote creativity and stimulate innovative activities. The importance of motivational activities relate to the fact that individuals who feel motivated in their work will likely be more productive, creative and persistent, producing high quality work. Individuals who on the other hand are unmotivated are likely to put little effort in their work, produce low quality work, leave the workplace if given the opportunity and just avoid it as much as possible. (Amabile, 1993)

There are two types of motivation; extrinsic and intrinsic.

Individuals who are intrinsically motivated often act out of interest, enjoyment or personal challenge. Individuals who on the other hand are extrinsically motivated often engage in different activities as a means to obtaining some sort of reward. (Amabile, 1993)

Intrinsic motivation is most commonly suggested to be a key component in promoting innovative activities. This is because the positive effects of a strong determination derived from self-fulfillment are fundamentally important for dealing with difficult challenges that tend to arise in the innovation process. Intrinsic motivation is therefor often more effective than extrinsic motivation for promoting creativity and innovation. (Amabile, 1998) This is also because the need for feeling competent tends to remain also after finishing a project, whereas the need or want for a reward dwindle after receiving it. (Yu Kyoung Park et al., 2013) Therefor, over time, an organizational climate with a particularly strong motivational structure, intrinsic or extrinsic, could affect how individuals are motivated by their work. This could in turn also impact on the types of creative and innovative activities in an organization. (Amabile, 1993)

Moreover, the perhaps simplest way managers can motivate their employees and thus stimulate creativity is to challenge the individual. Matching the right people with the right assignments allows each individual to make full use their specific expertise and skills in creative thinking. However, not successfully matching different capabilities risk people growing board with their work. (Amabile, 1998) A positive sense of challenge increases the general motivation to attack and solve a problem thus resulting in more intellectually challenging and stimulating work, which also effectively ignite intrinsic motivation. (Amabile

et al. 1996) Encouragement is also important for not allowing individuals to become discouraged by failure or when face with difficult tasks. An individual can of course be motivated by the work itself, but in order to sustain long-term interest, most individuals need to feel that what they do matters. Encouragement is then also important for maintaining high levels of intrinsic motivation and promoting creative activities and individual engagement. (Amabile, 1998) Furthermore, the workload can also have an impact on the creative climate in an organization. If there is a high workload the employees may find themselves over-stimulated while with a low workload they rather become under-stimulated. High workloads can bring both positive and negative stress. Positive stress means that an individual feel he or she can manage the situation and meet the set goals even if the workload is high. This give a positive feeling of achievement, challenge and build self-esteem. Negative stress on the other hand can result form both over- and under stimulation and relate to feelings of losing control and even anxiety. (Ekvall, 1999) In a high-challenge climate, individuals tend to become emotionally involved in the organizations goals and thus experience intrinsically motivated when working on a meaningful project. (Ekvall, 1996) A creative climate is furthermore characterized by high challenges and motivation, which also relate to positive stress. It is important to make sure that the workload does not tip over from being challenging to too much to handle. (Ekvall, 1999)


### 2.3.4 Work-Group Design

Encouraging collaborative practices can enhance idea sharing across an organization and thus increase the probability of generating new ideas. (Amabile et al. 1996)
Therefor, carefully consider the work-group design when building teams that work with creative ideas, is important. As a manager it is important to create a mutually supportive group of individuals with a diversity of background, knowledge and skills. Teams consisting of individuals with different expertise and creative thinking styles are more likely to combine their collected knowledge to come up with useful and creative ways of solving a problem. Furthermore, diversity and openness to express challenging views or opinions can have a positive effect on creativity by effectively exposing individuals to a greater variety of knowledge, methods and ideas. (Amabile et al. 1996) Having many different views on how to solve an issue can further give ground for intense debate which is likely to generate a whole new view of how to solve an issue. (Ekvall, 1996) In order then to prevent misunderstandings when collaborating with others, it is important to establish clear goals and objectives for a project as well as working to facilitate open communication and establishing channels for idea generation and knowledge and information sharing. (Mathisen, et al., 2012) Trust and openness is essential for individuals to dare put forward opinions and ideas. (Ekvall, 1996) Furthermore, goal clarity, open interaction and communication are also of great importance for successfully promoting creativity and innovative activities. (Amabile et al. 1996)
For teamwork to be effective, it is however also important that the members share an interest and enthusiasm for their work and work towards the same goal. It is also important that the members recognize the value of providing different perspectives to an issue, and that they are willing to support and help each other through difficult periods and setbacks. Managers can help by clearly specifying strategic goals for the organization as well as for new project.
A well functioning work-group will not only contribute to learning and skill-development, but also to members' intrinsic motivation and general attitude to work. (Amabile, 1998)
Lastly, a key factor for promoting creativity is to give individuals freedom and especially work autonomy. (Amabile, 1988) Work autonomy allow each individual to approach a problem in ways in which they can make the most use of their personal specific skills and expertise. (Amabile et al. 1996) Allowing individuals to freely decide how to go about and

solve a problem will foster creativity because it improves the individuals' intrinsic motivation and sense of ownership in their work. (Amabile, 1988) Intrinsic motivation also drives individual work engagement, which significantly relate to innovation through enhanced personal initiatives. Individual work engagement promotes personal initiatives and thus influences innovation. When individuals are engaged in their work, the positive energy they bring into their work lead to more creative thinking and idea generation, thus boosting the innovation process in the organization. Individuals also become more persistent, flexible and better at handling obstacles. (Yu Kyoung Park et al., 2013) In an organizational climate that provides high levels of freedom, individuals are free to make new connections or exchange ideas and information, discuss problems and come up with creative solutions together. (Ekvall, 1996)

### 2.3.5 Resources Allocation

The resources of an organization can be of many different characters including financial means, material and immaterial things as well as personal knowledge and competence. The organizational climate can influence how different resources are being used and also how efficiently investments in resources are being transformed into effects. The resources are also in turn an important influence on the climate in that they can influence the organizations ability to reach targets, perform tasks and adapt to demand. (Ekvall, 1999)
Amabile, (1997) argue that creative thinking skills can be actively developed and improved by learning and by practicing techniques to increase flexibility and intellectual independence. McAdam & McClelland (2002) also emphasize that creativity enhancing techniques such as brainstorming can be useful tools for improving an individual's creative thinking and improve knowledge sharing. Utilizing organizational techniques to promote and train creativity skills and problem solving can thus be key to influence the type of creative and innovative activity in an organization. (Amabile, 1998) Similarly to the importance of motivational activity of matching the right individuals with the right projects or tasks to increase challenge, allocating the right and a sufficient amount of resources to each new project is important to accurately support the innovation process. (Amabile, 1998) Having access to sufficient and necessary resources, including equipment, information, knowledge, funds, facilities and people, is crucial for successfully promoting creativity and performing innovative activities. (Amabile 1988) How resources are allocated in an organization can directly relate to how different departments, teams or individuals work with creativity and innovation. Besides the practical limitations inflicted by misallocation of resources, creativity can also be affected by the individual belief of neglect or lack of support which in turn risk undermine the intrinsic value of engaging in creative activities. (Amabile et al. 1996) If sufficient resources are not provided, individuals risk channel their creativity into finding alternative resources and thus not into developing new creative solutions. (Amabile, 1998) Furthermore, Ekvall (1999) explain how a lack of resources may also restrict the possibility to take risks or try out new concepts. This could thus hamper the motivation to be creative in the organization. On the other hand, resource scarcity may also, in some cases, stimulate creative problem solving to compensate for the lacking resources. What effects a lack of resources will have, much depend on the situation and the organization in question.
Also, exploring new concepts and putting together new unique solutions to a problem can take time, and managers need to allow sufficient time for exploration or watch out for setting too tight deadlines on a project. Creative work can sometimes be a time consuming venture. It is therefor important to set clear goals for each project and make sure that these goals remain stable for long periods of time. This because it is difficult, if not impossible, to work creatively and try out different solutions whilst working towards a target that is constantly

changing. Similarly with time pressure. However, time pressure can also under some circumstances enhance creativity. One example is working to beat a competitor to the market. In such cases, the individuals working on a project feel the urgency of coming up with a solution. Understanding the importance of the work and having some degree of time pressure can then increase the sense of importance and challenge with individuals and thus increase intrinsic motivation to their work. (Amabile, 1998)

### 2.3.7 Key Success Factors

Working with creativity as a key factor for building an organizational climate in which innovative activities are promoted, require some real attention. It is rather important to understand what make an organizational activity, such as resource allocation or motivation, successful in the long run. It is also crucial to understand how each activity can contribute to building a climate in which creativity, idea generation and innovation is continuously promoted throughout the entire organization. Understanding the importance of each activity and its key success factors can thus efficiently add extra value to each separate activity. Table 1 below summarizes the activities necessary for building a creative climate as discussed in the theory. For each activity is specified a number of factors that are vital for a successful outcome of each activity.

| Activities | Success Factors |
|---|---|
| **Organizational Support** | - Prioritizing innovation<br>- Managerial support<br>- Feedback & evaluation<br>- Reward and recognition<br>- Open and non-judgmental climate |
| **Motivation** | - Encouragement<br>- Challenge<br>- Intrinsic motivation |
| **Work-Group Design** | - Assembling diversified groups<br>- Cross-functional collaboration<br>- Work autonomy<br>- Communication<br>- Goal clarity |
| **Resource Allocation** | - Prioritizing resources for innovative activities<br>- Prioritizing time for innovative activities<br>- Train creative thinking and problem solving |

**Table 1: Activities and success factors for building a creative climate.**

# 3. Methodology

*The following chapter explain how the research approach, research design, research method, sample and project sponsor, data collection, data analysis finally research quality was developed. The aim of the chapter is to present the foundation for the research in this thesis.*

## 3.1 Research Method

The research method best suited for this research project is the qualitative method.

The purpose of this research is to study the creative climate of a business unit primarily working with passive safety product development in a global OE-supplier organization. Furthermore, the aim is to understand how working with creativity can build an organizational climate impact in which both idea generation and innovation is promoted long-term. Qualitative research is generally most suitable for conducting research with the aim to improve the understanding of the social world and explaining behavioral patterns as in this research. (Hammersley, 2013) Furthermore, as climate is a varied and highly localized phenomenon, and qualitative research method is suitable as it stresses the importance of understanding the social world by examining how it is perceived and interpreted by its natural participants. More specifically, a qualitative study aims to understand an issue through the perspective of those being studied. (Bryman & Bell, 2013).

Taking a qualitative approach to answering the research question seams the most fitting. However, there are in business research methods for quantifying creativity as well. Tools such as the Creative Climate Questionnaire, CCQ or the Situational Outlook Questionnaire, SOQ, (Isaksen & Ekvall, 2010), are effective for collecting large volumes of quantitative data. (Dawes Farquhar, 2012) Although quantitative survey research can, to some extent, account for context, the analysis is often limited to the number of variables predefined by the researcher. (Blumberg et al., 2011)

This means that the information gathered through quantitative methods and the conclusion drawn from it has a tendency for being relatively simple. (Dawes Farquhar, 2012)

In answering the research question for this thesis project, numbers and statistics will not be enough. Theory state that an organizational climate can be observed through behavioral patterns, feelings and attitudes displayed by the individual members of an organization. Therefor, answering the research question require discovering the thoughts and interpretation of the individuals members who are active in the OE-unit.

Consequently, this research builds on qualitative research method.

