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Bridging the gap between formulation and realization of the organization's strategy
one step closer to success

Voorwinden, T.C.

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of the organization's strategy

One step closer to success

STRATEGY ST

IMPLEMENTATION AVE

ARCADIS AVE

I. Colophon

Master Thesis, June 2016

Title: Bridging the gap between formulation and realization of the organization's strategy

Subtitle: One step closer to success

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II.   Preface

In front of you lies my graduation thesis which is written in collaboration with Arcadis and Eindhoven University of Technology. During my studies I came across many innovative ideas, sustainable opportunities and the willingness to improve the current way of business. Organization their strategy is a tool to realize these new features and prospects. Arcadis shared my curiosity to efficient implementation processes and filling the gap between formulation and realization of organizations' strategies.

With the background of a construction engineer, I delved myself into the world of business management. Arcadis provided pleasant work environment and I experienced a lot of open minded people. I would like to give special thanks to my supervisor Rudi Pelgrum who helped me discovering the implementation process and shared his experiences. Many thanks goes to my supervisor Allard Kastelein with whom I had a lot of interesting meetings and supported my process. In addition, I like to thank Gamze Dane, all the interviewees and Arcadis to their contribution of this thesis.

Lastly I like to thank Thijs Pannekoek, my family and friends for supporting me during my thesis and my masters Construction Management and Engineering.

I wish lots of reading pleasure to the reader of this thesis.

Tessa Voorwinden

's Hertogenbosch, June 2016.

III.   Executive summary

Many organizations aim to differentiate themselves within their market. To accomplish this, they apply strategy uniquely tailored to their organization. However, a strategy is not a guarantee for success. A step towards reaching their strategic objective requires a careful implementation plan. This plan turns the strategy into action, and must be implemented across all levels of the organization. Few organizations successfully implement their strategy. Factors that impact the successful implementation include leadership, organizational culture, organizational structure, resources, planning and other external factors. As each organization and strategy is unique, there is no single 'key factor to success' or standardized implementation model. Even the lessons learned within an organization may not be applicable to the next strategy implementation, since the basis of the strategy could be very different.

This research focusses on strategy implementation for Arcadis. The aim of this thesis is to identify the most efficient process to implement the new strategy, in order to accomplish the desired outcomes that align with the vision, mission and values of Arcadis.

Arcadis is a design and consultancy organization, which operates with the slogan 'Improving quality of life'. Climate change, urbanization and increasing complexity globally are challenges which they aim to overcome. In order to reach their goals, Arcadis has developed a new strategy. They are currently exploring the best approach to implement this strategy. Arcadis operates with a divisionalized structure, with each division functioning largely independently, with their own strategy. Middle line managers form the core of the organization, whose performance is assessed by top management. The development of an implementation model is done for the division environment. The key part of this division focusses on the operation core which is related to the professional bureaucracy. The overall strategy of Arcadis can be described as an analyzer strategy, where risks are minimized and profits are maximized. The combination of a divisionalized structure and analyzer strategy, or the combination between a professional bureaucracy and an analyzer strategy both contribute to increased organizational performance.

The aforementioned factors which influences strategy implementation can be divided into multiple sub-factors. To establish the ranking of these factors, a survey was conducted among stakeholders, including market group leaders, head advisory group leaders, team leaders and senior advisors. Stakeholders across the management hierarchy were included in the survey and subsequent validation conversations. Behaviors, preferences and opinions of the stakeholders were investigated. Employee as well as manager motivation emerged as the most important drivers of strategy implementation. The overall level of motivation across the organization was assessed, and found to be moderately positive. Employees preferred to provide and receive feedback every quarter via their direct manager. The results of the survey showed that there are need for measurement standards for the strategy implementation. Significant correlations have been found between preferences for distribution of tasks and responsibilities and preferences regarding the provision of updates and personal motivation. In addition, strong correlations were observed between the preference for providing updates and getting updated as well as between personal motivation and role. The stakeholders' preferences and the top five factors that influencing strategy, were included in the model.

These top five include motivation of employees and managers, understanding of goals and targets, similarities between goals and priorities, resource allocation and implementation in daily routine. These factors were translated into actions in order to be included into the model. Actions that increase motivation include involving the affected stakeholders into decision making. Participation in decision making is therefore included in the model. A thorough understanding of the goals and targets of the strategy is accomplished by dividing the main goals into smaller sub-goals with corresponding targets. The development of focus points of the strategy contributes to alignment between goals and priorities. Resources are allocated through a bottom-up approach. The people on the work floor identify the required resources, and based on this, the manager determines the final allocation. The manager ranks requested resources according to predetermined priorities and bears the final responsibility. In order to implement the strategy into the daily routine, goals are integrated into targets of individual teams and employees. The actions are included in the implementation model, and further elaborated on.

The implementation model provides an overview of the processes. The activities are divided over the phases, do, check, and act. The RACI-model is used to set out the activities against the stakeholders. This provides clarity regarding which responsibilities are carried by which employee. The Business Process Model Notation (BPMN) provides a schematic overview of the implementation process. In this model, the relationship between the stakeholders, activities and the corresponding documents is presented. The combination of the RACI-model and the BPMN model contribute to the efficiency of the strategy implementation process.

The developed model is specified for Arcadis and its stakeholders. This means that this model is also suitable for subsequent implementation of another environment strategy involving the same stakeholders within Arcadis. The RACI model and the BPMN model are suitable as general strategy implementation models. The content of the activities can be adapted to suit the overarching business culture, the stakeholders and the strategy.

IV. Samenvatting

Veel organisaties willen overleven en het markt aandeel verhogen in hun markt sector. Om dit te bereiken hanteren ze een unieke strategie welke is toegespitst op hun vakgebied en wensen. Deze strategie wordt gebruikt als hulpmiddel om het doel te bereiken. Echter zal een strategie geen garantie geven voor succes. Een stap dichter bij succes is gebaat bij implementatie van deze strategie. De implementatie transformeert een strategisch plan om tot actie, dit dient te gebeuren op alle niveaus van de organisatie. Slechts een klein aantal bedrijven slaagt erin de strategie volledig te implementeren. Leiderschap, organisatie cultuur, toewijzing van middelen, organisatie structuur, planning en externe factoren zijn de hoofdfactoren die van invloed zijn op strategie implementatie. Elke organisatie is uniek en hanteert daarbij een unieke strategie. Er bestaat geen 'sleutel tot succes' of standaard implementatie modellen. Zelfs de eigen ervaring van organisaties kan niet altijd toegepast worden op de volgende strategie implementatie. Dit is wat het implementatieproces zo ingewikkeld maakt.

Dit onderzoek richt zich op het strategie implementatie proces van Arcadis. Het doel van deze scriptie is het onderzoeken van het meest efficiënt implementatie proces voor de nieuwe strategie welke past in de visie, missie en waarden van Arcadis.

Arcadis is een ontwerp en adviesbureau en past de slogan 'Improving quality of life' toe in de werkzaamheden. Klimaatverandering, verstedelijking en toenemende complexiteit zijn uitdagingen waar Arcadis mee werkt. Om de doelen te bereiken, is de strategie voor de komende jaren vernieuwd. Om deze strategie waar te maken, dient deze eerst geïmplementeerd te worden. Arcadis heeft een divisiestructuur. De divisies zijn onafhankelijk van elkaar en elke divisie hanteert een eigen strategie. Het zwaartepunt van de organisatie ligt bij de midden lijnmanagers wie worden gecontroleerd op resultaten door het top management. Het ontwikkelen voor een implementatie model wordt gedaan voor de divisie milieu. Deze divisie hanteert een professionele bureaucratie. De algemene strategie van Arcadis kan worden beschreven als een analyse strategie. Risico's worden geminimaliseerd terwijl winst wordt gemaximaliseerd. De combinatie tussen een divisie structuur en een analyse strategie of de combinatie tussen een professionele bureaucratie en een analyse strategie dragen beide bij aan het verhogen van de prestaties van de organisatie.

De bovenstaand genoemde factoren die van invloed zijn op strategie implementatie zijn onderverdeeld in verschillende deelfactoren. Door een enquête af te nemen onder betrokken personen is een ranking van deze deelfactoren ontstaan. Benaderd zijn de marktgroep leider, hoofd adviesgroep, teamleiders en senior adviseurs. Daarbij zijn van elke managementlaag mensen betrokken door middel van interviews en validatie gesprekken. Op deze manier zijn gedrag, voorkeuren en meningen van betrokkenen onderzocht. Motivatie van werknemers en leidinggevende zijn gekenmerkt als meest belangrijke drijfveren van de strategie implementatie. De algemene motivatie is getest in de enquêtes en kan worden beschreven als gematigd positief. Elk kwartaal update geven en feedback ontvangen via de direct leidinggevende blijkt sterk de voorkeur te hebben. Daarbij is er sterke behoefte aan het introduceren van meetstandaarden. Significante correlaties zijn gevonden tussen de voorkeuren wat betreft verdeling van verantwoordelijkheden en taken en tussen voorkeuren

van geven van updates en eigen motivatie. Daarbij zijn significante correlaties aangetoond tussen het geven en ontvangen van updates en tussen eigen motivatie en functie. De voorkeuren van de betrokkenen en de top vijf van beïnvloedbare factoren op strategie implementatie zijn meegenomen in het model. The top vijf deelfactoren die invloed hebben zijn motivatie van werknemers en managers, begrijpen van de doelen en targets, gelijkenissen in doelen en prioriteiten, toewijzing van middelen en het implementeren in de dagelijkse routine. Deze deelfactoren zijn getransformeerd naar acties om te in te kunnen voegen in het model. Begrijpen van de doelen en targets van de strategie zijn bereikt door het verdelen van het hoofd doel in kleinere doelen met bijbehorende targets. De ontwikkeling van focus punten van de strategie zorgen voor afstemming tussen doelen en prioriteiten. Het toewijzen van middelen wordt gedaan door middel van een bottom-up benadering. De werkvloer identificeert de belangrijks middelen en geeft dit door aan de manager. Deze rangschikt de aanvragen met de vooraf gestelde prioriteiten en is eindverantwoordelijk voor de daadwerkelijke toewijzing. Het implementeren van de strategie op de werkvloer gebeurt door de subdoelen van de strategie te koppelen aan persoonlijke en team doelstellingen. De activiteiten zijn verder uitwerkt en opgenomen in het implementatie model.

Het implementatie model zorgt voor een overzicht van de processen. De activiteiten zijn verdeeld in de fases plan, do, check, act. Het RACI-model combineert de activiteiten aan de betrokken personen. Daarbij is te zien welke verantwoordelijkheid van welk persoon vereist wordt. Het BPMN (Business Process Model Notation) geeft schematisch het implementatie proces weer. De relaties tussen de betrokkenen, activiteiten en bijbehorende documenten worden hier weergegeven. De combinatie van het RACI-model en het BPMN model draagt bij aan het efficiënt implementeren van de strategie.

Het ontwikkelde model is gespecificeerd op Arcadis en de betrokkenen. Dit houdt in dat dit model ook geschikt is voor een volgende milieu strategie waar dezelfde mensen bij betrokken zijn binnen Arcadis. Het RACI-model en het BPMN model zijn geschikt voor algemene strategie implementatie. De inhoudelijke activiteiten kunnen worden aangepast aan de algemene bedrijfscultuur, betrokkenen en de strategie.

V.   Abstract

The creation of a strategy contributes to the achievement of an organization's aim. However, often little attention is paid to a strategy's implementation. This research focusses on the gap between formulation and realization of an organizations strategy. The main objective of this research is to develop an implementation model for the environmental strategy of Arcadis Europe. First, a literature review was performed to investigate the strategy development process, its relation with the organization's structure and factors which influence strategy implementation. Several in-depth interviews were conducted in order to gain organization-specific insights into behaviors and communication around the current implementation process. With the use of a survey, preferences from stakeholders were assessed. The results of the survey showed that communication regarding the strategy is preferred via the direct manager and once every quartile. In addition, the need for a measurement standards was raised. The factor with the biggest impact on strategy implementation is motivation, both of employees and managers. In order to include results within the implementation model, these results were transformed into activities. Motivation of employees is reached by involving the affected stakeholders in decision making. All the activities are included in the RACI-model. This model shows the connection between the stakeholders and activities and the corresponding level of responsibility. The BPMN model provides a schematic overview of the implementation process. The relationship between stakeholders, activities and corresponding documents are included in this model. The combination of these two models contributes to efficient implementation of the strategy.

VI. Table of Contents

1   Introduction

'We choose to go to the moon. We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard, because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win, and the others, too' (Kennedy, 1962). In a time just after the invention of electric light, where telephones, cars and airplanes became available and where nuclear power and penicillin was developed, John F. Kennedy wanted to go to the moon. A huge challenge which needed great investments. And he did, July 16th 1969 was Neil Armstrong the first man to put a foot on the moon. After the mission, the space shuttle returned to earth. Kennedy's challenge has been met. Men from earth have walked on the moon and returned safely home (NASA Administrator, 2015). This is an example of excellent strategy and implementation. Kennedy had a goal, he made a strategy and took care of the realization.

Organizations, big or small, have a goal. A strategy can be used as tool to reach this goal but is worth nothing without implementation. There is no key solution to success since the market is divers and so are the goals of different organizations. The aim of many commercial companies is to increase their revenue or extend their market. This is often created by offering products and service to clients. Commercial companies exist in many legal forms and sizes, from sole proprietorship to multi-national companies. It speaks for itself that in spite of the same aim the approach of those companies differ from each other. The way to increase revenue is dependent on both internal and external factors. A strategy is an instrument to keep balance between those two points.

Making profit and market extension is an aim of many commercial companies. This is how they establish the existence of the organization. Revenue is made by selling products or services. Businesses can sell directly to the consumer (B2C) or to other businesses (B2B). Creating profit is necessary in order to ensure continuity and survival of the future.

An instrument which helps to ensure the short- and long term goals of an organization is a strategy. This strategy describes the method which will be used in order to reach the desired aim of an organization. Mission, vision and aims are used to create the strategy. In order to compete with other organizations and to be responsive to the client wishes, it is of interest to be up-to-date about external trends and developments and knowing the strong and weak points of the organization (Visie&Strategy, 2011). Both the internal and external environment influences the strategy, just as a strategy can influence the environment as well. According to Teece, 2010, having a strategy is applicable in situations when clients can choose business, when transaction cost are involved and when competition is present. It must be said that commercial companies are often operating in such an environment. They constantly have to position themselves on the market and have to present new value propositions to their (potential) clients (Teece, 2010).

In January 2015, more start-up organizations have occurred than have declared bankruptcy. This is an upward trend, related to the recovering economy (KvK, 2015). Strategy alone does not give a guarantee for success, as well as success is not always a result of strategy. For instance, success can also be the effect of the growing economy or market. However, a

strategic plan can provide guidelines for an organization and a road map to the desired future. The step closer to success is enhanced by having an implementation plan of the strategy. This plan is just as important as the strategy it selves, it turns the strategy into action. The strategy has to be implemented at all levels within the organization, in order to function optimal.

Many companies focus on the creation of the strategy. The implementation is often underestimated, in spite of the importance of it. This might lead to failing of strategy implementation. Jeffrey Pfeffer – Stanford University – said the following: *'Successful organizations understand the importance of implementation, not just strategy, and, moreover, recognize the crucial role of their people in this process'*. This indicates the importance of implementation and the employees' influence of this process. Hambrick & Cannella, 1989: *'Without successful implementation, a strategy is but a fantasy'*. Therefore, this research is conducted to define a strategy implementation model. This study consists of a theoretical and practical part. The theoretical part focusses on the creation of a strategy and the factors which influences the implementation. The practical part consists of research to the desired process of the strategy implementation.

1.1 Problem definition

The strategy is created, the main points are clear and the planning is made. Stakeholders are enthusiastic and get started. The reality shows that after a while the managers are back in their daily routine: employees are getting less active and the strategy fades into the background. This situation is familiar in various companies. Almost 90% of the organizations fails to implement their strategy (Sage, 2015). Many factors are having influence on the success of the implementation process. The six main factors are leadership, organizational culture, organizational structure, resources, planning and external factors. Every organization, strategy and goals are unique and there is neither such thing as 'key factor to successes nor there are standardized implementation models. Lessons learned within an organization might or might not be useful for the next strategic approach. Figure 1 shows the challenge which companies are facing. Referring to this figure, the aim of this report is to provide the 'miracle' which is necessary to reach the goals of the organization. The next paragraph consists of the contributing research questions.
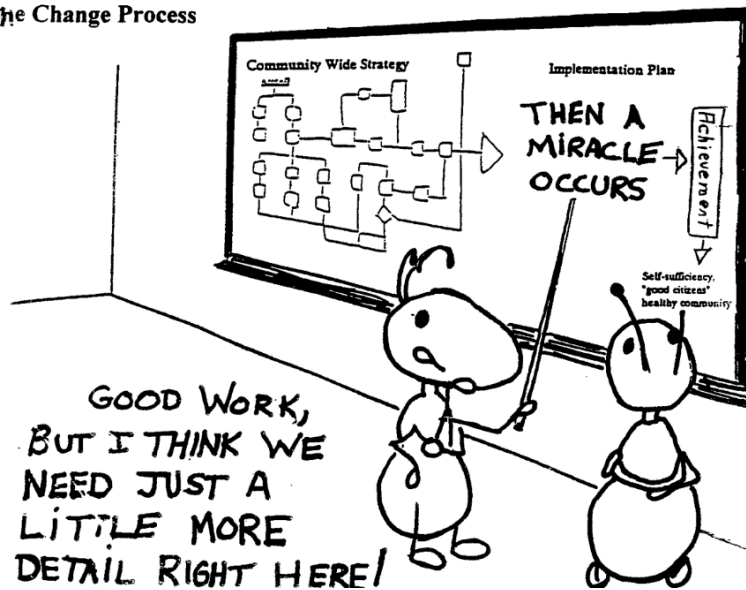
Figure 1: Problem strategy implementation (source: Goffeney, 2012)

1.2   Research questions

The research objective of this thesis is to develop an implementation model for the current environment strategy update of Arcadis Europe. The main research question is drawn up based of the problem definition stated in paragraph 1.1.

What is the most efficient process to implement the new strategy in order to accomplish the aimed outcome of the strategy and fit into the vision, mission and values of Arcadis?

In order to answer this question, several sub questions are formulated suitable for the strategy for the business line environment within Arcadis Europe.

1. *What factors influences strategy and its implementation and what is the relation among these factors?*

2. *What is the desired strategic approach of Arcadis?*
   a. *Who are the stakeholders who have to work with this strategic approach?*
   b. *What are the attributes that are included in the desired approach?*
   c. *What are the preferences of the stakeholders who has to work with this approach?*

3. *What kind of strategic implementation model is suitable for Arcadis' environmental strategy?*

1.3   Research design

The regulative cycle of Strien is applied in this research, to conduct qualitative explorative approach. Explorations of attitudes, behavior and experience are the characteristics of this method. Gaining more understanding of motives and underlying research is the reason for to applying qualitative research. Qualitative research is relevant to discover social relations, and in research to new obscurity. In addition, it is used to cover the growing individualization of ways of living and the new diversity of milieus cultures and life styles (Flick, 2009). Qualitative

research focusses on orientation and discovering of elements which is applicable in this situation. Since the implementation strategy is unknown, explorative research is used to investigate the strategic future opportunities (Necessary knowledge to conduct a business research, 2016). The cycle of Strien focuses on the decision making and is highly suitable for business management and socio-scientific issues. It consists of five different phases which are shown in the figure below (Van Aken, Berends, & Van der Bij, 2007).
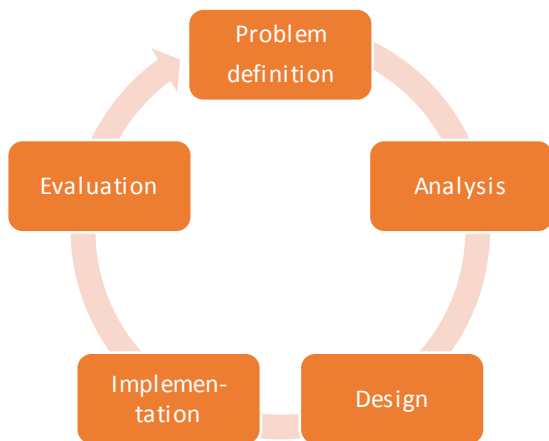
Figure 2: Regulative cycle of Strien (Van Aken et al., 2007)

1. Problem definition

This part consists of the theoretical framework of the research and answers sub research question 1[1]. Factors which influence strategy and its implementation will be examined by performing a literature review. Possible relations between those factors will be investigated. In addition, a study will be performed to the availability and usability of standardizes strategy and implementation models. This information can be used in the next steps of this research approach.

2. Analysis

The sub research question 2[2] will be investigated in this part of the research. The involved internal stakeholders are explored and the attributes which influences this approach are examined. Lastly, the preferences of stakeholders regarding these attributes will be clarified by a survey among the involved stakeholders.

3. Design

The results of the problem definition and analysis are combined in order to create the implementation model. This step will partly answer sub research question 3[3]. The current situation and the desired aim of strategy implementation is clear, the implementation model provide a road to close this gap.

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[1] What factors influences strategy and its implementation and what is the relation among these factors?
[2] What is the desired approach of Arcadis?
[3] What kind of strategic implementation model is suitable for Arcadis' environmental strategy?

4. Implementation

The created model will be validated in order to do a reality check. This validation will be done by several validation interviews with experts. The previous and this step together will answer sub research question 3. The actual implementation of the strategy is beyond the scope of this research, since it expected to take a fair amount of time.

5. Evaluation

An evaluation advice will be given to Arcadis. The actual organizations' evaluation of this implementation model is beyond the scope of this research since this is a continue process during the actual implementation.

1.4   Expected results

This research will provide a strategy implementation model for the environment business line for Arcadis Europe. However, due to time limitation, this research focusses on region North of Europe, which included The Netherlands. The main factors which influences the implementation, will be involved in this model. In addition, the model gives insight in which stakeholders are involved and their preferences regarding to those factors. The model reflects the optimal process for strategy implementation and contributes to the way to success.

1.5   Reading guide

This research is structured in phases in order to gain answers to the research question. Chapter 2 provides background information about the company Arcadis. Arcadis is responsible for the actual implementation. Therefore, general information and Arcadis' structure are discussed. In chapter 3 is a literature review conducted which investigate the structures, strategies and implementation methods. In addition, an overview is created of which factors have influence on a strategy implementation process. Chapter 4 provides insight in the stakeholders' preferences regarding to strategy implementation. The stakeholders are identified and questioned. The results are taken into account within the model making. This model is presented in chapter 5. Chapter 6 is dedicated to lessons learned of this research, both for Arcadis as for other organizations. Finally, chapter 6 concludes the thesis and offers recommendations for further research.

2   About Arcadis

The implementation model is developed for Arcadis. This chapter provides background information over this company. The general aim of this chapter is to provide a description of Arcadis and its own organizational structure. Chapter 4 provides more information about the structure, strategy and stakeholders of Arcadis.

2.1   Values and numbers

Arcadis is a design and consultancy organization. *'Applying our deep market sector insights and collective design, consultancy, engineering, project and management services, we work in partnership with our clients to create exceptional and sustainable outcomes throughout the lifecycle of their natural and built assets'* (Arcadis, 2016).

Climate change, urbanization and worldwide increasing complexity brings the need for solutions. Arcadis aims to optimize space in cities and make wasteland livable. Their slogan: Improving quality of life.

The values of Arcadis are sustainability, integrity, customer-oriented and collaboration. Health and safety are central and recurring factors within Arcadis, just as honest and trustworthy trading. The customer comes first. In order to achieve the best results, Arcadis wants to add value to the solutions. Diversity and power of worldwide collaboration can lead to optimization of results. Those four values have a central focus within the organization.

Worldwide, 28.000 employees are working at Arcadis. The company has 350 locations in 40 countries divided over the world. 21% of the turnover can be traced back within Europe whose 29% is for the division environment. This division is located within Europe in the countries Netherlands, Belgium, Germany, France, Spain, Italy, Poland and Switzerland.

2.2   Structure organization

The structure of Arcadis is organized by 'The Cube', which is shown in figure 3. It connect the region dimensions, business lines and market sectors. The sub regions within Europe are north, central and south. The environment strategy refreshment covers whole Europe, however, this report focusses on the sub region north which includes The Netherlands.

Figure 3: The cube, organizational structure Arcadis (Arcadis Nederland BV, 2016)

Market Sectors

Arcadis is active in various market sectors. The different sectors are chemicals & pharmaceuticals, oil & gas, financial institutions, power, conglomerates & consumer goods, contractors, automotive, commercial developers, strategic pursuits and big urban clients. There is an overall market sector manager and every sector as its own market sector leader on European level. There is many collaboration with the Value Proposition Leaders (VPL). A VPL contribute to strategy development by adding expected knowledge of the market. The sub region north has extra deviation in the market sectors and added central government, institutions, agencies, local municipalities, ProRail, public transport and (air)ports, rijkswaterstaat, provinces, waterboards and education to this structure. Also this region has market sector leaders for each sector.

Business line

This line focusses on the four divisions of Arcadis: infrastructure, water, environment, buildings. The business line has a European business line leader and on every sub-region level a business line leader as well. The focus of this report is the division Environment. Every business line is supported by four Value Propositions Leaders with as aim attracting the interest of the market and generate organic growth in the business. The hierarchy within the business line environment for sub-region north is shown in figure 4. The VPL's are not included but have influence in this hierarchy since they are allowed to make strategic choices.
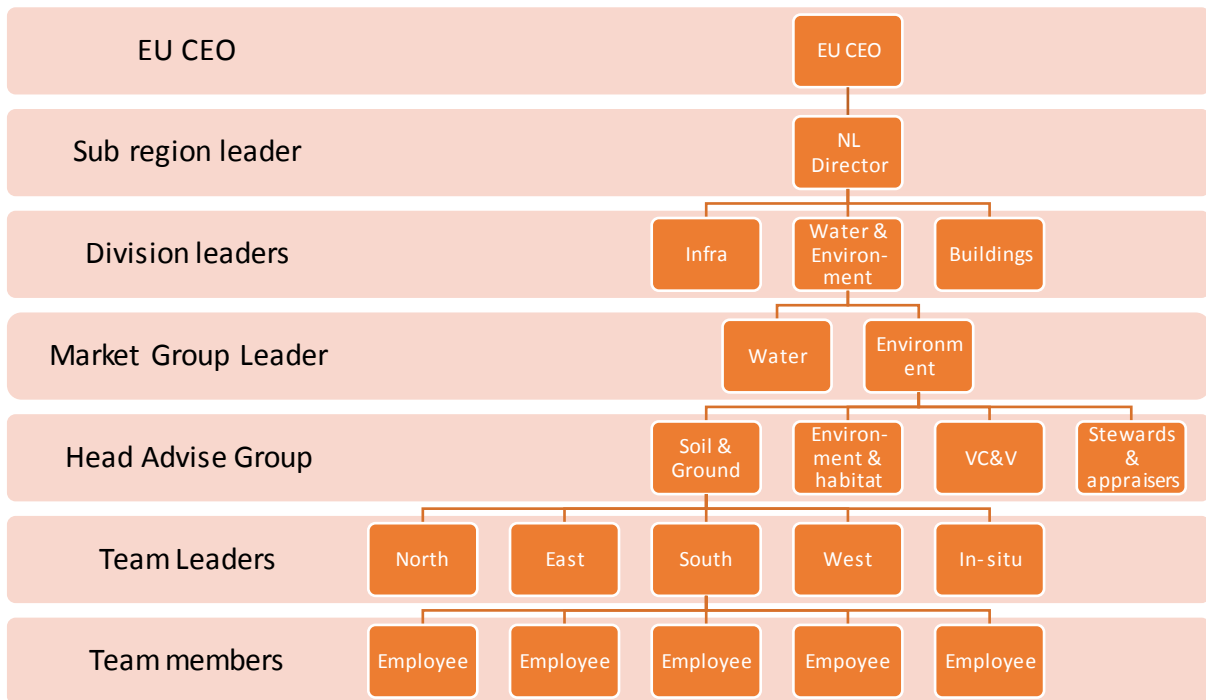
Figure 4: Hierarchy within Business Environment North

The policy making of the strategy of division environment happens in top 4 layers. The sub region leader, division leader and business line leader together with the market sector leaders and the value proposition leaders are present in these layers. The EU CEO has to approve the strategy and the strategy can be communicated to 'the line'.

