

***The road over the principle bridge to successful change management***

A qualitative case study of how the use of principles lead to successful change management at Equinor.

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## Preface

This master thesis was developed as a part of the final semester of Industrial Economics and Technology Management. It is the result of countless hours of research, meetings, interviews, transcription, and writing.

We would like to give a big thanks to our internal supervisor John Skaar and our external supervisor Are Jaastad for their support, encouragement, and guidance, without them this thesis would not have been possible.

We would like to further thank Tove Stenberg Vold, for helping us organize and set up interviews as well as helping us with everything regarding Equinor's system. We are grateful for your dedication and understanding toward the research work.

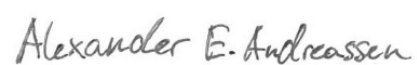
Additionally, we would like to thank family and friends for the support in trying time.

Furthermore, we would like to thank LoFo, as well as the interview candidates for their patience and understanding, for the research work that was taking place during their busy schedules. Finally, we would like to thank Equinor for agreeing to be a part of this research.



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## Abstract

Change management has over time received a greater focus, as the companies are looking for new opportunities to improve and evolve their organization by implementing changes. “Bottom up” phenomenon is becoming more emerging, as well as the worker involvement and empowerment. Lean, that normally is seen as the method to reduce waste that was first introduced and used by Toyota. Has in the later years been adapted and used in different occasions, for example to overcome challenges with change management. Moreover, principles are becoming more sought after, to explore their potential. This master's thesis involves examining a case study in collaboration with Norway's largest oil and gas company. The company started a non-traditional way to implement change management. Their initiative has been claimed as a success, due to their operating model together with the developed handbook and its principles. The following research question was investigated: *How do the use of principles lead to successful change management?* The scope of the research has been to explore the use of principles and how they have led the new initiative to become a success. The scope of the master thesis had the interest to explore how the initiative ended up being a success and was therefore it was not of interest to initially explore whether the initiative itself was a success. The method has been intensive design, with a deductive approach, where the empirical data was obtained using qualitative data. The thesis was developed around an embedded single case study, that allowed the phenomena in question to be studied in the context of the company. Together with observations from meetings, a total of 20 interview candidates were interviewed to illuminate the research question for the thesis. It was claimed by the company that the initiative is a success, but the findings suggest that it is a success only thus far. The findings indicate that there is a resistance, skepticism, and change fatigue among the workers offshore and onshore. The scientific value of the thesis' findings is that the principles contribute to battle change fatigue, as well as to empower workers. Moreover, the principles can be used as a bridge between theory and practice, as well as being flexible and adaptable at all organizational levels.

**Keywords:** Change management; Principles; Empowerment; Change fatigue; Lean

## Sammendrag

Endringsledelse har over tid fått et større fokus, ettersom selskapene ser etter nye muligheter for å forbedre og utvikle sin organisasjon ved å implementere endringsledelse. "Bottom-up"-fenomenet blir stadig mer ettertraktet, så vel som arbeiderinvolvering og myndiggjøring. Lean, som normalt blir sett på som metoden for å redusere svinn som først ble introdusert og brukt av Toyota. Har i de senere år blitt tilpasset og brukt i ulike anledninger, f.eks. for å overkomme utfordringer med endringsledelse. Videre blir prinsipper mer ettertraktede for å utforske potensialet deres. Denne avhandlingen tar for seg å undersøke en casestudie i samarbeid med Norges største olje- og gasselskap. Selskapet startet en utradisjonell måte å implementere endringsledelse på. Initiativet deres har blitt hevdet som en suksess, på grunn av deres driftsmodell sammen med den utviklede håndboken og dens prinsipper. Følgende forskningsspørsmål ble undersøkt: «*Hvordan fører bruken av prinsipper til vellykket endringsledelse?*» Omfanget av forskningen har vært å utforske bruken av prinsipper og hvordan de har ført til at det nye initiativet har blitt en suksess. Omfanget av masteroppgaven hadde interessen for å utforske hvordan tiltaket endte opp med å bli en suksess og var det derfor ikke av interesse å først undersøke om selve tiltaket var en suksess. Metoden har vært intensivt design, med en deduktiv tilnærming, hvor empirien ble innhentet ved bruk av kvalitative data. Oppgaven ble utviklet rundt en casestudie, som gjorde det mulig å studere de aktuelle fenomenene i selskapets kontekst. Empiriske dataen ble innhentet fra observasjoner fra møter, og 20 intervju kandidater ble intervjuet. Dataen ble så benyttet for å belyse forskningsspørsmålet. Det ble hevdet av selskapet at initiativet er en suksess, men funnene tyder på at det er en suksess hittil. Videre tyder funnene på at det er motstand, skepsis og endringstretthet blant arbeiderne på offshore og onshore. Den vitenskapelige verdien av oppgavens funn er at prinsippene kan bidra til å bekjempe endringstretthet, samt bemyndiggjøre arbeidstakere. Prinsippene kan dessuten brukes som en bro mellom teori og praksis, samt være fleksible og tilpasningsdyktige på alle organisasjonsnivåer.