Furthermore, the research is exploratory by nature and aim to gain an in-depth understanding of the organizational climate and how it promotes creativity and innovation. Therefor, allowing for some flexibility throughout the process will enable a more comprehensive result. (Bryman & Bell, 2013)

Lastly, qualitative methods can provide a rich and illuminating body of empirical data essential for understanding the uniqueness of a situation. (Eriksson & Kovalainen, 2008) The limited accessibility to information regarding the innovation initiative at the OE-unit put additional pressure on the empirical findings to provide sufficient information of high quality regarding the organizational climate. The in-depth description of the OE-units climate enabled the identification and description the climate as well as organizational activities andand its key success factors.

**Figure 5: A six-step-model for qualitative research. (Bryman & Bell, 2013)**

## 3.2 Research Approach and Design

The research design chosen for this thesis is a case study, focusing on one specific organization. (Bryman & Bell, 2013)

The case study design draws on the qualitative traditions with a central goal to explore a situation from the "inside". It also aim to develop an understanding of potentially different perspectives of the individuals involved. (Eriksson & Kovalainen, 2008) The objective of the research is simply to understand how creativity is important for building an organizational climate for future innovation in the OE-unit. This can be achieved by asking question starting with how, why and when. Answering such questions will provide useful information helpful for gaining insights to develop new explanations for why a creative climate is important for innovation. (Blumberg et al., 2011).

The strength of a case study is in its ability to examine the research project in depth and within its real-life context. This further makes a case studies design particularly suitable for describing and explaining how creativity and a creative climate promote innovative activities. (Dawes Farquhar, 2012)

The organization chosen for this research project is an business unit, OE-unit, primarily working with passive safety product development in a global OE-supplier organization, active in the automotive safety industry. Given the relatively short research period, approximately two months, the case study approach was beneficial as it allowed for flexibility in the data collection phase, but also in analysis and the research process as a whole. Applying a broad research scope in the beginning was useful for gaining a general understanding of the issue and identifying interesting patterns and relationships. Moving forward, the research could be narrowed down and become more concrete allowing for deeper analysis and drawing conclusions. (Blumberg et al., 2011)

## 3.3 Project Sponsor and Sample Selection

For this thesis, the project sponsor selected is a large actor in the automotive safety industry. The company is globally active and competes in both the highly competitive market for active safety technology, and the relatively more mature market for more basic passive safety technology features. The focus for this research project will be on an organizational unit working with passive safety technology and development of basic safety feature.

The project originated with the introduction of a new innovation initiative in on of the companies units focusing on passive safety technology. Because of the newness of the initiative, the goals of the innovation department and the structure for how to work with innovation are still under development. This provides a good opportunity to initiate a change process for building a more creative organizational climate and in which innovation and innovative activities are promoted and supported in the long run.

An essential condition for evaluating the organizational climate was to make sure that the research participant had actually experienced, or at least good knowledge of, working with innovation. (Mathisen, et al., 2012)

As the innovation initiative is a relatively new endeavor, finding the right participants for the research proved a challenge. However, the individuals chosen to participate in this research are all long-term members of the organization. Also, all respondents have managerial or team leader experience and are part of the engineering department. This because the innovation in the OE-unit is foremost on the agenda for the management and the initiative have started with members at the engineering department.

Furthermore, the individuals participating in the research were identified and selected by a preexisting contact at the OE-unit, in the capacity as Innovation Manager. All participants are representative of the innovation process in that they all currently work with innovation in the organization in one way or another. Either in the capacity as manager, team leader or team member working with an innovative project. The width of the sample will allow an insight to a wider perspective of how the organization work with innovation and how the individuals perceive the organizational climate for creativity. Furthermore, as the only individuals available to participate in the study, the main focus will be on how they perceive the climate in their part of the OE-unit. However, with some fundamental experience of having worked in the organization for a long time, these selected respondents will also be able to provide second hand information about how other divisions work with creativity and innovation in the OE-unit.

## 3.4 Data Collection

In order to understand how the OE-unit work with creativity and innovation, it is important to understand what constitute the organizations climate.

Both primary and secondary data are vital for understanding the topic, and as the research is of an explorative nature it is also important that the data collected provide an in-depth understanding of the organizational context. (Saunders et al. 2009)

With respect to the newness of the innovation initiative at the OE-unit, limited access to documented information made it impossible to solely rely on secondary data. Although secondary data provided some valuable insight, however, the main type of data collected and used in this thesis is primary data from semi-structured interviews.

Qualitative methods such as semi-structured interviews can provide a rich and illuminating body of empirical data essential for understanding the uniqueness of a situation. (Eriksson & Kovalainen, 2008) Qualitative interviewing is also beneficial as it provides more flexibility to discuss a topic in detail compared with structured interviewing more commonly used in quantitative research.  Also, compared with open, or unstructured interviewing, the semi-structured form is useful for maintain a clear approach and structure throughout the entire data collection phase. Therefor, the most suitable method for collecting data in this research is semi-structured interviewing. (Blumberg et al., 2011)

Given the time constraints and the geographical distance to the OE-unit, it was decided that in addition to the interviews a somewhat more structured written interview guide would be distributed via email to all participants. The purpose was to make it easier for the individual participants to prepare short answers to the questions. The participating individuals were also asked to provide short written statements on questions more specific to their role in the organization. This served to provide an initial understanding of the issue, which could then be

follow up on with semi-structured interviews going deeper into the subject and also focusing on clarifying or elaboration of any potential uncertainties. The interviewees were also asked to rate a number of statements indicating the importance of different factors in the organizational climate. (Blumberg et al., 2011) (See Appendix 2)

In addition to the semi-structured interviews, information was also collected through e-mails, information from OE-unit representatives, company reports and presentations. These additional pieces of information provided useful insight into the organizational climate and the attitudes and behavioral patterns of its individual members. Lastly, using the internet, academic journals and books have been useful for building a solid theoretical foundation for the research and further provide an understanding and structure to the interview guide and data analysis.

Table 2 displays information about the interviews held and also an overview of the respondents.

| Department | Respondent | Date | Duration | Type | Language |
|---|---|---|---|---|---|
| Engineering Department | Respondent A | 2015-04-23 | 45 min | Phone | English |
| Engineering Department | Respondent B | 2015-05-02 | 45 min | Phone | English |
| Engineering Department | Respondent C | 2015-05-13 | 45 min | Phone | English |
| Engineering Department | Respondent D | 2015-05-14 | 45 min | Phone | English |
| Engineering Department | Respondent E | 2015-05-16 | 45 min | Phone | English |
| Engineering Department | Respondent F | 2015-05-20 | 45 min | Phone | English |

**Table 2: List of research participants and respondents.**

### 3.4.1 Interviews

Interviews can provide a rich and illuminating body of empirical data essential for understanding the uniqueness of a situation. (Eriksson & Kovalainen, 2008) Therefor, the primary method for collecting data was semi-structured interviewing. The purpose of using qualitative research interviews is to understand the creative climate as it is perceived by the individuals working in the OE-unit. (Brinkmann & Kvale, 2008) The interviews aim to provide insights on the individual perspective of the creative climate and gather information that can confirm insights and information that the researcher already holds. (Blumberg et al., 2011)

Semi-structured interviews is a suitable method for in-depth investigation, and is a common method for collecting data in case study research. (Dawes Farquhar, 2012) As in open

interviews, knowledge is produced through interaction, the conversation, between the interviewer and the interviewee. Compared with more structured approaches to interviewing, semi-structured interviews provide a relatively flexible interview structure where the interviewee is encouraged to more freely provide a descriptive encounter of how they perceive the climate for creativity in the OE-unit. (Brinkmann & Kvale, 2008)

Gaining a comprehensive view of the organizational climate will be useful for understanding how different activities influence creativity and affect how innovation is promoted in the organization. (Blumberg et al., 2011) The focus of the interviews is thus to find nuances in the individual descriptions that can help in identifying different activities contributing to the creative climate in the OE-unit. The purpose is to understand why the research participants experience or behave as they do in the organizational climate and how identified activities and success factors might impact on creativity and innovation in the organization. (Brinkmann & Kvale, 2008)

Emphasizing, the main objective of semi-structured interviews is for the researcher to gain insights into what the respondent considers relevant and how they interpret the situation. The semi-structured interview does not follow a pre-set order of questions, but can vary depending on the direction of the conversation. However, an interview guide is used with a pre-set number of questions for specific topics to be covered. (See Appendix 1)

Furthermore, given the geographical distance, interviews were conducted over the phone or via Skype, and the language chosen was English.

## 3.5 Data Analysis

Given the complexity of understanding the creative climate in the OE-unit, the analysis in this thesis is built on combining primary and secondary data revealing interesting patterns and relevant information. The process began with conducting a Systematic Literature Review, SLR, for the secondary data mostly including books and academic journals. The SLR provided a theoretical framework from which a semi-structured interview guide was formulated later used to collect the primary data. The analysis of the primary data collected, namely material and information collected through the interviews followed a process of categorizing data, identifying relationships and developing and testing theories to for a conclusion. (Saunders et al., 2009)

## 3.6 Research Quality

The aim of this research project is to identify and understand how different activities in the OE-unit impact on the organizational climate and how these work to promote creativity and innovation in a large organization in the automotive safety industry.

An organizational climate tends to be highly specific and varied between organizations, but also internally between departments or even workgroups. (Ekvall, 1999) This makes the situation complex. Since there are many possible activities and success factors to consider, one of the greatest challenges for this thesis was to produce good quality substance.

When discussing research quality, three concepts - validity, reliability and generalization – provide a basic framework for how to evaluate business research. (Eriksson & Kovalainen, 2008) Bryman and Bell (2013) on the other hand suggest that both the concept of reliability and validity are primarily an issue connected to quantitative research. It has been questioned whether qualitative research should be evaluated with these same classic criteria. Therefor, for

qualitative studies, the concept of trustworthiness and authenticity as a criterion for good quality is more appropriate.

Ensuring trustworthiness can be achieved with triangulation. Using more than one method for collecting different types of data can also be useful for examining different aspects of organizational reality. (Bryman & Bell, 2013) This thesis uses multiple methods and data sources i.e. semi-structured interviews and a ranking system to gain a comprehensive understanding of the creative organizational climate.

Furthermore, in general qualitative research is very difficult to replicate, however, to increase the trustworthiness, the thesis follows a clear and transparent structure and the data is presented in a consistent manner. This emphasizes the use of triangulation to enable the possibility to replicate. (Bryman & Bell, 2013)

The primary method for collecting data was through semi-structured interviews. Apart from performing interviews, informal discussions and information sharing via casual conversation and emails constituted an important part of understanding the individual perception of the organizational climate.

Given the newness of the innovation department at the OE-unit and the limited number of participants in the research, relying on a few key informants was crucial for the empirical findings. Blumberg et al. (2011) emphasize the importance of having a few key informants. However, there is also a risk of the researcher becoming too dependent on them and their input to the research. Relying too heavily on the information provided by just a few informants can in fact jeopardize the trustworthiness of the research.

Even so, one measure taken to ensure trustworthiness has been to ensure comparability between interview answers. This has been achieved by using the same interview guide with all the research participants. (Blumberg et al., 2011)

Given the limited time frame for collecting data, reaching out to the participants and getting enough responses proved a challenge. Asking the individual participants to provide short written statements to the distributed questions enabled not only greater comparability but also a higher response rate. (Bryman & Bell, 2013) However, in order not to loose the explorative characteristic of the research, following up with less structured interviews provide more depth and understanding to the findings. (Blumberg et al., 2011)

Also, the newness of the innovation department may limit the respondents' experience of working with innovation projects somewhat. The newness might also influence on the individuals perception of the initiative and how the organizational climate for creativity is perceive.

