

insights
booklet

honours program

Change Leaders

class of 2015 - 2016

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Insights booklet

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1 master honours program change leadership & management

The Change Leaders and Management (CL&M) honours program is a yearly program taking place from November till July. The program is designed for the top 10% students of the University of Twente who are willing to learn about change management and want to discover their own leadership potential. This year's CL&M group (2015/2016) consisted of 19 students from different backgrounds, fields of study and interests, who were selected to participate in this program based on their excellence, motivation, involvement in extracurricular activities and high engagement in personal development and goal-setting.

1.1 Why CL&M?

Although change management happens everywhere, making successful change happen is very complex. Knowing that lots of large-scale transformation efforts fail, it is essential to understand what leaders can do (and should clearly not do) to achieve successful change. The CL&M honours program provides insights to questions as 'How to start the process?', 'How to engage people in change?', and 'How to make sure everyone follows through on the change plan?'. With these insights, the current generation of excellent UT students will be prepared to become future change leaders in their field.

As change management refers to a set of processes and tools intended to keep any change effort under control, change leadership is much more associated with having a different mindset and capabilities to make a change process go faster, smarter and more efficiently. To make sure that both these topics were covered, so that students were able to explore their own abilities, the program was divided into three different modules.

1.2 Content of the program

The first module, the cognitive part, consisted of lectures and tutorials, given by various academic professionals from the UT and Nyenrode Business School, as well as by business professionals, such as management consultants and associates of knowledge-intensive firms. The focus of these lectures was on macro leadership issues (e.g. corporate governance, organizational culture), and on meso/micro issues (e.g. emotions, habits and behavioral patterns). Papers and articles were provided before each session and the students had to write a preview based on these papers and a review of the session afterwards. The module was concluded with a literature study. In smaller groups, students have written review papers about change management and leadership in their own area of interest.

The second module was focused on experiential skills training, which included interactive workshops on project management and understanding one's 'mind, heart and hands' when working on a particular project. Furthermore, a psychometrically valid personality assessment for each participant was provided to get to know more about one's own behavioral preferences, strengths and 'blind' spots. In this module, each student learned how to deal better with own thoughts and feelings, and own and others' behavior in relation to oneself, others, and the project's goals. Individual previews and reviews were written for every session, and at the end of the quartile every student was able to define his/her own learning goals for carrying out a project of their own choice.

This project was then carried out in the last module. With the insights and guidelines provided in the first two modules and with the help of a personal coach in the third quartile, the students were able to evolve their own leadership abilities, knowing that their own personal favorite style is not always the best. It is about being able to adapt your own approaches towards an approach it takes to achieve the results you need.

1.3 What is next?

For the Change Leaders of 2015/2016 the program now has ended. All participants will go their own way, continuing their journey to discover their own potential. Certainly one thing has changed in their lives due to the honours program: they know how to be a real change leader who can speak up about the reality he/she faces and is determined to shake things up and go forward.

So, are you curious to become a change leader too? Keep in mind that things change all the time, but real change leaders are scarce. Since our world desperately needs change leaders to realize prosperous change, we highly recommend this course to all excellent (future) Master's students who want to create impact and make a difference in performance!

This booklet consists of various topics within the field of change management. First, the change leaders of 2015/2016 will be introduced on the following pages. After that, a brief introduction in change management and leadership is given in chapter 2. In chapter 3 you can read how the students integrated what they have learned during the program in their topic of interest.

“

Change is the law of life and those who look only to the past or present are certain to miss the future.

John F. Kennedy

The change leaders class of

2015/2016

On the following pages the participants of the Change Leaders honours program of 2015/2016 will introduce themselves.



Darya Hadavi
Iran
Biomedical Engineering

“I learned that if my action inspire others to dream more, learn more, do more and become more, I am a good leader.



Frank van der Hoek
The Netherlands
Electrical Engineering

“Awareness is key. If you are aware of how others and you react under different circumstances, you can steer each situation towards a positive outcome.



Annemijn Jonkman
The Netherlands
Technical Medicine

“The honours program gave me valuable insights that I can use to maximize my leadership abilities and to inspire others to follow my ideas.



Bruno Guasti Motta
Brazil
Civil Engineering & Management

“To change the environment you are inserted in and inspire others, you need to change yourself and feel inspired first. Knowing your own potential is also essential for that!



Jaime Pareja Roig
The Netherlands
Business Administration

“The program taught me that in order to bring about change, you need to connect to the right people who are willing to support you.



Giel van Erp
The Netherlands
Industrial Engineering & Management;
Construction Management & Engineering

“The theory and practice on change leadership are a valuable diversification of my studies, yet to me, the insights in my personal behaviour are most valuable.



Julia Keizer
The Netherlands
Health Sciences

“Realizing and acknowledging the strengths of being introverted is one of the best things I learned from the honours program.



Leonardo Nascimento
Brazil
Sustainable Energy Technology

“The program helped me to identify my own leadership style and also what I could develop to make it better.



Marjolein Kouwert
The Netherlands
Health Sciences

“The honours program has helped me to gain more insight into change processes and what my personal role can be in these processes.



Michiel Barends
The Netherlands
Industrial Engineering & Management;
Construction Management & Engineering

“To understand the value of understanding is one of the best things I learned from the honours program.



Lisanne Penterman
The Netherlands
Business Administration;
Health Sciences

“The honours program showed me the importance of my own behavior in inspiring and motivating other people.



Maikel Snijder
The Netherlands
Business Administration

“The program showed me that everyone has a different perspective and that by bringing these perspectives together real progress can be made.



Niels Jansen
The Netherlands
Biomedical Engineering

“The honours program gave me valuable insights on the theoretical side of leadership but also methods how to put it into practice.



Rosan Harmens
The Netherlands
Industrial Design Engineering

“ I learned how to recognise my own behavioural patterns and how to change them when I am not satisfied with what I found.



Rudolph Jauregui
Venezuela
Construction Management & Engineering

“ I learned that to motivate and lead others it is essential to have control of your emotions and be self-motivated.



Wendo Beuker
The Netherlands
Embedded Systems;
Electrical Engineering

“ Being a good leader starts with being yourself. You cannot be a great leader if you don't believe it (and in) yourself.



Zakaria Tazi Hnyine
The Netherlands
Thermal & Fluid Engineering

“ Changing others means changing yourself.



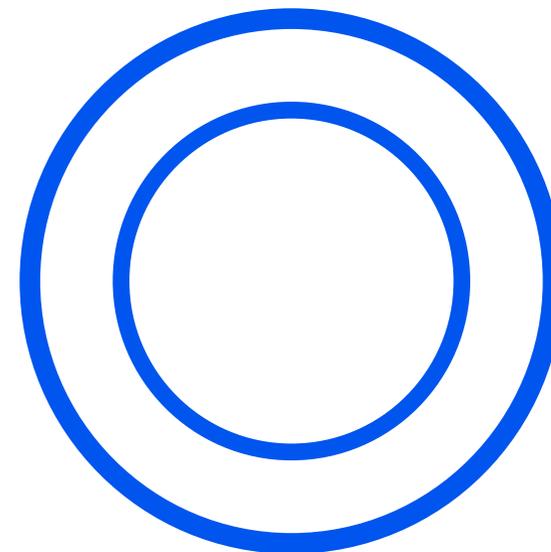
Thijs Veldhuizen
The Netherlands
Industrial Engineering & Management

“ I learned a lot about myself, my own personal development, skills and points for improvement, and how to become an in-control, effective change leader.



Vincent Verhagen
The Netherlands
European Studies

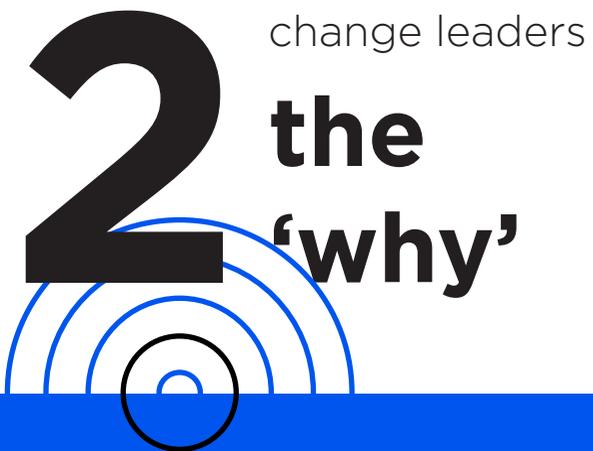
“ The honours program taught me that change can only occur when you as a person change and inspire others with your vision and ambition.





2

change leaders the 'why'



Change, leadership and change management are concepts which are closely intertwined with each other. They complement each other as much as they are different from each other. Mastering the product of this affair of concepts has paved the way for change leaders the last few years. Nevertheless, the complex relationship that these concepts uphold with one another cannot solely be rationalized in definitions. It must be approached from different perspectives which shed a light upon the concepts to understand the link between them. Not only the three concepts mentioned are important for a successful change leader to comprehend the organization but also the organizational structure must be ready for a change leader to successfully implement a new mindset or vision behind an organization. Without a proper organizational structure, which offers space and opportunities for personal development and cohesion between team members, change is most likely to fail. In this part the three concepts plus the organizational structure will be discussed including the urgency that currently exists in private, semi-public and public sector to respond to change leadership. Furthermore, the relevance of the program of CL&M on the University of Twente will be approached from an academic perspective, which will mainly focus on the need for millennials¹ with a social and technical education in managerial positions.