**Nøkkelord:** Endringsledelse, Prinsipper, Myndiggjøring, Endringstretthet, Lean

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### Abbreviations and their meaning

<p>EPN – Exploration Production Norway (Norwegian: UPN) EPN is a department responsible for safe and efficient operation on the Norwegian continental shelf</p>
<p>BU – Business unit (Norwegian: RE) A unit responsible for a cluster of platforms. In a business unit, the team from offshore and onshore are also included.</p>
<p>OCM (Organizational Change Management)</p>
<p>Rules In use – Here the researcher doesn't agree with the use of "rules in use" and their advice, also agreed from the company, that they change it to e.g. Action pattern</p>
<p>LoFo - (Norwegian - Lokal Forbedring) Local Improvement initiative (LoFo) is the <i>next step in a lasting, self-driven culture of improvement</i> in EPN</p>
<p>OPL- (One Point Lesson) is a standard which describes how a task should be performed.</p>

## 1.0 Introduction

Any organization must manage change management effectively if it is to succeed and endure in the highly competitive and continuously evolving business environment (By, 2005; Hussain et al., 2018). According to Burnes (2004b) change management is an ever-present feature of organizational life that ensures organizations are viable both at a strategic and operational level. Researchers have addressed that change management has over time received a greater focus and companies are looking for new opportunities to overcome and improve their organization by implementing strategic changes (Burnes, 2004b; By, 2005), but also address the need of managerial and leadership skills (Gill, 2002; Graetz, 2000; Higgs & Rowland, 2000; Iles et al., 2001; Kotter, 1996). In addition, the roles should be kept separate, as well as understanding what the roles entail (Algahtani, 2014; Gill, 2002). Change management is about achieving an optimal design of the path from the starting point to the goal (Lauer, 2021, p. 4), or as Hussain et al. (2018) presents “*The organizational change explains the movement of an organization from the known (current state) state to the unknown (Desired future state) state*”. Identifying the need for change is usually the trigger that makes an organization consider a change, but can also be triggered by unpredictable events, such as covid-19 the world pandemic. This event caused a major trigger for the companies to consider a need for change to overcome all the challenges the pandemic entailed (By, 2005, pp. 20-21). Furthermore, the need for change can come from top management, to provide financial benefits, efficiency of the organization, digitalization, change organizational culture or even try to create a self-driven environment for continuous improvement (By, 2005). Where the latter has been the focus for the case company of this thesis. The need for change phenomenon can also start from the bottom of hierarchy level, a so called “bottom up”. Indeed, this phenomenon is becoming an emergent approach (By, 2005, p. 374), as more companies and researchers have begun to recognize the importance of empowering employees, but also giving them room and allowing them to look for improvements (Riitta et al., 2003). Covey (2009) makes a connection between principles and their ability to empower workers to think and act independently. The case company believes they have had a successful implementation using their methods, and that their own created handbook of principles has been a major factor in the success. Some researchers such as Skaar et al. (2020) has showcased how principles can be used as guides for practical application. Womack and Jones (1996), as well as Liker (2004) also showcase how lean principles can be used in change management.

Companies that undergo constant change management have been found in literature to build up change fatigue amongst their employees, making further organizational changes challenging (Bernerth et al., 2011; de Vries & de Vries, 2023).

## 1.1 Case Company

Equinor, a Norwegian multinational energy company, is at the forefront of innovation and process improvement in the energy industry. The company primarily deals in oil and gas and has seen substantial growth and is considered a successful large company. The company has 22000 employees across 30 countries as of 2023. The company is divided into different organizations, one of which is EPN. EPN is responsible for safe and efficient operations on the Norwegian continental shelf. The company has made significant strides in improving their efficiency and effectiveness through the use of the lean methodology, among others (Equinor, 2023a, 2023b).