Bryman and Bell (2013) discuss the pros and cons of conducting interviews over the phones compared with meeting face to face. Even though the discussions are interesting, given given the large geographical distance to the research participants, interviews had to be conducted over the phone or via Skype. With company policies not allowing the use of Skype the possibility to communication has been limited both in terms of practical means and time-scheduling, as the participants were required to conduct the interviews in their spare time and on a personal device using Skype. This seriously challenged the accessibility to the research participants. Furthermore, using English as the interview language may inflict some bias because of potential misunderstandings or difficulty expressing and explaining.

Here, using a semi-structured approach for interviewing lowered the language bar as it allowed for clarification, repetitions and questioning. (Bryman & Bell, 2013) However, using the approach of distributing a relatively more structured interview guide beforehand was helpful as it improved the general understanding of the research as well as the accessibility to and for the individuals to participate.

Lastly, something needs to be said about generalization, or transferability of the research findings. Generally speaking, a single case cannot be representative of other situations. Therefor, it cannot be generalized. (Bryman & Bell, 2013)

In accordance, given the uniqueness of organizational climate to its specific context, the aim of this study is not to generalize the results to a broader industry wide context. Nevertheless, the result of this study could be applicable to other similar contexts within the same greater OE-unit.

# 4. Empirical Findings

*The fourth chapter, empirical findings, present the primary data collected through semi-structured interviews. In order to ensure transparency and clearly present the research findings, the chapter follows the same order as the theoretical framework in chapter 2.*

## 4.1 Creativity and Innovation

The first topic of discussion is the definition of creativity and innovation. Respondent E (2015) describe how innovation and creativity basically mean the same thing, and that the only difference is the result. Respondent F (2015) continues to explain how creativity means thinking of how to do something better or in a different way.
Furthermore, respondent C (2015) emphasize that creativity is a process of thinking of new concepts, new ideas, solutions or ways of doing things. It is being analytical and open-minded enough to incorporate different factors and engage in discussions around how to improve on something. Respondent A (2015) states that to be creative mean coming up with good feasible ideas that can be implemented to create value for the company. However, being creative to some extent depend on an individuals personality, and some are therefor more likely to be innovative then are others.

Respondent C (2015) argue that innovation arise as a result of problems occurring in the everyday work. Innovation deal with the need for coming up with a solution for e.g. a quality issue or a customer claim. Most of the time, creativity and innovation is work related, relating to the need to find a solution to a pressing issue. Working to solve a problem can spark ideas of how to innovate and improve on something, but also give ideas for new ways of doing things. Similarly, respondent D (2015) explains how innovation has to do with optimization. If something is not working properly, or is not living up to its full potential, working with innovation mean coming up with potential new improvements.
Respondent C (2015) states that innovation comes from problems occurring in the everyday work routines e.g. working to solve quality issues or process inefficiencies.
As such, the goal of innovation is to improve on something, and working with innovation thus requires creative thinking and new idea generation. Therefor, creativity and innovation are connected and *"you need a spark of creativity to be innovative"* (Respondent C, 2015)

Activities of creativity and innovation does not exclude each other, rather they complement each other. (Respondent C, 2015) However, Respondent C (2015) emphasizes that creativity and innovation has different stages. Connected to this view, respondent E (2015) further argue that being creative is perhaps easier and more common than being innovative. This because it is easier to come up with new ideas than it is to implement an innovation. Respondent A (2015) expresses similar concern and explains that the primary focus for the OE-supplier organization today is innovation. Furthermore, coming up with new ideas is good, but if the ideas cannot be implemented, it cannot provide any value for the organization. Innovation is ultimately the implementation of ideas, and it is therefor more important to work with innovation than with creativity and idea generation. (Respondent A, 2015)
Respondent D and F, (2015) describe how the OE-unit most commonly works with innovation with regards to improvement or optimization work of a product of internal process. The primarily innovation work revolve around bottleneck situations, analyzing design weaknesses or optimizing products or processes. (Respondent C, 2015) Similarly, respondent B and E (2015) explain how innovation in the organization most often revolve around improvements to products and processes e.g. to increase efficiency and reduce costs.

Furthermore, the newly initiated innovation division at the OE-unit focus on working with smaller, already initiated, innovation projects. The purpose for this explain respondent A (2015) is so that the new innovation department can earn credibility and a greater confidence from the corporate head office in order to in the future get the opportunity and means to work with more innovative projects.

## 4.2 Creative Climate

The next section regards creative climate. Respondent A (2015), responsible for innovation management in the OE-unit argue the importance of idea generation and emphasize that everyone can be innovative. Everyone in the OE-unit is highly encouraged to be creative and share ideas and opinions. (Respondent C, 2015)

Idea generation is important, because even if most ideas presented turn out to not be feasible or implementable, some ideas will be interesting enough to pursue and thus have the potential to create value for the organization. *"Finding one good idea is a win for the organization."* (Respondent A, 2015)

The OE-supplier organization is a large organization, and respondent E (2015) describes how different parts also in the smaller more specialized OE-unit work differently with innovation. Respondent C, (2015) similarly describe how the different divisions house a climate that is more or less supportive of creative and innovative activities. Similarly, respondent A (2015) states that innovation is primarily on the agenda for management, and it is especially encouraged at upper level management. The primary organizational goal is rather to fulfill customer orders, with zero defects. (Respondent D, 2015) Innovation is thus not a priority for all divisions in the organization. In the more operational divisions e.g. production, the day-to-day routines and responsibilities are a strict priority. (Respondent A & C, 2015) Furthermore, respondent B (2015) do not believe that the organizational climate in the OE-unit offer good conditions for creativity. The main reason for this is the operational nature of most work performed, but also a heavy workload. Under these conditions, the organizational climate allows creativity to a certain point. (Respondent C, 2015)

## 4.3 Activities and Success Factors for Building a Creative Climate

### 4.3.1 Organizational and Managerial Support

Building an organization wide understanding for how and why innovation is important is central for promoting a creative climate in OE-unit as well as in the OE-unit. (Respondent A, 2015)

Respondent C (2015) explains how working with innovation expose individuals and teams to the possibility of being rejected or to fail. *"Innovation is like standing in front of a door not knowing what is behind it. If you don't open the door, you will never find out what's behind it"* (Respondent E, 2015). However, because innovation relate to working with improvements or optimizations of existing products or processes, respondent C (2015) further explain that encountering critique or doubt around whether an innovation is really necessary is common in the organization. Risk-taking is always present when working with innovation and the greatest risk relate to individuals being discouraged by failure or setbacks. Similarly,

respondent A (2015) emphasizes the risk-factor of working with innovation and respondent E elaborate with *"You definitely need to have a certain dose of courage to be creative."*
On the other hand, respondent B (2015) believes that creativity is not directly connected with risk-taking. Because risk has more to do with the implementation of innovation, risk should not be considered in the idea generation phase. Similarly, respondent C and D (2015) emphasize the fact that as an engineer the primary focus is safety and producing high quality products. *"As an engineer I don′t think risk-taking is important – I am focused on safety"* (Respondent C, 2015). Therefor, taking risks with creative ideas is not common in the OE-unit mean respondent D (2015). Nevertheless, respondent A (2015) explains that an important managerial activity is working to create a climate in which it is safe to share ideas, opinions and also to fail and try again. The organizational climate should support and encourage creativity and innovative activity, and not discourage individuals from trying.

Respondent B (2015) states that creativity is mainly encouraged with events and competition, and that creativity is recognized and rewarded with prizes, both material and financial, and public appreciation. Respondent F (2015) emphasizes the importance of creating a climate for continuous improvement in the organization and all respondents emphasize the importance of actively working to continuously recognize and reward creativity and innovation. (Respondent A, B, C, D ,E & F, 2015) However, the current innovation projects are not part of the daily task and responsibilities, and respondent A (2015) explains how there are no direct goals for these projects. Rather, having to strict goals could inflict on the daily routines and responsibilities. Without any set goals for this type of project, not having made any progress can in fact be excused if the regular tasks have instead been prioritized. As long as the daily responsibilities have not been neglected, there will be no consequence or critique towards slow innovation progress. Most of the time therefor, management will be supportive of the innovation projects. However, respondent C (2015) state that it can depend on the current workload. If the regular job is very busy and the workload heavy, the innovation projects are set aside. Keeping the daily routines running is prioritized over innovation, and if the regular responsibilities are neglected there can be consequences.  Again, the priority is to keep the daily routines up and running, and innovation is not part of the main activity.

Also, respondent E and C (2015) describe how different divisions in the organization work differently with innovation. Respondent C (2015) continue to describe how in the more operational divisions of the OE-unit, managers work with encouraging creativity through suggestion systems. Respondent A (2015) further explain how new ideas are received in several ways, but most commonly through the suggestion systems. Hereby, boxes are placed around the organization in which people are free to leave their ideas and suggestions. Ideas generally concern an identified issue or problem with a product or process and thus how to resolve or improve it. Local management assesses the ideas, and also provides feedback on selected ideas. (Respondent A, 2015)
It is by Respondent A (2015) also expressed that individuals working in e.g. production will not have the freedom to leave their daily routines to engage in creative discussions. Also, the workload and pressure to perform is different in these divisions, and individuals will not have the time to think creativity. Therefor, respondent C (2015) explains that on the production floor it is more common to work with creativity through suggestions. Here individuals coming up with an idea are encouraged to write it down, and put it in a box – a suggestion box. If an individual has a really good idea, the individual that came up with it is invited to a meeting where the idea is discussed further. This happens is a separate room or location. It is a nice place designed to make up a calm environment different form the regular work place. (Respondent C, 2015) Respondent A (2015) further explain that the purpose for this is to

inspire and stimulate creativity, but taking individuals out of the regular days work will also act as a reward – a reward of getting extra treatment for having come up with a good idea. Also, if an idea is very good, the inventor will be rewarded with a prize, like a ticket to a show or a financial bonus. (Respondent C, 2015)

Similarly, respondent A (2015) continues to explain how when working with other brainstorming activities such as workshops, these are purposefully held outside the organization. The reason for this being twofold; partly to make sure that the regular organizational routines are not disturbed, but the activity also act as a reward for those invited. Letting the selected individuals out of their daily routines for a day or a couple of hours act as recognition of their efforts towards innovation. It is also part of the system for public recognition, showing other organizational members that being innovative can be beneficial. Furthermore, respondent A (2015) emphasize that everyone in the organization is encouraged to be creative and come up with new ideas. To stimulate idea generation there are regularly held internal competitions specific to each different division.