2.1 Change, Leadership and Change Management

The concept of 'change' has been defined and approached through different lenses as long as the academic world discusses the concept. Organizational change was seen, in the early days, as ineffective and would decrease the performance of an organization because people need routine to bring the organization to the next level (Todnem By, 2005). This was widely discussed and debated until Burnes (2004) published his book *Managing Change* in which he stated that continuous change could also be seen as a routine which is vital for developing an organization because it is a natural response to interaction with internal, external and environmental conditions². The approach of Burnes (2004) is still debated in academic literature, nevertheless *Managing Change* brought a new vision in the 'change' debate which can be seen as the renewed view on change management.

Leadership is described in academic literature as a dimension which balances between transactional and transformational leadership³ (Antonakis & House, 2014; Bass, 1991; De Hoogh et al., 2005; Lowe & Galen Kroeck, 1996). Transactional leadership is described by Bass (1991) as one of the two factors that characterize modern leadership and encompasses the focus of the manager to accomplish the task at hand. Managers get things done by "[...] making, and fulfilling, promises of recognition, pay increases and advancement for employees who perform well." (Bass, 1991, p. 20). When employees do not fulfil their task they get penalized. This transaction or exchange of rewarding and penalizing is described as transactional leadership. On the other side of the spectrum there is transformational leadership which exists of consideration for employees and is strongly related to the emotional intelligence of the manager (Wilderom, Hur, Wiersma, Berg, & Lee, 2015). Transformational leadership includes emphasizing the interest of the employees, creating a vision and mission for the organization which is broadly carried by the group and promoting group-interest before self-interest (Bass, 1991). This type of leadership can for example contribute to financial corporate performance (Wilderom, van den Berg, & Wiersma, 2012), leader effectiveness and service climate (Hur, van den Berg, & Wilderom, 2011) and a positive work attitude of subordinates (De Hoogh et al., 2005). Although transformational leadership is perceived as the most human-friendly style and transactional as old-fashioned and top-down management, it is impossible to state that a leader should use one of the two styles. Therefore, it is presented as a dimension which means that a leader should balance between transformational and transactional leadership, i.e. a good leader can create structure and can take corrective action while he/she inspires and motivates people.

Finally change management, a logical statement deduced from 'change' and 'leadership' would be that change management is a conflation of those two concepts.

¹ Millennial college graduates are the graduates between 2004 and 2022. This generation distinguishes itself from other generations by their distinctive relationship with technology, high achieving mindset, highly educated and somewhat more trust in governmental organizations than in the neoliberal free market philosophy (Hershatter & Epstein, 2010).

² For a critical review on different types of change the author would recommend the article of Todnem By (2005) in which discontinuous, incremental, continuous change are more extensively discussed.

³ There are other types of leadership, for example Instrumental Leadership (Antonakis & House, 2014), but for the sake of feasibility we will focus on transactional and transformational leadership.

However, as discussed in the introduction, the three concepts are intertwined and related, but also are entities on their own. Change in an organization is often paired with resistance, tension, stress and reduced productivity (Levin, 2012). People tend to think that when their program ends their job will end or that they cannot keep up with the rapid change that a program goes through. As an effect the morale of personnel will decrease which will lead to a decreasing morale tendency throughout the organizations (Levin, 2012). Therefore, a need is created for motivating and inspiring leaders which can explain the vision and the mission of the change, plus taking into account the morale which is hung by a thread. To make sure that change does not scare people away, several change management methods like 'lean' and 'agile', are created throughout the years to empower employees in their effectiveness, feel team cohesion, experience responsibility over their job and gain mutual respect. These methods are mainly focused on reducing the hierarchical layers in organizations and provide extra space and freedom for the employees which results in higher loyalty and higher production (Hass, 2007). Change management is therefore not simply a combination of change and leadership, but can better be seen as a dance between transactional and transformational leadership, effective and ineffective change, being an inspirer and strong leader and finally a dance between yourself and the other.

2.2 Organizational Structure

Organizational change can only be implemented in a proper organizational environment. Most often, in organizational change management, it includes a radical switch of organizational structure. In the current timeframe this means that an organization shifts from a hierarchical organization towards a flat organization, i.e. from a traditional towards a modern organizational structure. In a traditional organization, there is much hierarchy. The responsibility for both the workflow decisions and actions and strategic direction of the company is with the top managers. Basically, in such an organization the employees have very limited power. Academics also name this vertical organizational structures, because the management operates top-down (Daft & Marcic, 2006; Ebert, Griffin, Starke, & Dracopoulos, 2014). Due to several current advances in technology, new organizational designs became apparent. These structures mainly focus on bottom-up approaches, which means that the employees have more decision-making power, more responsibility and discuss decisions with the management. (Daft & Marcic, 2006; Ebert, Griffin, Starke, & Dracopoulos, 2014).

It is vital for a change manager to know the position of employees in an organization and it is from utter importance that employees are included in the change process to avoid the decrease in morale, ineffectiveness and all other issues that could occur as described before. Therefore, it can be stated that traditional organizational structures should shift towards modern organizational structures if they want to implement change. Of course it has to start with the managers themselves if they are ready to give up some of their power, include employees in decision-making processes and switch from ordering people around, to inspire, motivate and empower their personnel.

2.3 Why Change Leaders on the University of Twente?

The current generation of students and graduates, which were born between 1980 and 2000, so our generation, have gotten different names. We are called The Digital Generation, The Nintendo Generation, The Technological Generation, Generation Y, or our own chosen favorite: Millennials (Raines, 2002). This generation distinguishes itself by being confident, hopeful, goal and achievement-oriented, civic-minded and inclusive, plus they want flexibility but structure, want to learn but also want to work with friends, want to have fun but also want to be taken seriously (Raines, 2002). In short, a complex generation which has outrun the previous generation in multitasking, linking concepts and technological knowledge (Thielfoldt & Scheef, 2004).

The University of Twente has seen this change in her students and keeps changing and adjusting its program to make sure that it lives up to the expectations of the Millennials. Although the university is practicing what it preaches, sometimes the implementation of change takes a long time and is not always seen at first as an improvement: remember that people are most of the time scared or stressed when it comes to change. Therefore, the Change Leaders program fits perfectly in the image and vision of the University of Twente. The Vision 2020 from the UT clearly shows that students of all disciplines should be able to combine technology with societal and organizational impact, which means that a student on the UT is trained to see change from a technological and management perspective. This inclusiveness and skill-empowering policy is embraced by the Change Leaders program. The program encourages students to be open-minded, see change as an important agent of our time and include technology and new methods of management in changing organizations.

The question still remains 'Why Change Leaders on the University of Twente?'. The University of Twente aims at excellent students who can make a difference in the world. Through the multi-disciplined approach and being the most entrepreneurial university of Europe, the UT sees it as its societal task to deliver good students to the labour-market. Because those students possess this multi-disciplined approach they also can become excellent managers in our rapidly changing world. The Change Leaders program provides the potential leaders of the future with knowledge from experienced managers in the field, but also with a personal development skills training so these future managers know where their strong and weak points are, which can be used or trained during their careers.

Change, leadership and change management might sound, at first, as buzzwords which are very popular in current management disciplines. It should, however, be emphasized that there is a great need for change in all types of organizations if they want to remain as successful as they have been up to now. The new generation, the influence of technology, globalization and new organizations make change an unequivocal part of new management for the improvement of our lives, well-being and society. Therefore, we are very grateful for Prof. Dr. Celeste Wilderom and the University of Twente that we have been prepared for this energizing and booming challenge that lies before us.

3 change leadership: different applications

In this chapter you can read the applications of change management and leadership in different fields of interest of the participating students.

3.1 Change management in organizational design

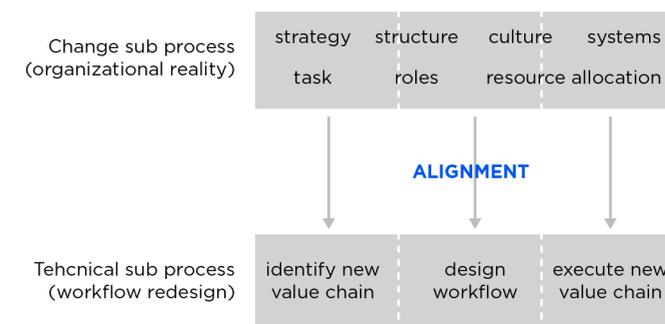
Introduction

During our study programs and the lectures of this Honours program, we found out that the topic of 'change management' is hardly touched upon when innovating your business and processes. Focus is often put on the quantifiable part of a change and the soft part is mostly overlooked. We will discuss organizational change management as a whole, with some key aspects. We will then dive into two case studies, about ministerial departments and family businesses and we conclude with dos and don'ts regarding implementing change management optimally.