Sub-regions

The sub- regions in Europe are divided in Europe central, south and north. The region north covers the single country The Netherlands. However, Arcadis is active in other countries as well, for instance Scandinavia. These are not included in region north since there is no location of Arcadis present due to the irregularity of projects.

Enabling functions

This includes both the techno structure and supported staff of the organization. Finance, HR, marketing & communications, performance excellence, IT, health & safety, legal, corporate real estate, procurement and sustainability is arranged on European level. The sub-region north has managers for the functions finance, performance excellence and HR.

3   Literature review

This chapter contains a literature review in order to investigate the research problem and the need for research to this topic. This review is constructed as an article. It starts with defining the research question which will be answered in the conclusion. Topics as organizational structure, strategy and implementation are discussed.

Analyzing aspects which influence strategy development and implementation in organizations: a literature review

The financial crisis in 2008 caused unrest for many companies. The market is recovering and the predictions of growth are positive. The biggest growth is expected in the built environment industry, but also other sectors are expecting growth (Technische Unie, 2015). The market and environment in many sectors are changing. Meanwhile, the challenge for many organizations is to survive and grow in their field. Yet, this is not easy and certain companies will be defeated. For instance the Dutch V&D in the retail sector is bankrupt, but also big worldwide industrial companies as General Motors had difficulty to survive. There are several factors which contribute to the success and performance of the organization. Strategy and implementation of this strategy helps a company to create a way to the preferred upcoming years. A strategy enables an organization to define a plan which includes long- and short term goals and provide a direction of the future (Grant & Jordan, 2015).

The purpose of this review is to identify the factors which influences strategy and its implementation. Several elements will be reflected in order to get a broad knowledge within the strategic field.

The market, environment and customers need is changing all the time. The shifting characteristics of these elements can be a motive for organizations to change. But the need to change can also result from impulses within the organization. Strategy can act as an instrument to reach balance between the intern and extern factors of organizations. When this balance is disturbed, the organization will become inefficient. The organizational strategy is dependent on the structure of an organization, just as the structure is dependent on the strategy (Bozkurt, Kalkan, & Arman, 2014). Also Maduenyi, Oke, & Fadeyi, 2015 argued that the structure of an organization has a huge influence on the performance of its employees. Nevertheless, a strategy and an implementation plan to apply this in the field needs to be developed. The balance between the elements is shown in Figure 5.
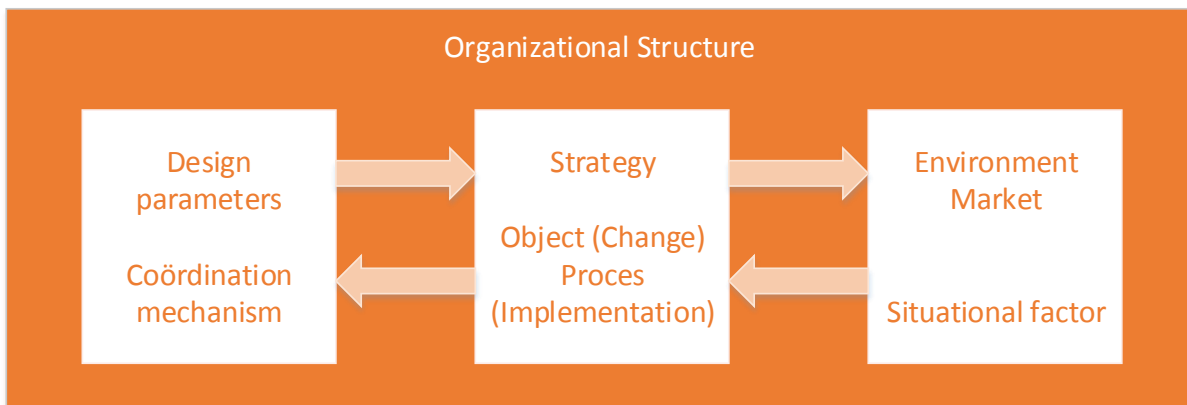
Figure 5: Relation strategy and structure (own design)

Unfortunately, there is a gap between strategy formulation and strategy implementation, while both aspects are just as important (Engert & Baumgartner, 2015). Mutually attention must be given to strategy and its implementation.

This article focusses on the elements which all contribute to the balance and can be influenced by organizations in order to keep this balance. These elements are the structure of organizations, the object strategy and design parameters, and the implementation process. The element environment and market is outside the scope of this research since an organization has little influence on this. Each feature which is described provides input about the different types and interrelationships.

The article starts with providing insight in organizational structures followed by obtaining knowledge regarding to strategies. The relation between structure and strategy is examined. After this, literature related to implementation is reviewed. The paper ends with conclusion and discussion from the subjects named above.

3.1 Organizational structures

The organizational structure and the organizational strategy are related to each other, as mentioned before. Both structure and strategy have a significant impact on the effectiveness in the organization (Zheng, Yang, & McLean, 2010). However, it is not clear whether structure influences strategy or strategy influences structure. Kim & Mauborgne, 2009 argues that the structure shapes the strategy of an organization, because companies are bounded by the existing environment. Nevertheless, a strategy can consist change of the organization. It is a vicious cycle where both factors can influence each other. Since they are related and both impact the effectiveness an organization, it is important to gain knowledge of those elements. This paragraph focusses on the organizational structures. Furthermore, five main elements of an organization will be discussed, as well as five main structures within organizations.

The business dictionary describe an organizational structure as a determination of how the roles, power and responsibility are assigned, controlled and coordinated and how information flows between the different levels of management in an organization (Businessdictionary.com, 2016b). Lorsch & Lawrence, 1967 explain organizational structures as aspects of behavior, which is influence by programs and control in organizations. Mintzberg, 1983 define this concept as the sum of total ways where labor is divided into distinct tasks and

then its coordination which is achieved among tasks. It is also described as a structure which exist as determinant for management and control. Work rules are defined and activities are clustered (Lasher, 2005). The explanations are different, but can be combined in the following self-formulated definition: *An organizational structure explains the different management levels, defines who is responsible for power, control and coordination in an organization. It determines how the flow of decision making and activities exists and how the work rules are defined.*

3.1.1 Elements within organizations

Despite the fact that each organization has their own structure, it can be divided in five different basic parts. According to Mintzberg, 1983, organizational structures consist of a strategic apex, techno structure, supported staff, middle line and an operation core. Those parts are connected to each other. The way they are related, makes the structure of the organization unique.
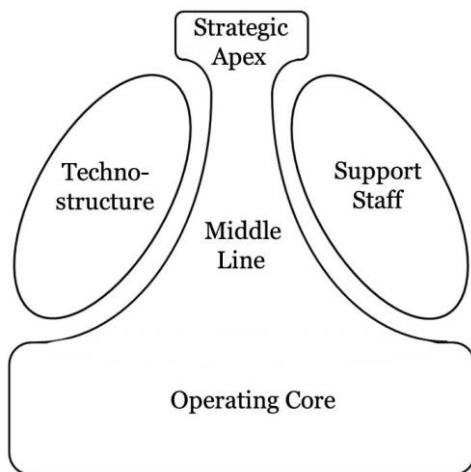
Figure 6: Five basic parts of an organization according to Mintzberg

Shown above is a schematic overview of parts of an organizational structure (Mintzberg, 1983). The five parts of this structure are explained below.

Operating core: The operating core exists of members of the organization. The members, the operators, are responsible for all the basic- and fundamental work which is directly related to the production of service and products. The main functions for the operators are:

1. Secure input for production;
2. Transform input into output;
3. Distribution of outputs;
4. Provide direct support to input, transformation and output.

The operation core is the core of the organization and provide the necessary output to an organization to survive.

Strategic apex: The strategic apex ensures that the organization serve its mission and meet the requirements of the needs from who control the organization. The three main functions are:

1. direct supervision divided of resourced, authorize important decisions, solve conflicts, develop organization, hire employees and secure the quality of them
2. management of relations and environments;
3. Develop the strategy of organization.

Middle line: The strategic apex is connected with the operation core via a chain of middle line managers, with official powers and authorities. There are various lines of supervisors in order to get to all the operators. The hierarchy of organizations arises in this middle line.

Techno structure: The control analysts of the techno structure have the responsibility to form a certain standardization in the organization. The more standardization is applied in an organization, the stronger the need for this structure and the less necessity for direct supervision exists. Managers can outsource the standardization to administrative employees. Especially in developed organizations, the techno structure is present in all the levels of hierarchy.

Supported staff: Most large, contemporary organizations have several units that provide support outside the scope of the operation work flow of the organization. This can for example be an IT- service or a human resources department.

3.1.2 Five main structures

The operation of an organization is a combination of all five divisions as mentioned above. However, each organization have their unique internal relationships, division of labor, different groups of positions and different formal authority flows. It seems that every organization is different but in general can they be divided in, once again, five basic configurations (Mintzberg, 1983).

The six most important dimensions of an organizational structure are defined as specialization, standardization, formalization, centralization, configuration and flexibility (Bozkurt et al., 2014). Topics which are also important to get to know the organization is the centroid and the flow of decisions in an organization. First the five configurations will be explained and the topics will be combined in an overview.

1. Simple structure

This structure is simple and straightforward. It has limited or no techno structure and little supporting staff. Often there is a one-person strategic apex and an organic operation core. Therefore is the differentiation between hierarchies from managers small and is the authority's behavior little. Planning, training and liaison devices are not much used. Coordination occurs within direct supervision. Because the strategic apex often consists of only one person, the decision making process is very flexible and quick reaction is possible. Often the strategy is based on intuition and non-analytical. Many entrepreneurs having a startup manage in such a structure and some small companies are able hold this structure in their organization. Organizations with this structure are often young and small, not sensitive for fashion.

2. Machine bureaucracy

This structure is often applied in simple and stable environments, in mature organizations which act and make decisions conform their own standards. Regular and technical systems help to transform work into routine. This can be for instance mass product companies. There are strongly specialized routine proceedings and procedures in the operating core. Many rules, regulations, formalized communication, relative centralized decision making authorities and a strong distinction between line and staff define this structure. There is an obsession for control. Managers in the strategic apex have lots of power and their work contains mainly the refinement of the machines in the operation core. A new strategy is obtained from the strategic apex of the organization and many attention is given to action planning. The best way to change this organization if there is need for control, is to change the organization temporary to a simple structure. Organizations with this structure are often large and established, are often non-automated technical systems with external control and are not sensitive for fashion.

3. Professional bureaucracy

In this structure, employees in the operation core have control over their own work. They are independent of colleagues and work closely with clients. Therefore, employees have to gain lots of training before they can function in such an environment. This can be the case in professions as doctors or teachers. The structure exists by standards which are determined in advance. Clients are divided by the function of specialist they need. The strategy in such an organization is an integrated pattern of decisions, which is applied on the entire organization. The strategy is largely determined by individual professionals within the organization, together with the professionals outside the company. Organizations with this structure are often complex and stable environments with a non-regulating and non-sophisticated technical systems. They are fashion sensitive.

4. Divisionalized form

This structure is mostly used in the private sector of the industrialized economy. The main difference with the other configurations, is that this is not a complete structure from strategic apex to operation core, but more a structure that is formed on top of others. Every division has their own strategy and arranges their own activities like purchase, marketing, technique and production. The divisions are little dependent on each other and every unit can function without coordination with other divisions. The headquarters give the complete competence to the managers, but keep control on the performance. Therefore, standardization of the output is a very important parameter for the control of results. The general formal communication between divisions and the headquarter are the exchange of performance standards and results. The divisions get freedom in execution and decide themselves on the operations and strategies of the markets within their responsible field. Organizations with this structure are often mature and large, the serve a diversity of markets and are highly fashionable. The market is often grouped, power is needed from middle managers, but they will be controlled on performance as well.

5. Adhocracy

The adhocracy structure is an open structure, the work is aligned to each other by internal communication. This structure is applied in small organizations of department. High communicative skills are necessary from the employees and is highly applicable for complex and dynamic situations. Innovative companies cannot rely on any form of standardization and have to get rid of established patterns. Because of this, top managers do not spend many time on formulating an explicit strategy, but discus about the strategic choices and take time monitoring projects. Training employees is necessary to let them function well. The environment is complex and dynamic. This structure is often applied in young sophisticated and automated technical organizations. It is sensitive for fashion.

Every organization differs from each other, but their structures can be reduced to one of the five options from Mintzberg. The type of structure influences the formulation of the strategy and the way of implementation. Below a schematic overview of the most important characteristics per structure.

Table 1: Overview characteristics of structures

	Simple structure	**Machine bureaucracy**	**Professional bureaucracy**	**Divisionalized form**	**Adhocracy**
Key coordinating mechanism	Direct supervision	Standardization of work	Standardization of skills	Standardization of output	Mutual adjustment
Key part organization	Strategic apex	Techno-structure	Operating core	Middle line	Support staff
Specialization	Little	Much horizontal and vertical	Much horizontal	Some horizontal and vertical	Much horizontal
Formalization	Little	Much	Little	Much within divisions	Little
Decentralization	Centralization	Limited horizontal	Horizontal and vertical	Limited vertical	Selective
Flexibility	Yes	No	No	No	Yes
Flow of decision making	Top-down	Top- down	Bottom-up	Differentiated	Mixed

3.2 Strategy

That a strategy and structure are related to each other and that a strategy influences the organizational effectiveness, is clear. The aim of this paragraph is to provide a definition of strategy and to identify different possible types of existing strategies. After this, the existing relation between structure and strategy will be elaborated. The importance of having a good strategy is emphasized. For that reason, the last part focusses on the determination and evaluation of a strategy.

The dictionary describes a corporate strategy as *'the overall scope and direction or a corporation and the way in which its various business operation work together to achieve particular goals'* (Businessdictionary.com, 2016a). According to Porter, 2002, a strategy is the creation of an unique and valuable position, involving a set of different activities. He

emphasized that an ideal position does not exist. If there was, there would be no need for such a strategy. Strategy involves the decisions of activities and position, which makes a company distinctive from their competitors. Bozkurt et al., 2014, defines strategy as the outcome of decisions made to guide an organization, with respect to environment, structure and processes that influence its organizational performance. Although different descriptions are given about corporate strategy, the overall context is clear. Therefor the following definition of strategy will be used in this report: *The aim of a corporate strategy is to provide a roadmap, including activities, achievement of the scope and goals, competition, processes and structure of the organization are taken into account.* The need for a strategy is also explained in the definition of Porter's strategy and the overall definition; it is about eliminating competitors and claiming a position in the market. Lloret, 2015, highlights the relation between strategy and competitiveness. According to him, if a strategy includes more activities that create, generate and capture value, the organization becomes more competitive on the long term.

3.2.1 Types of strategies

Every organization manages its own strategy and every strategy is unique, although four different approaches of strategy are specified (Miles, Snow, Meyer, & Coleman Jr., 1978). Those types are *prospector, defender, analyzer* and *reactors*. The type *reactor* is considered as a failure, because it has no long-term goals and no patterns in decision making. This results in an organization which makes seldom progress in organizing a competitive advantage and not making any strategic adjustment. They do not experience any intern consistency and suffer from lack of control of external factors (Lin, Tsai, & Wu, 2014). Therefore, this type of strategy will be disregarded from this research. The other types are explained below.

3.2.1.1 Prospector

Organizations which handle this strategy are frontrunners and innovative. Their domain is broad and they are always looking for new market opportunities. The profitability of the organization is of course important, but maintaining the reputation as innovator and concentrating at developing new products and services is just as important. The research and development investments can be higher than their production capabilities and focus on environmental conditions trends and events. Risks of this strategy can be low profitability and overextension of resources. Although the prospector is highly flexible and competitive, it can change and react quickly in the particular industry. (Lin et al., 2014; Miles et al., 1978)

3.2.1.2 Defender

Organizations who use the defender strategy are working in a stable and established environment and maintaining their market position. Their focus is on improving efficient and effective working, keeping their costs down and their competitors away. This latter is achieved by competitive pricing and offering high quality products. Growth happens by market penetration, but they focus only on trends and developments within the domain of the organization. To manage the costs, technical processes and formal procedures will be standardized. The defender strategy is used in lots of stable and mature industries. Risks of this strategy are the little capacity to shift, ineffectiveness work and managing only a small

domain. However, this is no problem if the work of tomorrow is similar to the work of today. (Lin et al., 2014; Miles et al., 1978)

3.2.1.3 Analyzer

This strategy can described as a combination between the strategies prospector and defender. Risks will be minimized, while profit will be maximized. Organizations have a middle position in the market. They can move quickly towards new products after the key prospector has demonstrate that this is profitable. The market grows by penetration and market and product development. Therefore, the production capabilities and research and development investments are equal. Innovation is an important characteristic. Risks of this strategy are inefficient and ineffective production of work. The analyzer is a balance between the prospector and defender, however, organizations with this strategy, are often no market leader (Lin et al., 2014; Miles et al., 1978).

Many literature described different types of strategy, but these four types are often repeated. For that reason these types are introduced and used in this literature review. It is important for organizations to choose one clear strategy in order to improve their performance. However, there is no such thing as 'the best strategy' which is a guarantee for success. The 'analyzer' strategy differs from the 'prospector' strategy, but in basis they are not any better or worse than each other.

In addition to the approach of strategy are there different types of communications in relation to strategy. This effects the type and implementation of strategy and is therefore worth mentioning. The strategy communications types can be divided in a *shared strategy, hidden strategy, false strategy, learning strategy* and *realized strategy* (Steensen, 2014).

Figure 7: Types of communications related to strategies according to (Steensen, 2014)

A shared strategy communicates its intentions about the overall aim, goals and action within the organization. The ambitions and communications related to the strategy are clear for everyone. This strategy often consists of a set of formal communication recourses and policies.

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The hidden strategy has just as the shared strategy an overall aim, goals and action within the organization, but those are not openly communicated. The reason that managers hold back information is to stay flexibility and openness for revision. In addition, the intentions can be kept secret for external stakeholders. This strategy has some drawbacks, since participants can become suspicious about the hidden agenda.

False strategy can communicate something different than the actual strategic action is. Signals in direction of the market can be either the truth or can be bluff in order to mislead other firms. False strategy is bluff in order to deceive the competitors.

The learning strategy is not able to communicate any possible patterns of action, since they are not there yet. The actions are not intentionally thoughtful, but are a result of complex interaction between people, intuit and spontaneous decision making. Organizations are dynamic and quick change of organizational strategies are possible.

Realized strategy perception is a strategy that actually happens at the given moment. The formulation is an intentional process of change of patterns in members, decisions, activities, actions and reaction. Patterns are retrievable in behavior, streams of action and consistency (Steensen, 2014).

Just as for the strategy types, there is no such thing as the perfect communication tool, although the strategy consequence differs per approach. There is no relation between strategy types and strategy communication and there is no relation between structure of the organization and strategy communication. It are separate choices, which are dependent on the organization and its competitive environment.

3.2.2 Relation structure and strategy

Organizations with a specific structure can manage all kind of strategies. A specific type of strategy is independent of the structure. There is however a relation between structure and strategy in organizations. In addition, research pointed out that there is also a relation between strategy and performance.

The types of structure and types of strategies are related to each other. A summary of this paragraph is shown in Table 2. The simple structure, also defined as entrepreneurial organization, can manage three kind of strategies, namely the prospector, defender and analyzer. The reaction strategy does not fit in the entrepreneurial approach and is not suitable for this structure (Dincer, Yildirim, & Dil, 2011). Machine bureaucracies are often old firms who act in a mature environment, this fits best to the defender strategy type (Dincer et al., 2011). Although, an analyzer strategy fits also in this structure, due to the efficient and effective production of work. However, the quick movements are not applicable in this structure and therefor is the prospector strategy excluded. The professional bureaucracy focuses less on the market position but more at adding value to the client. Therefore, most organizations manages an analyzer strategy. They combines the best of the two strategies in order to reach as much clients as possible, while keeping the costs low and the quality high. The divisionalized organization is often a private organization with a division structure. The organizations are mixed and therefore all the three strategies, prospector, defender and analyzer, are applicable in those firms. The reactor strategy will be run through by

competitors. Since the adhocracy structure does not contribute to long term goals, the firm has to be aware that the strategy will not become a reactor strategy. Due to its flexibility, those organizations can be a prospector as well. However, if they not become the market leader, there can be assumed that those firms become an analyzer with the risk of becoming a reactor.

Croteau & Bergeron, 2001, pointed out that strategy has influence on the performance of organizations. The prospector and analyzer strategy are related to higher organizational performances. The reactor strategy has a negative influence on the performance of an organization since it focus less on long term goals and planning. The only strategy which has no influence on the performance is the defender strategy (Croteau & Bergeron, 2001). Those strategies and structures are combined in the table below, '+' represents a positive relation, '−'represents a negative relation and '0' represents a neutral relationship between structure and strategy.

Table 2: Relation between structure and strategy (Own design)

	Prospector	Defender	Analyzer	Reactor
Simple structure	+	0	+	-
Machine bureaucracy		0	+	-
Professional bureaucracy			+	-
Divisionalized structure	+	0	+	-
Adhocracy	+		+	-

Summarized can be said that there is definitely a relationship between structure and strategy. However, there is no perfect structure and no perfect strategy. All structures have the chance to fall back in the reactor strategy and all the structures can apply an analyzer or prospector strategy. Although prospectors and analyzers have a positive relation with performance, there must be emphasized that this is no guarantee to become successful.

3.2.3 Determination of corporate strategy

By determining a better strategy than the competitors, contributes to become more successful. A strategy can act as guide, how to perform both internally with members and externally against market players. A strategy identifies trends and opportunities in the future, it maps the market and the possible changes regarding to politics, consumer and technology. The corporate strategy also creates direction, vision and mission for the organization. It supports members of the organization by providing insight on the firms goals (Evolve, 2016). The strategy has to be determined, this can be done through applying three phases. First, the current position of the company has to be determined. The current position in the market and the current strategy has to be mapped. Also it is of interest to perform a SWOT analysis, to provide insight in the strengths and weaknesses of the company and to gain knowledge about competitors and industry trends. In the second phase, the environment has to be discovered. Again trends of the industry have to be looked over, but also more knowledge has to be gained about the competitors, their capabilities and limitations. In addition, the governmental

policies and the society can be changed and therefor this environment has to be examined as well. This new information can be set out against the SWOT analysis of the company. This lead to the third and last phase, the determination of the new strategy. The existing strategy of the company will be compared to the latest updates of the environment. From this point, several strategy scenarios can be created. The future goal of the company has to be taken into account and finally the alternative scenario has to be chosen. From here the implementation model will play a big role in the process (Harmon, 2014).

A method to examine the environment including the competitors and creating a competitive advantage for the organization itself, is by the use of Porter's model of competition (Harmon, 2014). From origin, this model has only five forces but two forces are added with the time in order to complete the model.
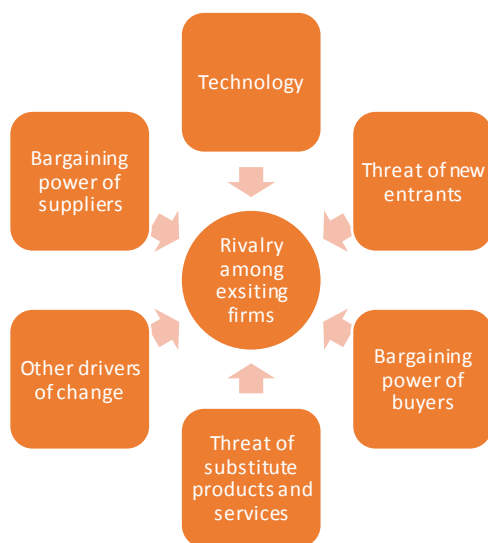
Figure 8: Seven forces model of Porter (Olson & Boehlje, 2016)

Rivalry among existing firms is dependent on the number of firms in an industry, demand conditions and exit barriers but also on possible grow of customers.

Threat of new entrants are potential competitors who may or may not enter the market and is dependent on the difficulty to enter the market. This has everything to do with the cost advantage of new entrants, capital requirements, access to distribution channels, government regulations, current demand from customers and the loyalty of customers to existing organizations.

The bargaining power of buyers has to do with the number of buyers, the fewer buyers the greater their power. They also influences what kind of price and quality in the market appears.

The threat of substitute product and service arises from the threat that new products or services enter the market and can take over the demand. It can drive down the prices of the company but also takes over the need for the product.

Bargaining power of suppliers depends on the number of suppliers, the fewer suppliers the greater their power. They have influence on the supply, price, quality and speed of the delivery.

The technology threat and other drivers of change are added to the original model of Porter.

The change of technology can be a threat since it has impact on the product and demand for service in organizations. It depends on size, dependency of technology in industry and speed of technical change.

Other drivers of change includes for instance the government policy and regulations, international agreements, demographic changes (Harmon, 2014; Olson & Boehlje, 2016).

This model and the three phases are an example to create or refresh a strategy within an organization. Due to the extension from the original five forces to the current seven forces of Porter, they cover the whole environment. When all the forces are taken into account in strategy development, the chance of surprises and is getting lower and the strategy is getting stronger.

3.2.4 Evaluate corporate strategy

After developing and creation, the strategy is ready to be evaluated. Companies want to have the best strategy in comparison with their competitors. The challenge is to recognize a decent strategy from competitors and to check the organizations own strategy. A solid strategy is based on the points which are described above, the points below can be used as checklist for testing the completeness of an excellent strategy.

- Deep knowledge about the industry of the organization;
- Deep understanding of a SWOT analysis of the organization;
- Competitors analysis and use of the Porter's model of competition;
- Strategic design which lead to a sustainable competitive advantage;
- Solid choice of differentiation, for instance low cost or unique value for customer;
- Formation of productive connection and act social responsible (Byers, Dorf, & Nelson, 2011).

When the strategy is checked on completeness, there is one step before the actual implementation. The strategy have to be realistic and feasible in order to create success for the organization. The feasibility will check of a strategy would work in practice, it monitors the organizations capabilities. The two main questions to screen the feasibility are as follow; are the features available to implement the strategy effectively, and if not, can they be gained? The main focus areas are described below (Johnson, Whittington, Scholes, Angwin, & Regnér, 2014).

1. Financial feasibility

The financial resources and the concrete amount of cash which is necessary to for this strategy has to be known and available. The cash-flow effects of the strategy has to be predicted and the funding sources has to be clear. The financial strategy within the business life cycle is different for a mature or growing company, just as the entails risks. A growing company has often a high need for funding, which include a high business risk. Funding sources are for instance debentures and equity. A mature company has often a low funding requirement and low business risks. Funding sources are for instance debt, equity and retained earnings.