The idea of the month competition for example, where the winner, with the best idea that month, gets his or her picture along with a description of the idea posted on the wall for everyone to see. It is also important to recognize the effort, and this is done either with gifts or with public recognition. The aim is to make the individual feel proud of the achievement and inspire others to follow by showing how creativity is beneficial both personally but also for the company. (Respondent A, 2015)

Publicly recognizing success thus has a dual purpose. Respondent C and D (2015) emphasize the pride of being appreciated for one effort, but also the inspirational effect of showing others the benefit of being creative in the OE-unit. Besides recognition and reward systems specific to different departments, the organization actively work to influence a creative spirit in the organization with organization wide events and competitions. (Respondent F, 2015) Respondent A (2015) further state that all major events are held outside the organization, in what is described as a very nice venue. A jury judges all ideas that are presented consistent of members from different departments with different expertise and experience. The winning ideas are rewarded with what is expressed as "*really nice presents and prizes*" (Respondent B, 2015). In addition, the selected best ideas also receive support for further development and implementation. (Respondent C, 2015)

### 4.3.3 Motivation and challenge

*"Creativity is the result of passion"* (Respondent B, 2015)

Respondent B (2015) argues that if you like what you do, you will be more creative. This is because when you enjoy working on something you are more likely to spend time thinking about it and wanting to solve any problems that may arise. The work will be challenging in a stimulating way. Similarly, respondent C (2015) state that it is important that you like what you do otherwise you will not be happy or motivated at work but rather risk getting board and demotivated. Respondent A (2015) elaborates and argues, "*if you are passionate about something, you will likely care more. It is always important to care*".

In order to perform, challenge and motivation is essential. Respondent E (2015) believes that if an individual do not feel challenged and motivated, it is impossible to be successful. Furthermore, respondent A (2015) believe that the need to feel challenged in order to perform relate to an individuals personal traits. Being lazy or under-stimulated in ones work can also result in creativity. For example, boring or difficult tasks can spark creativity in trying to get something done as fast as possible or making something easier to do.

Nevertheless, all respondents concur that pride and success are very important for staying motivated. Winning a competition, be it the "Best Idea" or one of the smaller internal ones, have a great impact on boosting the self-esteem and motivating to continue being creative and working with innovation. (Respondent A, B, C, D, E, & F, 2015)

All respondents also agree that the main motivational activities for creativity in the OE-supplier organization are public events, competitions, workshops and suggestion systems. (Respondent a, B, C, D, E & F, 2015) Respondent A (2015) further believes that all these activities send a clear message of encouragement and motivation, efficiently promoting creativity and innovation in the organization.

Respondent E (2015) describes the "Innovation event" as an inspirational event where individuals from the whole organization get together to learn about innovation and how to work with creativity. *"The event is inspiring because you can see how others solve difficult problems or work with interesting projects. It is motivating to think that if they can, so can I!"* (Respondent E, 2015) Respondent A (2015) elaborates and states that the innovation event is *"another step towards creating a creative environment in our company"* and that the goal of the event is simply to inspire and encourage creativity and innovation in the organization.

The "Best Idea" competition is the largest event in the organization. Respondent A (2015) describes how people from the whole organization are encouraged to participate and compete with their ideas. Compared with the more regularly held internal competitions, which are usually specific to the different departments, the "Best Idea" look for more developed ideas with greater innovative potential.

The competition also encourages mixed teams, with members from different departments. This helps to improve knowledge and information sharing in the organization, which aim to create positive synergy effects. (Respondent C, 2015)

Being recognized for ones efforts is very important to stay motivated. Not only when winning a competition, but in the regular every-day job as well. *"Demotivated people will not work efficiently, ever."* (Respondent C, 2015) However, it is not only gifts and prizes that motivate and create challenge at work. Respondent C (2015) express how feeling you belong to the organization and is part of creating its success is important. Also, feeling that what you do is important. Respondent C (2015) further describe how relatively simple measures of recognition in the form of managers knowing ones name or sending an appreciative email goes a long way in challenging individuals to do their best at work.

Working with innovation, risk-taking is always present and respondent C (2015) means that the greatest risk with innovation is being discouraged by failure or setbacks. Respondent A (2015) argues that rejection and failure is a normal part of working with innovation. It is however very important to not let individuals get discouraged by rejection or failure. Respondent C (2015) emphasizes the importance of communicating that it is okay to fail in order to motivate individuals to keep generating new ideas. Understanding that a failed project or idea is actually an important step towards finding the right solution or way of doing something can be important for challenging an individual to try again.

*"It took Edison some 150 tries to develop a working light bulb. One could see it as he failed to develop a working light bulb 150 times, but Edison himself explained that he had simply found 150 ways a light bulb doesn't work before coming up with a working solution.*
*If something doesn't work it is not a failure. It is simply having successfully proven that something doesn't work. But you have still done a good job and you are another step in the right direction to finding a way that does work."* (Respondent C, 2015)

Respondent B (2015) believe that the best motivation to move forward after a failed project is the work environment. Respondent C (2015) elaborate with *"I am a part of the company"*, emphasizing how being able to contribute to the organizational success brings pride and spark the challenge of keep working hard.

Respondent C (2015) also state that being motivated in ones regular job in not only about recognition with material or financial reward, but feeling that what one does matter. The knowledge of how the products developed in the OE-unit are used every day to save lives in traffic gives a sense of pride and responsibility. It is part of the job as an organization working with safety products to make sure that the products developed and produced are the best.


### 4.3.4 Work-Group Design

All respondents emphasize the importance of discussing different views and possible approaches when faced with a problem. Having people working together is very important, but diversity is crucial for creativity. Additionally, having multi-disciplinary teams and work-groups is then key for creativity and innovation. (Respondent A, B, C, D, E & F, 2015) This explains respondent E (2015) has to do with the fact that all individuals are essentially unique with their different skills, expertise and experience. This mean that given the background, each individual will approach a situation differently and will also be likely to have different ideas of how to solve a problem. Crucial for not only solving a problem, but to come up with the best solution possible is to invite to and engage in discussion. This is when the best ideas happen. (Respondent C, 2015)

Furthermore, respondent C (2015) strongly believe that with teams that are too homogeneous the members risk becoming too focused on one perspective and thus risk overlooking potentially better solutions. Therefore, an important activity is to make sure that teams and work-groups are diversified with regards to skill, expertise and experience. It is also important to consider including individuals normally working in different divisions, in the same group. (Respondent D, 2015) This argue respondent A (2015) is important because people working within different parts of the organization can have very different ideas of how to solve, work with something or even if an idea or method is feasible. For example, working on a new invention, an engineer might consider all the desirable functions to include as well as the ingenuity of a devise. An individual working in production on the other hand might be more practical, providing valuable knowledge on how to e.g. best assemble the new devise.

Respondent A (2015) describes how in order to promote creativity and innovation in the OE-unit and between divisions and different team, a new role has been created. The role, the innovation champion, who's responsible for working with, supporting and encouraging creativity and innovative activities, is most often a manager in the engineering division, and the purpose of the role is to aid the innovation work and promote collaboration between different divisions and innovation projects. The innovation champions are part of the management team, and the purpose is to be available for all employees and to encourage people to come see them and discuss any new idea, though or suggestion. As part of the lower management, the innovation champions work along side the regular employees on a daily basis. The idea is that since the employees have a closer relationship coming from the fact that they interact every, and are thus suggested to feel more confortable with these managers.

Because working on the innovation projects is not part of the day-to-day routine regular follow-up meetings are held on a monthly basis. The purpose of these is to allow for discussion and feedback on the project progress and the team members are able to ask for more resources. (Respondent C, 2015) Respondent C (2015) also emphasizes communication

and feedback between team members and managers, but also between lower and upper levels of management. An important activity is for upper management to communicate the importance of innovation through all levels of the organization. (Respondent A, 2015) Respondent C (2015) state that even though the innovation projects are not part of the regular day-to-day routines, management aim to encourage creativity in the everyday work situation. For this, Respondent A (2015), believe workshops and brainstorming sessions are effective activities. Similarly, respondent B (2015) states that workshops are effective activities to stimulate new ideas and discussions.

Respondent C (2015), furthermore describe how teams encounter problems and work with finding creative solutions on a weekly basis.

In such instances, brainstorming and discussions are useful activities for sharing knowledge and coming up with new ideas and solutions. *"Most of the time, the discussions are about work related problems because we need to find a solution fast."* (Respondent C, 2015) Respondent C (2015) also emphasizes the importance of inviting individuals from different departments. This because each individual will have view an issue with a unique approach and putting different expertise and experiences together will ensure a richer and possibly more rewarding discussion. Working with workshops is a common tool for brainstorming and idea generation. These are regularly planned occasions in which specific topics are to be discussed. Small groups with people from different departments with different knowledge and experience are invited. The goal of the workshops is to produce quantity, a lot of new ideas or solutions on a topic or to an issue that can spawn a foundation to keep developing in the future. Respondent A (2015) strongly emphasizes the importance of not criticizing or judgment behavior in these workshops. Having discussed many ideas, the most feasible ones will be take into further consideration and developed. (Respondent A, 2015)

Another common activity in the OE-unit explains respondent C (2015) is brainstorming in the every-day work. Most often *"The ground for innovation is the everyday work."* (Respondent C, 2015) Therefor, working to encourage in office discussions and brainstorming is important. Again, the need to interact and combine different points of view on a problem or new situation is strongly emphasized by respondent E (2015).

In the engineering department, offices are designed as an open landscape. Here explain respondent C and A (2015), individuals are free to move around and interact with their co-workers. Respondent C (2015) further elaborate; *"We are free to move around and interact with each other, and talking to your colleagues is important for coming up with new ideas and solving problems."* Moreover, the office space is equipped with tools such as flip charts and whiteboards to aid in brainstorming and discussions. Furthermore, having the right individual in the right place is very important both for the individual and the organization. Therefor, individuals are free to move around and see what other teams are working on. If one individual feel that the current tasks are not right, perhaps under-stimulating or the individual perceive that he or she does not have the right skills and expertise for a certain task, it is possible, even encouraged to switch and try something new. (Respondent C, 2015)

**4.3.5 Resource Allocation**

An activity that can significantly impact on how the OE-unit work with creativity and innovation is making sure that all projects have the right and enough resources to reach their goal. (Respondent B, C & D, 2015) Accordingly, respondent F (2015) state that to ensure a successful outcome resources available should match the targets of each project. Furthermore, respondent B along with C (2015), believe that the most important resource when working with creativity and innovation, is time. Time is a crucial and necessary resource, because it is difficult, if not impossible, to determine beforehand how long coming up with a new idea or

solution will take. One cannot put a time limit on creativity. (Respondent C, 2015) Respondent A (2015) elaborate and states; *"Innovation and creativity cannot be demanded"* Respondent A and E (2015), however, express a different view regarding the need for resources to enable creativity. They both express that the amount of resources available should not make a difference to creativity and promoting innovation. They agree that having resources can be good and helpful, but further argue that creativity happens when there is a need. Being faced with a problem, a lack of resources will therefor require an individual to be really creative to find a solution. "*Creativity happens when you are at the bottom and need to find a way to get out*." (Respondent A, 2015)

Respondent A (2015) explains how the goal of the innovation projects in the OE-unit today is to produce ideas and solutions that can provide long-term value for the company. For these types of project, limited pressure is applied to allow for creativity and idea development. However, today, as the innovation initiative is starting up, the OE-unit focus on projects ranging in the short to medium term. The purpose of these so-called "low-hanging fruits" is to deliver fast results and build credibility and confidence the department to handle larger projects in the future. With these current projects, respondent A (2015) state that the pressure is on to deliver fast. With regards to this, respondent B (2015) express that having too much pressure and too little time to work on a project makes it very difficult to be creative and think of different solutions, but simply having focus on getting the job done as soon as possible. Today, the innovation projects are not part of the regular daily work routine. Respondent C (2015) states that out of a 40 hours workweek, only approximately 2 hours are dedicated to innovation work. A project that would normally take a month to complete, now takes much longer. As the main goal of the organization is to keep the day-to-day routines and operations up and running, the innovation projects consequently become a side project. The limited time available also mean that in individuals working overtime explain respondent C (2015). It is further emphasized that having more time to work with innovation would not only be desirable, but it would most likely also result in better ideas and innovations.