Organizational change management

How are organizational changes managed, how are they designed? Many frameworks exist, among which is the Business Process Management (BPM) framework, with corresponding tooling. BPM tools and techniques can be categorized as 'mathematical models (facilitating process optimization), diagrammatic models (facilitating graphic representation of the process) and business process languages (facilitating automation of the process design)' (Vergidis, Tiwari, & Majeed, 2008). Most of these 'languages' were co-developed by practitioners and academics and they are heavily standardized (Sikdar & Payyazhi, 2014). There are several aspects to consider when implementing a business process change, namely leadership commitment, employee empowerment, communication, strategic visioning, organizational structure, inter-departmental interaction, culture and organizational politics. None of these aspects is covered in BPM-like tools, causing most of their failures (Trkman, 2010). This is where the soft side of change management comes in. This field has its foundations (as considered by most people) in Lewin's theory. He proposes a three-step model about unfreezing the current state, implementing the change and refreezing the new state. Yet, when redesigning a business process, not only the technical part is impacted, also the human dimension, consisting of behavior and interaction, is influenced (Al-Mashari & Zairi, 2000). These two sub processes go along the way, and should therefore be aligned. This is clearly depicted in figure 1:

Figure 1: Process Alignment in BPM



source: Sikdar & Payyazhi, 2014

Modern business process management and lean six sigma

Six sigma is a popular modern quality improvement methodology, introduced at Motorola in 1986 (Tennant, 2001). The term originates from the goal to obtain a level of quality in your process of 6 times the standard deviation. This means that the percentage of defect-free outputs of a process should correspond with - considering a normal distribution - at least 6 times the standard deviation, i.e. 3.4 defects per million outputs.

According to Pinedo-Cuenca, Gonzalez Olalla, & Setijono, (2012) there are several key points at each stage of Lewin's change process. During the 'unfreeze' stage, communication and involvement are the main contributors of successful change (driven by an improvement project). During the 'move' stage, teamwork culture and highly involved team members contribute to the success of the change, while inappropriate organizational structure and culture are likely to prevent organizational change efforts. During the 'freeze' stage, limited resources (human and financial) may slow the pace of change. Therefore, proper documentation and records are necessary to, not only as evidence that change has occurred, justify the feasibility for the continuity of the change projects.

Case study: Ministerial Departments

But how does this change management work in practice? To this extent we will discuss two very typical types of organizations, namely the government and family businesses.

Not much research is done in the success of organizational change in the public sector. Which is jointly due to the hardness of measuring this through the multiple and conflicting goals in public organizations (Kickert, 2014). However, the scholar provided by Kickert (2014), shows a shortlist of conditions for successful change in public organizations:

1. establish sense of urgency, ensure the need for change, **build internal support**
2. develop a vision and strategy, provide a plan
3. communicate the change, empower employees for action
4. **ensure top-management support and commitment**, create a guiding coalition
5. build external support
6. provide resources
7. **institutionalize change, anchor new approaches in culture**
8. pursue comprehensive change

The bold conditions are supported by a case study of six Dutch ministerial departments, italics are not supported, the others remain unclear.

Case study: Family business

Family businesses differ from other companies as they are owned by families, who often have a clear vision and are more long-term oriented (Chua, Chrisman, & Sharma,

1999). Since decision-making tends to be centralized among top family members, family businesses are more flexible (Goffee & Scase, 1985; Hall, 1988; Poza, Alfred, & Maheshwari, 1997; Tagiuri & Davis, 1996) and hence, one would expect it to be easier to initiate change in family businesses. However, there are some specific barriers and enabling factors for successful change in family businesses (Rodsutti, & Makayathorn, 2005). Since people in a family business tend to assume that others think the same way as they do, communication problems might arise. Furthermore, employees' trust and respect might still be connected to previous generations, making employees more reluctant to accept decisions of leaders from newer generations. More problems can occur if the owners cannot balance their role and degree of ownership. Complicated family structures could increase chances of failing even more, due to disagreements between families or family members. Besides that, if politics and cultural influences are added to the equation, even more problems can arise. Good governance practices that separate family and business by, for example, oversight from a professional board might aid during the process of change (Fernandez-Araoz, Iqbal, & Ritter, 2015).

Conclusion

According to Lewin, a change process consists of 3 stages. The first stage consists of 'unfreezing' the current state, the second one involves the real change and finally during the 'refreezing' stage, the change is made permanent. Linked to six sigma the main success factors during the stages are communication and involvement, teamwork culture and highly involved team members and proper documentation and records respectively. The case study regarding ministerial departments conveys the fact that government institutions benefit from ensuring support, especially at top-management, and anchoring approaches in the culture. Family businesses are a bit different. These type of businesses should pay special attention to incorporating a clear form of communication and having a clear balance between the role of family members and their ownership. Family businesses could benefit a lot from oversight from an independent professional board in order to align goals and communication and to get rid of other problems induced by the family ties.

3.2 The leading developments in 'FinTech' and its influence on traditional banking

Traditionally, if organizations or individuals were in need of capital the banks provided that capital as a loan. After the last economic crisis which started around 2008 with the burst of the United State housing bubble it became harder to receive a loan. The crisis resulted in unstable financial markets, increasing public debt and limited economic growth (Mamica & Tridico, 2014). With this, the risks of the loan increased which resulted in a significantly widening of the interest rates on loans (Artola & Genre, 2011). This increased the difficulty of acquiring a loan through traditional banking (Mac & Baird, 2013).

Alternatives to traditional banking are therefore increasing in importance as it may provide the needed capital in the B2B, B2C and C2C context (Wardrop, Zhang, Rau & Gray, 2015). Since the financial crisis, the market for alternative finance has grown rapidly and possibly will increase even more in the future (Barnett & Jawadi, 2012; Wardrop et al., 2015; Bruton, Khavul, Siegel & Wright, 2015). One of the reasons for this increase is the weakened economy because of the financial crisis and the constrained supply of financial means provided by traditional banking (Bruton et al., 2015). Casey & O'Toole (2014) add more disadvantages of traditional finance. Firstly, banks require detailed information about the liquidity and solvency of the firm in order to provide the capital. This requirement is part of the very strict lending conditions which also leads to higher monitoring cost which is the second disadvantage. The third disadvantage is the vulnerability of organizations which depend on traditional finance in times of a financial crisis.

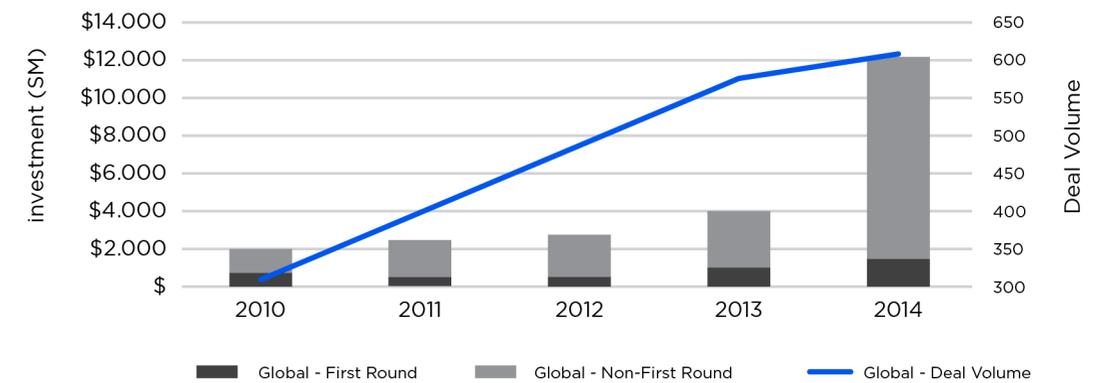
Alternative finance provide benefits which counters these disadvantages (Wardrop et al., 2015). Firstly, alternative finance provides different options which decreases the dependency. Secondly, the speed of the process is much higher and more agile compared to traditional banking. Besides the speed advantage the terms are generally seen as attractive in comparison to traditional finance (Wardrop et al., 2015).

As mentioned above, the demand for alternative ways of retrieving finance increased dramatically. One example of alternative financing and perhaps the most well-known is that of 'crowdfunding'. Although this term received tremendous attention the past few years, it's existence dates back to the 1990's (Hemer, 2011). Small projects and ventures were financed throughout the Internet community that mainly was present in the creative industry – e.g. industries involving music, film and video, etc. The provision of funds came by small donations or sponsoring by individuals, or from organizations which identified themselves with the specific project seeking funding. This alternative way of financing was already available although not common in use. It seems that not much has been changed in the way it is done. According to Belleflamme, Lambert, and Schwienbacher (2010) crowdfunding can be defined as the following: "Crowdfunding involves an open call, essentially through the Internet, for the provision of financial resources either in form of donation or in exchange for some form of reward and/or voting rights." Raising money through the Internet is what makes the process much faster and can be done via intermediary serves that act as a

facilitator such as Kickstarter, IndieGoGo, Kiva, etc.

The Internet is not only for crowdfunding an important aspect but mainly all alternative finance possibilities start on the Internet (Bruton et al., 2015). Alternative finance which uses linked to the use of information technology or software is referred to as FinTech (Ryabova & Рябова, 2015). In addition to equity crowdfunding other examples are lending, payments/billing, and money transfer/remittance (Mead, Pollari, Fortnum, Hughes, & Speier, 2016). These are all activities which are done by traditional banks. The tremendous increase in FinTech finance activities seen in 2014 shows that traditional bank activities will slim down if this development set through (Skan, Dickerson, & Masood, 2015).

Figure 2: Graph adopted from Skan, Dickerson and Masoon (2015).



source: Accenture and CB Insights

How should the traditional banks, who are still the leaders in the market, cope with this upcoming way of competition? One thing that is of major importance and already recognized by the big players in the field is acknowledging that the role of these banks are heavily threatened by this digital disruption (Skan et al., 2015). Accenture has held an interview with 25 influential financial services executives involved in innovation and brought three essential 'behavior' pillars that banks should embrace in order to reimagine themselves digitally (Skan et al., 2015):

Act open. Open innovation is at the heart of the digital revolution and should be embedded in the organization. Meaning that extending the internal intellectual property, assets and expertise to outside innovators new ideas can be generated, as well changing organizational culture and discover new areas for growth.