### 1.1.1 Mandate

In 2020, EPN created a mandate, see appendix A, which dealt with the establishment of a new department, called LoFo. In this mandate LoFo's goals were also established. The anchoring of the established department had its origin in the strategic EPN's improvement initiatives. As a general requirement, it was set by the management of EPN that the project should produce results in the form of improvements on proactive measurements, but also clear results of financial benefits. Being one of the world's leading energy companies, time and cost is at a significant stake. Therefore, it is required that change management projects that are initiated must produce results.

LoFo is the “next step” that is supposed to further develop the work with daily, local improvement and to ensure the day-to-day improvements is still an important part of the effort to strengthen the competitiveness of the company. The initiative is based on Equinor's continuous improvement strategy, which is about how they work to ensure target-based improvement in their value chains. There is a desire from management and the associations to stand together on this initiative and to establish a mandate for the work.

The goal and purpose of this initiative is as follows:

“

- a) *The aim of the initiative is the next step in a lasting, self-driven culture of improvement in UPN, where how we work with daily improvements and which improvements, we work with ensures quality and flow in the working day for the individual (established jointly)*
- b) *Specify how we in UPN conduct day-to-day continuous improvement work.*
- c) *Create success stories together.*
- d) *Engage the organization.*
- e) *Improved cooperation between the associations and management in UPN*

“

With the project, the desired outcome is:

“

- a) *Create a common handbook for everyone in EPN, which showcases how everyone can work with continuous improvement in everyday life based on both external and internal transfer and support.*
- b) *Implement, establish, and evaluate pilot(s) and ensure sharing/learning across the board.*
- c) *Establish competence and communication strategy and package to repair (train) the organization.*
- d) *Evaluate deliveries against desired situation. Propose the way forward (current situation vs desires situation)*

“

One of the requirements from EPN was that there should be two BUs that sign up and are willing to participate and try out the initiative. Right after the mandate was created, one of the BU was simultaneously engaged while also being exposed to the new local improvement initiative. This led the BU to create the intended framework in accordance with the mandate, that they themselves would use later. The framework would then be taken to the next BU and there they would be exposed to and test the framework for the local improvement initiative. The word framework was not well received and was replaced with **handbook**. The handbook was to be the starting point for an initiative that was to be improved for a BU. The handbook was to be adapted with examples that were aimed at the initiative that was to be improved. The purpose was to make the handbook and its principles easily recognizable, but also easy to familiarize yourself with.

### 1.1.2 LoFo

In addition to what is mentioned above, LoFo aims to change the employee's mindset, so that they think more continuous improvement in the day-to-day work, explicitly for the Norwegian platforms. To accomplish this change management, LoFo created a handbook that was based on 5 principles: understand, standardization, flow, continuous improvement, and leadership, this is shown in Figure 1.