# 5. Analysis

*The analysis aim to bring theory and empirical findings together in order to answer the research question. The theoretical framework provided a general understanding of how a creative climate can impact on how an organization works with creativity and innovation. The findings presented show how the OE-unit works with creativity and innovation. The analysis then aim to discusses how the OE-unit work with creativity and how these activities and key success factors promote a creative climate*

## 5.1 Activities and Success Factors for Building a Creative Climate

A successfully innovative organization has to understand the importance of promoting an organizational climate that continuously supports creativity as a key factor for innovative activities.
The following section analyzes the four activities that make up the creative climate at the OE-unit. Balancing activities and optimizing the use of each success factor is crucial for building a creative climate that will promote creativity and innovation in the long run. Therefor, the analysis also discusses how well it work with each activity and how well each of the success factors are utilized for each specific activity.

### 5.1.1 Organizational Support

Theory clearly states that the most efficient way to promote creativity and innovation is for the whole organization to support it. (Amabile, 1998)
An organization can actively work to motivation creativity and innovation by prioritizing a general orientation towards innovative goals. (Amabile 1988) It is important that the organization, as a whole, places value on innovation and actively strives to provide an organizational climate focused on being open and non-judgmental, install a sense of pride of work among the organizations members and enthusiasm about their capability to achieve creative work. Openness, active communication of new ideas and information, recognition and rewards for creative work and fair evaluation of work including "failure" are important elements in supporting innovation and creative activities in an organization. (Amabile 1997)
Ekvall (1999) further argue that with innovation being a corporate priority, individuals will be more likely to be creative, as they perceive the organizational climate as freer and more accepting allowing time for reflection, for new idea generation and testing different approaches. If on the other hand efficiency and short-term profits is communicate as a corporate priority, individuals become more preoccupied with speed and routines and risk loosing the motivation to be creative. (Ekvall, 1999)

In the OE-unit it is clear that innovation is mainly on the agenda only for management. It is also clear that how different organizational divisions work with and emphasize the importance of innovation varies a lot. (Respondent A, C, D & E, 2015)
Respondent A (2015) explains how the aim of the current innovation projects is to provide long-term value for the organization and the company as a whole. Therefor, to enable creative freedom and time for reflection, the innovation projects have no specific or very flexible goals and the pressure to deliver is minimal.
However, from what is evident from the interviews, because of the newness of the innovation initiative and the need to start up and build the innovation departments, managers are actively pursuing innovation projects with a relatively short timeframe. This is because working with

so-called "low-hanging fruits" (Respondent A, 2015) that deliver fast can be useful for earning the innovation department credibility. This will allow a greater confidence to handle larger and more innovative projects in the future. The pressure is high on these projects to deliver fast rather than coming up with the most innovative solution. Given the circumstances, it might also be difficult for the individuals to take the time, be creative and really develop a new and interesting idea. The focus is rather to get the job done, and move on to the next project. It is clear from the findings that in the OE-unit, working to maintain the daily routines is prioritized over innovation. The overhead goal of the OE-unit is rather to fulfill customer orders, with as few defects as possible. (Respondent D, 2015)

Furthermore, respondent A (2015) explains that the current innovation projects are generally not part of the daily task and responsibilities in the OE-unit. Therefor, there are no direct goals or guidelines for these projects. Rather, having to strict goals could inflict on the daily routines and responsibilities. As long as the daily responsibilities are not neglected, there will be no consequence or critique towards slow innovation progress and management will be supportive of creativity. Furthermore, respondent B (2015) does not believe that the organizational climate in the OE-unit offer good conditions for creativity. The main reason for this is the operational nature of most work performed, but also a heavy workload. It seems that creative thinking and idea generation is restricted in the organizational divisions that mainly work with production. This could relate to the strict routines and high pressure in the day-to-day activities to deliver. Individuals simply do not have the time, or cannot afford to take the time to be creative and develop new innovative ideas.

Theory states that innovation is commonly agreed upon to be a key success factor for building a sustainable competitive advantage. Theory also recognizes how creativity and idea generation is a fundamental part of the overall innovation process. (McAdam & McClelland, 2002) However, respondent A (2015) states that in the OE-unit, the primary focus is to innovate and the implementation of good feasible ideas that can provide value for the company. The fact that idea generation is a crucial part, even a prerequisite, (Ekvall, 1999) for innovation and that creativity should be considered the absolute precondition for innovation, is not considered.

Amabile et al. (1996) emphasized that all innovation start with creative ideas. This ultimately relate to the fact that without any new ideas, there can be no innovation.

Thus, by not recognizing the importance of idea generation and the importance of nurturing creativity, the OE-unit risks unintentionally hindering innovative activities.

Theory also states that the concepts of creativity and innovation are closely related and that it therefor can be difficult to distinguish between the two. (Mathisen, et al., 2012) Furthermore, theory also makes a difference between radical and incremental innovation. (Dodgson et al., 2008) Working with innovation in the OE-supplier organization has mostly to do with e.g. improving or optimizing products and internal processes in order to cut costs or improve efficiency. (Respondent D and C, 2015) It is thus clear that the OE-unit primarily work with incremental innovation projects. However, it also becomes clear from the findings that the distinction between creativity and innovation in the OE-units is very vague. Similarly, respondent E (2015) believes that innovation and creativity basically mean the same thing, and respondent C (2015) state that the two concepts does not necessarily exclude, but rather complement, each other.

Amabile (1988) argue that a business cannot become successful if it is focusing solely on creativity and idea generation or on innovation and the idea implementation process. Therefor, not having a clear organizational consensus on the difference between, or how to work with, creativity and innovation will make it difficult to work with creativity and build an organizational climate that promote innovation in the long run. This is partly because if creativity and idea generation is not recognized as a vital, and separate, part of the whole

innovation process. The most fundamental part of the innovation process is ultimately neglected. It is also because innovation is not recognized or communicated as an organization-wide priority.

Ekvall (1999) further explain how innovation often implies uncertainty in terms of the outcome. Innovation thus involves risk, and to be innovative a certain degree of allowance for risk and tolerance for failure is important for individuals to be creative and dare take a risk on a new idea. Creating a safe climate in which it is understood that any potential failures relate to the work and not the individual is vital for successfully promoting creative and innovative activities in the OE-unit. This is because when there is trust and tolerance between co-workers and managers, the knowledge that taking a risk will not affect someone personally will stimulate more creativity and innovative activates. Respondent A (2015) similarly argue that working with innovation expose both individuals and teams to the risk of being rejected or failing in their endeavors. An important managerial activity is therefore to actively work to support and provide genuine feedback and fair evaluation on innovation projects and new ideas. Amabile (1988) argue that feeling the support of the organization and more directly, management is an important feature contributing to intrinsic motivation for creativity. Good project management and encouragement for new ideas creates an atmosphere that is free of threatening evaluations. Ekvall, (1996) further elaborates that trust and openness is essential for individuals to dare put forward opinions and ideas. Therefor actively working to build an open organizational climate in which creative thinking and innovation initiatives are encouraged and not criticized is vital for long-term success.

Amabile (1998) also state that an organization should actively and continuously work to recognize and reward creativity. With the proper reward and recognition systems individuals can be encouraged to continue or even increase their efforts to be creative in the future. (Amabile et al., 1996) Not providing sufficient recognition however can spawn negative feelings within the organization and risk leaving individuals feeling underappreciated or even used for their efforts. (Amabile, 1998)

All respondents emphasize the importance of actively working to continuously recognize and reward creativity and innovation in the OE-unit. (Respondent A, B, C, D, E & F, 2015) Respondent B (2015) further explains how creativity and innovation is primarily recognized through competitions and rewarded with prizes and public appreciation.

An important success factor for building a creative climate through organizational and managerial support is therefor to develop and establish suitable systems for rewarding and recognizing both creativity and innovation in the OE-unit.

It has from the interviews become clear that when rewarded or when doing any type of event etc. the individuals are taken out of the company, or at least out of their regular work environment. (Respondent A, B, C, D, E & F, 2015) This is partly meant to reward the individuals, partly not to disturb the regular work in the organization. However, the main purpose is to bring the individuals into a new and encouraging environment where individuals feel secure and positively stimulated to be creative.

By taking individuals with creative ideas out of the organization effectively also take creativity and innovation out of the OE-unit. This risks creating a sense of dullness in the regular work environment. The OE-unit should rather strive to create an organizational climate that is safe and encourage all individuals to think creatively and innovate in their regular workday.

One thing mentioned by respondent C (20015) is that much of the innovation in the organization relate to everyday problems. In this organization, creativity and innovation is closely related to the work activities and daily situations and occurrences. Therefor, the organization should strive to build an overall creative climate in the entire organization enabling individuals in all divisions to be creative. Those individuals who have come up with

an idea shout not be taken out of the organization to discuss and develop it. Then creativity and innovation risk being associated with other places, and when the individuals eventually return to the OE-unit and their regular tasks, they enter a different less creative climate and also a less creative mind-set. Rather, it is paramount that creativity and innovation should be associated with the place of work that all individuals see every day. This could stimulate more individuals to think creatively and generate more new ideas more often.

The climate should also promote creative thinking all day long in every organizational activity. By remaining inside the organization, creativity and idea generation can more efficiently be connected to the regular place of work. There is a saying; out of sight, out of mind, and if the creative individuals are taken out of the organization, it will be very difficult to influence creativity with the remaining individuals. If, on the other hand, the creative individuals remain in the organization, others will be more aware of the ongoing creativity and innovation work. All respondents also identify public recognition as a commonly used tool for recognizing creativity in the OE-unit. (Respondent A, B, C, D, E & F, 2015)

However, public recognition can be argued to be selective. Amabile, (1998) discuss how not properly recognizing efforts can leave individuals feeling neglected. If some individuals are very clearly rewarded, others risk feeling overlooked and thus become demotivated to continue trying and generating new creative ideas. Even if the intention with the public recognition reward system is to inspire individuals to be creative, not every individual can be recognized. Thus the selective manner might risk creating feelings of disappointment or hopelessness in the long run. This is not an efficient way to promote creativity and work with innovation in the long run.

Lastly, even though there currently are systems for recognizing and rewarding creativity and innovation in the OE-unit, the effort could be increased. Developing systems for recognition and reward that do not take creativity out of the organization could increase the levels of creativity. Instead, by highlighting the benefits of being creative and showcase how to work with innovation inside the organization, more individuals could learn how to think creatively and be inspired to themselves try something new.

| Activity | Success Factors | |
|---|---|---|
| Organizational Support | • Prioritizing innovation | ✗ |
| | • Managerial support | ≈ |
| | • Feedback & evaluation | ≈ |
| | • Reward & recognition | ≈ |
| | • Open & non-judgmental climate | ✔ |

**Table 3: Success factors for organizational support.**

✗ Absent
≈ Ambigous
✔ Present

### 5.1.2 Motivation

Theory emphasizes motivation as the most important factor for promoting creativity. (Amabile 1998) Therefor, perhaps the most important managerial activity is to motivate and encourage individuals to be creative and generate new ideas.