Collaborate. Working together more closely within and outside the industry will help maintain and grow value in times of change. The big challenge though will be the cultural ability needed to adapt to this collaborative approach. The FinTech Innovation

Lab model is one great existing example in which several banks jointly collaborate with start-ups to help them mature their business.

Invest. What often characterizes the FinTech start-ups is it bright innovative ideas though they lack the resources to grow their businesses thoroughly. Banks can complement start-ups with financial resources and hence gather innovative ideas consequently.

According to a report brought by the Deutsche Bank several challenges are present while transforming in a digital ecosystem (Dapp, Slomka, & Hoffmann, 2015). The main issue is the development itself, entering the domain of data security, data protection and the usage of data analysis while at the same time acquiring potential strategic alliances with external financial service providers. Clearly these affairs require immense coordination, as they are very complex in nature. No wonder that the largest Dutch bank, the ING, consider itself as an IT company rather than a bank. According to the 'change leader' guest lecture given by Maarten van Beek – HR director at the ING – the abovementioned behaviors are already being applied. They are very aware of the fast pacing shifting market in which they are operating and therefore are heavily investing in becoming a bank that is flexible enough to maneuver through this market. This is not only noticeable in the technical aspect, digitalizing all the internal processes, but also the social organizational ones such as creating agile workforces. They even created a CEO FinTech, a role currently being filled by Benoit Legrand – former CEO ING France. Last year ING acquired Kabbage, an instant-lending platform in the US and at the same time collaborated with them creating a joint venture in Spain. Although the ING is a great example of the application of these behaviors it still unknown whether it will be sufficient in the long run.

Concluding it can be stated that FinTech started to grow because of the traditional banks and now the traditional banks are becoming more digital involved because of FinTech. The developments for banks on the digital landscape are accelerated by the FinTech start-ups as we can see with ING. Hopefully FinTech will keep challenging the big banks in order to improve the financial industry even further.

3.3 Fighting climate change through Local Energy Initiatives

Climate change mitigation is one of the big challenges faced by the world in the 21st century. The primary villains behind climate change are the greenhouse gases (International Energy Agency, 2015). When trapped in the atmosphere they cause the elevation of the average temperature of the Earth. This can generate undesired effects such as the rising of the sea level or the occurrence of local extreme temperatures. Around 90% of the emission of these gases are due to burning fossil fuels for energy generation (ibid.). Global catastrophes are bound to occur, unless we find solutions which involve more sustainable practices. Implementation of these solutions requires change in the current energy generation methods.

'Why are they telling me all this?' you might ask yourself. Well, one of the centers of the discussion of this program is to understand what 'change' is and how one might implement it. So, if change should happen in a sustainable way, the development should keep all stakeholders satisfied without compromising the future. One of the messages addressed during our studies helps to keep the stakeholders satisfied about the development and is based on a cycle of **generating ideas, prototyping and feedback**. This enables fast reaction when the constraints of the project change, since it is cyclic, and also to test if the implementation is good enough, by the reaction on the feedback received.

The most common approach for energy transition planning is based on Local Energy Initiatives (LEIs), a bottom-up strategy for energy change (Loorbach, 2007). These initiatives can be neighborhoods or municipalities that do a social experiment for sustainable energy (SE) implementation. Local groups take the initiative to change their own energy production and implement it on a local scale. The assumption is that after a certain number of frontrunner LEIs are successful in implementing SE technologies an example will be set for others to follow. Thus, these changes towards SE production diffuse in society, setting the ground for radical innovations (Seyfang, Hielscherb, Hargreavesa, Martiskai, & Smith, 2014).

Linking this with the cycle mentioned above, it is possible to see that LEIs are a good example of this implementation framework. Local groups generate ideas and projects to implement SEs in their communities. Then these projects, with the help of investment funds or the government itself, are implemented in stages to enable testing. These systems are monitored and the stakeholders give feedback on bottlenecks identified or points of discomfort with the new technologies. After this feedback, the system can be expanded or enhanced to create a better or more accepted version of it, closing the cycle.

There are good examples of LEIs that were able to become completely energy neutral in a short time, like the municipality of Saerback, Germany. On this project, for example, not only the technical aspect of the implementation was considered, but also the societal one. It is noteworthy that the project, submitted by the municipality to the government for funding, was a collection of ideas from all the inhabitants interested in contributing. The ideas were coupled in big areas of development and proposed as a combined project (Hoppe, Graf, Warbroek, Lammers, & Lep, 2015). All inhabitants of the municipality can participate, so the leaders have to build a safe channel for



communication and connection. Since these projects are smaller there is more contact between the stakeholders, which raises the importance of local leaders.

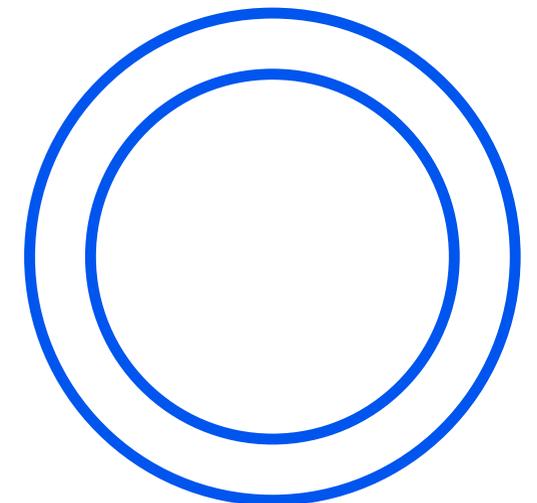
The honours program further introduced the concept of transformational leadership. This leadership style not only addresses long-term results (Bass & Riggio, 2006), but also aims for stakeholder' satisfaction. In transactional leadership, employees' satisfaction is obtained by rewarding day-to-day successes, while in the -transformational leadership long-term satisfaction of stakeholders is prioritized. Leaders and employees collaborate to identify the needed changes for new energy sources and together create a vision, which is a novel vision that can encourage them toward energy changes. Adopting a growth mindset by cultivating team's professional and personal development is the other point considered by the transformational leaders. Although, it might take time and energy, their efforts will results in better performance for society. Also, transformational leaders encourage the team members to develop ideas and measure its possible risks, which help to foster a culture of innovation. Thus, creativity beside vision, integrity and growth mindset in the transformational leadership style increases the chance of success to fight the climate change through local energy initiatives.

So far, the issue of changing the energy generation system has been discussed, but not the energy consumption. Currently, the production of electricity follows demand; if you need electricity, it is available. Unfortunately, since several SEs are intermittent in nature it is impossible to match the supply to the demand: demand must match supply! This concept and the necessary changes to the grid and devices is called a 'smart grid' and imposes usage changes for society's energy consumption. The idea of smart grids is to make devices smart (i.e. connect everything to the internet and make them communicate) and let them activate whenever energy is available. The idea of smart grids is to make devices smart (i.e. connect everything to the internet and make them communicate) and let them activate whenever energy is available. As domestic energy usage is dependent on the availability of energy, smart grids may obstruct people's everyday consumption patterns. That is why it is paramount for consumers to understand, and eventually accept and comply to the changes necessary to make the new system work. The way people regard and use power should be changed completely. This is the part where change management and change leadership comes into play. First, in order to make people to incorporate in the change process there should be a good motivation. Second, the change process should be gradual to give enough time for people to adapt to the new situation. One important aspect that has to be taken into account in such a process is the emotional attachment of people, which is explained in the **Bonding Cycle** (Kohlrieser, 2006). The first part of this cycle is about attachment and bonding, the last part about separation and grief. Indeed, people will first refuse to change and afterwards they will have grief toward their old way of working. This process is just natural and takes time. You could expect it during every change process. You only need to give it some time. Afterwards, people will detach from the old style and get used to the new one.

Conclusion

The example of LEIs shows the importance of change management and change leadership; when change is managed properly and leaders are able to inspire, projects can be extremely successful. And, although, sometimes challenges like climate change can seem distant from individual leadership, this discussion can show that qualified leaders can make a difference on the local scale and can have a huge impact when combined with other projects of the same dimension. Proper leadership is paramount, as it often is the case that a lack of awareness of any future problem is widespread among those who are likely to suffer from it.

'What does all of this mean?' 'What should you take home?' Leadership is not something you see in presidents or CEOs of multinationals only. All scales of organizations require leaders, and thus also locally. We have just learnt that local initiatives can have profound effects on society regarding sustainable development! Most of us will not become presidents or CEOs of world's biggest companies, but we do all live in some kind of local community which must endure some change. If this program has taught us anything, it's that in every person there exists a leader. A sustainable world can start with the very core of society, which is the individual; that individual can be you!