2. People and skills

People within the organization need to have the skills, knowledge and experience to deliver and implement the strategy. In case of doubts, a supported system might help with implementing this strategy. There have to be thoughts about the work within the organization, it can happen that employees get different tasks and responsibilities and this has to be communicated. Careers can be affected and people have to be motivated to contribute to this change. Internal relationships can change and the consequents has to be clear. In case of not meeting the necessary competencies, training and developing of stakeholders might be necessary in order to increase the future capabilities. For quick change it might be needed to promote the organization at a higher level and recruit new people.

3. Integrating resources

This point is not always necessary needed for a strategy refreshment. It is related to the availability of physical resources like buildings, information, technology and resources provided by suppliers and partners (Johnson et al., 2014).

Those three points should be available before implementing a strategy, as last point the strategy has to be checked on conflicting conclusions and consistency between different elements within the strategy. When whole strategy is completely checked, it is ready for implementation.

3.3 Implementation

A strategy and an implementation model provides a step closer to success. According to Hammer, 1996, is a good implementation model even more important than the strategy itself. He described a strategic plan without the implementation process as a wordless pile of documents. This and especially the fact that the implementation phase fails most of the time, underline the significance need of implementation models. First a definition of implementation will be given where after the risks factors of strategy implementation are identified. The paragraph continues with providing existing implementation models and conclude with concerns which can be used in further research to strategy implementation models.

Strategic implementation is defined as the activity performed according to a plan in order to achieve an overall goal (Businessdictionary.com, 2016c). It is also described as the process that turns a plan into action and ensures that such actions are executed in a manner that accomplishes the plans stated objectives (Engert & Baumgartner, 2015). Mišanková & Kočišová, 2014, explained the implementation tasks as bring strategy into the life as part of everyday decision making process of the company. It is a part of strategic management which success is dependent on managers, employees, the organization and the transformation of the culture within the organization. In this research, implementation of strategy will be used as the process and activities which are necessary in order to turn the theoretical strategy plan into action and reach the aims of the organization.

Strategy implementation is difficult and the chance exist that strategic plans fails due to bad implementation models. A survey regarding to strategy implementation showed that 83% of

the companies are failing to implement the strategy smoothly and that only 17% of the firms were confident about their consistent strategy implementation process (Li, Guohui, & Eppler, 2010). The general failure rate regarding to strategy implementation is between 60 to 90 percent, and only fifteen percent of the worldwide organizations say that they are good in strategy implementation (van de Maas, 2014). The phrase of The Economist Intelligence Unit, 2013, is perfectly corresponding with the conclusion of strategy implementation. Companies fail not because of bad strategies but because of failure to implement good ones. That strategy implementation is an issue is clear, therefore, research is conducted to causes of failing and risks of strategy implementation. In addition, key elements for successful implementation will be investigated as well. This can be used as basis for the actual model making for implementation.

3.3.1 Obstacles strategy implementation

Six key factors are identified which have a relation to strategic implementation by (Ivančić, 2013). Those factors are organizational structure, resources, leadership, time, organizational culture and uncontrolled external factors. These are broad terms and are specified in many aspects in order to give more detailed information about these factors. Köseoglu, Barca, & Karayormuk, 2009, have identified four key factors which influence the strategic implementation, also these factors are specialized in detail. The top three implementation obstacles according to Umble, Haft, & Umble, 2003, are poor planning and management, change of business goals during project and lack of business management support. Rajasekar & Khoud, 2014, named the elements as leadership style, information availability and accuracy, uncertainty, organizational structure, organizational culture, human resources and technology as the most important difficulties which influences the implementation. Also Lorange, 1998, described various factors which effect the growth of organizations. In order to separate the factors, the six factors of Ivančić are used as basic, the obstacles of the articles are summarized, combined and divided within these factors and shown below.

1. Organizational structure
    a. Lack in communication, coordination, monitoring and incentive systems
    b. Activities and tasks not sufficiently defined
    c. Inadequate alignment between process phases
    d. Poor information and knowledge transfer
    e. Poor responsibilities determination
    f. Inefficient incentive programs and systems
    g. Lack in measuring programs
    h. Incompatible structure with the strategy
    i. Organizational complexity
    j. Lack of truth growth in organization
    k. Strong organizational kingdoms
2. Resources
    a. Short in human resources; too few people involved, lack of skills and capabilities, lack of employee commitment
    b. Goals and targets not well understood
    c. Responsibilities not clearly defined

d. Lack of measurement of employee engagement and reward system

e. Unsuitable resources allocation

f. Lack of physical facilities

g. Lack of financial resources

3. Leadership

 a. Unsuitable leadership

 b. Lack of organizational support, adequate manager commitment

 c. Fear/ insecurity among managers

 d. Lack of motivation among managers

 e. Vague strategy formulation

 f. Leaders considered their job done when finishing strategy development

 g. Leaving organization during implementation

 h. Tasks and activities not detailed enough defined

 i. Conflicting goals & priorities between top and middle management

4. Planning

 a. Time limitation; implementation can take more time than originally allocated, more than formulation phase

 b. Inconsistency between long term goals and short term goals

 c. Change not introduced in daily routine.

 d. Lack of exact strategic planning

 e. Lack of identifications major problem

 f. Lack of choice real strategy

 g. Lack of speed and urgency

5. Organizational culture

 a. Lack of capabilities employees

 b. Conflicting strategy principles

 c. Resistance to change

 d. Lack of understanding strategy

 e. Lack of motivation

 f. Poor implemented beliefs and values systems

 g. Inadequate connection to vision

 h. Fear and insecurity new territory

6. Uncontrollable external factors

 a. Market, politics, economic, social and technological environment

Those points can be seen as risk factors within the strategy implementation. These risks has to be taken into account in the strategy implementation model. Those risks and obstacles can be turned into positive factors for success. Those positive points are an organized organizational structure and culture, availability of resources, leadership & planning and control of external factors. The following step is to define the points which have to be taken in order to create an implementation model. Several topics has to be taken into account including scope and goals of the implementation, main implementation and execution activities, key employees involved including responsibilities and authority, timeline for total implementation and activities, contingency plan, minimize impact of risks, planned

communication effort and progress and monitoring of implementation (Buul, 2010). Zeps & Ribickis, 2015, discussed the importance of an activity plan for organizations. This plan consist of a detailed description of strategic targets and tasks for all stakeholders, it create motivation for managers to monitor and it takes care that the strategy follow the internal procedures. The factors which influence strategy implementation, form a basic for this thesis. Therefore, an ishikawa diagram is created and shown in attachment I.

3.3.2 Change management

Obstacles, risk factors and strategic implementation can be treated due to change management in organizations. Cozijnsen & Vrakking, 1995, developed regularity which can be used while applying change management. They explained types of change management within organizations and some conditions which have to be taken into account. The two types of change management are system change and social change. The system change in organizations is managed by expertise of professional change agents and the social changes are managed by organizations developers. Secondly, they make distinction between strategy, structure and culture change which can be subdivided in the system and social change. According to them, implementation of strategy differs in character and scope of the change, it can be implemented in phases but also as whole and planned or spontaneously. There is no right and wrong but research pointed out that planned change provides the highest efficiency. A time dimension is given to different types of change. Normative and administrative change can be reformed in short-term, just as behavior change for individuals. Organizational and lifecycle change is more suitable for long- term change. Stakeholders who have to be involved during the change management are the people who facing problems and have to deal with the consequences of the organizational change. The conditions which are described have to be taken into account during change management and strategic implementation (Cozijnsen & Vrakking, 1995).

To keep the balance between internal and external factors of an organization, strategy is developed. Change might necessary in order to redevelop the balance, and because internal factors are better manageable than external factors, internal organization change is often necessary as result of strategy formulation. As explained before, some organizations are more flexible than others and it can be very hard to change an organization. The relation between organizational change and performance will be explained below in order to emphasize the importance of the elements.

There is a positive relationship between the organizations capacity for change (OCC) and its environmental performance and firm's performance. In addition, there is also a positive connection between environmental uncertainty and OCC. OCC is defined as 'a broad, dynamic, multidimensional capability that enables an organization to initiate and successfully achieve changes of different types, sizes and forms on an ongoing basis'. It compromise different aspects of leadership, culture, employee behavior and organization infrastructure which is necessary in organizational change (Heckmann, Steger, & Dowling, 2016). There is no clear reason why some organizations are more capable in changing but companies with a high level of technology turbulence do often have more OCC in comparison with firms which have a higher level of competitive intensity and reveals (Heckmann et al., 2016). Although Sadeghi,

2011, argues that the corporate culture is the most important factor for organizational change. Despite of the different attitudes, they all agree that OCC is independent on size, age or industry of the organization (Heckmann et al., 2016).

However, it is known as well that not every organization is capable of having a high OCC. Therefore, the different aspects to create an OCC are described as leadership, culture, employee behavior and organizational infrastructure (Heckmann et al., 2016). Although Cozijnsen & Vrakking, 1995, argued that the two factors which influence the OCC the most are the willingness to change and the change capacity within organizations. There can be concluded that there is no perfect way to manage organizational change but that a high organizational capacity for change is related to the performance to an organization.

3.3.3 Implementation model

There are multiple models and tools with as aim measuring the organizational performance, but there is still no universal recognized concept for this (Croteau & Bergeron, 2001). Strategies and organizational changes are unique processes which increases the uncertainty of the prediction for success. The implementation of these strategies are, because of this reason, unique as well. The process differs every time and the lessons learnt are not always useful afterwards due to the different scenarios (Möller & Parvinen, 2015). Even though the uniqueness of every strategy and its implementation, several models are available for designing strategy and manage its implementation. These models and tools are discussed below.

Radomska, 2015, carries out that the Balanced Scorecard (BSC) and the strategy map are excellent tools for implementing strategy. Therefore, those two tools are further explained to provide examples of implementation models. The Balanced Scorecard can used as tool for implementing strategy and consist of a set of measures, perspectives and objectives regarding to the development concept. However, due to the complexity of interdependencies can this affect the communications and strategy. The strategic map is a method to create the strategy formulation and implementation. The steps to follow are, describe and evaluate strategy, determine measures of implementation and manage their optimization in an adequate manner. To investigate if the BSC and strategic map are really applicable for strategy implementation, they are examined below.

Balanced scorecard provides a framework that translate the organizations strategic objectives into a set of performance measures. Four different measurements areas are covered namely financial-, customer-, internal business-, and innovation and learning perspective. This tool helps to improve implementation of objective and strategies, provide mechanism for controlling and monitoring the organizations progress, it can act as communication tool to keep stakeholders informed and it translate strategy into measurable actions in order to achieve strategy implementation (Shehu, 2013). Specific measurements should be decided by the organization itself and differs per company. The measurements can be created with the use of CSF's (Critical Success Factors) and KPI's (Key Performance Indicators). CSF are elements which are important for the success of the organization, they are qualitative and specific requirements for success. The KPI's are parameters to measure the goals of an organization, it is quantitative and provide insight of the current state (BSC Designer Team, 2015).
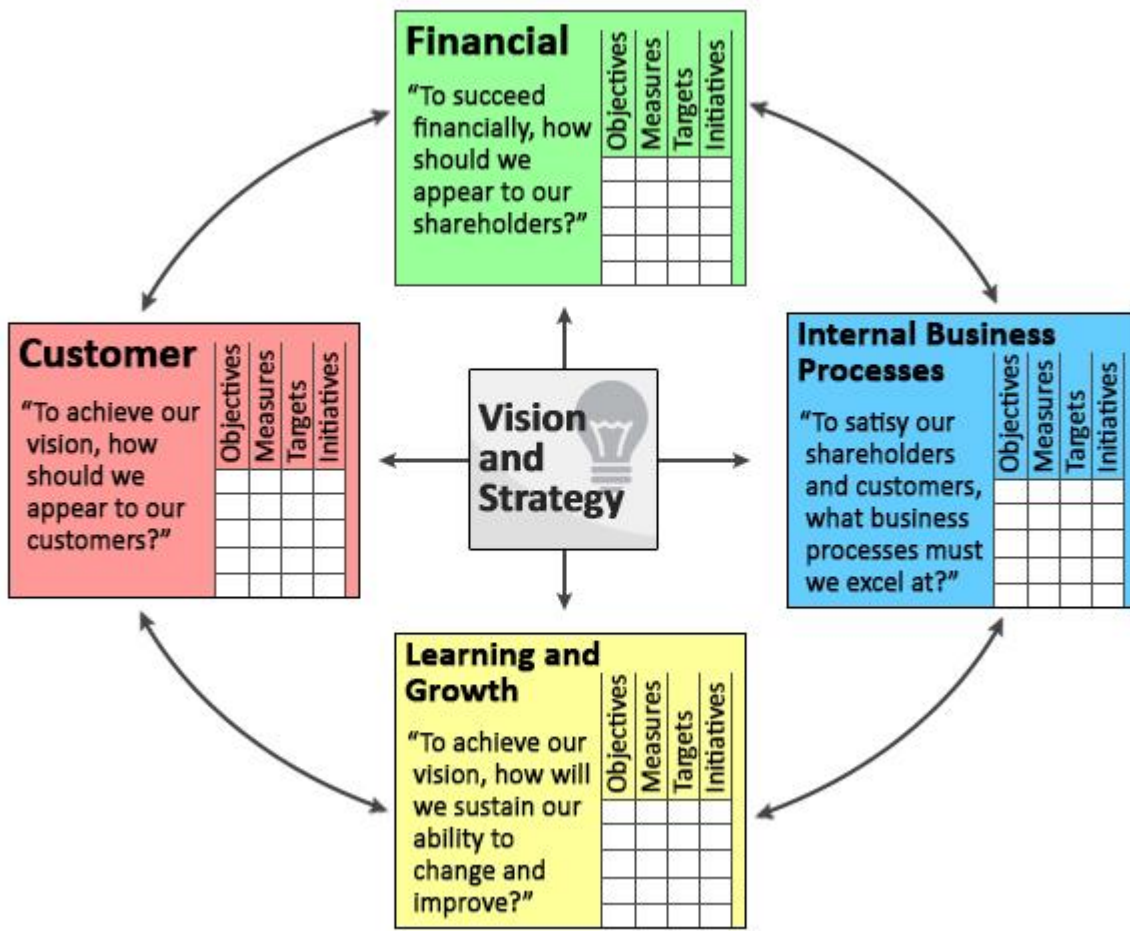
Figure 9: Balanced Scorecard by Kaplan & Norton (Wilderman, 2014)

Using this method brings some advantage and disadvantages. Bontis, Dragonetti, Jacobsen, & Roos, 1999, describes the BSC as a creation of measurements which enables organizations to keep track of dimensions in a systematic way. The logic, correlation between indicators and financial performance and the consistency in literature makes this tool successful. However, it has also some disadvantages. The concept is rigid and have some limits. Often have CSFs cross-perspective impacts and covers more dimensions at the same time. On the other hand can some CSFs overlooked because they do not fall completely in one of the perspectives. The tool underestimate the factor employees and there is no consideration of dynamics and external comparison is not possible.

The strategic map is just as the BSC also developed by Kaplan and Norton. They claim that this is the missing link between the formulation and realization of strategy. This map represents a schematic view of cause-effect connections between the different perspectives which are also used in the BSC (financial, client, internal business and learning and growth) (Mogendorff & Strikwerda, 2007). The strategic map is a tool which is used to communicate the strategy, processes and systems which helps implementing the strategy. The top-down approach is the best way to build a strategic map (Kaplan & Norton, 2000). In Figure 10 is shown a template of a strategic map from Kaplan and Norton.
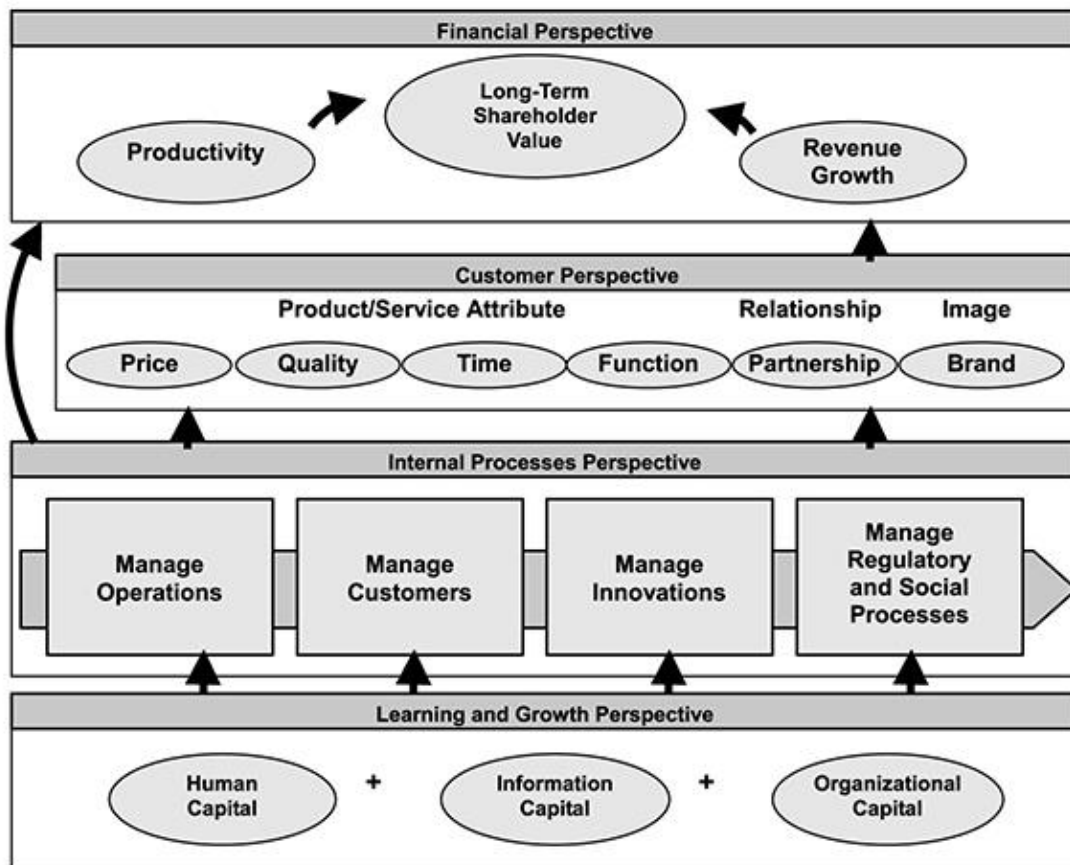
Figure 10: Template strategic map, converting intangible assets to tangible outcomes (Wilderman, 2014)

Also the strategic map has some positive and negative points. The strategic map identify scorecards if they are not truly strategic but focused on other points. It uncover oversights of measurements and helps to create perfection. By the use of a strategic map, the organization is able to communicate strategy to the entire firm and describe how a company will achieve the desired outcome. Disadvantages of the strategic map is that it should include several elements to achieve the projected outcome, those are customer perspective, innovation, customer management, operation processes in internal process perspective, employee skill and information technologies. KPI's are an excellent tool to build a scorecard but the danger is to overlook the customer measurements (Kaplan & Norton, 2000). To overlook elements within the scorecard can be clarified as greatest disadvantage.

The balanced scorecard and the strategic map are examples of tools which can be used for strategy implementation. There are other of tools and measurements for implementation models as well, a standardized model which can be used in every organization is not yet available. No tool can guarantee successful strategic implementation and organizational performance. The application of BSC and strategic map have some advantages but also those tools are not perfect and include some disadvantages as well. The fact is that still a gap exist between strategy formulation and performance. More than half of all the strategies is never implemented and implementation obstacles like lack of knowledge under employees are still not solved within many organizations (Crittenden & Crittenden, 2008). There is need for a proper implementation model and research and investigation is necessary to create such a model.

3.4 Discussion

The purpose of this review is to identify the factors which influences strategy and its implementation. Literature is assessed regarding to organizational structure, strategy types and determination and the implementation of strategy. This study has purely focusses on related literature. The discussed topics are related to each other but not directly related to Arcadis. Chapter 4 connect the gained knowledge to Arcadis.

This article has focusses on the intern elements of an organization. External factors are excluded from this research. In further research can the effect of external factors and environment be investigated on organizational performance. There is no universal model for strategy implementation, a suggestion for further research is to investigate the possibility of standardizing such a model.

3.5 Conclusion

- Strategy is an instrument to keep the balance between internal and external factors of an organization
- Structure influences strategy and structure has influences on the implementation.
- Strategy influence the structure of organizations and the implementation is dependent on the strategy.
- The basic structures are:
  - Simple structure,
  - Machine bureaucracy,
  - Professional bureaucracy,
  - Divisionalized structure,
  - Adhocracy.
- The basic strategies are:
  - Prospector,
  - Defender,
  - Analyzer,
  - Reactor.
- The prospector and analyzer strategies have a direct link to positive organizational performance.
- In overall, between 60% and 90% of the strategies are failing to be implemented. This emphasized the need for implementation models.
- The main factors which influences the implementation process are organizational structure, recourses, leadership, planning, organizational culture and uncontrollable external factors.
- There is no universal implementation model available.
- The implementation process have to be adjusted to the unique strategy.
- Summarized, there can be said that there is need for an implementation model which contribute positively to the performance of unique organizational strategies.

4   Analysis

This research is carried out in collaboration with Arcadis. The developed model is specified for their strategy and internal stakeholders. For this reason, it is relevant to gain knowledge about the organizations and the stakeholders. In this chapter is research conducted to identify the involved stakeholders and their preferences. First, attention is paid to Arcadis structure and strategy. A stakeholder analysis is performed to identify the stakeholders and discover the power and interest deviation among these people. Second, the methodology is discussed. Qualitative depth-interviews and a survey is conducted among the stakeholders in order to gain knowledge about their preference regarding strategy implementation. The results of the interviews and survey are discussed afterwards. Finally, a discussion and conclusion is given over this chapter.

4.1.1 Arcadis structure & strategy

With the knowledge of the literature review there can be said that Arcadis has an overall divisionalized structure. The four divisions which are present within Arcadis are buildings, mobility, water and environment. The divisions are little dependent on each other and every division has its own strategy. The key part and the power of the organization focusses on the middle line managers who are controlled by the strategic apex on performance. Therefore, the key coordinating mechanism is the standardization of output.

The division environment has its own strategy as well. This part of the division applies the professional bureaucracy. The key part of this division is on the operating core. The work is checked by the standardization of skills. The operation core of the organization are controlled on skills (credibility and billability) by the middle line managers.

The two strategies has in common that they are less flexible. The large and complex organization that preferred to act in stable environments. However, they are sensitive for fashion and willing to change in order to increase their revenue. The result of organizational or strategy change is due to the size of the organization not direct measurable. Only after a couple of years, the results are clear. Even then, it is difficult to say if the performance are the result of the strategy and implementation or the result of the increasing or decreasing market.

4.1.1.1 Strategy content

The overall business strategy of Arcadis aims to become the leading global design and consultancy company and take the client's needs, the nature and the built environment into account. The current strategy rest on the three pillars sustainable growth, perfection and collaboration.

The need of clients for sustainable solutions are increasing. Emphasized are the important clients on local, national and multi-national level. Concentrated growth and accelerating organizational growth and merges and acquisitions are key activities in the sustainable growth. The aim to gain perfection has influence on the relationships with clients. Collaboration is used to utilize the skills and presence of the organizations capabilities (Arcadis Nederland BV, 2016). This strategy is presented on the website of Arcadis as well.

The overall business line strategy of environment Europe is developed by the strategy team and continues in the global strategy. The details of this strategy are known but not included in this report due to sensitive business.

4.1.2 Stakeholder analysis

The stakeholder analysis is a qualitative instrument to get to know the key actors, their knowledge, interest, position, alliances and importance related to the policy. This allows policy makers and managers to interact more effectively with key stakeholders and increase support for a given policy (Schmeer, 1999). This analysis focusses on the stakeholders who are involved in the implementation phase of the strategy from the business line environment Europe. By carrying out this analysis before implementing the strategy, the policy makers and managers can detect and act to prevent potential misunderstanding and/ or opposition to the implementation of the strategy. The strategy implementation is more likely to succeed if the stakeholders and their interest are clear.

Subjects are stakeholders who have high interest and low power in the implementation of the strategy. Success and failure have directly impact on them but they have little control how the process unfolds.

- Team Members – success which might be a result of strategy implementation directly affect them. They benefit from the success of the business line of environment but they have little control over the implementation process.
- Team Leaders – their perspective of implementation is important for an overall atmosphere in their teams. They benefit as well from success but have little control over the process.
- Head Advise Groups – as middle line manager, these people have to combine the strategy of the HAG itself and the overall European strategy. They have an important role in strategy implementation but they do not directly influencing the implementation process.

Players are stakeholders with high interest in the implementation of the strategy and they have high power to make choices.

- Strategy team – this team developed the strategy, they provide guidelines for implementation strategy between all parties. This team choose the strategy and is responsible for the implementation. They are the final decision makers.
- Market Group Leaders – the MGL are responsible for implementation of the strategy in their region. They have the power of influencing the implementation process and big decisions

The crowd are stakeholders with low interest in the implementation of this strategy because they are not directly affected by the progress and they have low power to influence the decision making.

- Other divisions – The other business lines within Arcadis, water, infrastructure, buildings, have less interest in the environmental line. They are not directly affected by success or failure of the strategy implementation.

Context setters are stakeholders with low interest in how this strategy will be implemented but hold high power for the decisions being made.

- CEO Europe – This person aims to have success in every division. He has low interest in the implementation process itself but high interest in the final results. The implementation process is not part of his daily work but is as final responsible, he aims for success. This results in low interest in strategy implementation but the CEO has influence about the decisions which are made.
- Arcadis Global – has interest by high performance and have the overall view over Arcadis. The elaboration of the implementation process have less interest but Arcadis Global has big influences over the decisions been made within business line Europe.

High Interest	Team Leaders Team Members Head Advise Groups	Strategy Team Market Group Leaders
Low Interest	Other divisions Arcadis	Arcadis Global CEO Europe
	Low power	high power

Power/interest stakeholder grid
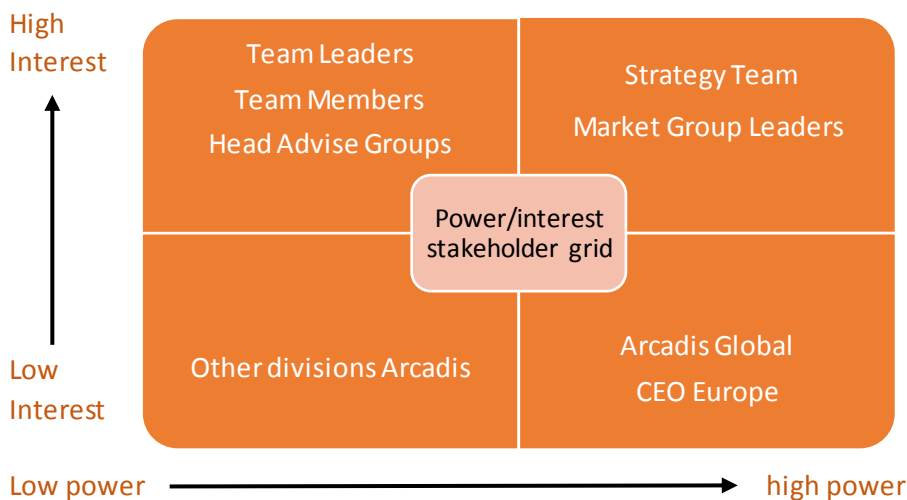
Figure 11: Stakeholder grid (own design)

4.2   Methodology

The aim of getting to know stakeholders preferences is reached by conducting several depth interviews and a qualitative survey. This paragraph shows the creation of the survey questions, the results of the interviews and the validation of the survey. It discussed the research methodology which is used to analyze the results of the survey.