Theory further discusses two approaches to motivation, intrinsic and extrinsic. It is suggested that comparatively, intrinsic motivation is more effective at stimulating creativity in the long run, than is extrinsic motivation. This is because intrinsically motivated individuals grow with

confidence and self-fulfillment while working on something challenging and stimulating. An extrinsically motivated individual on the other hand, work solely to obtain a reward of sorts, and after having received it, the motivation to work dwindles. (Amabile, 1998 & Yu Kyoung Park et al., 2013) All respondents believe that liking what you do and being motivated is highly important to doing a good job, but also to be creative and generate new interesting ideas. Furthermore, pride of achievement and success are identified as the most important factors for staying motivated in ones work. (Respondent A, B, C, D, E & F, 2015) This view among the respondents can be connected to the organizational and managerial activities of motivating creativity and innovation. All respondents concur that the main motivational activities in the OE-unit are events, competitions and public recognition. (Respondent A, B, C, D, E & F, 2015) Working to motivate individuals to be creative is an ongoing process. The literature highlights the importance of motivation in managerial activity to support and encourage creativity and innovation. Both extrinsic and intrinsic motivation can be useful, but as has been concurred in previous research, extrinsic motivation is not as effective in building long-term innovative activities in an organization. (Amabile, 1998)

The OE-unit has in accordance with previous research used both extrinsic and intrinsic methods to motivate and encourage creativity and innovation. However, the motivational tools most commonly used, with the use of prizes, financial compensation, gifts and public recognition, fall under the extrinsic motivation category.

As the literature suggests, extrinsic motivation can be an efficient tool for creating an initial interest or enthusiasm for something, in this case innovation. However, having gained the interest of the organizations individuals, it is crucial that the OE-unit now continue to work to maintain and increase the interest for innovation. This can then most efficiently be accomplished by building on the intrinsic motivation with individuals to be creative and innovate. One good example of potential improvement relate to the articulated importance of pride in the OE-unit. Pride currently relate to achievement and is thus highly connected to extrinsic values which will not endure in the long run. A good way to spark intrinsic motivation is, as discussed, to allow individuals to feel what they do matter. This can of course be difficult. However, given that the basic purpose of each product and solution developed at the OE-unit is to safe lives, the job done by each individual actually do matter. Individuals should then rather be encouraged to feel pride over developing and delivering products that save lives. This provides great potential for intrinsic motivation, and the OE-unit need to capitalize on it by communicating the importance of each individual members contribution. Communicating the importance of the OE-units work and products should increase the general intrinsic motivation to work. However, several respondents make an interesting point. The fact that because the company work with developing and producing safety systems and products, quality and zero defects is more important than taking a risk on a new idea for a product. (Respondent A, B, C & D, 2015) This means that the nature of the company and the products it develops and produces influence the attitude of the individuals working in the organization. It seems working with products that are ultimately aimed to save human lives and reduce accidental damages, influence the mind-set of the individuals developing them. Focus is rather on high quality and zero defects than on creativity and innovation. It is perhaps understandable because if something is under par, real life consequences could be severe. Therefor, the respondents emphasize quality over pursuing new and less developed concepts. Today, the safety aspect of the products manifests itself in the OE-units rigid routines, a zero-defect policy and high quality output. Although very important, this risk fueling a fear of doing something wrong might have catastrophic consequences. The fear of ultimately doing a mistake that could result in damage or worse from product use, effectively limit the curiosity and enjoyment of being creative with the products. Working to produce products that safe lives and make an important difference

should be an important motivational factor. This should be emphasized more and used to inspire intrinsic motivation among individuals. Thus, if individuals were encouraged to think of new and better products and solutions that could save even more lives etc., the willingness and the intrinsic motivation to be creative would be greater.

Again, the organization does have some motivational methods that also work to spark the intrinsic interest with an individual. A good example of this is the innovation event that aim to creating a general understanding of why innovation is important and generally inspire the individual employees to be creative and try new things. (Respondent A & E, 2015) Amabile et al. (1996) further argues that a positive sense of challenge can increases the general motivation to attack and solve a problem and thus contribute to making the work performed more intellectually challenging and stimulating. This in turn is important for effectively ignite intrinsic motivation. Similarly, respondent E (2015) believes that if an individual do not feel challenged and motivated, it is impossible to be successful. Thus, in order to perform, challenge and motivation is essential. A positive sense of challenge is thus recognized both in the literature as well as among the individual in the OE-unit as important for being creative. Furthermore, Ekvall (1999) argue that in a high-challenge climate, individuals tend to become emotionally involved in the organizations goals and thus experience so called positive stress and are intrinsically motivated when working on a meaningful project. The competitions, the rewards and being successful currently provide a strong sense of challenge for the individuals in the OE-unit. (Respondent A, B, C, D, E & F, 2015) However, again the newness of it all might be a contributing factor to the excitement to compete. Competition generally entails winners and losers. One can therefor question how motivated an individual will be to keep making an effort to come up with new ideas year after year without receiving any reward or recognition. This is the case with both the large organization wide events and competitions as well as the more informal ones held internally. Since the preparation for the e.g. the "Best Idea" competition is mainly done outside of the regular work, (Respondent C, 2015) the heavy workload of working both the regular job and then working to develop a new idea or an innovation project risk putting very high pressure on the individuals. To ensure the continuation of idea generation and creativity in the OE-unit, it is very important to make sure that the workload does not tip over and working with innovation becomes a contributor to negative stress. Ultimately, the individuals need to be challenged by something else besides the excitement of the competition and the sense of success. They need to be intrinsically motivated in order to prevent the motivation to innovate to decrease with time.

| Activity | Success Factors | |
|---|---|---|
| Motivation | • Encouragement | ≈ |
| | • Challenge | ≈ |
| | • Intrinsic motivation | ✗ |

**Table 4: Success factors for Motivation.**

✗ Absent
≈ Ambigous
✔ Present

### 5.1.3 Work-Group Design

Carefully considering the work-group design is according to theory an important managerial activity. Making sure that individuals with different background, knowledge and skills work together is a good way to encourage creative thinking, discussions and idea generation. (Amabile et al., 1996)

In accordance with theory, all respondents clearly express the importance of having multi-disciplinary teams. Furthermore, having people working together is very important, but diversity is crucial for creativity. (Respondent A, B, C, D, E & F, 2015) Similarly, Amabile et al., (1996) state that encouraging collaboration in an organization can enhance idea sharing and increase the probability to successfully promote creativity and innovative activities.

An essential part of assembling diversified teams and work-groups is to combine different skills, expertise and experience. However, respondent C (2015) also discusses the potential benefits of including individuals from different organizational divisions in a team. This is because an engineer and an individual working in production might have very different ideas of how to design e.g. a new product or devise.

One of the goals of the innovation initiative and the new innovation department is to increase information and knowledge sharing across the organization and create a synergy between divisions and teams working with innovation. Actively working with workshops in which members from different parts of the organization are invited to share their experience and expertise is having positive effects on the efforts to create information and knowledge synergies working with innovation.

However, when working together with individuals different from each other, preventing misunderstandings and conflict is important to ensure successful collaboration. To do so, Mathisen, et al., (2012) argue that establish clear goals and objectives for a project is crucial. Respondent A and C (2015) both explain that there generally are no specific goals or objectives for working with innovation in the OE-unit today. This is primarily because too tight deadlines and demanding goals could potentially conflict with the regular work. However, setting some guidelines could simplify and enhance success of cross-functional collaboration in the organization. Furthermore, not having clear goals and direction for the innovation work could hamper creativity and the successful outcome for innovation in the long run. Without goals and clear directions of what to do, what to achieve or how to do it, it can be difficult for such diversified teams, who may not meet on a daily basis, to pick up where they left off and continue to work efficiently. Furthermore, not setting goals might fuel a feel that the innovation work is less important, and something that is not prioritized by the organization. As have been discussed, creating a sense of challenge is crucial for building intrinsic motivation. Not feeling that the work performed in innovation is prioritized or important does not create a positive feel of challenge. Rather it might cause individuals to question the need for innovation at all, and thus make them less willing to spend time and effort on it in the long run.

A key factor for promoting creativity is to give individuals freedom and especially work autonomy. (Amabile, 1988) Work autonomy allow each individual to approach a problem in ways in which they can make the most use of their personal specific skills and expertise. (Amabile et al. 1996) Allowing individuals to freely decide how to go about and solve a problem will foster creativity because it improves the individuals' intrinsic motivation and sense of ownership in their work. (Amabile, 1988)

Respondent C and A (2015) explain how in the engineering department, offices are designed as an open landscape and individuals are free to move around and interact with their co-workers. Being able to freely move around and connect with different individuals has been discussed as a key success factor for generating creative ideas and develop ideas into

innovations. However, it is also expressed that not all individuals in all divisions in the OE-unit, enjoy the same freedom and work autonomy. (Respondent A, 2015) It is therefor clear that the OE-unit to some extent allow work autonomy, but to properly promote creativity the effort should be increased.

Also, because working with the innovation projects is not part of the day-to-day routine the regular follow-up meetings held on a monthly basis are crucial and should be increased. The purpose of these is to allow for discussion and feedback on the project progress and the team members are able to ask for e.g. more resources. (Respondent C & A, 2015) Here, communication is a key factor that is to some extent utilized, but could be more efficient. These meetings provide a good opportunity for individuals and managers to together discuss how the OE-unit works with creativity and innovation and how it could be improved, changed etc. This is also partly the job of the appointed innovation champions. However, similarly to the division between working with innovation and the regular routine work, the task as a champion is in constant conflict with the everyday task as a manager. Holding more frequent regular meetings and using the meeting also as a discussion forum for how to work with creativity could be beneficial. An important activity is for upper management to communicate the importance of innovation through all levels of the organization. (Respondent A, 2015) Respondent C (2015) also emphasizes communication and feedback between team members and managers, but also between lower and upper levels of management. Regular meetings could then also contribute to more efficiently communicate and spread the overall corporate goal and vision for working with innovation. Even so, with all respondents articulate the importance of multidisciplinary teams it is my belief that management at the OE-unit is aware that assembling diversified work-groups is a key success factor for working with innovation and promoting creativity in the organization. Supporting this is also the fact that the OE-unit actively encouraging job rotation as an important step in the right direction to increase knowledge and idea sharing in the organization and also for creating a synergy for innovation work. Also, the presence of innovation champions is a good initiative to promoting creativity and innovation in the everyday activity. However, if the OE-unit were to increase the number of innovation champions and also introduce them to other organizational divisions as well, more individuals could be reached and inspired. With more innovation champions in place, the OE-unit could also work more efficiently with communication in all levels and divisions of the organization.  However, most important is the absence of goal clarity and direction for the current innovation projects. This is a key success factor that is currently missing in the OE-units work with creativity and innovation. Introducing goals and guidelines could markedly improve the efficiency of the innovation projects, which in turn would effectively increase creativity and innovative activities in the OE-unit.

| Activity | Success Factors | |
|---|---|---|
| Work-Group Design | • Assembling diversified groups | ✔ |
| | • Cross-functional collaboration | ✔ |
| | • Work autonomy | ≈ |
| | • Communication | ≈ |
| | • Goal clarity | ✗ |

**Table 5: Success factors for work-group design.**

✗ Absent
≈ Ambigous
✔ Present

46

**5.1.4 Resource Allocation**

As have already been discussed, the OE-unit does not make the same prioritization with regards to innovation throughout the whole organization. This is also evident in the discussion around resource allocation.