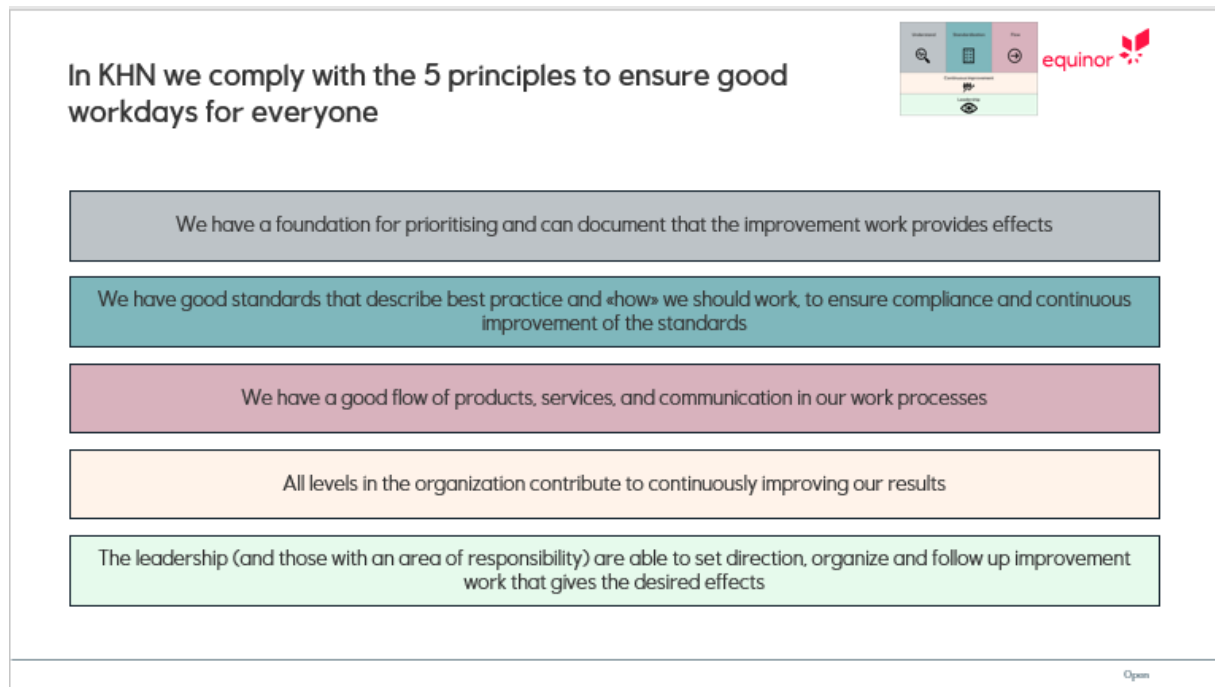


Figure 1: Principles and their description in their respective order from top to bottom: Understand, Standardization, Flow, Continuous Improvement, Leadership.

The establishment of the department and their use of handbook with change management have been reported as a success. The feedback and results have been great and by LoFo's own words:

*“The handbook approach gives a common language and guidelines, and this differs from traditional implementation of improvement initiatives by:*

- a) Local leadership acts faster and more consistent to business challenges (how to is described and trained)*
- b) Faster learning and cross inspiration.*
- c) Better methodology for developing business case for smaller improvement initiatives gives better basis for prioritizing.*
- d) More lasting effects due to bottom up.”*

Equinor's principles and change management have clear inspiration and connection to Lean, it is therefore reasonable to assume that the principles developed in their EPN improvement program were largely based on Lean. Similar to Lean the principles focus on flow and continues improvement. The term Lean is however not used in the initiative's description.

### 1.1.3 LoFo operating model

The LoFo operating model is working as a foundation to achieve the desired goal mentioned in the mandate. Figure 2 shows the LoFo operating model. For more insight into what the operating model involves, see Appendix B.

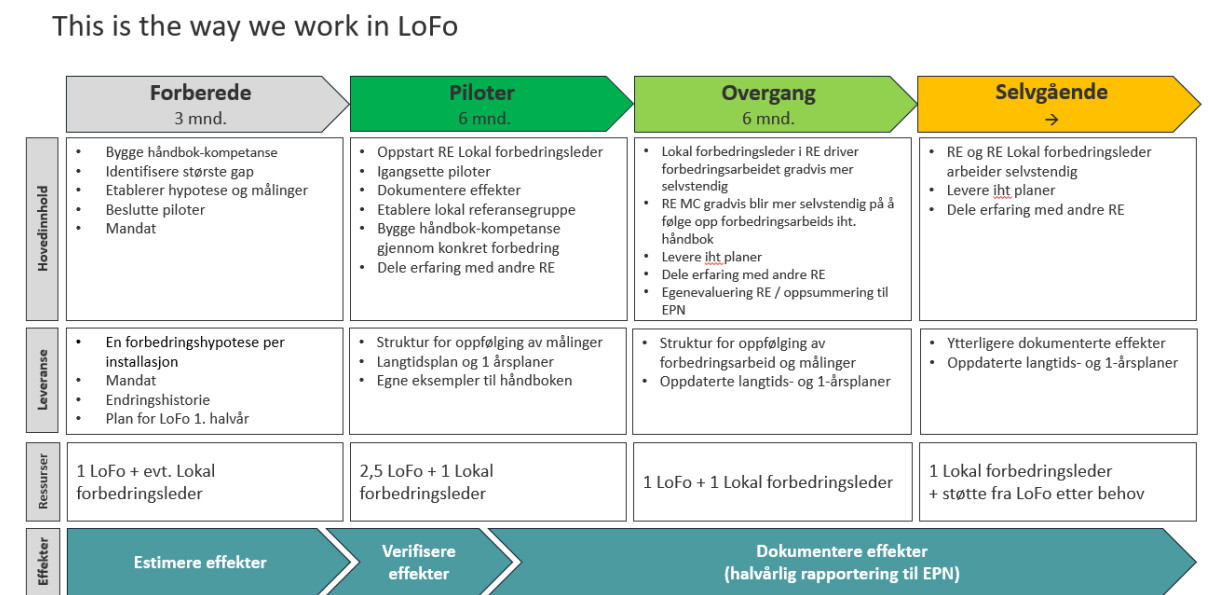


Figure 2: An overview of the operation model with the different phases and their description, resources, and time scheduled.