4.2.1 Research method

The stakeholders which are involved to this strategy are diffused over different management layers. In order to gain a representative overview of stakeholder's opinion, a qualitative survey is conducted. The first sample survey is developed on basis of the literature review. An ishikawa diagram is created with the use 'obstacles to implement strategy' from the literature review. This diagram is shown in attachment I. The survey is validated by experts who are active in the different management layers. This validation is performed by conduction depth interviews with those experts. The aim of the interviews is, next to validate the survey, getting information about previous implementation methods and getting key factors which have to be included in an implementation model. The final survey is sent out to all the 37 managers from the division environment Netherlands. The lowest layer employees is not yet informed about creating a new strategy and in order to prevent unrest, this group of people is excluded for this survey. The nominal data from the survey has to be analyzed. This is done by applying

a descriptive analysis, cross table analyses and chi-square analysis. The results are used as data for the implementation model in paragraph 4.3.

The following steps are used in this research.

1. Create survey with the use of the literature reviews
2. Validate survey by performing several depth-interviews with experts
3. Revision survey
4. Sending survey to stakeholders
5. Analyze results by descriptive-, cross table- and chi-square analysis
6. Discussion and conclusion results.

The paragraph below contains the steps of creating, validation and sending the survey. The analysis and results are examined in the next paragraph.

4.2.2 Data survey and validation

Since the importance of interaction with stakeholders, and the amount of stakeholders, a survey will be conducted. The aim of this survey is to get data and knowledge about the current strategy and get insight in preferences regarding to communication and factors which influence the new strategy. This survey is sent to all managers within the division Environment in region north. Team leaders, head advice groups and the market MT are included and that gives a total of 37 people. Others are deliberately not included in this survey since they are less aware of the strategy update.

The first step is creating the survey. The factors which influence criteria are named in the ishikawa diagram (attachment I), which is a result from the literature review. The survey is used to investigate possible critical points while implementing strategy. The most important criteria will be examined. There are 39 internal factors included in this diagram which influences strategy implementation, 16 of them are related to communication and behavior. Therefore, extra questions are included in the survey about these criteria. The first questions of the survey are related to communication, the middle part of the survey focusses on behavior, and the last part of the survey include the criteria. The result of the survey provide nominal data. The final survey questions are present in attachment II.

Before starting the survey, depth- interviews are performed with five stakeholders within the management line of division environment. The depth interviews are conducted to gain knowledge about peoples thoughts and behavior regarding strategy implementation. In addition, the interviews are used as validation of the survey questions. The advantage of speaking the stakeholders individual is that everyone has the opportunity to speak open and give their opinion about their view to the subject (Boyce & Neale, 2006). Depth-interviews provide more detailed information in comparison to a survey. On the other hand is a survey suitable to reach a larger amount of people. Therefore, a combination between depth-interviews and a survey is used for this research.

The questioned stakeholders which participate in the depth-interviews are named in Table 3.

Table 3: Interviewed Stakeholders Arcadis

Name	Function
Frits Thissen	Expert – Strategy team
Ab-Jan Jacobse	Team Leader – Bodem en ondergrond (Soil & remediation)
Alex Kraiema	Head Advise Group – Bodem en ondergrond (Soil & remediation)
Niek de Boer	Markt Group Director – Environment
Jaap van den Heuvel	Senior advisor – Vergunningen Compliance en Veiligheidsadvies (Permits Compliance and Safety Advice)

The aim of the depth interviews is to validate the survey questions, get knowledge about past strategy implementation and get informed about preferences of strategy implementation. The interviews have an open character and the questions are not fixed. In order to get structure however, there are questions prepared which provide a guideline for the interviews. The preparation questions for the interviews are shown in attachment III. The interviews are recorded and elaborated in transcripts of records. The transcript of records are analyzed and checked for patterns and themes among the participants. These patterns are groups and summarized, codes are given to the different patterns (Boyce & Neale, 2006). The encoded and summarized interviews are included in attachment IV.

The main conclusions of validation of the survey are summed below.

- Question 1 + 2: add option 'Otherwise, namely,'
- Question 3 + 4: add option 'Never'.
- Statements: adjusting sentence structure and formulation
- Factors influencing implementation: Add maximum amount and add some explanation of factors.
- General remarks: Add questions about current strategy in order to perform a 0-metering.

Since time seems an important factor to get response, the survey is made as short as possible. The estimated time to perform this survey is between 5 and 10 minutes. The questions are revised after the interviews and validated. The final survey questions are shown in attachment II. The online survey is made with the use of 'Berg System', the survey tool of TU/e. The link to the survey is sent to all 37 stakeholders. Within a week, a reminder is sent. In total, the survey was available for 2 weeks. The method which is used to analyze the data, is elaborated in the next paragraph.

4.2.3 Analysis method

The data of the survey will be analyzed with the use of a descriptive analysis. Frequencies tables, cross table analysis and chi-square analysis are performed in order to organize the data. The survey provides qualitative nominal and some ordinal data. The software program SPSS is used to analyze the data. This paragraph described the methods which are used for the analysis.

4.2.3.1 Descriptive analysis

This type of analysis is used in order to gain more knowledge about the data. One variable at the time can be investigated by frequency tables. This provides knowledge about the different values of variables and how often a certain value occurs. The nominal data is used to calculate the mode. The mode implies that the highest number of variable is counted. The median is calculated over the ordinal data. This implies that the middle of the observation is calculated after ranking the variables.

4.2.3.2 Cross table analysis and chi square analysis

Cross tables are used in order to analyze two variables against each other. In addition, relationships between two variables can be identified. The level of measurement of the overall variables is nominal. The outcome of the statements provide ordinal data. In order to compare all variables with each other, all data is treated as nominal data.

The chi square analysis is connected to the cross table analysis. Where the cross table investigate the relationship between two variables, the chi square analysis investigate the significance of the relationship. This analysis is performed over nominal data. It limited the chance of coincidence which is a result of using a sample of the population. A relationship is significant when the test statistics are as great or greater as the critical value. The critical value is calculated by investigate the alfa and degrees of freedom.

Degree of Freedom = (number of rows − 1) x (number of columns -1)

The formula to calculate the chi-square analysis is as follow.

$$X^2 = \sum (W - V)^2 / V$$

X^2 = Test statistics

W = Real Value (Werkelijke waarde)

V= Expected Value (Verwachte waarde)

The relationship is significant when X^2 is equal or bigger than the critical value. The variables are independent on coincidence and are connected to each other.

The results of the survey and the depth- interviews are elaborated in the next paragraph.

4.3 Results

This paragraph consist of the results from the interviews and survey. Firstly, a summary of the depth-interviews is provided. Second, the response and non-response of the survey is discussed. Finally, an analysis is performed with the use of the data from the survey.

The first part of the interviews are used to validate the survey. This could be read in the previous paragraph. The second part of the interviews are used to gain more knowledge about the past and current strategy implementation. The interviews are elaborated in transcripts which is used as basis for coding. The summary of the coded interviews are added in attachment IV. Below, a short summary which included the main or remarkable points.

- There are various strategies within Arcadis. Global strategy, European strategy, Business line strategy, Advise group strategy. It is complicated for people in the work field to name for all strategies the focus points. However, information is available and people are free to gain knowledge about the strategies, it is dependent on their own interest.
- Communication is preferred via the line of Arcadis and in Dutch. Preferably within interactive sessions, conversations or workshops.
- There is need to measure progress of strategy and implementation, preferably by BSC or KPI's. At this moment, the most important measurement are the financial numbers. The developed BSC seems to be fade away.
- Motivation of employees is key factor. Interaction and involvement of people can lead to higher enthusiasm.
- Focus on a few spearheads of the strategy and customized implementation is important.
- Critical points of a future implementation model are interaction and clearness. The route of the survey can be used within the model.

The survey is sent to 37 employees, all team leaders, heads per advice group and remaining employees within the market MT.

Table 4: Responses of survey questions

Total	Opened	Finished
37	40	28

This gives a response rate of 70%.

Despite of the high response rate, there is still a non-response. This can be clarified by lack of time and tiredness of surveys, according to the conducted depth-interviews. There is a margin of errors and level of confidence present when the response-rate is less than 100%. The margin of errors described the size of the error, it represent the amount of the random sampling error in a survey. The level of confidence represent the degree of uncertainty of the margin of errors. This percentage provides insight to the percentage of the population which choose a certain answer. It describes to what extent trust is acceptable that the respondents' answers are correct. The distribution of features is used to include the expected result for questions. If a certain type of question expected to point in one direction, this is likely the case for the whole population (CheckMarket, 2016). In this survey, the distribution of features is

50% which means that there are no predictable answers in this survey. In addition, the level of confidence is 95%. The margin of errors is 9.3%. A higher level of confidence or lower margin of errors can be reached by increasing sample of employees and respondents.

Remarkable is the high number of people who opened the survey. Since there are more people who opened the survey than the total amount of respondents, it is clear that some people have opened the questionnaire more than once. There are various scenarios possible. It could be possible that all people have opened the survey, and some people more than once in order to finish it. It could be possible as well that a part of the people opened the survey and finished it another time. It is sure that some respondents opened the survey more than once, it is not sure that all people have opened the survey. In total, 11 respondents have opened the survey but did not finished it. Notable is the moment of quitting, which takes place in the first two questions for all cases. Four people closed the survey after the front page (information about the survey), five people closed the survey after question 1, (Are you aware of the current European strategy of environment?) and 2 people closed the survey after question 2 (If yes, name an important spearhead, if no, why not?). Why the 11 respondents have stopped with the survey is unclear, it could be due to lack of time, tiredness of surveys or disinterest. The remaining 28 respondents who have finished the survey are used in the further analysis.

4.3.1 Analysis

The analysis which are performed are the frequency tables, cross tables and chi-square analysis. Due to the amount of data is only a selection present in this report.

4.3.1.1 Frequency tables

In order to investigate the current situation about knowledge of strategy, people are asked to indicate themselves, if they are up-to-date about the current strategy of the business line environment. In total, a small majority of 57,2% shows informed about the strategy. The remaining people, 41,7%, is not fully aware of this strategy because of the following reasons.

- Aware of existence but not aware of the full strategy and focus points.
- Less focus on this European strategy, 'far from my bed'.
- Not (well) communicated.
- Pressure fathom Dutch strategy.
- Recent employed.

The preferences regarding informing is divided. This is shown in the figure 12. Still a small majority choose to get informed by the direct manager.

Figure 12: Results question: How do you want to get informed about the strategy refreshment?

However, the 'sending' part within communication is more convincing, via direct manager. The time preference about receiving information and providing feedback is clear. The majority, more than 65% in both cases, chooses for quarterly.

The median of the statement 'depth elaboration of responsibilities within the line' is 'disagree'. The same median is the result of the statement 'specified elaboration of tasks per person'. In both cases 53,6% disagreed with the statements, the other options are very scattered. On the other hand, 71,4%, likes to have measurement standards for the strategy. The motivation of people and their colleagues is divided as shown in the pie charts below.
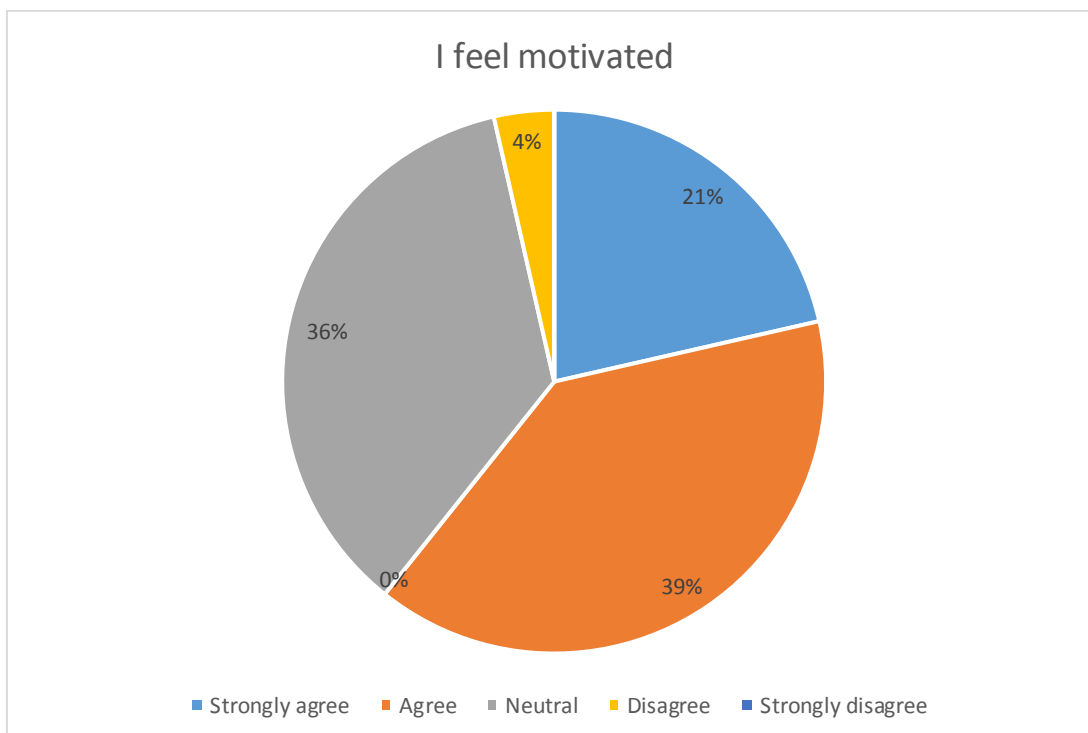
Figure 13: Results question: In prior, do you feel motivated to get started with the new strategy?
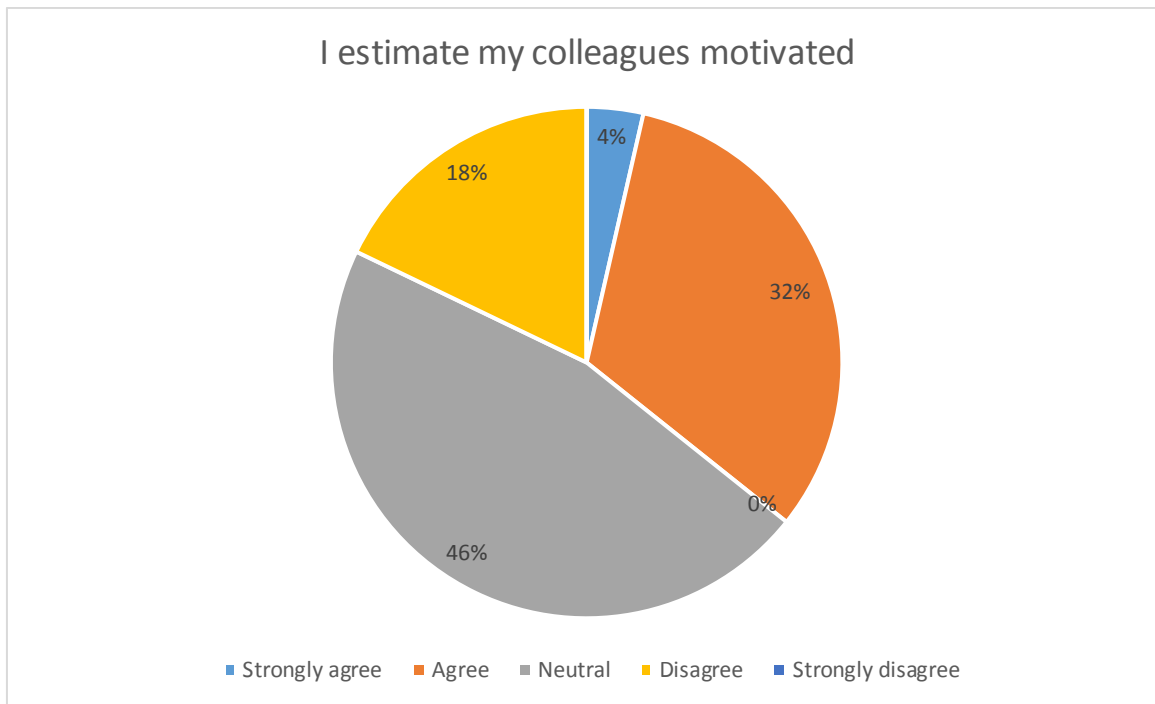
Figure 14: Results question: In prior, do you think your colleagues feel motivated to get started with the new strategy?

In general can be said that people feel their selves motivated to work with the implementation of strategy. There must be said that they estimate their colleagues slightly less enthusiastic, most respondents assessing the motivation of their colleagues 'neutral'.

There are various factors which influencing strategy implementation. The design of the survey is adjusted to distinct the factors which the most influences. Dependent on the choice of factors, underlying points of the factors are available. The respondents had the possibility to choose 1 to 3 factors which influencing strategy implementation. The major factors are ranked below. The factors are ranked on position, the higher the frequency the higher the position. The percentages are calculated of the total amount of votes, (23 of 65 votes brings a percentages of 35%) and the percentage of case are calculated of the total respondents (23 of 28 votes for leadership, 82% of respondents have voted for leadership).

Table 5: Ranking overall factors influencing strategy implementation

Ranking	Factors influencing implementation	Frequency	Percentage	Percentage of case
1	Leadership	23	35%	82%
2	Organizational culture	19	29%	68%
3	Resources	12	18%	43%
4	Organizational Structure	7	11%	25%
5	Planning	2	3%	7%
6	Extern factors	2	3%	7%
	Total	65	100%	232%

The number one position, leadership, is just as the other factors specified in other points. In the leadership Table 6, the ranking is performed on basis of the frequency. The total percentage row is added compared to the previous table. This column shows the ranking of the total points which having an impact on strategy implementation.

Table 6: Ranking factors within leadership regarding to influence strategy implementation

Ranking	Leadership	Frequency	Percentage	Percentage of case	Total percent
1	Motivation manager	14	23%	61%	7,9%
2	Similarities goals/ target	10	16%	43%	5,6%
3	Skills of manager	9	15%	39%	5,1%
4	Confidence of manager	8	13%	35%	4,5%
5	Support from the organization	7	11%	30%	4,0%
6	Distribution tasks/ activities	4	7%	17%	2,3%
7	Strategy formulation	4	7%	17%	2,3%
8	Remain function of manager	3	5%	13%	1,7%
9	Lack of targets	1	2%	4%	0,6%
10	Vision inspiring parts	1	2%	4%	0,6%
11	Personal interest	0	0%	0%	0,0%
12	Anders	0	0%	0%	0,0%
	Total	61	100%	265%	34,5%

Overall can be said that leadership has influence over strategy implementation, but not every point within leadership has impact. All the points within the six factors are combined to determine the factors which have the greatest impact. The whole table is visible in attachment V. The top 10 is shown below.

Table 7: Top 10 factors influencing strategy implementation

Ranking	Options	Factors	Frequency	Percentage of case	Total percentage
1	Organizational culture	Motivation employees	15	54%	8,5%
2	Leadership	Motivation of manager	14	50%	7,9%
3	Resources	Understanding goal/ target	10	36%	5,6%
4	Leadership	Similarities goal and priorities	10	36%	5,6%
5	Resources	Allocation of resources	9	32%	5,1%
6	Leadership	Skills van manager	9	32%	5,1%
7	Organizational culture	Willingness to change	9	32%	5,1%
8	Organizational culture	Understanding of strategy	9	32%	5,1%
9	Organizational culture	Trust and believe implementation	9	32%	5,1%
10	Leadership	Confidence of manager	8	29%	4,5%

Lastly, in prior to be informed about the strategy refreshment, give a small majority of the respondents between 60% and 80% change on well implementation. However, the scores are divided as shown in table 8 below.

Table 8: Results question: In prior, how do you estimate the success rate regarding to strategy implementation?

		Frequency	Percent	Valid Percent	Cumulative Percent
	Success rate				
Valid	20%	6	21,4	21,4	21,4
	40%	5	17,9	17,9	39,3
	60%	8	28,6	28,6	67,9
	80%	8	28,6	28,6	96,4
	100%	1	3,6	3,6	100,0
	Total	**28**	**100,0**	**100,0**	

The survey provides open space for respondents to give their opinion about the success of strategic implementation. Below the top 5 of answers. The full list can be find in attachment VI.

1. Clear goals;
2. Focus on workplace, implementation in daily work;
3. Believe, collaboration and support;
4. Clear communication;
5. Enthusiasms, motivation and passion of all stakeholders.

4.3.1.2 Cross tables and chi-square analysis

The chi-square analysis test a correlation between two nominal variables. All the data is treated as nominal data in order to compare them.

The statistical hypothesis which are used are:

H0: There is no significant relationship between the variables.
Ha: There is a significant relationship between the variables.

A significant relation has been showing when the test is equal or lower than alfa. The alfa which is used is 0,100 since the margin of errors is almost 10%. H0 is rejected when the test is equal or lower than 0,100. Ha is adopted when the test is equal or lower than 0,100.

The first test compared the variables 'own motivation' and 'estimated motivation colleagues'.

Table 9: Cross table variables 'own motivation and estimated motivation colleagues'

Count		'Estimated motivation colleagues'				Total
		Strongly agree	Agree	Neutral	Disagree	
'Own motivation'	Strongly agree	1	4	1	0	6
	Agree	0	4	6	1	11
	Neutral	0	1	6	3	10
	Disagree	0	0	0	1	1
Total		1	9	13	5	28

'Own motivation' * 'Estimated motivation' Cross tabulation

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	16,110a	9	,065	,055
Likelihood Ratio	15,738	9	,073	,059
Fisher's Exact Test	14,588			,048
Linear-by-Linear Association	10,994b	1	,001	,000
N of Valid Cases	28			

a. 15 cells (93,8%) have expected count less than 5. The minimum expected count is ,04.
b. The standardized statistic is 3,316.

Table 11: Cramer's V analysis for variables' own motivation and estimated motivation colleagues'

		Value	Approximate Significance
Nominal by Nominal	Phi	,759	,065
	Cramer's V	,438	,065
N of Valid Cases		**28**	

The Pearson chi-square analysis is valid when all the expected frequencies in each category are at least 1 and no more than 20% of the categories have expected frequencies less than 5 (Statistic Soluctions, 2016). As shown in Table 10, is this not the case. The Pearson Chi-Square analysis is violated and unreliable. The likelihood ratio is used when the data is log linear and not applicable in this situation. The linear by linear association is used for ordinal data and therefore not suitable in this case. The Fisher's Exact Test, or rather the Fisher Freeman Halton test is used for small observations and have no such requirements and is applicable in this situation.

The exact significance of the Fisher Exact Test is 0,048 is smaller than 0,10. It means that there is a chance of 4,8% prove for H0. From these results a significant relation has been showing between the variables 'own motivation' and 'estimated motivation colleagues'.

The Cramer's V test says something over how strong and important the relation is which result from the chi-square test. This test is valid for tables bigger than 2x2 and suitable for this situation. The value vary between 0 and 1 where 0 shows little association and 1 a strong association between variables. The result of the Cramer's V test is 0,438 which means that there is a medium relation between 'own motivation' and 'estimated motivation of colleagues'. The motivation of colleagues is equal or less high motivated than peoples own motivation, this is shown in figure 15. From these results a significant relation and a medium correlation has been showing between the variables 'motivation colleagues' and 'own motivation'.
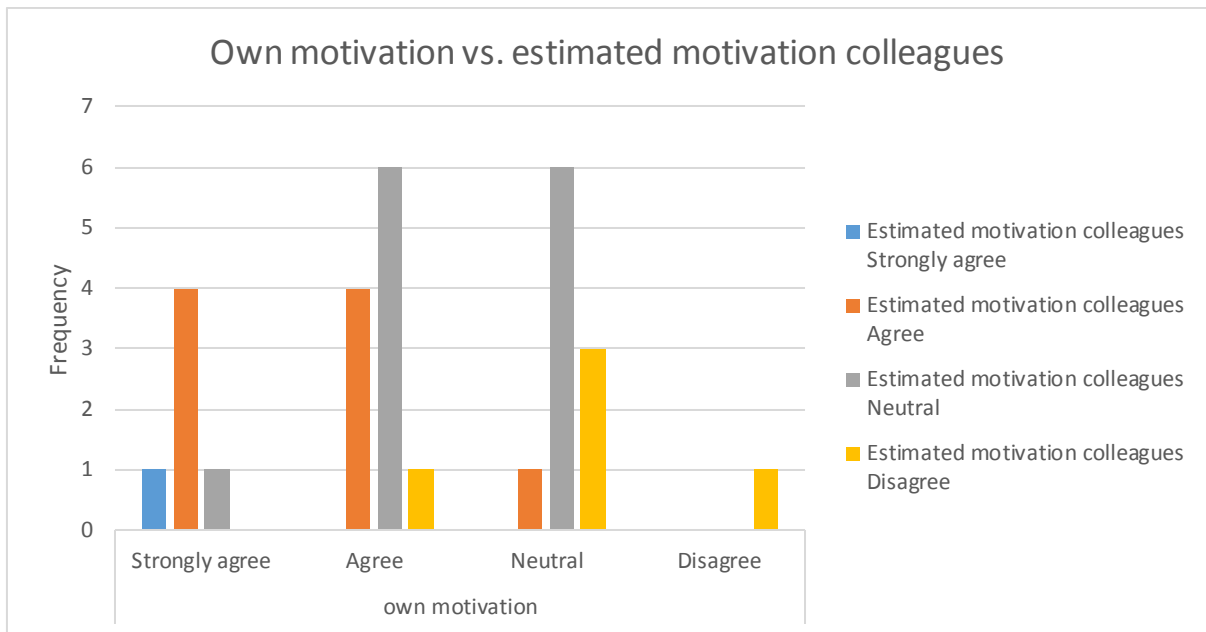
Figure 15: Comparison 'Own motivation' and 'estimated motivation colleagues'.

Since the outcomes have an expected count less than 5 and tables bigger than 2x2, all the continuation analysis are performed with the use of the Fisher's exact test. The Cramer's V test is used to analyze the importance of the association between those variables.