Theory states that resource allocation is an important activity to enable and support creativity and the innovation process. A key success factor is further prioritizing resource for innovation. Amabile, (1998) explain the importance of allocating the right and a sufficient amount of resources to each project in order to accurately support the innovation process. Furthermore, Ekvall (1999) explain how a lack of resources may restrict the possibility to take risks or try out new concepts and can thus also hamper the motivation to be creative in the organization. Therefore, how different resources are allocated within the OE-unit and between divisions and projects can directly relate to how the different divisions or even teams work with creativity and innovation in the organization. The respondents view on the importance of resource allocation to stimulate creativity and enable innovation is divided. On the one hand, it is expressed that in order to reach a goal and ensure a successful result, having sufficient and enough resources is crucial for any project. (Respondent B, C, D & F, 2015). On the other hand, it is also argued that resource availability should not make a difference for creativity. Rather, creativity is a result of a need, and when faced with a problem, a lack of resources will require an individual to really think outside the box to come up with a creative way to solve it. (Respondent A & E, 2015)

The fact that the innovation projects currently have no specific goals might be the reason that resources are not properly allocated. Without any goals or guidelines it can be difficult to determine how much, both time and other resources, will be needed.

Even though Ekvall (1999) to some extent discuss how resource scarcity may stimulate creativity, the need for sufficient resources is dominant in the previous literature. Similarly, Amabile (1998) argue that without the proper resources or tools to work with or solve a problem, individuals risk channeling their creativity towards finding alternative resources and thus not into developing new creative solutions.

However, the most important resource in an organization is its human resources – the individual employees skills and expertise. (Amabile 1988)

Everyone can be innovative, state respondent C (2015), however, respondent A (2015) mean that being creative to some extent depend on the individuals personal ability. Thus, some individuals would be more likely to be able to thinking creatively and engage in innovative activities. However, the conception that only "creative people " are able to be creative is being questioned in the contemporary theory. Rather, Amabile (1997) state that given the right conditions, anyone with normal capabilities can be creative.

Whether creativity is a personality trait or a technique that can be thought is not clear in the OE-unit. Also, making a difference between individuals, and making assumptions of their ability to be creative depending on background and personality skills, risk the organization missing out on valuable ideas and inputs from those individuals excluded from the innovation process.

Furthermore, as discussed in the componential theory (Amabile 1988), creative thinking can efficiently be developed if individuals are provided with the right tools and training. Once again, the lack of resources in the OE-unit might hamper creative thinking and innovation by simply not prioritizing sufficient resource allocation towards e.g. employee training in creative thinking and expertise development. It s clear from the interviews that the OE-unit currently does not train its individuals in creative thinking. Rather, individuals are expected to be creative and think of new ideas according to their current capabilities and knowledge.

Amabile, (1997) argue that creative thinking skills can be actively developed and improved by learning and by practicing techniques to increase flexibility and intellectual independence. McAdam & McClelland (2002) also emphasize that creativity enhancing techniques such as brainstorming can be useful tools for improving an individual's creative thinking and improve knowledge sharing. Utilizing organizational techniques to promote and train creativity skills and problem solving can thus be key to influence the type of creative and innovative activity in an organization. (Amabile, 1998)

Prioritizing resource allocation to innovation work is crucial to build a climate in which creativity and innovation is actively and successfully promoted. However, it is clear that different parts of the OE-unit work and prioritize innovation work differently. As the primary focus is on performing in the regular day-to-day tasks and responsibilities, one can question the allocation of different resource to the innovation projects. Furthermore, it is reasonable to think that since the OE-unit prioritizes the regular work before innovation, resources are allocated accordingly. In order to more efficiently promote creativity and thus enhance the number of long-term profitable innovation projects, more resources need to be distributed towards training individuals in creative thinking, ensure cross-functional collaboration and ensure all projects have sufficient resources to perform their tasks and reach their goals. However, as long as the priorities remain the same as today, the innovation work will remain a side project.

Working with innovation and creativity can sometimes be a time-consuming venture. Exploring new concepts and developing new creative solutions can take time, and theory state that allowing sufficient time for working with creativity and innovation is crucial. (Amabile, 1998) Similarly, most respondents express the importance of time as a resource for working with innovation projects. Because it is difficult to beforehand determine how long it will take to come up with or develop an idea, one cannot set a time limit on creativity. (Respondent A, B & C, 2015) Therefor, a key success factor for resource allocation is to prioritize time for innovation. Respondent A (2015) explains how the aim of the innovation projects is to provide long-term value for the organization and the company as a whole. Therefor, to enable creative freedom and time for reflection, the innovation projects have no specific or very flexible goals and the pressure to deliver is minimal. However, from what is evident from the interviews, because of the newness of the innovation initiative and the need to build and start up the innovation departments, managers are actively pursuing innovation projects with a relatively shorter timeframe. This is because working with the so-called "low-hanging fruits" (Respondent A, 2015) can deliver fast and be useful for earning the department credibility and a greater confidence to handle larger and more innovative projects in the future. The pressure is high on these projects to deliver fast rather than coming up with the most innovative solution. Given the circumstances, it might also be difficult for the individuals to take the time, be creative and really develop a new and interesting idea. The focus is rather to get the job done, and move on to the next project.

Amabile (1998) argue that because creativity require time, it is also important not to set too tight deadlines, but setting clear and stable goals for the work is crucial. Being creative takes time sometimes, and in order to develop an idea for a specific target, the target needs to stay the same. By changing the project goal, or as in the OE-unit, not even setting a clear goal, coming up with a new suitable idea with long term value-adding potential for the organization, is very difficult.

This is essentially because working with short-term projects does not allow for time to reflect upon or develop different concepts and ideas. Rather working with constantly changing targets will make it difficult to be creative and deliver truly innovative solutions in the long

run. Furthermore, even though the need to get the innovation work going and develop the innovation department is understandable, focusing on short-term goals could be damaging to long-term innovation and to building a creative organizational climate in the OE-unit. This is because apart from not having the time to work on and develop ideas long-term, resources risk being prioritized with regards of running short-term and fast reward projects. Thus leaving innovation projects with true potential lacking resources in terms of sufficient time, knowledge, material resources and financial means.

Also, as have been discussed, the respondents explain how working with innovation is not part of the daily activities in the OE-unit. What is also evident from the interviews is the enthusiasm for working with innovation. Enthusiasm is good, and it builds intrinsic motivation as discussed in theory. However, the lack of time available to work with innovation in the normal workweek has resulted in individuals working over time.
An important consequence to consider is when the challenge of working with innovation goes from being a positive challenge stimulating new ideas and creating energetic motivation, to simply becoming a personal burden.

| Activity | Success Factors | |
|---|---|---|
| Resource Allocation | • Prioritizing resources for innovative activities | ✗ |
| | • Prioritizing time for innovative activities | ✗ |
| | • Train creative thinking & problem solving | ✗ |

**Table 6: Success factors for resource allocation.**

✗ Absent
≈ Ambigous
✔ Present

**5.1.5 Success factors**

Theory discusses how an organizational climate is shaped by both organizational routines and the influence of individuals working in the organization. Ultimately, it is the individual that carry and manifest the climate, and it is the ambition and motivation of both individuals and groups that both limit and give potential for an organization to be innovative in the long run. (Ekvall, 1999)
Individuals' ability to be creative and generate new ideas can be greatly influenced by the overall organizational climate. . (Amabile 1988)
Therefor, since it is the organizational setting that promotes creativity and innovative actions, working to build a creative climate must start with the internal environment. The aim should be to start to develop the organizations internal environment to become more creatively and innovatively stimulating. (Ekvall, 1999)

The table below summarizes all activities currently utilized in the OE-unit. The table also shows which key success factors for each activity is optimally utilized and which ones could be better utilized to successfully work with both creativity and innovative activities in the OE-unit.

| Activity | Success Factors | |
| --- | --- | --- |
| Organizational Support | • Prioritizing innovation | ✗ |
| | • Managerial support | ≈ |
| | • Feedback & evaluation | ≈ |
| | • Reward & recognition | ≈ |
| | • Open & non-judgmental climate | ✔ |
| Motivation | • Encouragement | ≈ |
| | • Challenge | ≈ |
| | • Intrinsic motivation | ✗ |
| Work-Group Design | • Assembling diversified groups | ✔ |
| | • Cross-functional collaboration | ✔ |
| | • Work autonomy | ≈ |
| | • Communication | ≈ |
| | • Goal clarity | ✗ |
| | • | |
| Resource Allocation | • Prioritizing resources for innovative activities | ✗ |
| | • Prioritizing time for innovative activities | ✗ |
| | • Train creative thinking & problem solving | ✗ |

**Table 7: Success factors for building a creative climate.**

✗ Absent
≈ Ambigous
✔ Present

50

# 6. Conclusion

*The final chapter concludes this master thesis by summarizing the key points derived from the research and also aim to fully answer the research question. The chapter rounds off with some recommendations for the OE-unit, and lastly a short discussion for future research and consideration.*

## 6.1 Summery

Operating in an industry that to a large extent is dependent on the rapidly changing trends in technological development, the OE-supplier organization emphasize innovation as a crucial tool for maintaining a competitive position on the market today and in the future. Innovation is thus recognized by the overall corporation as a key factor to building a sustainable competitive advantage for the future. Thus, the company as a whole has clearly shown their determination in building a strong competitive advantage through innovation. The objective of the OE-units new innovation department is similarly to create an organizational climate in which innovation is actively encouraged and simultaneously supports the corporate vision for innovation.

It can be concluded that the OE- unit shows a clear ambition to work with innovation. The importance of working to promote and becoming more innovative throughout the entire organization is also strongly emphasized. The fact that there is support for innovative activities from head office of the OE-supplier organization is positive. However, it is important to remember that this is a large corporation working with two quite different product lines, technology and also type of innovations. Working with active safety for example require radical game-changing innovation, while working with passive safety, as in the OE-unit, require more of incremental innovation. Working primarily with improvements and optimization can be argued not to require the same type of innovative activity or ingenuity as working with radical innovation. Hence, it is possible that the OE-supplier organization should more clearly define their overall goals for innovation to better fit with regards to different organizational units and their current type of innovation work – radical or incremental.

The research reveal that in accordance with the overall corporate goal to become more innovative, the OE-unit demonstrate an open and non-judgmental climate suitable for promoting creativity and idea generation. This is an important factor for successfully working to build a creative climate and long-term innovative activities. However, the most important factor for promoting both creativity and innovation is to make sure it is a clear priority throughout the whole OE-unit. It can further be concluded that because of the newness of the innovation initiative in the OE-unit, innovation is primarily on the agenda for management and not all divisions are included and encouraged to work with innovation. Similarly, not prioritizing innovation also ultimately affects the organizations resource allocation. Prioritizing resources for innovation projects and perhaps most important, to allow for time to work with innovation is crucial for long-term success. Furthermore, the OE-unit does not distinguish between creativity and innovation, making it difficult to ultimately prioritize good idea generation as a fundamental first step in the innovation process. In order to successfully build a long-term competitive advantage through innovation, recognizing and working with creativity as a fundamental part of the innovation process, is crucial.

Answering the research question;

**How can the climate at OE-unit promote creativity as a key factor for innovative activities?**

Keeping in mind that you have to crawl before you can walk, and you have to walk before you can run, building a creative climate is a long-term, time-consuming project. The newly established innovation department is doing good work at building an organizational understanding of how and why it is important for an organization to be innovative. However, it should also be focusing on the importance of creativity.