3.4 Healthcare and its bridge between national ideas and local change

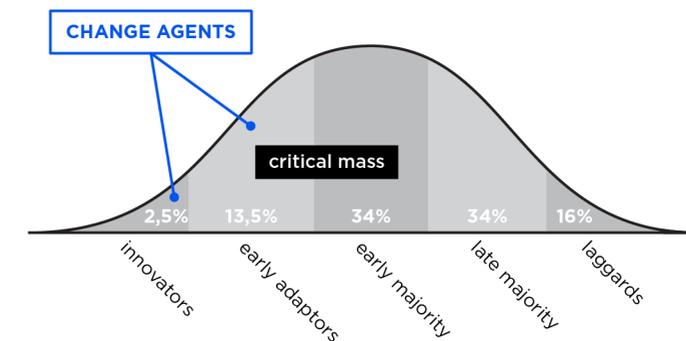
Western healthcare systems are challenged by rising demands and costs, while improvements of the quality of care are expected at the same time (Urueña, Hidalgo, & Arenas, 2016). The aging population, the increased incidence of chronic diseases and current lifestyle trends are examples of factors that give rise to concerns about the long-term sustainability of our healthcare systems (Pammolli, Riccaboni, & Magazzini, 2012; Free, et al., 2013; Bauer, Briss, Goodman, & Bowman, 2014). Efficiency and quality thus have become the most important key characteristics of today's care. One of the proposed solutions is eHealth; an umbrella term for concepts about health, context, technology and people. eHealth can be broadly seen as the use of information and communication technology (ICT) to improve the well-being, health and healthcare (University of Twente, 2016; Ossebaard & Gemert-Pijnen, 2016). Examples are the use of online self-care applications (e.g. for depression) (MoodGYM, 2016), the storage, management and communication of data (e.g. electronic patient profiles) (Black, et al., 2011) and telemedicine applications (e.g. videoconsulting between a patient and caregiver) (Saner, 2013). Many eHealth innovations have been developed and introduced in practice. In some cases this has led to the improvement of patient participation, self-care, self-management and decreased use of resources (Ossebaard & Gemert-Pijnen, 2016). Other intended (expected) benefits of eHealth are improved access to care, quality of care, effectiveness and efficiency and more equity (University of Twente, 2016).

However, many eHealth innovations remain in a permanent pilot state (Urueña, et al., 2016). This may have multiple reasons, of which inadequate organizational capabilities (Urueña, et al., 2016), lack of financial and stakeholder support and legal issues (e.g. privacy) are examples. Other important aspects are the culture in which the eHealth applications have to function and the innovativeness of individuals (Doktor, Bangert, & Valdez, 2005; Mair, et al., 2007). A systematic review on eHealth innovations revealed problems related to systems' workability during eHealth implementation. Mainly, problems are related to coherence (differences from existing practice, having a shared view of its purpose and understand how eHealth will affect someone personally), effect of eHealth on tasks, roles and responsibilities, risk management and making potential benefits of eHealth transparent through ongoing evaluation and feedback. These effects cause resistance to new technologies, what makes it hard to engage stakeholders (Mair, May, O'Donnel, Finch, Sullivan, & Murray, 2012).

In the Change Leaders program, we have discussed such resistance in relation to change and leadership. The Diffusion of Innovations theory by Rogers (1962) incorporates these aspects by describing different categories of adopters, based on individuals' willingness to adopt (eHealth) innovations (see figure 1) (Edtech4Schools, 2010).

Based on this theory it is important to maximize on innovators and early adopters to drive the change (Rufo, 2012).

Figure 3: Diffusion of innovation theory: categories of adopters



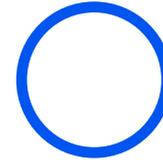
source: Edtech4schools

In healthcare this means that the implementation of eHealth innovations needs local support from such innovators and early adopters in order to motivate the other categories of adopters to use the eHealth innovation. Therefore, it is important for the person(s) leading a change to be the champion of change and behave as a role model (Rufo, 2012). A champion or effective leader is intelligent, has certain personality traits, has the right motives and has experience related to role modeling, coaching and habiting in a certain way (Wilderom, 2012). Identifying champions is absolutely necessary for successful implementation. Most of the time it is optimal to have someone working within the organization as being the champion, someone who has knowledge of technology and is clinically respected (Lorenzi, Kouroubali, Detmer, & Bloomrosen, 2009); a key stakeholder in the organization (Rufo, 2012). Champions must provide a combination of being flexible and also being controlling to create successful implementation. Roles of a champion are providing direction, inspiring other people and promoting and creating trust. Everyone must be able to trust and respect the champion (Dorresteijn, 2015).

Due to the cultural and organizational context in healthcare, change efforts are complex. Often, changes are initiated on a national or institutional level, and it is up to local managers to implement these changes. Although it is indeed good to introduce change in healthcare on a national or institutional level to make sure practices are standardized, this also creates new problems. The organizational variation of practices that is inherent to healthcare requires a flexible approach to change, so that the change management implementation can be a tailored approach (Lorenzi, et al., 2009). A change management strategy should be adjusted to the local situation and it should be customized for each adoption group (Rufo, 2012).

Additionally, in healthcare it is a known problem that changes agreed upon on a higher level can meet resistance on a local level. This is because almost every initiated improvement in healthcare creates more paperwork, while there is already a great





administrative burden on healthcare staff (Dorresteijn, 2015). Resistance can also rise because users are not capable to change in the pace that is expected from them. For example, since the earlier mentioned eHealth applications are being more and more used in healthcare, the generations who did not grow up in the digitalized age are sometimes experiencing difficulties in working with these applications (Gelderblom & Koning, 2001).

When considering all these factors, it becomes clear that there is not one big change leader necessary in healthcare, but in fact many change leaders and champions that work on a local level. These have to be able to explain why the changes that are agreed upon on a national level, are worth the effort in daily practice. Using a force field analysis can be an excellent tool for this 'translation' process; it is easy to apply and it captures the essence of change management in diverse circumstances. A forced field analysis involves evaluating driving and restraining forces influencing eHealth implementation. It can be used to facilitate brainstorming and dialogue (Rufo, 2012). After this dialogue, a tailored plan for a certain user group can be developed to get used to working with eHealth and to overcome resistance.

3.5 The construction industry: changing without a change leader

The construction industry: an industry producing those products everybody knows about. Roads, houses, offices, tunnels, sluices, bridges, skyscrapers: large products which cannot be ignored and are present all around the world. Although the general use of the end-products are probably known to everyone, the unique characteristics of the industry itself may not be broadly shared (Toor & Ofori, 2008; De Graaf, Voordijk, Heuvel, 2016): construction projects are normally large and complex; the industry is fragmented and project organizations often consist out of different companies who may change throughout the project; projects are often split into different segments based on different parts of the contract; multiple organizations work together in one project, but when the project is finished each go their own way; and projects are always dependent on the location where they are executed. Because of these reasons, it is stated that the industry is not an industry after all, but a 'conglomerate of projects' (Dorée, Pries, Veen & Vrijhoef, 2003).

Next and due to these unique characteristics, multiple specific problems within the industry exist. Among others related to the rational and analytic approach of typical engineers, preferring scientific management above 'soft' approaches to management: having a vision and being an inspiring leader, are perceived to be less important than 'control' (Dorée, et al., 2003). Furthermore, integration of stages in the construction processes could be improved, end users could be involved earlier in the design process, and collaboration between (partner) contractors, and clients could be increased (Egan, 1994; Levene, 1995).

Related to the characteristics and problems of the industry, we distinguish three streams of change in the construction sector: (1) integration of the supply chain, which leads to an improvement of the collaboration within stakeholders in the sector, (2) sustainability, to adapt the construction projects to the needs of the society and lower the impact they have in the environment and (3) moving from prescriptive requirements to performance requirements, providing a shift in the way projects are conceived to improve the generation of value in construction projects.

Supply chain integration: the solution to inefficiency in the traditional construction process?

According to the Centre for Process Innovation in Building & Construction, the research centre of the organization 'Bouwend Nederland' (Noordhuis & Vrijhoef, 2011), supply chain integration could lead to cost reductions, revenue increases and better quality outcomes. Promising words indicating that supply chain integration could result in a big change in the construction industry. The developments concerning supply chain integration are already present in the Dutch construction industry for some years now, but improvements can still be made.

Attention to problems in the construction industry's supply chain were drawn by multiple authors in the past (e.g. Latham, 1994; Egan, 1998). Integration of processes and products would ensure that better value could be delivered to the client, while

reducing the costs for doing so. Not only clients were involved in these developments, also designers, main contractors and subcontractors. Each of them had to work together instead of being a collection of separate organizations (Briscoe & Dainty, 2005). These organizations together eventually initiated the change to work closely to each other.

In this case a clear change leader cannot be pointed out in the form of a person. Although Latham and Egan draw attention to the problems charring industry task forces, the organizations themselves also realised that they would integrate their processes and products to achieve better results. Next, an organization as Bouwend Nederland (a trade organization) launched a program of multiple years in which the developments regarding collaboration and integration were investigated and supported. Such research by a central organization representing a lot of construction companies supports the change within these companies, so that the changes are led by both the companies on their own and the organization supporting them. Each of these companies have an internal and organizational drive for improving the way they were traditionally working: changes are currently occurring and no doubt supply chain integration in the end will change the whole industry.

Sustainability: only a top priority in the construction industry

"Sustainability is only in construction a top priority" (Cobouw, 2016). A good example of a sustainability project is the 'Stroomversnelling'. This project is not only a prime example of sustainability in construction, but also embodies process innovation and cooperation between different stakeholders involved. It is a cooperation to realise energy neutral housing. Originally planned as a project to renovate 111.000 rental houses from the '50-'70, to energy neutral houses, it has now grown to a much larger project. New initiatives include Stroomversnelling Brabant with the ambition to transform all houses in Brabant.

"Stroomversnelling is a network of ambitious construction firms, suppliers, housing cooperation, municipalities, financiers and others" (Stroomversnelling, 2016) and exists for a couple of reasons: (1) increased environmental awareness, (2) due to technological advancement and specifically targeted government subsidies, it is now possible to transform housing to energy neutral housing in a cost-efficient way and (3) the quality of the housing improves.