There is a significant relation between the preference between getting information and providing feedback. There is only a chance of 1,9% that the variables are independent on each other so there can be said that there is a significant relation between the way people want to get informed and providing feedback. The Cramer's V value is 0,527 which means that there is a medium strong correlation. As shown in figure 16, there is one peak regarding feedback and informing via direct manager. In addition, the people who choose a digital way to get informed and providing feedback are also quite consistent. However there remainder choices are correlated. From these results a significant relation and a medium strong correlation has been showing between the variables 'feedback' and 'informing'.
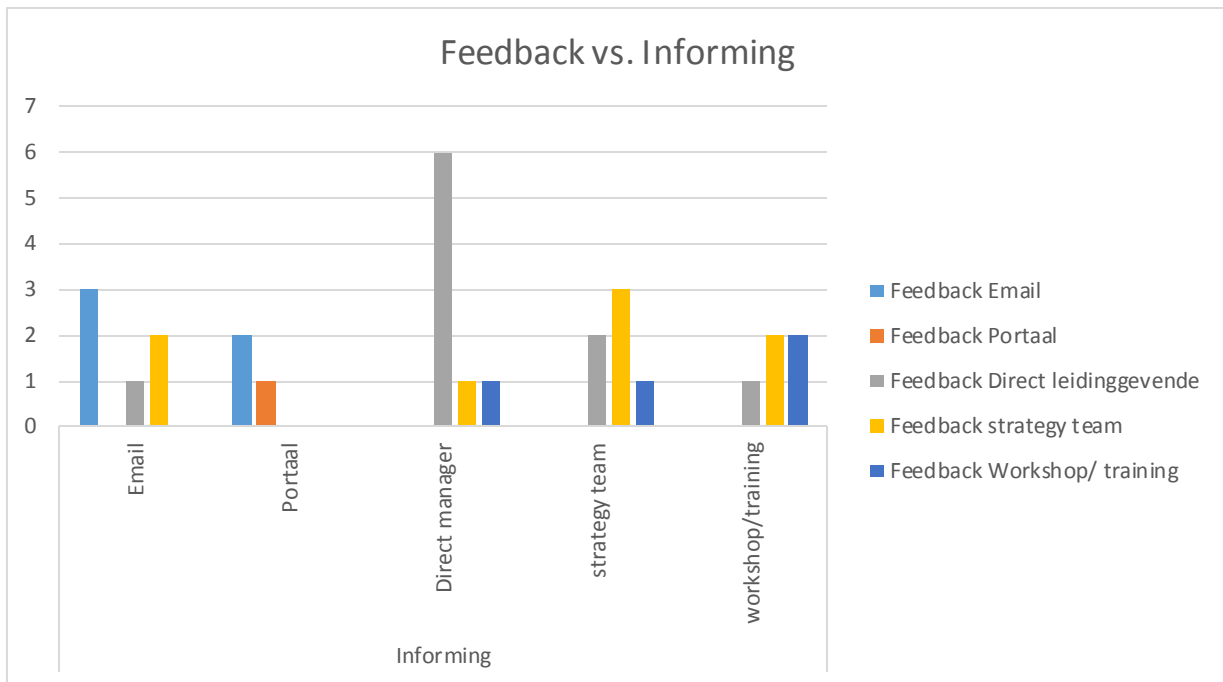
Figure 16: Correlation between getting informed and providing feedback

There is a significant relation between how often people want to give an update and get an update regarding to the strategy. There is a chance of 3,6% that the variables are independent on each other. The Cramer's V value is 0,719 which means that there is a strong correlation. As shown in figure 17, people choose the same time frame to give and get updates regarding to strategy implementation. From these results a significant relation and a strong correlation has been showing between the variables 'providing updated' and 'getting updated'.
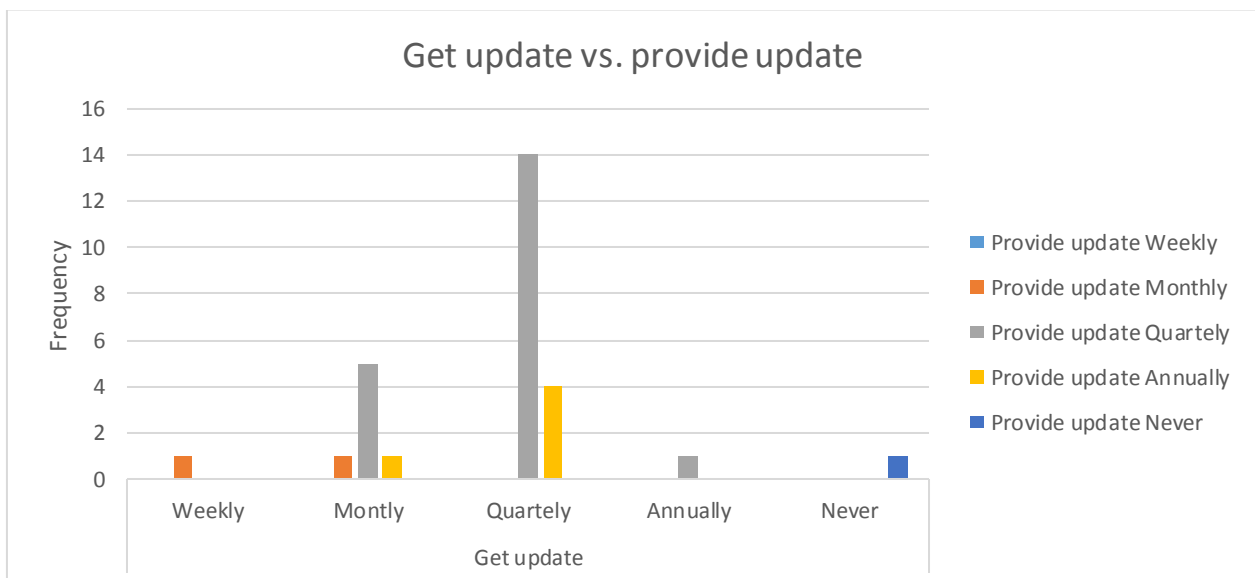
Figure 17: Correlation between providing updates and getting updates

There is a significant relation between the preference of level of detail between distribution of tasks and responsibilities. The chance that the variables are independent on each other is almost 0%. Since this amount is that little, it might possible that this is a statistical error. However, the Cramer's V value is 0,752 which means that there is a strong correlation

between those variables. Since this value is a realistic, assumed is that there is no statistical error but a significant correlation. This correlation between the preferences in level of detail regarding to the variables, is shown in the bar chart below. The people who preferred a low level of detail in distributions of tasks, prefer a low level of detail within the responsibilities as well. The people who choose 'strongly agree' for one variable, choose also 'strongly agree' for the other. From these results a significant relation and a strong correlation has been showing between the variables 'distributions of tasks and 'responsibilities'.
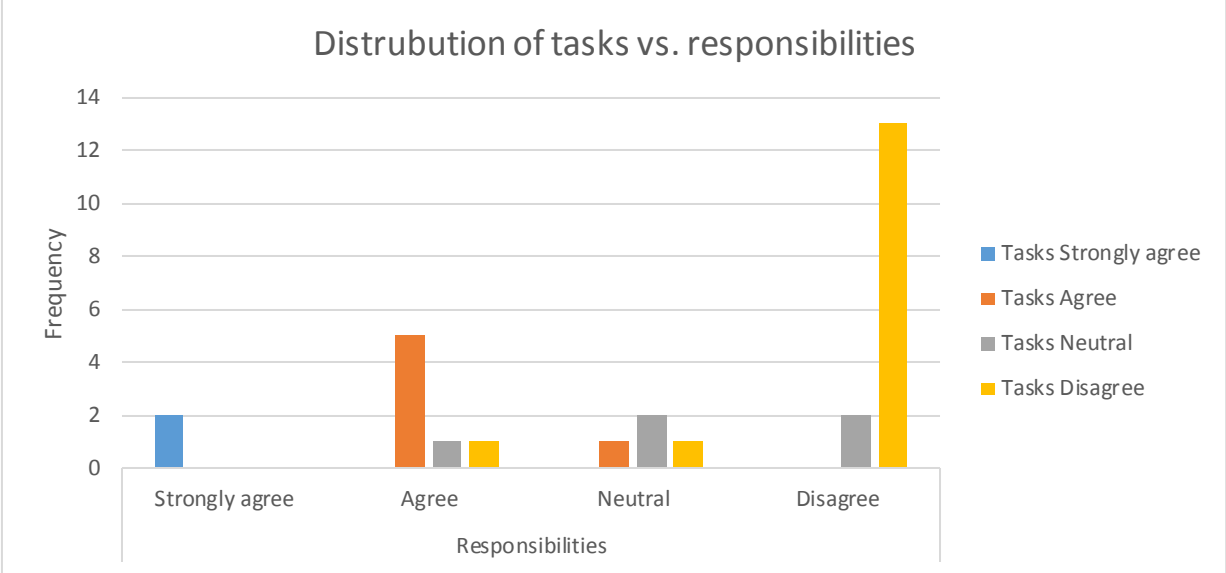
Figure 18: Correlation between level of detail in distribution of tasks and responsibility

There is a significant relation between the function and the estimated success rate of respondents since the exact significance of the Fisher Exact Test is 0,099. There is 9,9% chance prove for H0 and therefor is H0 rejected and Ha adopted. The Cramer's V test has a value of 0,428 and shows a medium correlation between those two variables. There is a peak in correlation between team leaders and the estimated success rate of 60%. The remaining functions and ratings are divided. From these results a significant relation and a medium correlation has been showing between the variables 'function' and 'estimated success rate'.

60

There is a significant relation between the function and own motivation from the respondents since the exact significance of the Fisher Exact test is 0,027. There is 2,7% chance of prove for H0 and therefor H0 is rejected and Ha adopted. The Cramer's V test has a value of 0,683 and shows a strong correlation between those two variables. Most team leaders motivated or neutral motivated. In addition, most people with the function not named in the list are motivated as well. The person whose identity is not known, is not motivated regarding to strategy implementation, see figure 20. From these results a significant relation and a strong correlation has been showing between the variables 'function' and 'own motivation'.


Figure 20: Correlation between function and own motivation

There is a significant relation between the estimated success rate and the preference for providing feedback over strategy implementation. The chance that the variables are independent on each other is 8%. H0 is rejected and Ha is adopted. Cramer's V value is 0,453 which means that there is a medium correlation between those variables. As shown in figure 21, many people who prefer to give feedback to the direct manager, estimate the success rate 40% or 80%. The people who prefer to provide feedback directly to the strategy team, estimate the success rate on 60%. The people who estimated a low success rate, vary in the way of providing feedback. From these results, a significant relation and a medium correlation has been showing between the variables 'estimated success rate' and 'feedback'.
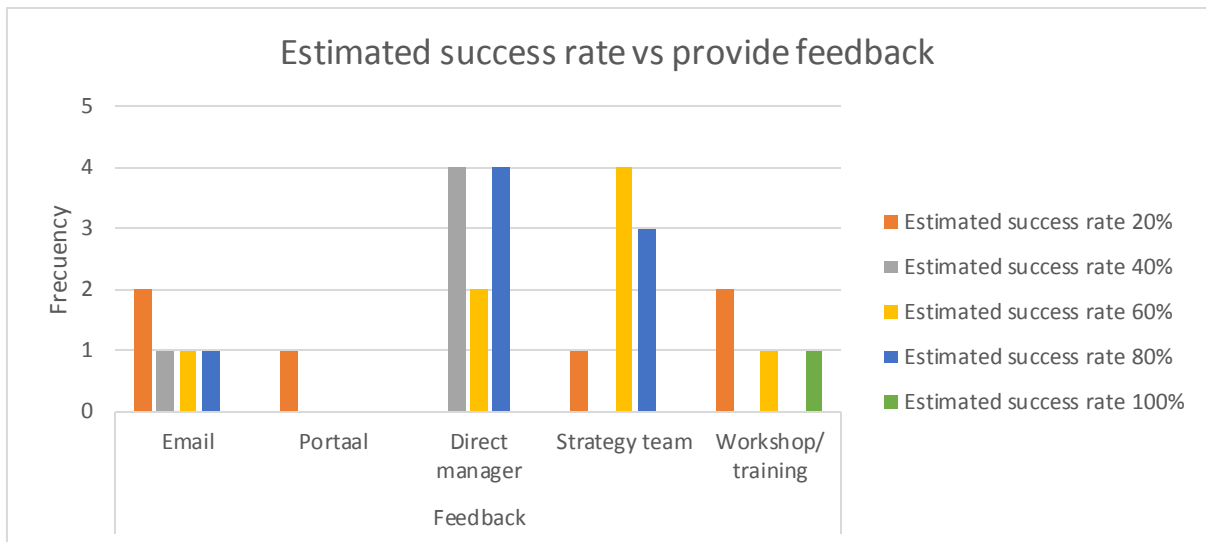
Figure 21: Correlation estimated success rate and providing feedback

There is a significant relation between the own motivation and the preference of providing updates. The chance that the variables are independent on each other is 9,1%. H0 is rejected and Ha is adopted. Cramer's V value is 0,617 which means that there is a strong correlation between those variables. As shown in figure 22, people who are 'agree' to be motivated, prefer to give updates among strategy implementation once every quartile. The majority of people who 'strongly agree' or are 'neutral' regarding to strategy implementation, prefer to provide every quartile updates as well. From these results, a significant relation and a strong correlation has been showing between the variables 'own motivation' and 'providing updates'.
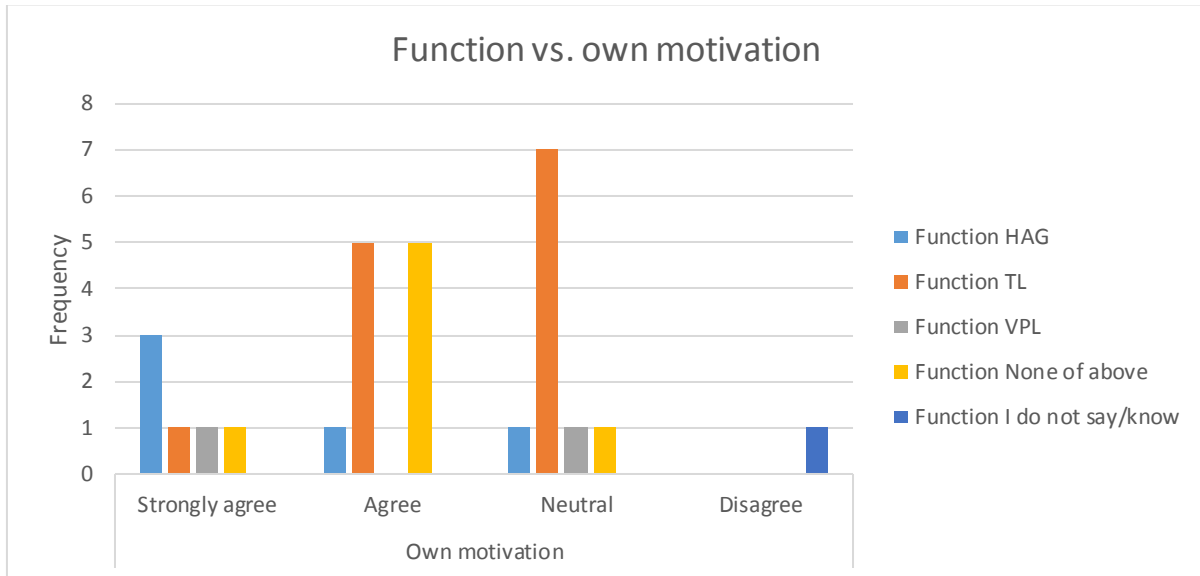

Figure 22: Correlation own motivation and give update

The other variables are tested on relations however none of them are significant. In the other cases, H0 is not rejected and Ha is not accepted.

4.4 Discussion

There is a respondents rate of 70%, this means that there is still a non-response rate of 30%. Some respondents have opened the survey more than once since the survey is opened more than there are respondents. The respondents who did not finished the survey, have stopped on the front page, first or second question. In order to increase the response rate, design modifications has to be made within the first questions. The reason why possible respondents not finished the survey is not known. It could be disinterest in the subject or difficulty of the question. A higher response rate provide a lower margin of errors. The same sample size of 37, provide 5% margin of errors with a response rate with 34 people. Another way to increase the margin of errors is to increase the sampling size. A high sampling size also result in more consistency within the results. The answers for several questions are scattered and the chance for more entity within the results increases if there is a higher response. The same argument counts for performing a chi-square analysis. A requirement for this analysis is having a minimum expected count of 5 for each cell. The chi-square analysis could be working if several cells are combined with each other. However, the expectation is that also in the combined case, the requirements will not be met. The Fisher exact test is an alternative to perform this analysis and do not require any minimum expected count and therefor suitable for this analysis. An alfa of 0,05 is common to use in such an analysis, since the margin of error is 9,3%, the alfa which is used in this analysis is 0,10. More respondents are necessary for a lower alfa. A different sampling size, amount of response and the alfa influences the significant relations. Changing one of these factors is interesting in order to see the influence on the results. More or stronger correlations might be possible. One of the results is that motivation of employees and managers are a key factor within strategy implementation. There is little significant relation with the motivation as result of the survey. Modification of the design and a higher sampling size might result in more significant correlation between motivation and other variables. There are two contradictions within the survey and the literature. Respondents disagreed with both statements regarding to specified elaboration of responsibilities and specified elaboration of tasks. According to the literature, those two points are relevant regarding to strategy implementation. The two statements score both 4 to 5 votes within the second part of the survey 'factors influencing strategy implementation'. The difference could be clarified by the fact that a level of detail is added to the question. Clear responsibilities and deviation of tasks are important but specifying responsibilities and tasks are too detailed. Overall, the results are useful as basis for creating the implementation model.

4.5 Conclusion

- Arcadis has a divisionalized structure and applies a professional bureaucracy within business line environment region north.
- Stakeholders with high power and high interest in strategy and implementation are the strategy team and policy makers.
- Motivation from employees and managers are the most important factors to succeed in strategy implementation.
- Direct manager is preferred to get informed and provide feedback regarding to strategy implementation.
- It is preferred to give and receive every quartile an update regarding to strategy implementation.
- No detail is preferred for responsibilities and tasks but they are important factors regarding to strategy implementation.
- The results of the survey shown that there is need for measurement standard.
- The overall motivation is moderately positive.
- Nine significant correlations are present between variables from which 4 have strong correlations.
- A significant relation and a strong correlation has been showing between the variables 'own motivation' and 'providing updates'.
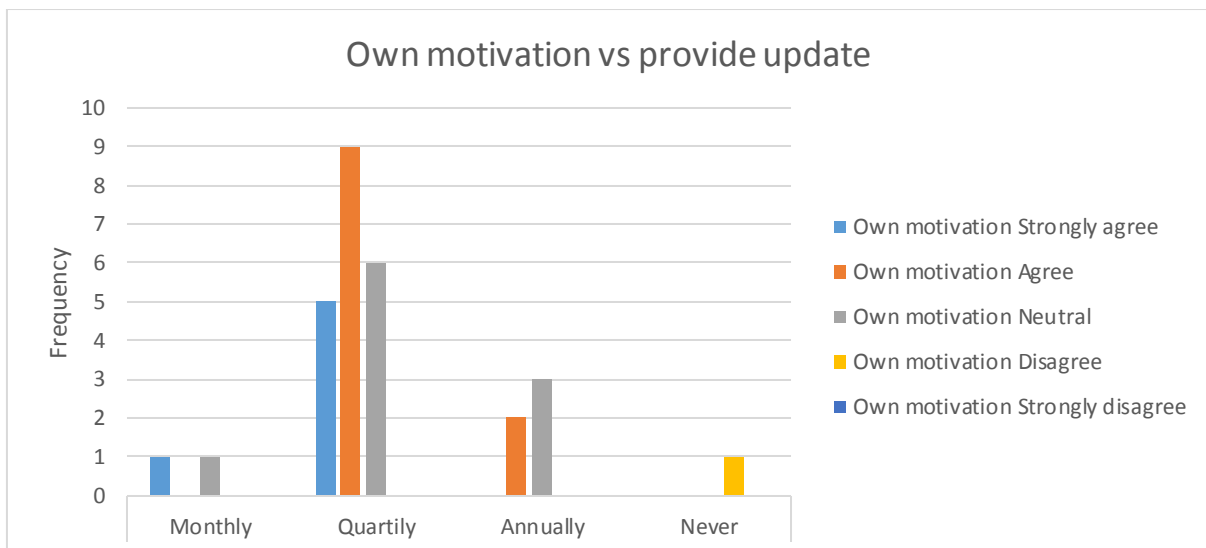- A significant relation and a strong correlation has been showing between the variables 'function' and 'own motivation'.
- A significant relation and a strong correlation has been showing between the variables 'distributions of tasks and 'responsibilities'.
- A significant relation and a strong correlation has been showing between the variables 'providing updated' and 'getting updated'.

5   Model

The implementation model is created with the results of the depth-interviews and survey answers. This model is designed for the environment strategy of Arcadis Europe. The Dutch stakeholders' opinions are taken into account and so is the corporate culture of Arcadis. The model is developed for the structure and hierarchy of Arcadis. The consequence is that the model is suitable for region north within Arcadis and its environmental strategy. In case this model will be used for other strategies within Arcadis, some adaptions has to be made regarding to the opinion of stakeholders. Different stakeholders might have other preferences about communication, time frame and have other opinions about which factors influencing strategy. In the situation that other companies want to use this implementation model, they have to adjust stakeholders' opinions and implement their corporate culture, structure and hierarchy in the model. Therefore, this implementation model suits the European environment strategy for region north of Arcadis. The model has to be adjusted if it will be applied for other strategies or companies.

This chapter focusses on the development and result of the implementation model. First, the assumptions and activity determination for the implementation model are discussed. Afterwards, the model is developed and validated. Finally, the model is argued and conclusion is provided.

5.1   Activity determination focus factors

The activities which are present within the implementation model are described in this paragraph. Several interviewees agreed that the strategy should exist of focus points. The main strategy should exist of maximum five focus points in order to keep this manageable. Since Mintzberg talks about 'the magic five' as well, five factors which influences strategy implementation will be applied in this implementation model (Mintzberg, 1983). The top five factors influencing strategy as result from the survey are:

1. Motivation employees and managers;
2. Understanding goal/ target;
3. Similarities goal/ priorities;
4. Resource allocation;
5. Strategy implementation in daily routine (Result open survey question).

In order to translate the factors into a strategy implementation model, corresponding activities has to be identified which lead to achieving the factor. For instance, activities regarding to motivation of employees and managers will be identified which lead to increased motivation. This will be done by using additional literature, previous depth-interviews and other conducted interviews in order to validate the activities. Options of activities will be analyses and selected. The final list of activities which are used in the implementation model is the result. The top five factors which affect strategy implementation the most are discussed first. Finally, the remaining topics of the survey and interviews are discussed.

5.1.1 Motivation team members and managers

According to Herzberg, there are two factors which lead to job satisfaction. Those factors are separated in extrinsic and intrinsic factors. The extrinsic factors are described as extern factors

like salary, work conditions and job security. The intrinsic factors reflects to intern factors like the work itself, achievement and job recognition. The intrinsic factors are the actual motivation and fulfill an employee's need for growth. Extrinsic factors prevent work dissatisfaction but do not lead necessarily to job satisfaction. He argued that wages are important for employees under thirty, at the lowest level of an organization and earn less than $12.000,- a year. Interesting work, appreciation of work and the feeling of being in on things are factors which employees consider most important. These above named factors influence employee's motivation most. Effort has to be made in order to give credit where credit is due. Employees over all levels over the organization should include in decision making where possible. This increases the appreciation for the work (Kovach, 1987). This is confirmed by the survey from this research. As discussed earlier, 'providing updates regarding to strategy implementation' has direct and significant impact on employees 'own motivation'. The performed depth-interviews confirm this theory. Interaction with employees is the best way to keep the performance high. 'Providing updates' has both a significant relation with 'own motivation' as 'getting updated'. Getting updated has therefor an indirect but less significant relation with motivation.

Involving managers and team members in decision making is the tool which will be used in this research in order to increase the motivation. This tool is confirmed by both theory and the survey and increases appreciation and the feeling of being in on things of employees. Preferred is to involve employees at least once every quartile. This is the result from the survey. For this reason, at least once every quartile, managers and team managers get the opportunity to get updated and provide updates about the strategy it selves.

Employee participation in decision making as a significant relation on the organizational performance. Including employees in decision making increases their motivation and contributes 59.7% to organizational performance (Roseline, 2014).

Therefore, activities which are present within the implementation model to gain or add motivation to team members and managers are:

- Employee participation within decision making, at least once every quartile and communicated via direct manager.

5.1.2 Understanding goals and targets

Understanding of goals and targets are related to the subject resources. Goals and targets are specific set up for the duration of the strategy. Concrete targets helping to give direction to the aim of the strategy. Measurability of goals helps to create a basis for the strategy and something to lean on (Joosten, 2010). In order to create support and understanding of goals and targets, there have to be ensures that all managers are aware of these strategic goals. The goals have to be included into the fit and broader strategic vision of Arcadis. Maintain flexibility is necessary to adapt goals based on environmental changes. In order to develop consistency, it is of interest to develop common goals (Li et al., 2010). Understanding main targets of a strategy can be difficult since the focus points are broad. To gain better understanding of the targets it is of interest to reduce the primary goal in smaller targets. These smaller targets are described as sub goals and create more deadlines. This stimulate the

execution of the goal. The sub goals should be SMART formulated, realistic goals are key factor (Universiteit Leiden, n.d.).

The development of sub goals is the tool which will be used in the implementation model since this advice was also given within the performed depth-interviews. To get understanding of the goals and targets, sub goals will be developed on different levels of the organization. This provides concrete goals to every level of the hierarchy which contribute to the primary goal of the strategy. Activities to develop primarily goals and sub goals will be added to the implementation model in order to gain understanding of the goals and targets.

Activities which are present within the implementation model to gain or add understanding of goal and target are:

- Communication of goals and targets in Dutch via direct manager.
- Propagate broader vision and ambition of Arcadis.
- Development of goals and sub goals in different levels of the cube.
- Development of targets and sub targets in different levels of the cube.

5.1.3 Similarities goal and priorities

Similarities in the goal and priorities will influent strategy implementation and is covered under the responsibility of the managers. The long term goals have to match the short term actions. Floyd and Wooldridge describe strategic consensus as solution. Agreement among top, middle-, and operation level managers about fundamental priorities of the strategy can be reach by common understanding and common commitment of strategy. This can be reach by interactive sessions in order to let all managers understand the strategy and motivate managers for general commitment. This lead to strong committed decision teams but speed down the implementation process (Li et al., 2010). The goal and priorities of the strategy should be set within measurement standards like the balanced scorecard. Awareness of mission, vision and core values contribute to alignment between the goal and priorities. Alignment between organizational-, department-, team-, and employees personal goals are necessary.

High billability is an existing KPI within Arcadis. During the performed depth-interviews came forwards that billability should not be the leading factor and neither should be the monthly numbers. A few focus points of the strategy should be used and further developed within the implementation. These points should be prioritized and not get distracted by short term numbers. This is the result from the depth-interviews and therefore applied within this implementation model.

Activities which are present within the implementation model to gain or add similarities within the goal and priorities are:

- Develop five focus points of strategy.
- Develop common priorities.
- Keep to this priorities and do not get distracted by monthly numbers.

5.1.4 Resource allocation

Resources includes the facilities and instruments which are needed in order to perform a tasks of the strategy. All the tools for a project tasks should be occupied to finish the project adequate. Examples of resources are labor, equipment, physical facilities, expertise or financial resources. The allocation of these resources is assigning the available resources in an efficient way. Resource allocation and prioritizing goals are linked together. The resources should be allocated in line with the priorities of the strategy. On the other hand, resource allocation says something about what the priorities are of the strategy. Therefore, it is critical that aligning of the resources is related to the strategic intention. The critical initiatives have to be discovered in prior to resource allocation. This ensures the correct focus (The Economist Intelligence Unit, 2013). The need for consistency between resource allocation and the intended strategy of the organization is confirmed by Rajasekar & Khoud, 2014. The activities and decisions which have to be performed are related to the structure and hierarchy of the organization (Rajasekar & Khoud, 2014). An option to allocate resources is to let the top management of the organization decide. They control and centralize projects. The other option is to engage power to lower levels of the organization to allocate resources. This last option is often used in divisionalized organizations. The request for resources come forward from the working level through the organizational hierarchy. The top level gets the request, prioritize them and allocate actual resources (Markgraf, 2016).