The OE-unit has a strong focus on innovation or rather on actionable implementation of improvements to existing products and internal processes. It can from the research be concluded that the primary focus is on incremental innovation and improvement of existing products and processes. The overall corporate objective is to enhance innovation efforts in the organization. However, the fact that the OE-unit is primarily working with passive safety systems and comparatively more basic safety and product features, creativity may not be as highly prioritized as in the rest of the OE-supplier organization. Compared with active safety product development that involves radical innovation, high creativity and idea generation, passive safety and incremental innovation does not require the same type of ingenuity and effort.

In order for the climate at the OE-unit to become truly creative, it is important to prioritize innovation and recognize creativity as a key factor for innovation. The research suggests that there is an understanding of the connection between innovation and creativity in the OE-unit. However, it is important to more clearly define the innovation process and the different tasks for the different phases of e.g. idea generation and idea implementation. This is simply because generating creative new ideas is substantially different from implementing ideas, but generating new ideas is paramount for being able to be innovative in the long run. Without any new implementable ideas, there can be no innovation. Therefor, working to promote creativity in the OE-unit will be crucial for a long-term success of the new innovation department.

Having done so, the OE-unit should further consider how to more efficiently work with the identified activities that can effectively enhance both creativity and innovative activities. To add further value to these activities, understanding how each successfully contribute to promoting creativity and idea generation, as a key factor in the innovation process is important.

Two sub-questions were therefor added to provide a more profound understanding for how the climate at OE-unit promotes creativity as a key factor for innovative activities.

- *What are the main activities for building a creative climate?*

- *What are the key success factors for building a creative climate?*

There are several activities in the OE-unit that aim to work with and promote creativity and innovation. Four of these were identified as; organizational support, motivation, work-group design and resource allocation. For each activity, a number of key success factors was identified and evaluated from the context of how well the OE-unit utilized each.

Having analyzed both the existing theory and the OE-units current organizational climate, the research provide a comprehensive understanding of how the organization currently work with activities that promote creativity and idea generation. Furthermore, the research also provides

an understanding for which key success factors ultimately drive success in each activity building a creative climate in the OE-unit.

It is concluded that some of the activities make efficient use of the identified success factor. One of the main objectives for the innovation initiative was to enhance the creative climate by creating a synergy between different divisions and organizational functions. This would allow for greater knowledge transfer and information sharing in the organization, thus increasing the possibility to be creative and working with innovation. Having established an open and non-judgmental climate the OE-unit works well with assembling diversified work-groups and encouraging cross-functional collaboration and building greater organization-wide synergy with regards to innovation.

However, while working well with some success factors, others are either only partly utilized or completely neglected. It can be concluded that the OE-unit does not utilize its main organizational activities in a efficient manner to promote creativity and innovation. The consequence of this being often inconsistent results in terms of working with creativity and innovation throughout the organization.

It can furthermore be concluded that knowledge about how to work with specific success factors for each organizational activity can be useful for identifying future areas of improvements for the OE-unit. Successfully building a sustainable creative climate, the OE-unit need to incorporate and actively balance all identified success factors.

The OE-unit does currently work with factors such as managerial support, feedback and evaluation just like they work with encouragement and communication. However, as discussed in the analysis, all of these could be more efficiently utilized and greater emphasize should be placed on including all individuals in the OE-unit.

Furthermore, it has been established that the OE-unit does work to create challenge, allow work autonomy and recognize and reward creativity and innovative activities. However, these efforts are not optimal and require restructuring to e.g. build more intrinsic values in the organization. Lastly, it can also be concluded that despite good efforts and intentions, the OE-unit has failed to work with some of the most vital success factor; goal clarity for innovation, training creative thinking and problem solving, and prioritizing time and resources for innovation.

Final remarks relate to the newness of the established innovation department at the OE-unit. Creating and building a creative climate has been established as vital for successfully working with innovation long-term. The OE-supplier organization has a clear ambition, and the OE-unit show a willingness to work with innovation and build a creative organizational climate. The current climate in the OE-unit however only allow for creativity to a certain extent. Not all parts of the organization and not all individuals are included in the work and the primary tool for stimulating creativity is through extrinsic motivation.

It can therefor be concluded that the OE-unit is doing a good job in having begun building a climate for creativity and innovation. However, it is a continuous effort and in order to successfully promote creativity as a key factor for innovative activities, and ensure successful innovation work in the future, more effort needs to be put towards building a climate in which all members of the organization are encouraged to think creatively. Furthermore, the OE-unit needs to rethink its priorities and increase effort in promoting intrinsic motivation for being creativity and working with innovation.

## 6.3 Recommendations

The OE-unit today has started the important work of building a climate where creativity is a key factor for innovation. Having established an open and non-judgmental climate where sharing ideas, opinions and engaging in debate without the fear of being criticized is very important step to encourage and promote creativity.

However, in order to continue to build a creative climate in which both creativity and innovative activities are successfully promoted, it is important for the OE-unit to recognize the value of creativity and idea generation as the foundation of all innovation. Without creativity and new ideas there can be no successful innovation in the long run.

Therefor, working to better communicate the importance of creativity as well as innovation should be a prioritized long-term goal for the OE-unit.

It is also important to nurture and encourage creativity and idea generation among all individuals in the OE-unit in order to generate enough creative ideas to build and fuel innovative activities in the long run.

To do so, having the proper managerial support in the OE-unit is crucial. It is ultimately the managers that are responsible for motivating, supporting and providing feedback on creative efforts. It is also the task for managers to work with rewarding creativity and innovation, creating a climate of challenge and freedom, manage group and team work across the OE-unit and finally allocate the right and enough resources to each new project.

As have been discussed, the OE-unit does work with all activities mentioned, however, most does not fully utilize the full potential of its specific success factors.

Motivating for innovation and creating a positive feel of challenge has been established as a very important managerial activity and the OE-unit currently work with establishing and building an organization-wide interest for innovation. Creating challenge and motivation primarily through competition and extrinsic motivation through rewards and public recognition primarily achieve this. These are good short-term methods to ignite the motivation and interest for innovation. However, a long-term recommendation with the aim to build a more creative climate is to actively work to sustain and grow the interest for innovation. Increasing the effort to working with intrinsic motivation as discussed in the analysis can do this. Working with intrinsic motivation is however not a fast solution, but a continuous and necessary challenge for all managerial levels of the OE-unit.

The recommendations discussed so far are of great importance for the OE-unit to successfully build a climate in which creativity is a key factor for promoting innovative activities in the future. However, there are also some more hands on recommendations that the OE-unit should consider working with as early as today.

Every individual in the OE-unit should be included or at least welcomed to be creative. Therefor, the number of innovation champions should be increased and introduced in more divisions of the organization. Creativity and innovation need to be better connected to the OE-unit and working with developing creative ideas etc. should to a greater extent remain inside the organization and around the regular work.

A crucial part of managing for innovation is to make sure that there are the right and sufficient resources on hand. As the innovation department grow it will surely be granting more resources towards innovation products, but it is important not to neglect working with creativity and e.g. training individuals to think creatively on a regular basis. More resources and time need to be devoted towards these ends in the OE-unit, and perhaps even more importantly, managers need to set clear goals and objectives for every project. Setting clear goals and objectives for each project will ensure greater consistency in the work and output, even if a project working with innovation is not part of the regular daily routine. This being

said, given the emphasized importance of innovation by the OE-supplier organization, working with innovation as part of the daily routine should be given greater emphasis in the OE-unit as well.

Finally, the table below summarizes the key success factors that are not fully utilized in the OE-unit. Working to optimize the full potential of each factor in each activity, both in a short and long-term perspective, is crucial for building a organizational climate in which creativity is a recognized key factor for innovative activities. It should further be emphasized that the OE-unit also continuously have to work to maintain those factors and activities that are already in place as discussed in the analysis.

| Activity | Key success factor to optimize | Short-term | Long-term |
|---|---|---|---|
| Organizational support | • Prioritize innovation | | ✔ |
| | • Managerial support | ✔ | |
| | • Feedback & evaluation | ✔ | |
| | • Reward & recognition | ✔ | |
| Motivation | • Encouragement | ✔ | |
| | • Challenge | | ✔ |
| | • Intrinsic motivation | | ✔ |
| Work-group design | • Work autonomy | | ✔ |
| | • Communication | ✔ | |
| | • Goal clarity | ✔ | |
| Resource Allocation | • Prioritizing resources for innovative activities | | ✔ |
| | • Prioritizing time for innovative activities | | ✔ |
| | • Train creative thinking & problem solving | | ✔ |

**Table 8: Success factors with potential for improvement.**

## 6.3 Future Research and Considerations

During the course of this research some observations and considerations call for future research on the subject.
First off, the research was limited to one organizational unite which is ultimately part of a much greater corporation with high internal diversity. Climate is ta a large extent unique to its specific domain, and therefor, choosing a single case study seamed appropriate. However, since the studied organization is part of a much larger organization, the overall organization should in practice have the same or at least similar climate structures. It could be interesting to compare the climate in different in divisions or business units. Benchmarking activities

used in different organizational divisions could be useful to derive the most commonly used activities and success factors. Thus determining an organizational wide best practice. Furthermore, as shortly discussed in the theoretical framework, the concept of climate closely relate to the concept of culture. Examining the role of culture on climate could also provide some useful insights for working with creative climates.

Lastly, the amount of information available on innovation and creativity is seemingly endless. One subject only briefly discussed in this thesis is the influence of leadership on both creativity, innovation and ultimately the existence of a creative climate in an organization.

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# Appendix 1

Interview guide for semi-structured interviews.

**Background**

- What is your role in the organization? Please explain.
- What is your role in the project group? Please explain.
- What responsibilities do you have in your role? Please explain.

**Creativity**

- What does creativity mean to you?
- How is creativity different form innovation?
- How is creativity encouraged in the organization? In the project group? Please give an example?
- How does the work environment in the organization enable the employees to be creative? (foster creative behavior)
- Can you please describe the most innovative/creative project you have worked on
- Is it important that different projects have enough/the right competences/resources to be creative and to reach the project goals? Please explain.

**Motivation**

- How is motivation important to encourage creativity in the organization?
- Please tell me what motivates you to think creatively and to be creative in your work?
- How important is it to feel challenged in your work? Please explain?
- How is creative activities and innovative behavior recognized in the organization?
- In what way do you believe risk-taking is important for creativity? Give an example?
- How are you motivated to move forward after a failed project? Please give an example?

## Appendix 2

| Statement | Strongly Agree | Agree | No Opinion | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| Freedom and work autonomy is important for fostering creativity. | | | | | |
| The organization provides a work environment where the employees are free to be creative in their work. | | | | | |
| Good project management and clear project goals/objectives is important for fostering creativity. | | | | | |
| The organization provides clear goals and good project management for each new project and innovation process. | | | | | |
| Encouragement is important to foster creativity and innovation. | | | | | |
| Creativity and creative behavior is encouraged in the organization. | | | | | |
| Having the right and sufficient resources is important for generating creativity. | | | | | |
| It is important for creativity to match different skills and expertise in a workgroup/team/new project. | | | | | |
| In the organization different skills and expertise are matched to fit with each new project. | | | | | |
| Receiving recognition for a work well done is important for encouraging creativity. | | | | | |
| The organization provides recognition for creative and innovative work. | | | | | |
| It is important to feel challenged and motivated in your work. | | | | | |