This project is not only an example of a change in sustainability but also of the scale sustainability is applied to. In order to achieve the overall goal many changes need to be made. Also in this case, not a person, but an organization acts as a change leader: the Stroomversnelling. The organization shares knowledge and expertise with organizations willing to realize energy neutral houses, and brings parties together to foster the collaboration and improve involved parties. Finally the organization creates standards to ease collaboration and tries to limit restrictions to let the construction of energy neutral houses flourish. "Leadership is serving the people that work for you by giving them the tools they need to succeed" (French, 2016): that is exactly what the Stroomversnelling does.

From specifications to performance

Prescriptive specifications are commonly used in the traditional construction industry. Construction contracts normally state essential characteristics a contractor or supplier must deliver in a project. These specifications are meant to enable parties to measure the degree of conformance of the product delivered. Performance specifications are more open specifications whose requirements do not specifically state something tangible to measure, but rather a performance level that should be fulfilled.

Our society is currently changing towards developments occurring in a more integral manner. As described before, aspects such as sustainability and sustainable development become more important on a daily basis. Construction assets must change in the same way in order to satisfy the new needs of society. This development increases the complexity and sophistication of construction projects. Performance specifications provide an efficient and productive way to improve the quality of the products delivered and to promote the generation of innovation.

Shifting from prescriptive specifications to performance specifications is not an easy task. To achieve this shift a change in the mindset of the actors that play a role in the construction sector must occur. The actors must learn to work and think in a collaborative and integral way.

This change is mainly driven by the society and its intention to achieve higher value in the creation of new assets. Public entities promote performance specifications by creating contracting forms who stimulate this, for example by changes in the tendering process of Rijkswaterstaat (the agency responsible for the main infrastructure facilities in the Netherlands), asking for the 'provision of a performance'. And also private parties use performance to develop and sell their assets to its clients. For example, in the housing sector, by selling houses that provides a 'cosy and familiar home' instead of providing a '110 m2 house'.

Conclusion

In the Change Leaders program, we mainly discussed change leaders in the context of organizational change. Changes in the construction sector are the result of a combination of small changes of high and low impact among different organizations that shape the industry. We have discussed three major changes occurring in the construction industry as we speak. What each of these cases have in common is that they do not have a clear change leader. Instead, changes occur in a different way: they are fostered by organizations rather than specific persons. For example, initial steps were taken by Bouwend Nederland, an organization that represents the construction firms in the Netherlands, showing us that changes come from inside the organizations, and are enabled by Bouwend Nederland. Furthermore, change is accelerated by the Stroomversnelling organization: this organization does not only represent construction firms, but all kind of stakeholders involved, that somehow benefit or at least are influenced by the changes. Finally, the changes also come from an organization as Rijkswaterstaat, showing that the changes are imposed by the client of construction projects itself. Different actors therefore influence changes in the construction industry: although no specific change leaders can be pointed out, the need for changes make them occur anyway.

3.6 The importance of a holistic view in change management

Holistic view in the current environment

The current society and therefore the business environment can be described as dynamic and complex. This dynamic culture can be felt both on an individual level, where being busy is a new standard, and organizational level, where quick responses and constant adaptations are required. As a result of technological developments, more possibilities arise and the relations and interdependencies in the business environment are becoming more complicated. Wishes and expectations of the market are developing at an increasingly higher rate, which requires a flexible attitude of companies. In addition, the products that companies offer often have to be intertwined with services as a result of customer expectations. These dynamic and complex characteristics of the society make that change is inevitable for all individuals and organizations, and it feels as if the only constant factor is change.

For business success it is important to anticipate on the changes that are going on in the society and in the market. The organizational structure of a company can be a determining factor that can facilitate the flexibility and responsiveness that is required. Due to this, a trend of transition can be observed from a traditional and hierarchical structure, towards more recent, horizontal organizational structures. These changes have a profound influence on the position of both employees and leaders. Consequently, empowerment is becoming more important. So, the way an organization is structured is of essence in order to make the company adaptable in the current environment. Creation of a clear and fitting structure requires insight in the company, the environment and a driver of the change; a change leader can fulfil this role.

A company with a well-implemented organizational structure, will, however, not function well without forming a supporting organizational culture. One way to achieve an organizational culture in which employees can thrive, is by working from a clear vision. A vision forms a point on the horizon which the company wants to reach in the future. Having this vision enables a leader to form a strategy to reach that point on the horizon. However, not only the leader should support this vision, ideally all employees at the company approve this vision. For this to happen, the leader should transfer the vision to the employees via a fitting strategy, that creates the possibility to inspire and motivate. Although all organizations can benefit from a good organizational structure and culture, the solution will differ per company since the definition of what is 'good' depends on internal factors of the organization.

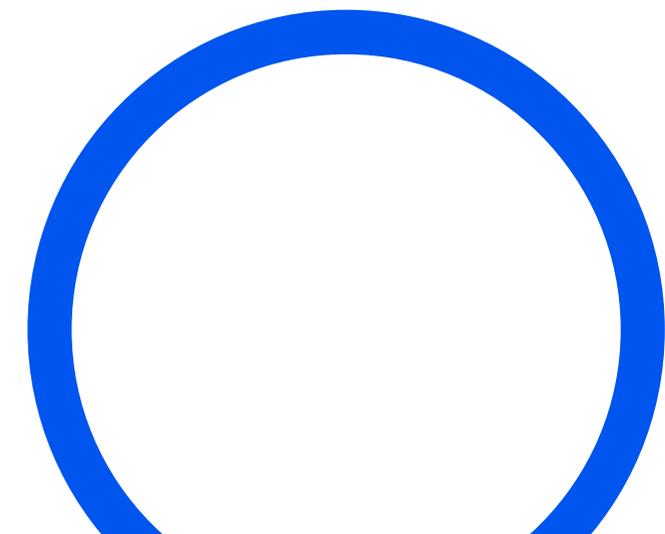
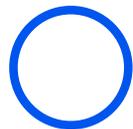
Holistic view in new product development

A change leader is in charge of developing a vision and a strategy that enables the company to reach that vision. This may seem relatively easy at first. However, how exactly does a leader form a strategy that fits those demands when this is a specific solution for every company? One crucial aspect is of special relevance in achieving this, namely to have a holistic view on the situation and the company.

As earlier mentioned, a change leader can influence the formation of the organizational structure as well as the organizational culture; the design of the internal aspects of a company. These aspects of the company can partly be designed independent of the business environment. However, for the most part of the design, a leader should also take external factors into account. External factors are the aspects over which a company (normally) does not have direct control. Some examples are legislation, competition and the market. One imminent example of how the internal aspects are influenced by the external aspects, is the fact that in some (highly regulated) markets, the way the organizational structure is formed is partly dictated by legislation. For instance in the biomedical market, a company is obligated by law to have a quality management system in its internal structure. This highlights the importance of taking into account the external factors when developing a vision and strategy.

Developing a complete strategy can be difficult in every type of organization, however, new product development is a field in which many disciplines and stakeholders have to collaborate in order to successfully develop and implement a new product. Although developing a strategy for a whole company is not necessarily the same as developing a strategy for the development and implementation of a new product, there are commonalities between the situations. When looking at the implementation of a product in the market, especially when regarding disruptive innovations, the acceptance and approval of the new product can be difficult to manage, just as the acceptance of new strategies in a company. In this case it is important to understand the situation and the position of the new product in the society. Also, the position of the company in the total business environment, or the reputation, can be of influence. In this case the leader of the company can be regarded as a leader of the change that has to occur in the market and around the consumers in order to implement the product successfully.

When forming a strategy for new product implementation, the change leader should take every aspects of both the internal and external factors into account, just as with



the development of a corporate strategy. This can of course be fairly difficult, but is it essential for the success of the product and the company as well. When developing a new product, it should be known what products are already made by the competition, what the demands of the users are, what the legislation is for the development of the product, and so on. All these external factors are essential in forming the ultimate strategy. Eventually, with all this information, the internal factors can be decided upon and can be communicated throughout the company. So, all aspects of both internal and external factors should, to some extent, be known by the leader to form a successful strategy. Furthermore, knowledge and insight about the content and processes that are involved with the product development may be required. Therefore, the importance of having a holistic view as a leader is stressed.

The level of difficulty in forming such a strategy is dependent on multiple factors. For one, some industries can be considered more complex than others, but also the size of a company can be an important factor. An example of this can be the introduction of a new biomedical product into hospitals as a start-up. The biomedical market is highly regulated in terms of legislation, and also has some powerful companies (competition) which are hard to get away from. The market is also rather complex, since the ones wanting to use the device are mostly not the ones who are actually paying for it (involvement of insurance companies), or the ones that may decide to buy it (policies at the hospital). Creating a good strategy in order to implement the device into the market requires that the essential information about those aspects have to be gathered and known. In a big company, this mostly boils down to many different departments making reports about it and sending it to the management, thereby developing the strategy in a multi-disciplinary way. However, in start-ups, this will mean that a small amount of people will do this themselves. In both cases there are other difficulties challenges that can arise. For instance in a start-up, the internal changes will be easily implemented, whereas in a large company this will be much more difficult.