Arcadis has a divisionalized structure and the working level has more insight in the need for resources. The following approach is chosen and included within the model. The lower level gets the opportunity to come up with the needed resources, this will be brought forwards via line of Arcadis to the top manager. This person collect the requests, prioritize them and allocate the resources.

Activities which are present within the implementation model to gain or add resource allocation are:

- Bottom-up approach to identify the necessary resources.
- Collect requests and prioritize them.
- Manager verify resource allocation with team members.
- Actual resource allocation.

5.1.5 Implementation strategy in daily routine

An important factor to make a strategy work, is implement the responsibilities and tasks into the daily routine. This is the result from the last open question of the survey. Stanleigh agrees with this statement. He claimed that the success rate of organizations would highly increase when the projects are in alignment with their strategic goals. A systematic approach is needed to link them to strategic goals. Stanleigh brings forwards three main activities and various sub activities in order to align the tasks of the strategic plan with the ongoing projects of the organization. These activities are ranked below.

1. Review of current- and last year's projects.
   a. List all ongoing projects including goal and strategic alignment.
   b. Create inventory of all projects.

     c.   Measure these projects.

     d.   Identify projects over past years and measure success rate and lessons learned.

2. Develop systematic approach to prioritize all projects.

     a.   Develop criteria to prioritize projects including impact on corporate strategy and customer.

     b.   List projects along with their goal, purpose and strategic alignment. Each project allows itself to get ranked on level of priority.

     c.   Review priorities of projects on monthly basis.

3. Align projects to corporate and departmental strategic plans.

     a.   Review strategic plans and gain understanding of key priorities.

     b.   Examine projects to determine alignment with strategic goals. It demonstrate how each projects execution will support the strategic plan.

     c.   Exclude project that have low priority or not linked to the strategy, they do not add value to the organization.

The conclusion of Stanleigh is elimination of projects which are not contributing value to the strategy. The remaining projects contribute to the goals of the strategy and are able to meet the targets (Stanleigh, n.d.).

Klaasse argues that implementation in daily routine is dependent on employees. Stepwise implementation and active occupying the strategy helps to change mindsets of employees. Connecting the strategy with personal and group goals contributes to success. When all stakeholder understands the strategy and are motivated to carry this out, it becomes a part of daily activity. Evaluation, correcting and mobilize strategy are important factors in the further process (Klaasse, 2013).

Within Arcadis, attention is given to personal goals and development of their people. Personal goals of employees are discussed at least two times a year with their direct manager. Aligning the goals of strategy with personal goals is used in this model to implement the strategy in the daily routine. Employees are directly involved in accomplish the goal of the strategy since it is their own personal goal as well. It contribute to increase to the interest of their work and the feeling of being in on things which will lead both to increased motivation. Therefore, activities which aligns goals of the strategy with personal goals of employees will be added to the implementation model.

Activities which are present within the implementation model to gain or add resource allocation are:

-   Connect goals of strategy to personal goals of employees.
-   Connect goals of strategy to advice groups and teams of the advice group.

5.2 Remaining activities determination

The results of the survey shows the need for attention in the subjects on the next page. For this reason, the subjects are translated into the activity determination and taken into account in the implementation model.

1. Measurement standards;
2. Responsibilities and tasks;
3. Alignment strategies within Arcadis;
4. Communication.

The subjects are translated into activities. This is done by using literature, the previous depth-interviews and the validation interviews. Options of activities are analyzed and selected. The activities of paragraph 5.1 and this paragraph 5.2 are combined into an implementation model.

5.2.1 Measurement standards

The results of the conducted survey shows that there is a high need to measure the strategy implementation process. Preferably by BSC or KPI's. Measurement standards are used as tool to assess and manage organizational performance. The need for measurement standards are emphasized in the validation interviews. There are many managers and initiatives and measurement standards helps to give direction to the essential work. It provide guidelines and requires feedback on the actual work. The BSC has a direct positive influence on companies performance when it is aligned to the organizations strategy (Braam & Nijssen, 2004). Therefore, the BSC is used as measurement standard in this model. However, the use of a BSC does not automatically improve the performance of organizations. There are several conditions related to the BSC in order to increase the performance. Multidisciplinary project teams helps to implement the BSC. The creation of a multidimensional and balanced baseline set of performance indicators and start measuring and monitoring. The introduction of more unique measures which will be reached by fine-tuning and validation. A proactive stance of the management is another critical factor.

A well aligned BSC and strategy can increase the performance of Arcadis when there is compliance with the above mentioned criteria. For this reason, the BSC is included in this implementation model.

Activities which are present within the implementation model to gain or add measurement standards are:

- Development BSC by EBLE.
- Development BSC by MGL.
- Development BSC by HAG.
- Team members and TL validate BSC advice group.
- Reflect to BSC at least once every quartile via direct manager.

5.2.2 Responsibilities and tasks

Determination of responsibilities and tasks influences strategy implementation. The stakeholders gets informed about the new and necessary duties regarding the new strategy. The roles of an employee is established within a responsibility and the related activity is the task. Well defined responsibilities and tasks contributes to maximize organizational performance (Li et al., 2010).

The respondents of the survey disagrees with detailed elaboration of responsibilities and tasks. On the other hand are these points characterizes as factors which influences strategy implementation. This is interprets by reference to the validation interviews. Arcadis has an open corporate culture and works with high educated consultants. These people are able to think for themselves and do not want to get orders of the strategy team, people in the hierarchy which they do not personally know. Adding detail in the responsibilities and activities is accepted within the level of the advice group. The role of the strategy team is disseminating of an inspiring vision. Determination of responsibilities and tasks are taken into account in this implementation model. The determination is always in collaboration with the effected person and direct manager.

Activities which are present within the implementation model to gain or add responsibilities standards are:

- Determination of responsibilities on all levels of the cube.
- Determination of tasks on all levels of the cube.
- Everyone in the cube has influence on their own responsibilities and tasks.

5.2.3 Aligning strategies within Arcadis

The alignment between strategies within Arcadis came forwards as obstacle to gain full understanding of the European strategy of the business line environment. Arcadis has a global strategy, European strategy, business line strategy and advice group strategy. In order to increase awareness, there should be focus on conveying bullet points. Integration between the advice group strategy and business line strategy leads to collaboration and more understanding of the strategy. A significant relationship between strategic alignment and performance is proven. In order to maximize performance, the strategy refreshment have to be aligned with the organizations corporate strategy and the organizational structure. Alignment between Arcadis strategy, the European Environment strategy and Arcadis internal structure leads to higher performance.

Strategic alignment can be developed by level of awareness, integration and alignment. Increase awareness is possible by recognizing and action upon the strategy and the business. Integration is conducted by connecting the plan and activities of the strategy. Alignment of strategy consist the fundamental strategy with the core competencies and corporate goals (Jouirou & Kalika, 2004). The interviewees during the validation emphasize the importance of having a long-term ambition. The strategy and related goals is used as tool to get one way closer to this ambition.

Activities which are present within the implementation model to gain or add alignment in strategies within Arcadis are:

- Convey common long term vision of strategies.
- Connecting activities with the goals of the strategy.
- Prioritize core competencies and connect them to the corporate goals.

5.2.4 Communication

Communication as key success factor for strategy implementation came forward in the last open survey question. Communication is the process where information transfer occurs between two or more people. Since communication has a central role within the performance of organizations, this factors is taken into account. Effective organizational performance can be achieved by the application of five communication strategies (Kibe, 2014).

1. Open communication environment. Employees feel free to share feedback, ideas and criticism at every level of the hierarchy.
2. Inclusive. Involvement of the affected employees within decision making.
3. Two-way communication. This include top-down and bottom-up communication.
4. Result- driven and focus on achieving measurable results.
5. Multi-channeled communication. To increase the impact of the message, multiple channels are used to communicate.

The results of the survey shows that managers and employees prefer to get informed and provide feedback regarding the strategy via their direct manager and at least every quartile. No distinction will be made between managers and others since no significant relationship has been showing.

Activities which are present within the implementation model to improve communication are:

- All 'standard' communication goes via direct manager, at least once every quartile.
- Communication of strategic implementation is connected to existing meetings.
- Top-down and bottom-up communication is integrated within the model.
- Multiple channel communication is integrated within the model.
- All communication is Dutch (native language of country).

The activities discussed are taken into account within the model. The next paragraph shows an overview of the total activities.

5.3 Activities overview

The model exists of activities from the stakeholders. The first step for creating an implementation model is divide the activities in different phases and rank them in chronological order. The phases which are used are shown in the PDCA circle, plan, do, check, and act. The activities written in black are the result of the previous research to the activities. The activities written in orange are added to the list in order to optimize the list, this is the result from the validation process.
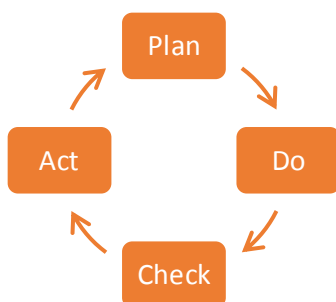
Figure 23: PDCA circle

Phase: Plan

1. Develop five focus points of strategy.
2. Spread broader vision and ambition of Arcadis.
3. Prioritize core competencies and connect them to the corporate goals.
4. Develop common priorities.
5. Convey common long term vision of and strategy Environment.
6. Development of goals and sub goals in different levels of the cube.
7. Development of targets and sub targets in different levels of the cube.
8. Communication of goals and targets in Dutch via direct manager.

Phase: Do

9. Determination of responsibilities on all levels of the cube.
10. Connect goals of strategy to advice groups and teams of the advice group.
11. Development BSC by all levels of the cube.
12. Team members and TL validate BSC advice group.
13. Determination of tasks on all levels of the cube.
14. Connecting tasks with the goals of the strategy.
15. Connect goals of strategy to personal goals of employees.
16. Connect tasks to employees.
17. Bottom-up approach to identify the necessary resources
18. Collect resources requests and prioritize them.
19. Manager verify resource allocation with team members
20. Actual resource allocation.

Phase: Check

21. Reflect to BSC at least once every quartile via direct manager.
22. Keep to this priorities and do not get distracted by monthly numbers.
23. Check motivation managers and employees.
24. Communicate strategy progress & milestones.

Phase: Act

25. Bottom-up feedback regarding strategy and progress.
26. Collect results BSC.
27. Combine feedback & results.
28. Determine if adaption in strategy is necessary.
29. Communicate results.

There are some activities excluded from the activity list above. These activities are seen as 'communication guidelines'.

- Both top-down and bottom-up communication is important and have to be integrated within strategy implementation.
- All affected stakeholders have to be involved in decision making.
- Everyone in the cube has influence on their own responsibilities and tasks.

- All 'standard' communication goes via direct manager, at least once every quartile.
- Communication of strategic implementation is connected to existing meetings.
- Multiple channel communication will increase the impact of the strategy implementation.
- All communication is Dutch (native language of country).

As shown in the ranking list, the majority of the activities are placed in the 'plan' and 'do' phases.

5.4 Implementation model

The activities are implemented in two models. The stakeholders and the activities are combined in the models in order to create an overview. Due to the amount of stakeholders, they are not personally named but divided in the levels of the hierarchy from Arcadis region north. Those stakeholders are the market group leader, head advise group, team leader and team members. The strategy team which developed the strategy is part of the EBLE, European Business Line Environment and is included as stakeholder as well. The phases, including the activities are set out against the stakeholders in a RACI-model, responsible, accountable, consulted and informed. The stakeholders are assigned where a responsible person performs the activity. The accountable person is the ultimately responsible person and can held liable for the activity. The consulted persons are the stakeholders for this particularly activity and finally the informed persons are the persons who must be notified (Browning, 2010).

There are six big decisions which have to be made for the strategy which influences stakeholders. These decisions are the development of five focus points, determination of goals and sub goals, determination of targets and sub targets, determination of responsibilities and tasks and identifying of required resources. Every stakeholder should be involved in this decision making. This is included within the model.

In addition, some activities are extended within the model. For instance, 'develop five focus points of strategy' have to be performed at three levels of the hierarchy. Therefore, this activity is divided in 'develop focus points on EU level, region level and advice group level'.

Below is shown the RACI model. The activities are set out against the stakeholders. The level of responsibility is marked as follow; **A**ccountable, **R**esponsible, **C**onsult, **I**nform.

Table 12: RACI-model strategy implementation

Phase	Activities	EBLE	MGL	HAG	TL	TM
Phase 1: Plan	Develop five focus points of strategy EU level	A	C			
	Develop five focus points of strategy region level	A	R	C		
	Develop five focus points of strategy advice group level		A	R	C	C
	Spread broader vision and ambition of Arcadis	A	R	R	I	I
	Prioritize core competencies + connection with corporate goals	A	R			
	Develop common priorities	A	R	R		
	Convey long term vision and strategy Environment	A	R	R	I	I
	Development of goals EU level	A	C			

Phase	Task					
	Development sub goals region level	A	R	C		
	Development of sub goals advice group level		A	R	C	C
	Development of targets EU level	A	C			
	Development of sub targets region level	A	R	C		
	Development sub targets advice group level		A	R	C	C
	Communicate goals & targets	A	R	R	I	I
Phase 2: Do	Determination of responsibilities	A	R	R	C	C
	Connect goals organization to advice groups & teams			R	R	I
	Development of BSC EU level	A	C			
	Development of BSC region level	A	R	C		
	Development of BSC advice group level		A	R	C	C
	Validate BSC			A	R	C
	Determination of tasks		A	R	R	C
	Connection tasks with goals			A	R	C
	Connect goals of strategy with personal goals of employees			A	R	C
	Connect tasks to employees				A	R
	Identify resources		A	R	R	R
	Collect identified resources and prioritize them		A	R		
	Verify resource allocation		A	R	C	
	Actual resource allocation		A	R	R	
Phase 3: Check	Reflect to BSC advice group level			A	C	C
	Reflect to BSC region level		A	R		
	Reflect to BSC EU level	A	R			
	Keep to priorities, no distraction monthly numbers	A	R	R		
	Check motivation employees	A	R	R	C	C
	Communicate advice group progress/ milestones			A	I	I
	Communicate strategy region level progress/ milestones			A	R	I	I
	Communicate strategy EU level progress/ milestones	A	R	R	I	I
Phase 4: Act	Bottom-up feedback strategy & progress		A	R	C	C
	Collect results of BSC	A	R	C		
	Combine feedback & results	A	R	R		
	Determine adaption necessary of strategy	A	R	C		
	Communicate results	A	R	R	I	I

The RACI model is transferred within a BPMN model, Business Process Model Notation. The aim for such a model is to cover all the phases from initiative to design, implement, manage and monitor processes. The BPMN model is designed to bridge the gap between the business process, design and process implementation (Möller & Parvinen, 2015). The aim of the BPMN model in this research is bridging the gap between formulation and realizations of Arcadis

strategy. The model is developed for internal use and the stakeholders which are involved of the strategy implementation from EBLE, region north. The model is divided in four phases, plan, do, check, act. Every phase has their own model, this results in four models. The stakeholders are set out against the activities. The symbols used in this model are explained below.

Explanation of used tools

◯ = Start event   ⬤ = End event

◉ = Message event   ◇ = Gateway

▭ = Task   ⊞ = Collapsed sub- process

✉ = Consulting   ✉ = Informing

▯ = Group   o – – – ▷ = Message flow

⟶ = Sequence flow   ⋯⋯ = Association line

📄 Text = Data object   🛢 = Data store
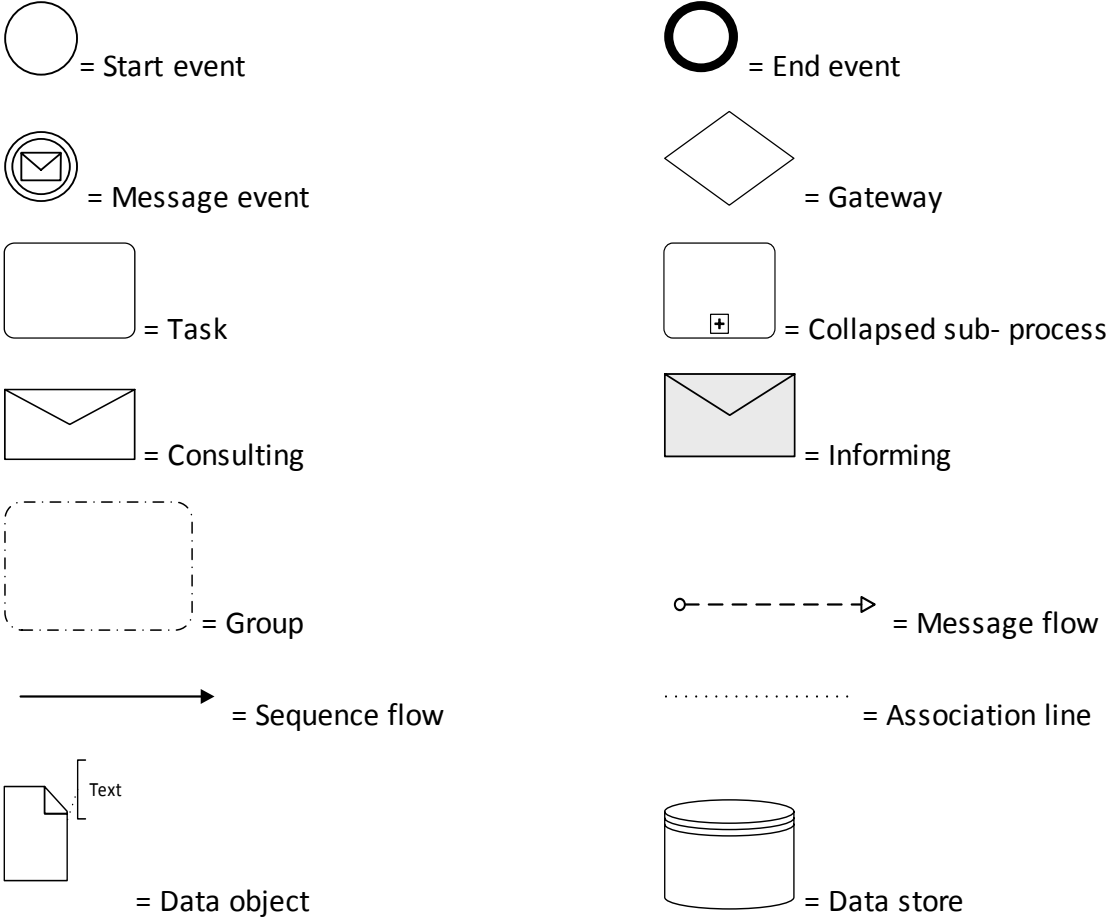
Figure 24: BPMN phase 1: Plan

Figure 25: BPMN phase 2: Do
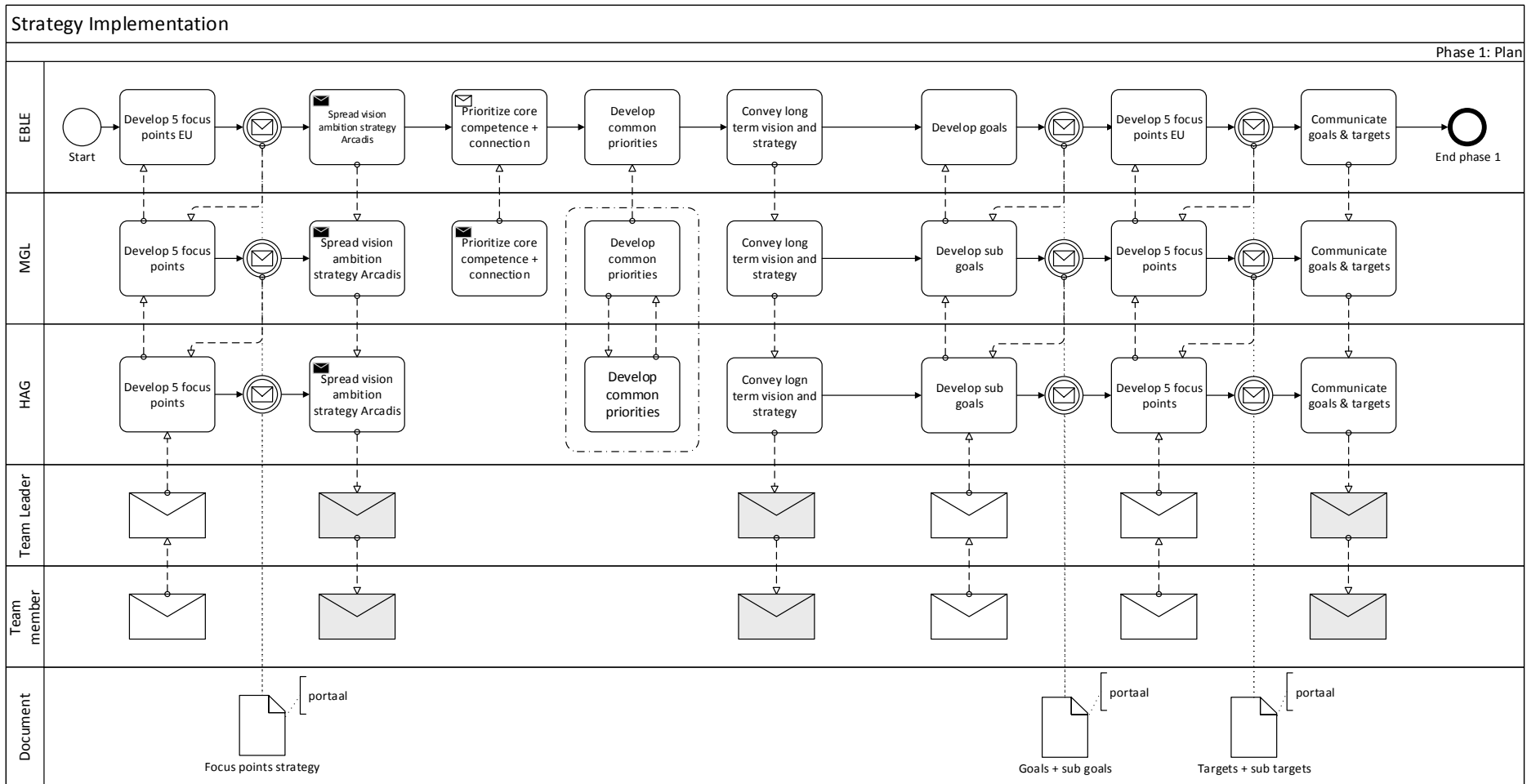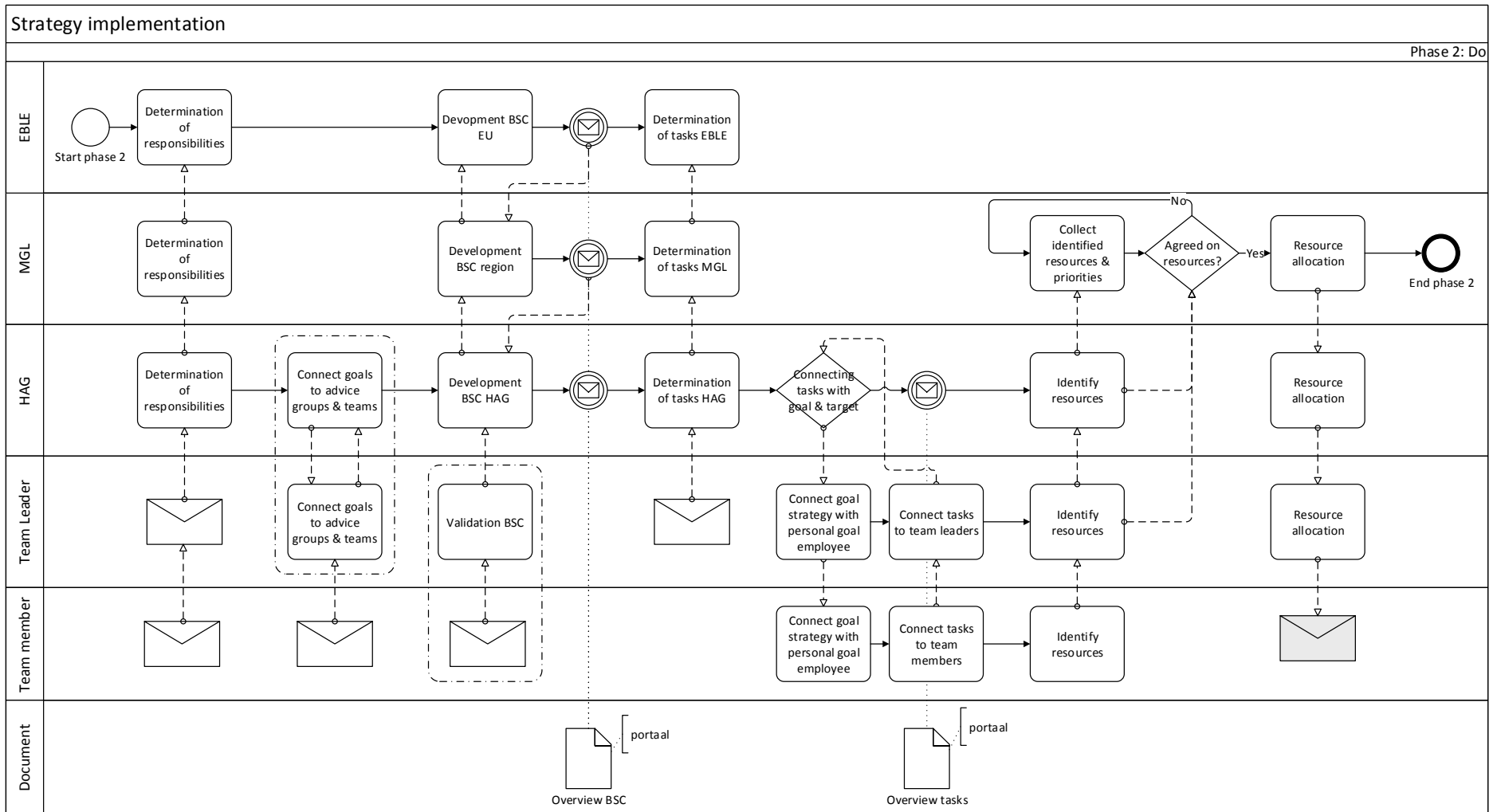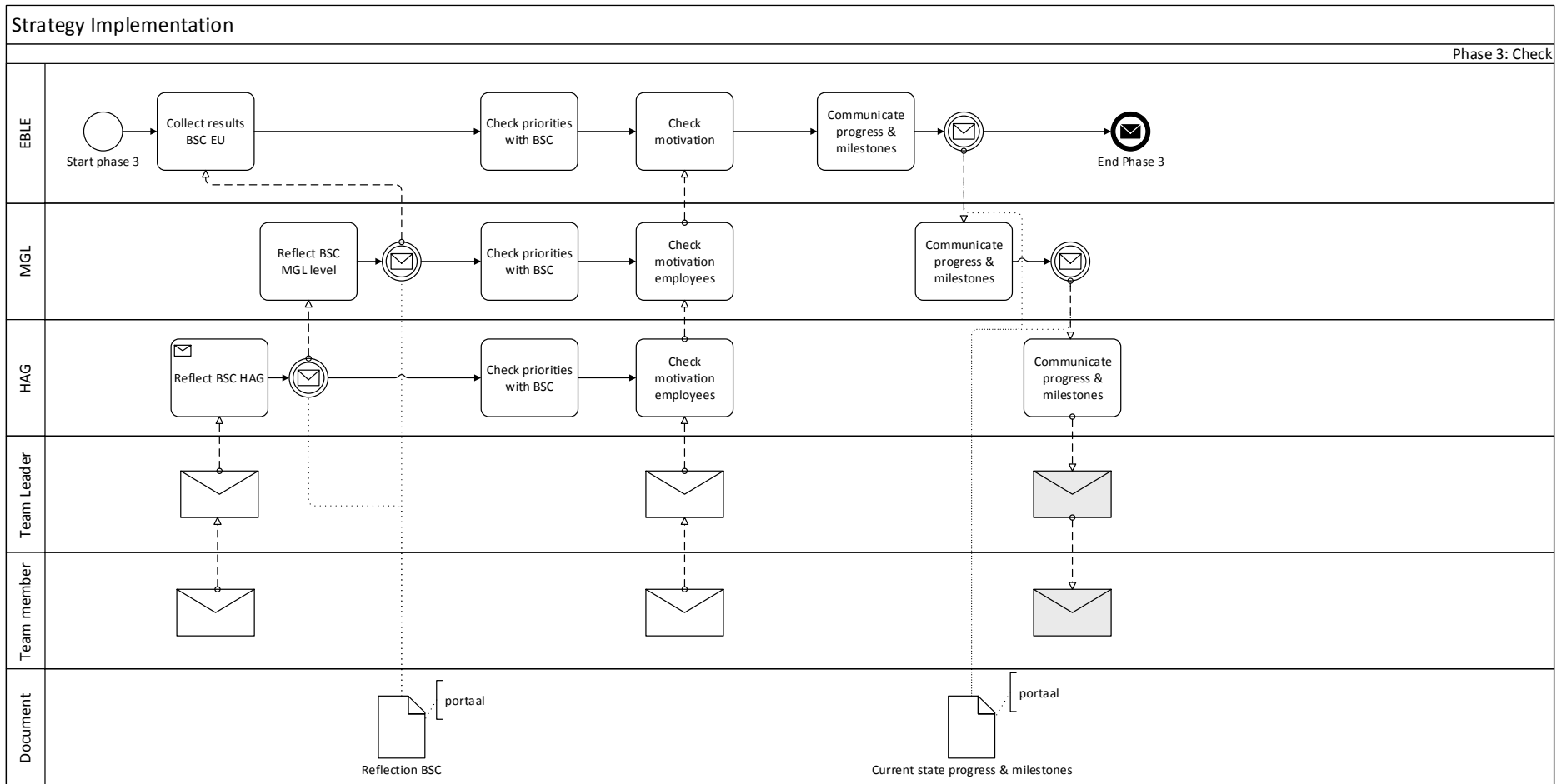
Figure 26: BPMN phase 3: Check
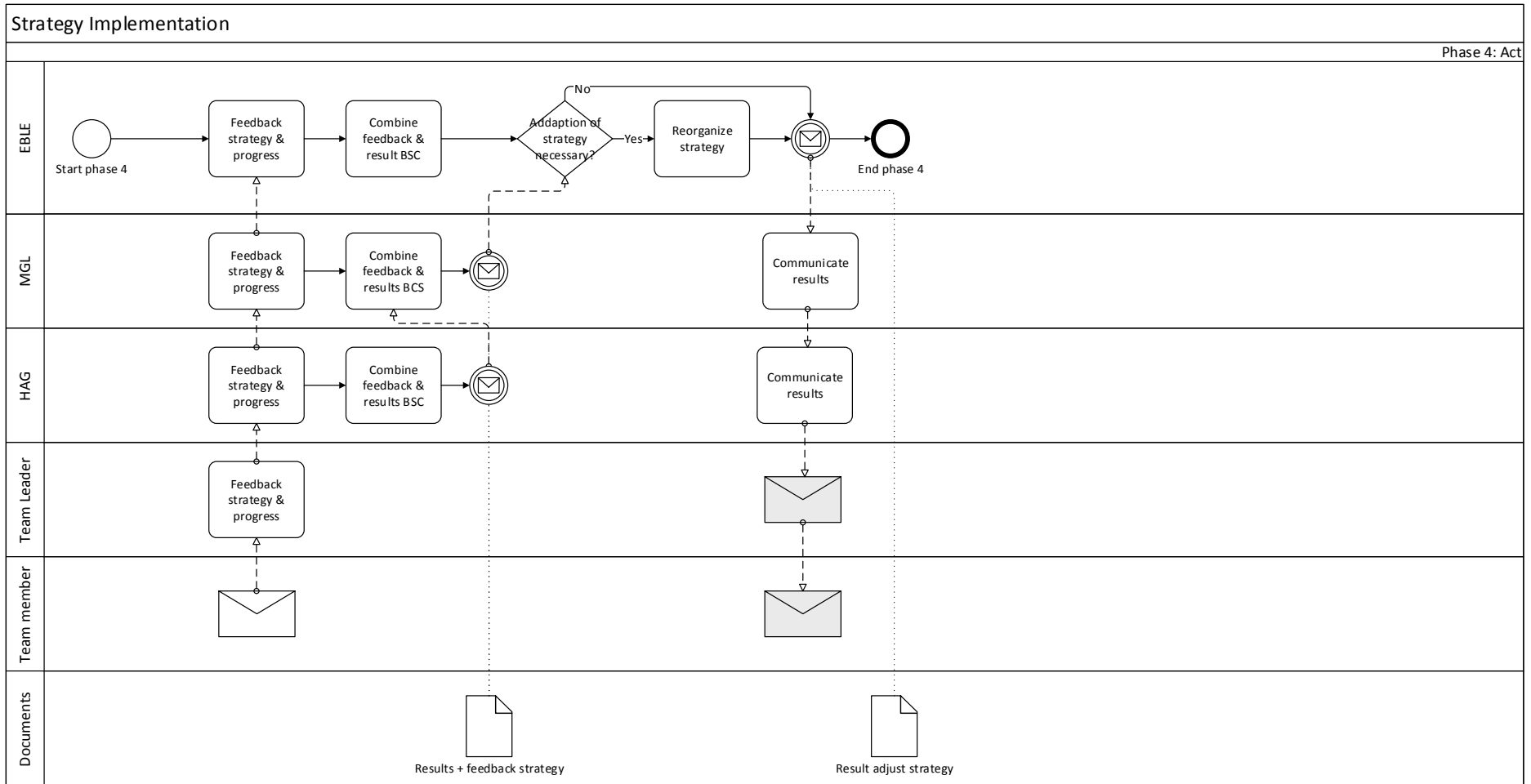
Figure 27: BPMN phase 4: Act

5.5 Results

The results of the survey, the concept of the implementation models and the activities of this model are validated by experts. This paragraph focusses on the validation interviews, implementation and evaluation of the implementation models and process.

5.5.1 Validation

The results, activities of the model and the model itself are validated by experts. The validation process is discussed below.

The results of the survey are per question validated by experts. The organizational structure of Arcadis is designed according to a hierarchy, which is the cube. The answers of respondents related to the communication preferences confirming this hierarchy. The motivation level of employees and colleagues are recognized by the experts however a higher motivation level had been desirable. A disagree with detailed responsibilities and tasks division is explained by the wish of employees to have freedom in their work. On the other hand, there is need for measurement standards like KPI's. This indicates that employees wants to have performance agreements. These results are conflicting with each other. Tasks are included in KPI's, de responsibilities are not. Concluded can be said that managers should not be too pushy. Trust and believe in the manager as well as distributions of responsibilities and tasks were expected higher in the ranking. In spite of this are the answers recognizable.

The activities which are taken into account within the model are validated by experts. The first start is motivation. Essential work contributes to motivation and collaboration of employees and is an energy driver. Involving people in decision making is an excellent tool to contribute to a higher motivation level. Since the great amount of stakeholders, it is important to make decisions about what level of contribution is desired. Second, common goals should be translated in smaller targets in order to provide clarity. KPI's have to be created from the work floor until the CEO of environment. Third, develop similarities in goals and priorities is important, just as not getting distracted by monthly numbers. Stick to the goals in good and bad times. Common goals have to be linked to the KPI's. The fourth point is the resource allocation. This is a bottom-up process after implementation. The people on the work floor knows what resources are needed and they are able to provide advice to their managers. Connect goals of the strategy to personal goals of employees is an excellent tool to implement strategy into the daily routine. Connect the goals of Arcadis with the personal goals of employees is the challenge which have to be met.

The activities which are applied within the model are validated and agreed. To give the activities more value, the activities are supported by scientific data.

The validation of the model is also performed by the experts. The models are recognizable and understandable. The model is divided in four phases, plan, do, check, act. Interaction in the first phase, plan, is critical. Connection between the strategy team and the work floor is needed to keep people motivated. In addition, the strategy team has a role in creating the strategy which is part of the EBLE. The EBLE is responsible for the implementation of the strategy.

The validation is performed by a market group leader and a senior advisor. The validation conversations are recorded and summarized. The summaries are coded, combined and processed within a validation document. This document can be found in attachment VIII.

5.5.2 Implementation

The model is adjusted after the validations. The model shown in paragraph 5.2, is the final implementation model for Arcadis. Since the strategy implementation is about motivation, communication and implementing in the daily work, below an overview of the 'standard' meetings which are present within Environment, region north. Recommended is to use one of the schedules meetings below for meetings regarding implementation.

Table 13: Overview meetings advise group planning & strategy

Advise group planning & strategy

Who	Frequency
HAG + TL	Once every 4 weeks
Team meeting	Once every week
HAG + HR	Once every 6 weeks
MGL + HAG	Once every week
HAG + team meetings	Once every year

Table 14: Overview meetings advise group realisatie & sanering

Advise group Realisatie & Sanering

Who	Frequency
HAG + TL	Once every 2 weeks
Team meeting	Once every 4 weeks
Production meeting	Once every quarter
TL + MT	Once every 2 weeks
TL + MT InSitu	Once every week
Team meeting InSitu	5 times per year

Table 15: Overview meetings advise group VCV

Advise group VCV

Team meeting South	Once every 3 weeks
Team meeting East	Once every 4 weeks
Team meeting West	Once every 3 weeks
TL + TM 1 to 1 Team North/East	Once every 6 weeks
TL + TM 1 to 1 Team West	Once every 4 weeks

Table 16: Overview remaining meetings

Remaining meetings	
HAG + HAG	Twice a year
MGL + MT divisie W&M	Once every 2 weeks
MGL + MT + HAG	Once every 6 weeks
MGL + HAG + HR	Once every month

In addition to those planned meetings, there are personally progress meetings planned between employees and their direct manager, two times a year.

The actual implementation is a continue process and has to be performed by the stakeholders as described within the model. Decisions regarding to focus points of the strategy, goals, targets, responsibilities, tasks has to be made by stakeholders. The strategy refreshment of Arcadis is developed for three years. The implementation is a continue process of communication and improvement. It is spread out over these three years.

5.5.3 Evaluation

Both the strategy as the implementation process has to be evaluated. This evaluation is part of the PDCA cycle. Evaluating the achievement of the goals of the strategy is possible with the results of the balanced scorecard. Quantitative and qualitative data shows the progress and can be checked with the BSC.

The motivation of employees regarding strategy implementation is an important factor to measure success. The higher the motivation of employees, the higher the performance should be. Measuring motivation is a qualitative process. The direct manager has to keep an eye on the teams. This is why check the motivation of employees is added to the implementation model.

In order to measure the awareness of strategy, the results of the conducted survey are useful. At this moment, 42% of the respondents indicates that they are not fully aware of the current strategy. They are not able to name any focus point of the current strategy, which has various reasons. The main motives are; 'far from my bed', 'busy with the Dutch strategy', 'bad communication'. After implementing the new strategy refreshment, the same question should be asked again; are you aware of the current European strategy Environment? The answer of this question can be compared with the results of the performed survey.

The balanced scorecard check points out if the goals and targets of the strategy are achieved. The motivation of the employees points out if they are willing to work with the strategy. The awareness comparison points out if the awareness of focus points is increased which is the result of better implementation on the work floor.

The strategy it selves has to be monitored and checked. The process has to be checked on feasibility of the strategy. The feasibility and progress of the strategy can be checked by the balanced scorecard. The PDCA cycle helps to monitor the process. Every phase should cover one quartile. The cycle would take one year to finish. This means that the PDCA cycle must past through three times for the final implementation of the environmental strategy.

5.6   Discussion

The implementation model is designed for the European strategy of environment. The stakeholders from eight countries and three different regions are involved. This implementation model is designed for the stakeholders from region north, which involved The Netherlands. In addition is the model designed for the corporate culture of Arcadis. This means if other companies want to use the model, they have to adjust it to their corporate culture and stakeholders. The top five factors which influence strategy are taken into account within this model. There are other factors which influences the strategy as well. The ranking of the top 5 and other factors are shown in the attachment. The five factors have great impact on the strategy implementation, the other factors have less impact but are still relevant. Those other relevant factors are excluded from this implementation model. When the top five factors are implemented, it is recommended to start including the other factors in order to optimize the process. The implementation model exist of activities related to the factors. The activities are connected with the subject's motivation, understanding of goal and target, similarities between goal and priorities, resource allocation and implementation to daily routine. In addition are activities connected to the survey points, need or measurement standards, distribution tasks, distribution responsibilities, alignment strategies within Arcadis and communication. The activities related to those subjects have been established by a literature review and validated by experts. However, other activities which provides the same result are suitable for the implementation model as well. Since strategy implementation is a continue cycle of implementing and revision the PDCA cycle is adequate. The activities are adapted in the different phases of this cycle. The most decision making moments are present in the Act and Do phase. When these phases are implemented within Arcadis, the emphasize can be shifted to the Check and Act phase. It is possible to extend or decrease the model. For this research is chosen to implement the top five factors which influences strategy within the model. In order to decrease the complexity of the model it is possible to use less impact factors within the model. For instance, the top 3 factors or only the top 1. On the other hand it is possible to extend the model by take more factors into account.

5.7 Conclusion

- The model is suitable for European Environment strategy of Arcadis and appropriate for the stakeholders of region north, The Netherlands
- The activities are determined to increase;
    - Motivation employees and managers,
    - Understanding goals and targets,
    - Similarities between goals and priorities,
    - Resource allocation,
    - Implementation in daily routine.
- The activities are determined to ensure;
    - Measurement standards,
    - Determination of responsibilities and tasks,
    - Alignment between strategies within Arcadis,
    - Communication.
- The phases are Plan, Do, Check, Act which have a continue flow.
- The focus area for Arcadis are the Plan and Do phase since the majority of the activities are present in those phases.
- The execution of the activities contribute to the performance of Arcadis. Including employees in decision making result in increased motivation and contribute 60% of the organizational performance.
- The RACI model provide an overview of the relation between activities and stakeholders.
- The BPMN model provide a schematic overview of the activities, communication and the corresponding.
- The combination of both process models is suitable as implementation model.

6 Lessons Learned

This chapter describes in short the lessons learned from this thesis. The research focuses on developing a strategy implementation model specified to Arcadis. This thesis is specified on the approach and stakeholders of Arcadis environmental strategy. However, there are also tips and tricks which are useful for other divisions, strategies within Arcadis or even other organizations. The first paragraph provide advice regarding strategy implementation for Arcadis. The second paragraph provide general strategy implementation advice which could be used for other strategies or organizations.

6.1 Arcadis

Advised is to inform employees and to give the possibility to provide feedback at least once every quartile. The standard communication goes via the direct manager. The meetings which are named in paragraph 5.5.2 are suitable to include strategy implementation on the agenda. Planning new meetings is not directly necessary. The developed model contribute to the efficient implementation of the environmental strategy. Due to (unforeseen) circumstances it might possible that the models have to be adjusted during strategy implementation. It is possible to enlarge the model. At this moment, the top five factors which influences strategy the most are included. In order to enlarge the model, more factors should be taken into account. All the factors which influence this process are shown in the attachment. As a counterpart, it is also possible to minimize the model. This should be done by reducing the number of factors which influences strategy implementation within the model. The subject which should definitely present within such a model are activities to increase motivation of employees and managers, measurement standards and alignment between the various strategies within Arcadis. To motivate employees and managers it is important to offer interesting work, appreciate the work and give them the feeling being in to things. Including affected stakeholders into decision making is a tool to achieve this. A bottom-up approach is just as important as a top-down tactic. Including a bottom-up approach is something Arcadis could work on. The strategy formulation of Arcadis was speed up because of circumstances. This has result in little influences of employees within the development of the strategy. The implementation phase is the chance to include employees in decision making. Employee involvement and continue monitoring of the strategy will contribute to successful implementation. As shown within the model, the 'plan' and 'do' phase needed most attention at this moment.

This advice and the results are based on the collected data. This data is obtained from stakeholders of the environmental strategy. This research illustrates the thoughts, opinions and behavior of Arcadis' people. In fact, Arcadis can use this research as mirror.

6.2 General

Every strategy implementation should be a unique process which concentrate on the organization and stakeholders. Nevertheless, general suggestions for strategy implementation came forwards during this research. It is recommended to identify the stakeholders and their interest from the start of the strategy development.

The outcome of the conducted survey emphasizes the importance of motivated employees and managers. Including the affected stakeholders within decision making is a tool to increase motivation. The strategy and implementation process have to be well communicated. How often the strategy should be discusses, by whom and via which channel is dependent on the stakeholders. Therefore, the preference regarding to communication have to be examined for the affected stakeholders. It is important that all managers are aligned with each other. The goals of the strategy have to be aligned with the priorities of all managers. In addition, the goals of the strategy have to be aligned with the targets of the mangers as well. In conclusion can be said that the managers need to be on the same page and need to be aware of their exemplary role. Motivation of stakeholders contribute to performance. Because of this reason it is recommended to examine the needs and preference of the stakeholders and include them within decision making processes.

6.3 Conclusion

- There are lessons learned for Arcadis and for general strategy implementation.
- Advise for Arcadis would be:
  - Have the possibility for employees to provide at least once every quartile feedback,
  - Overall communication via direct manager,
  - Add strategy implementation to existing meetings and agenda's,
  - Including affected stakeholders within decision making,
  - Focus on 'plan' and 'do' phase within the model
  - Including a more bottom-up approach.
- Next to that, has Arcadis the possibility to expand or reduce the model by including of excluding factors which influencing strategy.
- Advise for general strategy implementation would by;
  - Identify stakeholders and their interest,
  - Pay attention to motivation of managers and employees,
  - Including affected stakeholders within decision making,
  - Find out the preferred communication channels.
- All managers should be aligned with each other. Focus on alignment between goals and targets and alignment between goals and priorities of all managers.

7 Conclusion and recommendations

The scientific and societal relevance of this research is discussed within the conclusion. The research question is answered within the scientific relevance. By answering the main research question, the sub research questions are processes as well. The social relevance focusses on the contribution of this research to the human society. Finally, the recommendations provide suggestions for further research.

7.1 Scientific relevance

There is a gap between formulation and realization of organizations' strategies. The challenge is to develop a unique implementation model which fit to this organization and strategy. This research created an implementation model for Arcadis environmental strategy. This implementation model suits Arcadis. However, there are also interesting outcomes which are applicable on other organizations as well. The findings for the following research question are discussed.

What is the most efficient process to implement a new strategy in order to accomplish the aimed outcome of the strategy and fit into the vision, mission and values of Arcadis?

An efficient implementation process is dependent on the main factors leadership, organizational structure and culture, resources, planning and external factors. These factors are divided in sub factors which are shown in the attachment. First, it is of interest to rank and relate these sub factors. The identified stakeholders of the implementation process can contribute to this ranking. The most important factor which influences strategy implementation within Arcadis is the motivation of employees and managers. A significant relation is tested between motivation and providing updates. This emphasizes that communication in an important factor regarding to strategy implementation. Involving affected stakeholders in decision making contribute up to 60% to organizational performance. Increasing employee's motivation is a crucial part within strategy implementation, both for Arcadis as for other organizations. In addition, the stakeholders' preferences regarding to communication channels have to be investigated. Alignment between managers regarding goals and targets and alignment regarding goals and priorities contribute strategy implementation as well. The managers should be an example to their employees.

The RACI model and BPMN model are used to describe the strategy implementation process. The factors are translated into activities which are included within the models. The advantage of the RACI-model is the overview of the stakeholders and activities and the level of responsibility that is added within the model. The advantage of the BPMN model is the overview of the relation among the activities and the corresponding documents. An implementation model have to reflect the organizations corporate culture, include the preference of stakeholders and have to be adjusted to the strategy.

The need for strategy implementation models rises from the fact that the majority of organizations do not succeed to implementing their full strategy. Increase motivation of employees and alignment between managers contribute to strategy implementation process. Combining these subjects and the preference of stakeholders within a RACI-model and BPMN model, fill the gap between strategy formulation and the realization of strategy.

7.2   Social relevance

This research shows the possibilities to fill the gap between formulation and realization of organizations strategy. Efficient strategy implementation takes care of the execution of plans. These plans stimulate economic growth and might result in a shift in organizations' positions. An efficient implementation process contributes to efficient deployment of resources. Investments, employees and knowledge is understood by resources. Resources are limited, therefore they should be treated with care. Using as little as possible and obtain the greatest as possible is the aim of efficient implementation. Strategy helps to achieve as much as possible. The implementation process is dependent on collaboration of stakeholders. Motivated employees and well aligned managers contribute to successful implementation. Managers should be an example for their colleagues regarding strategy implementation. A steady and efficient strategy implementation benefit to anticipation of organizations to the future.

7.3   Recommendations

This research is executed for the environmental strategy of Arcadis Europe. This research has focused on the implementation process within the region north which covers The Netherlands. More research should be conducted to the strategy implementation within region central and region south of Arcadis. The corporate culture can differ in every country and it is important to align the implementation model within this culture and stakeholders. The respondents of the conducted survey are all Dutch managers. Since the conclusion of the report emphasizes the importance of involving all stakeholders, it is of interest to include team members within the survey. In addition, a higher number of respondents might result in more or stronger correlations between variables. For next research, more scenarios of the implementation model could be made by including or excluding factors, which influencing strategy or adding other activities to the model. Performing a quantitative analysis to examine the relation between the activities and performance of the organization is suggested for further research. More research is recommended to standardized implementation models. A tailor made implementation model suits best, however, a standardized implementation model would help organizations to create the basis. In addition, more research is recommended to behavior- and change models. The models can be compared and ranked on sustainability within the implementation process. The relation between these models and the organizational structure is interesting for further research. The final recommendation is to perform more research to motivation of employees and managers. This point is key factor within strategy implementation.

8 Afterthoughts

The process to come to the final results of this thesis took me about five months. The first weeks I got to know Arcadis and its people. I contribute to developing the actual strategy and went to Paris for a couple of days in order to support the strategy development. Hereafter, I started with the literature review to gain background information about strategy and its implementation process. This has helped me to creating the further process which lead to data collection, analysis and model making as result.

Since I have a construction engineering background, the challenge increases to find a solution for this business management experiment. However, the challenge might be business management related but Arcadis is overall run by technical people. I put lots of effort to transform myself into a 'specialist strategy implementation' and dealt with business management situations. I experienced great involvement of Arcadis' people. Everyone who I approached, was willing to help me and the response rate from the survey exceed my expectations. Enthusiasm is the leading description of the interviewees.

I had a struggle with finding the best research method for this thesis. Quantitative research versus qualitative research. Now, I am convinced that the used approach, qualitative interviews, survey and validation interviews, is the best fit for this thesis. Quantitative research give clear and hard overview of the results. This in comparison with the qualitative results which are more 'soft'. Since strategy implementation is all about people and their behavior, qualitative methods are the perfect way to investigate this behavior, opinions and preferences. The strength of the model is the involvement of the affected stakeholders.

I hope that others appreciate the process, results and model just as I do. Anyway, I am ready to hit the ground running with the next steps in my carrier and hope to face and overcome more challenges within my field of interest.

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10 Glossary

This chapter provides an overview of the abbreviations and terms among with a description.

General abbreviations

CWB	Counterproductive Work Behavior
CSR	Corporate Social Responsibility
SBU	Strategic Business Unit
BSC	Balanced Scorecard
CSF	Critical Success Factor
KPI	Key Performance Index
OCC	Organizational Capacity for Change

Arcadis abbreviations

EBLE	European Business Line Environment
MGL	Market Group Leader
HAG	Head Advice Group
TL	Team Leader
TM	Team Member
MT	Market Team
Division W&M	Division Water & Milieu (Water & Environment)
VCV	Vergunningen Compliance and Veiligheidsadvies (Permits Compliance and Safety Advice)

Terms Arcadis

The Cube	The organizational structure of Arcadis
The line	Name of the hierarchic model within Arcadis
Line managers	The middle managers of Arcadis

11 Attachments

Attachment I: Ishikawa diagram, factors influencing strategy implementation

Attachment II: Final survey questions

Attachment III: Preparation qualitative interviews

Attachment IV: Encoding of qualitative depth interviews

Attachment V: Ranking factors influencing strategy

Attachment VI: Results success factors for strategy implementation

Attachment VII: Descriptive results survey

Attachment VIII: Validation results and model

Attachment I: Ishikawa diagram, factors influencing strategy implementation

Organizational structure

Measuring programs

Organizational complexity

Programs & systems

Organizational kingdom

Alignment structure with strategy

Responsibility determination

Information & knowledge transfer

Alignment process phases

Define activities + tasks

Resources

Measuring employee engagement

Resource allocation

Physical facilities

Financial resources

Responsibilities

Understanding goal/ targets

Human resources
(capabilities/ motivation

Leadership

Similarity goals/ priorities

Tasks/ acivities defined

Skills of leadership

Strategy formulation

Motivation managers

Confidence manager

Organizational support

Stay in organization
during implementation

Factors influencing
strategy implementation

Time frame

Consistancy short/ long term

Change introduced in daily routine

Exact strategic planning

Identification major problem

Real choice strategy

Speed & urgency

Skills of employees

Conflicting strategy principle

Willingness to change

Understanding of strategy

Motivation employees

Implementation beliefs and value system

Connection to vision

Confidence new territory

Market

Politics

Economic

Social

Technological

Other

Planning

Organizational Culture

External factors

Attachment II: Survey questions

Welkom!

Het doel van deze enquete is meer inzicht krijgen in implementatie van nieuwe strategieën. De vragenlijst is opgebouwd uit vier delen om zo inzicht te krijgen in persoonlijke voorkeuren en factoren die van invloed zijn bij het implementatie proces.

Deel 1: vragen gerelateerd aan de huidige strategie
Deel 2: vragen gerelateerd aan persoonlijke voorkeuren.
Deel 3: vragen gerelateerd aan factoren die invloed hebben op strategie implementatie.
Deel 4: enkele slotvragen

Het invullen duurt 5 tot 10 minuten. In de roze balk hierboven kunt u uw voortgang volgen.

De gegevens zullen vertrouwelijk en anoniem verwerkt worden.

Wanneer u op 'volgende' klikt, zal de enquete zich starten.

Deze en de volgende vraag gaan over kennis van de huidige strategie milieu. De antwoorden worden puur gebruikt om de huidige stand van zaken te onderzoeken.

	Ja	Nee
1. Bent u op de hoogte van de huidige Europese strategie van milieu?		

*In deze vraag zit een routing, wanneer er Ja is geantwoord, wordt vraag 2a gesteld. Wanneer er Nee is geantwoord, wordt vraag 2b gesteld.

Question 2.	Open question
a. Wat vindt u de belangrijkste speerpunt van de huidige Europese milieu strategie?	
b. Wat is de reden dat u onbekend bent met de Europese milieu strategie?	

De volgende 4 vragen betreft communicatie voorkeuren. Heeft u meerdere voorkeuren, kies er één die u het meest aanspreekt.