Conclusion

It is hard to take all important aspects into account since the actual consequences of change both on an internal and external level are often hard to predict. Unexpected situations are likely to occur and innovative responses to triggers are important for the success of the implementation. Holistic solutions are desired since, as was nicely formulated by Robert A. Paton and James McCalman (2008): "any process of change is likely to have an impact greater than the sum of its part". As a leader of change, both on a corporate level and the level of new product implementation, having a holistic view on the situation is important for a successful implementation of change.

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Any process of change is likely to have an impact greater than the sum of its parts.

Robert A. Paton and James McCalman



4 different applications discussion on topics



As stated in the introduction of this booklet, change happens everywhere, but making successful change happen is very complex. This is emphasized by all different topics that were outlined and discussed in this booklet. Whether it is about the construction industry, healthcare, FinTech, or climate change: change is involved in lots of different organizations, industries, or communities. This chapter combines the insights that were gained in the previous chapters and ends with the common lessons that can be learned from all these different topics.

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This chapter combines the insights that were gained in the previous chapters and ends with the common lessons that can be learned from all these different topics.

As explained in chapter 3.1 change can be seen as a process of three stages. In the first stage people accept that change is necessary, which is the unfreezing stage. In the next stage change is accepted and people are working on it to make it happen. When people have embraced these new ways of working, the organization is ready to refreeze, the last stage. By looking at change as process consisting of these stages, you can prepare yourself for what is coming and make a plan to manage the transition. This also indicates that motivation for change must be generated before change can occur, which is a common theme in all chapters of this booklet.

To continue on this, motivation for change is highly associated with internal and external factors that drive that change, as stated in chapter 3.6. Not every organization is willing to change, but under some circumstances they need to change to cope with the dynamics in society or to keep up with competitors. A clear example of this is the finance industry (chapter 3.2). Because of the economic crisis (external factor) people started to think about alternatives to get loan. In a short period of time crowdfunding became very popular and faster alternatives for financial services were developed. Consequently, people became less dependent on traditional banking and traditional banks were forced to change their systems in order to continue to exist (internal factor). As their systems are based on years of experience and a deeply rooted organization culture with clear values and beliefs, changing their traditional culture to cope with the rapidly evolving information technology in the financial industry is a huge ongoing challenge.

This example also emphasizes that change can be initiated by every individual and in all different layers of society, since the market for alternative finance was developed by different kinds of people that were in need for loan. The same can be learned from the chapter about Local Energy Initiatives (chapter 3.3), where it is stated that change towards a sustainable energy environment starts with generating creative ideas and adopting a growth mindset. This chapter showed that even small local groups of people were able to implement their ideas and to make them successful. What can also be learned from this chapter is that the process of change can be accelerated with help of different stakeholders that can provide feedback on ideas and processes. Moreover, if all stakeholders are satisfied, there is a higher probability that change will be implemented successfully on both local and large scale.

Surprisingly, vice versa is seen in the healthcare field (chapter 3.4). Although responsibilities to implement changes are given to local managers or groups, the actual ideas for changes usually do not arise from these groups; mostly they are initiated on a national or institutional level. As this often brings resistances on a local

level, there is a high need for a clear inspirational leader who can create trust and transfer the motivation for change towards the people and organizations on a local level.

The thing that cannot be ignored in all different topics is that it requires a set of soft skills and project management abilities to implement change and to inspire others to follow your ideas and mindset. Maybe the best way to elaborate on this is through the chapter about the construction industry (chapter 3.5). Although it is quite stereotypical, the construction industry mainly consist of complex projects that involve different organizations run by people that prefer to think about the best analytical technical solutions, rather than people who have the intention to promote performance and to meet the needs of the end-users and society. Fortunately, this industry recognizes this behavior more and more. They also acknowledge that they lack the soft skills to change their behavior, and that they should consult experienced organizations, such as Bouwend Nederland or Stroomversnelling, in order to change towards a performance-based industry that satisfies the needs of society, while maintaining high quality of construction.

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It requires a set of soft skills and project management abilities to implement change and to inspire others to follow your ideas and mindset.

5 references



- Al-Mashari, M., Irani, Z., & Zairi, M. (2001). Business process reengineering: a survey of international experiences. *Business Process Management Journal*, 7(5), 437-455.
- Antonakis, J., & House, R. J. (2014). Instrumental leadership: Measurement and extension of transformational-transactional leadership theory. *The Leadership Quarterly*, 25(4), 746-771.
- Artola, C., & Genre, V. (2011). Euro area SMEs under financial constraints: belief or reality? Working Paper Series 3650
- Barnett, W. A., & Jawadi, F. (2012). Recent developments in alternative finance: empirical assessments and economic implications. Emerald Group Publishing.
- Bass, B. M. (1991). From transactional to transformational leadership: Learning to share the vision. *Organizational dynamics*, 18(3), 19-31.
- Bass, B. M., & Riggio, R. E. (2006). Transformational leadership. Psychology Press.
- Bauer, U.E., Briss, P.A., Goodman, R.A., & Bowman, B.A. (2014). Prevention of chronic disease in the 21st century: elimination of the leading preventable causes of premature death and disability in the USA. *The Lancet*, 384(9937), 45-52.
- Belleflamme, P., Lambert, T., & Schwienbacher, A. (2010). Crowdfunding: An industrial organization perspective. In Prepared for the workshop Digital Business Models: Understanding Strategies, Paris (June), 25-26.
- Black, A.D., Car, J., Pagliari, C., Anandan, C., Cresswell, K., Bokun, T., McKinstry, B. Proctor, R., Majeed, A., & Sheikh, A. (2011). The impact of eHealth on the quality and safety of health care: a systematic overview. *PLoS Medicine*, 8(1).
- Briscoe, G. & Dainty, A. (2005). Construction supply chain integration: an elusive goal? *Supply Chain Management: An International Journal*, 10(4), 319-326.
- Bruton, G., Khavul, S., Siegel, D., & Wright, M. (2015). New financial alternatives in seeding entrepreneurship: microfinance, crowdfunding, and peer to peer innovations. *Entrepreneurship Theory and Practice*, 39(1), 9-26.
- Burnes, B. (2004). *Managing change: A strategic approach to organisational dynamics*: Pearson Education.
- Casey, E., & O'Toole, C.M. (2014). Bank lending constraints, trade credit and alternative financing during the financial crisis: Evidence from European SMEs. *Journal of Corporate Finance*, 27, 173-193.
- Chua, J.H., Chrisman, J.J., & Sharma, P. (1999). Defining the family business by behavior. *Entrepreneurship: Theory and Practice*, 23(4), 19-19.
- Cobouw (2016). Alleen in bouw is duurzaamheid topprioriteit. Retrieved on 23th of May 2016 from: <http://www.cobouw.nl/artikel/1629481-alleen-bouw-duurzaam-topprioriteit>
- Daft, R.L., & Marcic, D. (2006). *Understanding management*. Cengage Learning.
- Dapp, T., Slomka, L., & Hoffmann, R. (2015). Fintech reloaded—Traditional banks as digital ecosystems. "Deutsche Bank Research", Frankfurt am Main.
- Doktor, R., Bangert, D., & Valdez, M. (2005). Organizational learning and culture in the managerial implementation of clinical e-health systems: an international perspective. In 38th Hawaii International Conference on System Sciences.
- Dorée, A., Pries, F., Veen van de, B., & Vrijhoef, R. (2003). Het bouwparadigma: waarom de bouw niet verandert. *Building Business*.
- Dorresteijn, M. (2015). Zorgvisie. Retrieved on 21st of May 2016 from: <https://www.zorgvisie.nl/personeel/nieuws/2015/5/regeldruk-in-de-zorg-fors-toegenomen-1759557w/>.
- Ebert, R. J., Griffin, R. W., Starke, F. A., & Dracopoulos, G. (2014). *Business essentials*. Pearson Education Canada.
- Edtech4Schools (2010). Change agents. Retrieved on 5th of May 2016 from: <http://edtech4schools.pbworks.com/w/page/21321376/Change%20Agents>.
- Egan, J. (1998). *Rethinking Construction: the report of the Construction Task Force*. London: Department of the Environment, Transport and the Regions.
- Fernandez-Araoz, C., Iqbal, S., & Ritter, J. (2015). Leadership lessons from great family businesses.