	Email	Portaal	Direct leidinggevende	Strategie team	Workshop/ training
1. Op welke manier wilt u GEÏNFORMEERD worden over strategie en implementatie?					
2. Op welke manier wilt u FEEDBACK geven over strategie en implementatie en de bijbehorende taken. (Bijvoorbeeld over werkzaamheden)					

	Wekelijks	Maandelijks	Per kwartaal	Jaarlijks	Nooit
3. Hoe vaak wilt u een update KRIJGEN over de strategie en implementatie?					
4. Hoe vaak wilt u een update GEVEN over de strategie en implementatie?					

De volgende 5 stellingen gaan over voorkeuren wat betreft verantwoordelijkheid en taakverdeling.
Geef aan of u het eens of oneens bent met de stelling

	Zeer eens	Eens	Neutraal	Oneens	Zeer oneens
5. Ik zou graag zien dat de verantwoordelijkheden van de lijn tot in detail zijn uitgewerkt wat betreft strategie implementatie.					
6. Ik zou graag zien dat mijn taken en werkzaamheden tot in detail zijn geformuleerd wat betreft strategie implementatie.					

7. Ik zou graag zien dat er meetstandaarden zijn waaraan het doel van de implementatie getoetst kan worden.					
8. Ik voel mij gemotiveerd om aan de slag te gaan met strategie implementatie.					
9. Ik denk dat mijn collega's gemotiveerd zijn om aan de slag te gaan met strategie implementatie.					

De volgende vragen gaan over punten die het meeste invloed hebben op het strategie implementatie proces. Lees de antwoorden goed door en vink minimaal 1 en maximaal 3 punten aan wat van toepassing is. Let op: meerdere antwoorden zijn mogelijk.

10. Welke punten hebben volgens u het meeste invloed op strategie implementatie (meerdere opties mogelijk, kies maximaal 3)
    a. Organisatie structuur
    b. Middelen (bijvoorbeeld: investeringen, werknemers, kantoren)
    c. Leiderschap
    d. Planning
    e. Organisatie cultuur
    f. Externe factoren

In deze vraag zit een routing, vraag 13 t/m 18 worden getoond afhankelijk van het antwoord in vraag 12.

11. Welke punten binnen 'Organisatie Structuur' hebben volgens u het meeste invloed op strategie implementatie (meerdere opties mogelijk, kies maximaal 3)
    a. Verdeling van taken/ activiteiten
    b. Overeenkomst tussen fases in het proces
    c. Informatie en kennisoverdracht
    d. Bepaling van verantwoordelijkheden
    e. Programma's en systemen
    f. Meten van voortgang
    g. Complexiteit van organisatie
    h. Grootheid organisatie
    i. Anders, namelijk:

12. Welke punten binnen 'Middelen' hebben volgens u het meeste invloed op strategie implementatie (meerdere opties mogelijk, kies maximaal 3).
    a. Verdeling van verantwoordelijkheden
    b. Begrijpen van doel/ target
    c. Toewijzing van deze middelen
    d. Fysieke middelen (bijvoorbeeld: kantoorruimte)
    e. Financiële middelen

      f. Geschikt personeel

      g. Meten betrokkenheid van werknemers

      h. Anders, namelijk:

13. Welke punten binnen 'Leiderschap' hebben volgens u het meeste invloed op strategie implementatie (meerdere opties mogelijk, kies maximaal 3).

      a. Verdeling taken/ activiteiten

      b. Vertrouwen van de manager

      c. Motivatie van de manager

      d. Skills van de manager

      e. In functie blijven van de manager

      f. Support vanuit de organisatie

      g. Strategie formulering

      h. Overeenkomst tussen doelen en prioriteiten

      i. Persoonlijke interesse

      j. Anders, namelijk:

14. Welke punten binnen 'Planning' hebben volgens u het meeste invloed op strategie implementatie (meerdere opties mogelijk, kies maximaal 3).

      a. Tijdsbestek

      b. Snelheid & urgentie

      c. Verandering verwerkt in dagelijkse werkzaamheden

      d. Consistentie tussen korte en lange termijn doelstellingen

      e. Identificatie van belangrijkste probleem

      f. Keuzes maken in daadwerkelijke strategie

15. Welke punten binnen 'Organisatie Cultuur' hebben volgens u het meeste invloed op strategie implementatie (meerdere opties mogelijk, kies maximaal 3).

      a. Vaardigheden werknemers

      b. Bereidheid tot veranderen

      c. Begrijpen van de strategie

      d. Motivatie werknemers

      e. Vertrouwen en geloof in implementatie

      f. Vertrouwen op nieuw werkvlak

      g. Verbinden met bedrijfsvisie

      h. Gelijkheid in strategie principes

      i. Veiligheid (sancties op gedrag)

      j. Persoonlijke interesse

      k. Anders, namelijk:

16. Welke punten binnen 'Externe factoren' hebben volgens u het meeste invloed op strategie implementatie (meerdere opties mogelijk, kies maximaal 3).

      a. Markt

      b. Politiek

      c. Economie

      d. Sociaal

      e. Technologisch

      f. Anders, namelijk:

Tot slot de laatste 3 vragen.

	0%	20%	40%	60%	100%
17. Vooraf gezien, hoeveel procent slagen heeft de implementatie van de strategie volgens u?					

	MGL	HAG	TL	VPL	MSL	Geen van bovenstaande	Zeg ik niet/ weet ik niet
18. Waar in de lijn bent u momenteel werkzaam?							

	Open question
19. Wat is volgens u nodig om de strategie implementatie een succes te maken?	

Hartelijk dank voor het invullen van deze enquete.

Met   vriendelijke   groet,
Tessa Voorwinden

Voor opmerkingen of meer informatie ben ik te bereiken op tessa.voorwinden@arcadis.com

Attachment III: Preparation qualitative depth-interviews

Topic	Interview vragen
Strategie implementatie in verleden	- Hoe heb je deze strategie implementatie ervaren? - Welke activiteiten heb je opgemerkt bij deze strategie implementatie? - Wat is je mening over deze activiteiten? - Hoe werd het resultaat gecoördineerd/ gemeten/ gemonitord? - Wat is uw algemene indruk van deze strategie implementatie? - Waarom denk je dat strategie implementatie vaak niet helemaal uitgevoerd wordt? - Hoe zou dit opgelost kunnen worden? - BSC, balanced scorecard, waarom werkte deze wel/ niet? - Hoe zou dit verbeterd kunnen worden
Criteria vaststellen	- Welke activiteiten denk je dat nodig is om een strategie te implementeren? - Welke criteria denk je dat belangrijk is om aan bod te laten komen in deze survey? (Denk aan; communicatie, mate van betrokkenheid, time frame, resources) - Uit literatuur en geluiden binnen Arcadis hoor ik dan één van de knelpunten het monitoren en meten van de strategie is. Hoe denkt u dat dit het beste gedaan kan worden? - Waarop zou implementatie getoetst moeten worden? Financieel, betrokkenheid werknemers o.i.d.? - Hoe zou de implementatie getoetst kunnen worden? → KPI's, BSC, o.i.d.? - Wat is je mening over het aantal mensen wat actief betrokken moet zijn bij strategie implementatie? - Hoe denk je dat dit het beste gecommuniceerd kan worden? - Hoe kunnen deze criteria het beste in de enquête verwerkt worden?
Implementatie model	- Wat mag absoluut niet ontbreken in een dergelijk implementatie model? - Waaraan zal een model verder aan moeten voldoen volgens jou? - Wat vind u belangrijke toetsings-criteria voor goede strategie implementatie? - Wat zijn de kritieke punten voor een implementatie model Hoe zou een goed implementatie model er volgens jou uitzien? - Wie vind je dat allemaal betrokken moet zijn bij deze strategie implementatie?
Motivatie	- Hoe kunnen medewerkers het beste gemotiveerd worden volgens jou?
Enquete	- Zou je de enquête zelf ook nog een keer willen invullen? - Wat is je mening over de mogelijke non- respons?
Implementatie	- Hoe denk je dat de strategie het beste geïmplementeerd kan worden? 'bom' model of in stappen? - Hoe zou

Attachment IV: Encoding of qualitative depth interviews

Themes	Summary
A. Validation Enquete	
Frontpage	Toevoegen: aangeven geen goede en foute antwoorden mogelijk.
question 1 +2	Toevoegen optie 'anders, namelijk..'. Directe manager veranderen in direct leiding gevende
Question 3 + 4	Toevoegen: optie 'nooit'.
Statements	Uitwerken: verschil tussen verantwoordelijkheden en taakverdeling. Vragen wat specifieker formuleren.
Factors influence implementation	Maximum aantal toevoegen, bijvoorbeeld top 3. Het punt resources verder toelichten. Onder kop planning: strategische planning toelichten of aanpassen, onder de kop organisatie cultuur 'veiligheid' toevoegen. Daarbij 'persoonlijke' interesse van leiding gevende en werknemer toevoegen.
End	Functies uitbreiden met 'specialist', 'projectleider', 'accountmanager'.
Non-response	Is te wijden aan tijdgebrek + enquete moeheid
General remarks	Vragen scherper formuleren. 0 punt toevoegen door te vragen naar huidige strategie implementatie. Bijvoorbeeld 'Bent u op de hoogte van de huidige strategie van milieu?'. Let daarbij goed op het eind doel.
B. Model	
Tips	Route van enquete gebruiken voor het model. Interactie, mensen meenemen, duidelijkheid en de stip op de horizon zijn belangrijk. BSC gebruiken via de lijn communiceren
C. Past and current strategy implementation	
Strategy Environment EU 2013	Veel soorten strategieën binnen Arcadis. Het is verwarrend welke strategie nu gecommuniceerd gaat worden. Dit is geen excuus, je kan hier zelf wat aan doen om dit duidelijk te krijgen.
Experience	Speerpunten voor de environment strategie worden niet genoemd. De strategie voor de HAG leeft meer dan de environment strategie. Mensen hebben altijd een mening over strategie en het implementeren gaat nooit foutloos. De directe link met werkzaamheden is niet zichtbaar maar het besef dat dit indirect invloed heeft, is er wel.
Communication	Centrale mail en portaal werkt niet goed. Het is afhankelijk van de interesses per persoon hoeveel ze geïnformeerd worden. Het lijkt veel zenden en weinig ontvangen. De ambitie is om een BSC elk kwartaal op de agenda te hebben.
Preferred communication	Via de lijn + VPL's.
Inform	Interactie is belangrijk, informeren kan via sessies, gesprekken en workshops. Top-down presenteren en

	bottom-up feedback geven. Niek kan samen met de HAGs en TL zitten, en de TL kunnen met hun teams zitten. Bij voorkeur alle communicatie in het Nederlands.
Inform	In groepen werken aan implementatie mogelijkheden, mensen zelf met ideeën laten komen. Deze sessies laten aansluiten op bestaande structuren.
Measuring strategy	Er zijn BSC maar wordt niet veel mee gedaan. Er wordt vooral gekeken naar financiële cijfers. Er wordt gewerkt met BSC en hier ben ik tevreden over. Er wordt ook gekeken naar omzet pet sector, zekerheid omzet per adviesgroep, afspraken EU, potentiële groeimarkten.
Preference measuring strategy	Met BSC of KPI's. Doelen stellen met het team en met de meten met de BSC of KPI's of hieraan wordt voldaan.
Corporate culture	Veel vrijheid voor eigen indeling van werk. Fouten mogen gemaakt worden maar liever niet herhaalt. Complimenteren gebeurt mondjesmaat.
Motivation	Door veranderingen zijn mensen wat terughoudend. Dit kan groeien door actief verbinden en het betrekken van mensen bij beslissingen.
General remarks	Belangrijke speerpunten uit de strategie halen en daarop focussen. Maatwerk is belangrijk.

Color codes:
Match
Complementary
Discrepancy
Non relevant

Attachment V: Ranking factors influencing strategy as results from the survey

Ranking	Options	Factors	Frequency	Percentage of case	Total percent
1	Organizational culture	Motivatie werknemers	15	54%	8,5%
2	Leadership	Motivatie van manager	14	50%	7,9%
3	Recourses	Begrijpen van doel/ target	10	36%	5,6%
4	Leadership	Overeenkomst doelen/ prioriteiten	10	36%	5,6%
5	Recourses	Toewijzing van middelen	9	32%	5,1%
6	Leadership	Skills van manager	9	32%	5,1%
7	Organizational culture	Bereidheid tot veranderen	9	32%	5,1%
8	Organizational culture	Begrijpen van strategie	9	32%	5,1%
9	Organizational culture	Vertrouwen& geloof implementatie	9	32%	5,1%
10	Leadership	Vertrouwen van manager	8	29%	4,5%
11	Leadership	Support vanuit de organisatie	7	25%	4,0%
12	Recourses	Geschikt personeel	6	21%	3,4%
13	Organization Structure	Bepaling verantwoordelijkheden	5	18%	2,8%
14	Organization Structure	Complexiteit van organisatie	5	18%	2,8%
15	Recourses	Verdeling van verantwoordelijkheden	5	18%	2,8%
16	Organization Structure	Verdeling taken/ activiteiten	4	14%	2,3%
17	Recourses	Financiële middelen	4	14%	2,3%
18	Leadership	Verdeling taken activiteiten	4	14%	2,3%
19	Leadership	Strategie formulering	4	14%	2,3%
20	Organizational culture	Verbinding bedrijfsvisie	4	14%	2,3%
21	Organization Structure	Informatie en kennis overdracht	3	11%	1,7%
22	Leadership	In functie blijven van manager	3	11%	1,7%
23	Planning	Consistentie	2	7%	1,1%
24	Planning	Keuzes maken voor strategie	2	7%	1,1%
25	Organizational culture	Vaardigheden werknemers	2	7%	1,1%

26	Organizational culture	Vertrouwen nieuw werkvlak	2	7%	1,1%
27	Organizational culture	Persoonlijke interesse	2	7%	1,1%
28	External factors	Markt	2	7%	1,1%
29	External factors	Technologisch	2	7%	1,1%
30	Organization Structure	Grootheid van organisatie	1	4%	0,6%
31	Recourses	Fysieke middelen (bv kantoorruimte)	1	4%	0,6%
32	Leadership	Ontbreken targets	1	4%	0,6%
33	Leadership	Visie inspirerende delen	1	4%	0,6%
34	Planning	Verandering verwerkt dagelijkse bezigheden	1	4%	0,6%
35	Organizational culture	Gelijkheid principes strategie	1	4%	0,6%
36	External factors	Economie	1	4%	0,6%
37	Organization Structure	Overeenkomst proces fases	0	0%	0,0%
38	Organization Structure	Programma's en systemen	0	0%	0,0%
39	Organization Structure	Meten van voortgang	0	0%	0,0%
40	Organization Structure	Anders	0	0%	0,0%
41	Recourses	Meten betrokkenheid werknemers	0	0%	0,0%
42	Recourses	Anders	0	0%	0,0%
43	Leadership	Persoonlijke interesse	0	0%	0,0%
44	Leadership	Anders	0	0%	0,0%
45	Planning	Tijdsbestek	0	0%	0,0%
46	Planning	Snelheid & urgentie	0	0%	0,0%
47	Planning	Identificatie belangrijkste probleem	0	0%	0,0%
48	Planning	Anders	0	0%	0,0%
49	Organizational culture	Veiligheid (sancties op gedrag)	0	0%	0,0%
50	Organizational culture	Anders	0	0%	0,0%
51	External factors	Politiek	0	0%	0,0%
52	External factors	Sociaal	0	0%	0,0%
53	External factors	Anders	0	0%	0,0%
		Total Votes	**177**		**100,0%**

Attachment VI: Result success factors for strategy implementation

- Aansluiting bij een visie (plaatsen in een bredere context, verband met het hogere doel) - haalbaarheid (realistische doelstellingen) - overtuigingskracht - "consistency" - voorbeeld zijn
- Actieve houding werknemers
- Dat eenieder persoonlijk gewin/gewin deelgroepering Arcadis ondergeschikt maakt aan het gezamenlijke Arcadis doel
- Dat we er met ons allen de schouders onder zetten en succes blijven delen
- de boodschap kernachtig verwoorden en dit regelmatig terug laten komen
- duidelijke communicatie en Doelen
- Duidelijke doelen, goede voortgang, leiders die het voorbeeld geven!
- Durven te investeren in de goede mensen/middelen en niet alles ondergeschikt maken aan billability/rendement
- Een goede strategy, waar we in geloven en waar we aan vast houden tot de strategy slaagt
- Enthousiame
- Enthousiasme en betrokkenheid klant
- Enthousiasmeren collega's
- formuleren en uitvoeren dicht bij werkvloer/mensen die de klanten en werkveld kennen; duidelijke doelen waarvan we het resultaat ook zelf kunnen beinvloeden. Nu te veel doelen, te veel naar boven gericht, te grote afstand tot dagelijkse praktijk
- formuleren van duidelijke doelstellingen en en vastleggen van een duidelijke taakverdeling waarbinnen de verwachtingen in rolverdeling zijn vastgelegd
- goede communicatie om draagvlak en overrtuiging te creeren
- Het meer onderdeel te maken van ons dagelijks werk (bijvoorbeeld in offertes)
- Maak de lijn, de sectoren en de VPL's eigenaar en houdt op adviesgroep niveau ruimte over voor dichterlijke vrijheid zodat de strategie vertaald kan worden naar details die landen op de werkvloer
- meer eenduidige communicatie over doelen en prioriteiten
- Minder top-down en meer eigen verantwoordelijkheid. Immers bij de teams moet het waargemaakt en uitgevoerd worden
- Passie
- persoonlijk commitment verantwoordelijke managers
- positief verhaal waarin medewerkers zich in herkennen, duidelijke link met de ontwikkelingen in de markt
- saamhorigheid, samenwerking en motivatie
- Spreek duidelijke taal en zorg voor stabiliteit in management. Voorkom te veel gebruik van management taal en termen. Hoe duidelijker en concreter de verwoording, des te groter de kans op succes op de werkvloer.
- Verbinding met en vertrouwen in de strategie. Niet alleen vanuit de lijn, maar ook op de werkvloer. Actieve participatie werkvloer bij opstellen implementatieplan en het meenemen van feedback draagt daaraan bij.
- visie ontwikkelen, doelen formuleren, de weg bepalen, en dit vasthouden. Geen korte termijn beslissingen die daar tegenin aan (bijv. vanwege de maandcijfers).

	Ja	Nee
Bent u op de hoogte van de huidige Europese strategie van milieu?		

	Email	Portaal	Direct leidinggevende	Strategie team	Workshop/ training	*Totaal*
Op welke manier wilt u GEÏNFORMEERD worden over strategie en implementatie?	6	3	8	6	5	*28*
Op welke manier wilt u FEEDBACK geven over strategie en implementatie en de bijbehorende taken. (Bijvoorbeeld over werkzaamheden)	5	1	10	8	4	*28*

	Wekelijks	Maandelijks	Per kwartaal	Jaarlijks	Nooit	*Totaal*
Hoe vaak wilt u een update KRIJGEN over de strategie en implementatie?	1	7	18	1	1	*28*
Hoe vaak wilt u een update GEVEN over de strategie en implementatie?	0	2	20	5	1	*28*

	Zeer eens	Eens	Neutraal	Oneens	Zeer oneens	*Totaal*
Ik zou graag zien dat de verantwoordelijkheden van de lijn tot in detail zijn uitgewerkt wat betreft strategie implementatie.	2	7	4	15	0	*28*
Ik zou graag zien dat mijn taken en werkzaamheden tot in detail zijn geformuleerd wat betreft strategie implementatie.	2	6	5	15	0	*28*

						Totaal
Ik zou graag zien dat er meetstandaarden zijn waaraan het doel van de implementatie getoetst kan worden.	5	20	1	2	0	*28*
Ik voel mij gemotiveerd om aan de slag te gaan met strategie implementatie.	6	11	10	1	0	*28*
Ik denk dat mijn collega's gemotiveerd zijn om aan de slag te gaan met strategie implementatie.	1	9	13	5	0	*28*

	0%	20%	40%	60%	80%	100%	*Totaal*
Vooraf gezien, hoeveel procent slagen heeft de implementatie van de strategie volgens u?	0	6	5	8	8	1	*28*

	MGL	HAG	TL	VPL	MSL	Geen van bovenstaande	Zeg ik niet/ weet ik niet	Totaal
Waar in de lijn bent u momenteel werkzaam?	0	5	13	2	0	7	1	28

Attachment VIII: Validation Results and Model

Themes	Summary
A. Validation results	
Question 1 + 2	Verwacht
Question 3 + 4	Verwacht, de cube werkt dus.
Verantwoordelijkheden & taakverdeling	Score is verwacht, tegelijkertijd zijn dit wel belangrijke punten die eigenlijk hoger gescoord zouden moeten worden. Ook als je naar het volgende punt kijkt, de meetstandaarden die wel hoog scoren, lijkt er conflict in te zitten. Verantwoordelijkheden en taken mogen wel bepaald worden maar niet te pusherig. Vrijheid blijheid.
Meetstandaarden	Erg hoog percentage, 72%. Hier blijkt uit dat mensen er opzoek zijn naar het juiste werk doen en toch wat vastigheid willen. Mensen zien soms door het bomen het bos niet meer en duidelijkheid creeren is heel belangrijk.
Motivatie	Enerzijds wel positief. Ik zou zelf altijd zeer eens hebben ingevuld.
Motivatie collega's	Wat je om je heen ervaart, ervaar je dus lager dan jezelf. Een stukje gelatenheid om hun heen. Er zijn veel verandering geweest en hier zijn sommige mensen razend enthousiast over en de ander niet. Die zijn verander moe. Mensen die deze enquete hebben ingevuld, kunnen dat natuurlijk wel constateren bij hun collega's.
Slagings percentage	Verwacht
Factors influencing strategy	Motivatie staat duidelijk boven aan. Het is passie die je met elkaar hebt. Teams met passie doen het met elkaar. Feestjes en winst wordt gevierd. De passie van samen beter worden. Delen van informatie en inspireren van elkaar. Sommige teams hebben dit heel sterk, maar niet alle teams en daarom komt dat nog zo naar voren. Er zit ook verschil in de volwassenheid van teams. Teams die net zijn begonnen, klimmen samen de ladder op en die willen weten hoe hoog de ladder is en waar de stip op de horizon is. Anderen horen als bij de top en die willen daar blijven. Elk team wordt op een andere manier gemanaged en zo houdt je spreiding.
Conflicting points	Taakverdeling en verantwoordelijkheden en taakverdeling was hoger verwacht. Aan de andere kan is het is ook wel een teken dat niet iedereen zo sturend is. Er is een beetje vrijheid blijheid gevoel en dan is de vraag of je er echt komt. KPI's worden hoog geschaald, 70-80%. Dat geeft wel aan dat mensen wel echt behoefte hebben aan een prestatie en afspraken. Die conflicteert wel iets met de uitslagen in deze scores. 80% wilt scherpte KPI's maar hoeven of willen niet te veel afspreken over taken en verantwoordelijkheden. De taak zit ook in de KPI, de verantwoordelijkheid niet. Niet te pusherig blijkt de conclusie te zijn.
General	Vertrouwen in manager en toch ook verantwoordelijkheden en taakverdeling waren hoger verwacht.
B. Validatie activiteiten model	
Motivatie	Wezenlijk werk draagt bij aan motivatie. Samenwerken is een groot punt en belangrijkste energy drijver. Vertaald naar activiteit kan je waardering geven en mensen betrekken in beslissing maken. Belangrijk is om aan welke betrokkenheid op welk niveau gewenst is. Er zijn namelijk veel stakeholders.

Doel/target	een inspirerend verhaal motiveert ook de strategie. Waar willen we nou naar toe en hoe willen we zorgen dat we hier komen. Gemeenschappelijke doelen kunnen omgezet worden in kleinere targets. Onze organisatie leent zich hier perfect voor. High level and strategic targets. Goals kunnen gelijk zijn alleen verschil in detail niveau. Targets dienen hierbij aan de sluiten. Maak KPI's vanaf de werkvloer tot CEO milieu. Beginnen om de HAG. De HAG is start van de werkvloer.
Doelen/ prioriteiten	de neuzen dezelfde kant op met de juiste prioriteiten. Niet laten afleiden door maandelijkse cijfers. In de lijn zitten allemaal mensen die naar de performance kijken. Mensen vinden van alles maar uiteindelijk wordt je beoordeeld op cijfers. Van hoger af beoordelen mensen deze cijfers en dit wordt door de lijn heen gecommuniceerd. Echter cijfers en billability zijn niet het belangrijkst. Geen paniek voetbal spelen en mensen verkeerde dingen laten doen. Dan kiezen mensen voor Arcadis. Ga hiervoor en hou je vast aan de doelstelling en deze thema's in goede en slechte tijden. Gezamenlijke doel linken aan KPI's.
Toewijzing middelen	Dit ligt aan de strategie. Je moet investeren en ook opleiden. Wie a zegt moet ook b zeggen. Het is een bottom-up process na een top-down implementatie. Mensen opleiden, aannemen en ontslaan kost ook allemaal geld en zijn resources die nodig zijn.
Implementatie dagelijkse werkzaamheden	Doelen van de strategie koppelen aan persoonlijke doelstellingen. Dit is erg makkelijk want er zijn PM, persoonlijke management formuleren. Hierin worden de persoonlijke doelstellingen van een persoon beschreven en eenmaal per jaar besproken met de manager. Binnen 'overig', zou je een milieu doelstelling kunnen formuleren en dan het ieder jaar in oktober erover hebben. Je kan kijken naar doelen van Arcadis en doelen van de persoon en kijken hoe dit bij elkaar gebracht kan worden.
Algemeen	Zorg dat je de activiteiten onderbouwd met data, het liefst kwantitatief. Bijvoorbeeld; als je de mensen vooraf betrekt is je kans van slagen 30% hoger. Cruciale stappen om goede implementatie te krijgen. Je kan hiervoor bestaande data en uitspraken meenemen. Quotes hiervan uithalen en meenemen. Gebruik hiervoor inhoud van bestaande onderzoeken. Dit blijft ook bij Arcadis hangen en zo krijg je eigen onderzoek meer waarde. Mijn gevoel zegt over dit model, het is goed, maar probeer dit te onderbouwen met wetenschappelijke feiten.
C. Validation model	
Activiteiten	Dus bijvoorbeeld het kwantitatief onderbouwen van de activiteiten in de modellen. Gebruik hiervoor inhoud van bestaande onderzoeken. Dit blijft ook bij Arcadis hangen en zo krijg je eigen onderzoek meer waarde. Mijn gevoel zegt over dit model, het is goed, maar probeer dit te onderbouwen met wetenschappelijke feiten.
PDCA phases	Meer bottom-up implementeren in de plan-fase. De interactieve worksessies in de Do fase, zitten deze ook in de Plan fase? Mensen meenemen in plan fase vind ik belangrijk. Als je succesvol wilt zijn met je implementatie strategie, moet je in de Plan fase verbondenheid hebben met de werkvloer. Daar moet je wel een accent opleggen.

Focus punten

Kiezen is een must. Je kan niet alles doen of alles meenemen. Je kan veel beter een paar hoofdpunten eruit pakken en die goed uitvoeren dan alles meenemen en alles maar matig uitvoeren. Er blijven wel punten liggen van de strategie. Prioriteiten worden gesteld en de punten zonder prioriteit worden niet gedaan. Het is de kunst van het terug brengen en hierover kiezen. Daarnaast als je goede hoofdpunten pakt hebben die ook weer invloed op de kleinere sub punten van de strategie