- Harvard Business Review, 93(4), 83-97.
- Free, C., Philips, G., Galli, L., Watson, L., Felix, L., Edwards, P., Patel, V., & Haines, A. (2013). The effectiveness of mobile-health technology-based health behaviour change or disease management interventions for health care consumers: a systematic review. *PLoS Medicine*, 10(1).
- French, J. (2016). 33 Ways to Define Leadership. Retrieved on 23th of May 2016 from: <http://www.businessnewsdaily.com/3647-leadership-definition.html>
- Gelderblom, A., Koning, J.D. (2001) ICT en de oudere werknemer: geen rimpelloze relatie. Rotterdam: Stichting Arbeidsmarktbeleid.
- Goffee, R., & Scase, R. (1985). Proprietorial control in family firms: some functions of 'quasi organic' management systems. *Journal of Management Studies*, 22(1), 53-68.
- Graaf de, R., Voordijk de, H., & Heuvel van den, L. (2016). Implementing Systems Engineering in the Civil Engineering Consulting Firm: An Evaluation. *Systems Engineering*, 19(1).
- Hall, P.D. (1988). A historical overview of family firms in the United States. *Family Business Review*, 1(1), 51-68.
- Hass, K.B. (2007). The blending of traditional and agile project management. *PM world today*, 9(5), 1-8.
- Hemer, J. (2011). A snapshot on crowdfunding. Working papers firms and region.
- Hershatler, A., & Epstein, M. (2010). Millennials and the world of work: An organization and management perspective. *Journal of Business and Psychology*, 25(2), 211-223.
- Hoogh de, A.H.B., Den Hartog, D.N., Koopman, P.L., Thierry, H., Berg van den, P.T., Weide van der, J.G., & Wilderom, C.P.M. (2005). Leader motives, charismatic leadership, and subordinates' work attitude in the profit and voluntary sector. *The Leadership Quarterly*, 16(1), 17-38.
- Hoppe, T., Graf, A., Warbroek, B., Lammers, I., & Lep, I. (2015). Local governments supporting local energy initiatives: lessons from the best practices of Saerbeck (Germany) and Lochem (The Netherlands). *Sustainability*, 1900-1931.
- Hur, Y., Berg van den, P.T., & Wilderom, C.P.M. (2011). Transformational leadership as a mediator between emotional intelligence and team outcomes. *The Leadership Quarterly*, 22(4), 591-603.
- International energy agency. (2015). World Energy Outlook Special Report. IEA.
- Kickert, W.J.M. (2014). Specificity of change management in public organizations: conditions for successful organizational change in Dutch ministerial departments. *The American Review of Public Administration*, 44(6), 693-717.
- Kohlrieser, G. (2006). *Hostage at the Table. How leaders can overcome conflict, influence others, and raise performance*. SF: Jossey-Bass.
- Latham, M. (1994). *Constructing the team: final report of the government/industry review of procurement and contractual arrangement in the UK construction industry*. London: Department of the Environment.
- Levene, P. (1995). *Efficiency Scrutiny into Construction Procurement by Government*. London: Department of the Environment, Transport and Regions.
- Levin, G. (2012). Embrace and exploit change as a program manager: guidelines for success. Vancouver GGlobal Congress Proceedings.
- Loorbach, D. (2007). *Transition management: new mode of governance for sustainable development*. Erasmus Universiteit Amsterdam. Amsterdam: International Books.
- Lorenzi, N.M., Kouroubali, A., Detmer, D.E., & Bloomrosen, M. (2009). How to successfully select and implement electronic health records (HER) in small ambulatory practice setting. *BMC medical informatics and Decision making*, 9(15).
- Lowe, K.B., & Galen Kroeck, K. (1996). Effectiveness correlates of transformational and transactional leadership: A meta-analytic. *Leadership Quarterly*, 7(3), 385.
- Mac an Bhaire, C. (2013). Demand for debt and equity before and after the financial crisis. *Research in International Business and Finance*, 28, 105-117.
- Mair, F.S., May, C., Finch, T., Murray, E., Anderson, G., Sullivan, F., O'Donnell, C., Wallace, P., & Epstein, O. (2007). Understanding the implementation and integration of e-health services. *Journal of Telemedicine and Telecare*, 13(1), 36-37.
- Mair, F.S., May, C., O'Donnell, C., Finch, T., Sullivan, F., & Murray, E. (2012) Factors that promote or inhibit the implementation of e-health systems: an explanatory systematic review. *Bulletin of World Health Organization*, 90(5).
- Mamica, Ł., & Tridico, P. (2014). *Economic Policy and the Financial Crisis*. Routledge.
- Mead, W., Pollari, I., Fortnum, D., Hughes, B., & Speier, A. (2016). The pulse of fintech, 2015 in review. Received on 9th of June 2016 from: <https://assets.kpmg.com/content/dam/kpmg/pdf/2016/03/q1-2016-the-pulse-of-fintech.pdf>
- MoodGYM. (2016) MoodGYM. Retrieved on 19th of May 2016 from: <https://moodgym.anu.edu.au/welcome>.
- Noordhuis, M. & Vrijhoef, R. (2011). *Ketensamenwerking in de bouw: een leidraad voor ondernemers die ketensamenwerking willen implementeren*. Centre for Process Innovation in Building & Construction.
- Ossebaard, H.C., Gemert-Pijnen van, L. (2016). EHealth and quality in health care: implementation time. *International Journal for Quality in Health Care*. 1-5.
- Pammolli, F.C., Riccaboni, M., & Magazzini, L. (2012). The sustainability of European health care systems: beyond income and aging. *The European Journal of Health Economics*, 13(5), 623-34.
- Paton, R.A., & McCalman, J. (2008). *Change management: A guide to effective implementation*. Sage.
- Pinedo-Cuenca, R., Gonzalez Olalla, P., & Setijono, D. (2012). Linking Six Sigma's critical success/hindering factors and organizational change (development) A framework and a pilot study. *International Journal of Lean Six Sigma*, 3(4), 284-298.
- Poza, E. J., Alfred, T., & Maheshwari, A. (1997). Stakeholder perceptions of culture and management practices in family and family firms-A preliminary report. *Family Business Review*, 10(2), 135-155.
- Raines, C. (2002). *Managing millennials. Connecting Generations: The Sourcebook*.
- Rodsutti, M.C., & Makayathorn, P. (2005). Organizational diagnostic factors in family business: Case studies in Thailand. *Development and Learning in Organizations: An International Journal*, 19(2), 16-18.
- Rufo, R.Z. (2012). Use of change management theories in gaining acceptance of telemedicine technology. *Critical Care Nurse*, 35(4), 322-327.
- Ryabova, A V., & Рябова, А.В. (2015). Emerging FinTech market: types and features of new financial technologies. *Journal of Economics and Social Sciences*, (7), 4.
- Saner, H. (2013). EHealth and telemedicine: current situation and future challenges. *European Journal of Preventive Cardiology*, 20(2), 1-24.
- Seyfang, G., Hielscherb, S., Hargreaves, T., Martiskai, M., & Smith, A. (2014). A grassroots sustainable energy niche? Reflections on community energy in the UK. *Environmental Innovation and Societal Transitions*, 21-44.
- Sikdar, A., & Payyazhi, J. (2014). A process model of managing organizational change during business process redesign. *Business Process Management Journal*, 20(6), 971 - 998.
- Skan, J., Dickerson, J., & Masood, S. (2015). The future of fintech and banking: digitally disrupted or reimagined. Accenture
- Stroomversnelling (2016). Wat is stroomversnelling? Retrieved on 23th of May 2016 from: <http://stroomversnelling.nl/over-stroomversnelling/stroomversnelling/wat-is-stroomversnelling/>
- Tagiuri, R., & Davis, J. (1996). Bivalent attributes of the family firm. *Family business review*, 9(2), 199-208.
- Tennant, G. (2001). *Six Sigma: SPC and TQM in manufacturing and services*. Gower Publishing, Ltd.
- Thielholdt, D., & Scheef, D. (2004). *Generation X and the Millennials: What you need to know*

about mentoring the new generations. *Law practice Today*, 30(5).

Todnem By, R. (2005). Organisational change management: A critical review. *Journal of Change Management*, 5(4), 369-380.

Toor, S. & Ofori, G. (2008). Leadership for future construction industry: Agenda for authentic leadership. *International Journal of Project Management*, 26(6), 620-630.

Trkman, P. (2010). The critical success factors of business process management. *International Journal of Information Management*, 30(2), 125-134.

University of Twente (2016). FutureLearn MOOC eHealth. Retrieved on 19th of May 2016 from: <https://www.futurelearn.com/courses/ehealth/1/steps/87570>.

University of Twente (2016). FutureLearn MOOC eHealth. Retrieved on 19th of May 2016 from: <https://www.futurelearn.com/courses/ehealth/1/steps/87617>.

University of Twente (2016). FutureLearn MOOC eHealth. Retrieved on the 19th of May 2016 from: https://ugc.futurelearn.com/uploads/files/a7/5b/a75b99f7-1a14-4329-a078-92607b581cef/Category_of_innovativeness_and_characteristics.pdf.

Urueña, A., Hidalgo, A., & Arenas, A.E. (2016). Identifying capabilities in innovation projects: Evidences from eHealth. *Journal of Business Research*.

Vergidis, K., Tiwari, A. & Majeed, B. (2008), Business process analysis and optimization: Beyond Reengineering. *IEEE Transactions on Systems, Man, and Cybernetics, Part C (Applications and Reviews)*, 38(1).

Wardrop, R., Zhang, B., Rau, R., & Gray, M. (2015). Moving mainstream. The European Alternative Finance Benchmarking Report.

Wilderom, C.P.M. (2012). Managing change in organizations for effective results: a leader-behavioral approach. Blackboard.

Wilderom, C.P.M., Hur, Y., Wiersma, U.J., Berg, P.T.V., & Lee, J. (2015). From manager's emotional intelligence to objective store performance: Through store cohesiveness and sales directed employee behavior. *Journal of Organizational behavior*, 36, 825-844.

Wilderom, C. P., van den Berg, P. T., & Wiersma, U. J. (2012). A longitudinal study of the effects of charismatic leadership and organizational culture on objective and perceived corporate performance. *The Leadership Quarterly*, 23(5), 835-848.

Colofon

Booklet content

Change Leaders of 2015/2016 (Annemijn Jonkman, Bruno Guasti Motta, Darya Hadavi, Frank van der Hoek, Giel van Erp, Jaime Julio Parera, Julia Keizer, Leonardo Nascimento, Lisanne Penterman, Maikel Snijder, Marjolein Kouwert, Michiel Barends, Niels Jansen, Rosan Harmens, Rudolph Jauregui, Thijs Veldhuizen, Vincent Verhagen, Wendo Beuker, Zakaria Tazi Hnyine)

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