The first phase, **preparation phase** goes on for 3 months.

During this phase the main content is to build handbook competence and identify the largest gap or need for improvement. Establishes hypothesis and measurements. Determined pilots and create mandate initiative for the pilots. Delivery of this phase consists of making plans for the next half year. Make change history and create one improvement hypothesis for each improvement initiative. The previous mandate is taken forward and laid as a basis for the next phase. In these first phase it is optional to involve the local improvement leader, but one LoFo resource is demanded. Estimating effects is also an essential part of this phase, as it sets the goals to where it is desired to be after the change.

The second phase, **pilots-phase** goes over 6 months.

To begin this phase one local improvement leader must be selected, or else the phase will not be initiated. In addition, 2.5 LoFo resources are initiated in this phase. Here, the company takes a very structured and strategic approach to the selection of the local reference groups for the pilots. Selected are those who will be exposed to the handbook, principles and LoFo operating model. Mainly, it is intended that a few people and only those affected by the change will be involved. Here, building handbook competence continues, as well as involving local groups for skills development in handbook. Experience must be shared with other BUs, and experience from the other BUs must be considered and assessed. The sharing of experience is only meant to be between the local improvement leaders from the BUs. See Appendix B, as it shows what must be completed during an experience sharing meeting. A decision is also taken to verify the estimated desired effects from the previous phase, as well as documenting the effects to a lesser extent. Documenting effects goes over the transition phase and self-sustaining phase as well. The delivery from this phase is to create structure for follow-up of measurement, create one-year plans and long-term plans of the improvement work. As well as continue the handbook and create their own examples for the handbook to be used in the BUs belonging to the improvement initiative that the pilot seeks to improve.

The third phase involves **transition-phase** and goes on for 6 months.

The local improvement manager must drive the improvement work gradually more independently and the BU is also meant to gradually become more independent in following up improvement work in accordance with the handbook. Furthermore, the phase involves delivering according to set plans, sharing experiences with other BUs, and carrying out self-evaluation and summaries to EPN. From the previous phase the long-term and one-year plans are updated, and a structure for following-up improvement work and measurement is created. The number of candidates from the LoFo team will also be reduced to one person and the local improvement leader will remain.

The last phase is **self-driven phase**.

LoFo resource person and the BU continues to work independently from the LoFo department. With the goal to follow-up on established pilots and initiate new improvement pilots. Deliveries in the last phase are additional documented effects and updated long-term and 1-year plans. The local improvement leader continues the work, and can, if necessary, obtain a LoFo resource person for help. It is intended that the BU will with time be



sustainable and manage improvement initiatives on their own. As well as start new improvement initiatives by themselves, with the use of the handbook. Their long-term plan is that there will be no need for local improvement leaders and that the BU operates entirely on its own.

1.2 Handbook’s concepts

The handbook is divided into three levels which follows a hierarchical structure, see Figure 3 below. Figure 3 presents an overview of how the handbook contributes to the various levels.

The handbook will contribute to creating a better workday for everyone! 




Level	How should the handbook contribute to making the workday better?
The top manager/ BU-level 	<ul style="list-style-type: none"> <li>• The handbook gives the leadership a description of how BU will address challenges so that we ensure goal achievement</li> <li>• The handbook gives the leader a description of what responsibility the top leadership has in the improvement work, and what the leadership should do – specifically</li> </ul>
Middle-level manager/ Team-level 	<ul style="list-style-type: none"> <li>• The handbook provides specific descriptions of how one should handle various challenges the middle-level managers/teams may face</li> <li>• The handbook describes how to ensure that the entire department/team contributes to improving the results</li> </ul>
The employee/ Individual level 	<ul style="list-style-type: none"> <li>• The handbook ensures that everyone can contribute to making the workplace better and this help to ensure that the right challenges/obstacles are addressed in a systematic way</li> <li>• The handbook makes it easier for everyone to know which standards are applicable and how to report deviations/improvements to the standards</li> </ul>

Figure 3: Internal description of organizational levels, and the handbooks supposed role across the levels.

In Figure 4, it is shown how they intend to split focus and relevance of the principles for the dedicated levels. As seen the top management would mostly use the principle **understand** and **leadership**. It is required that the top-level set direction and facilitate the improvement work, and this sets the starting point for which principles will be most used. The next level, middle-manager, is supposed to lead the improvement work daily. Therefore, they will have a need to focus on **all** the principles. The third level is the individual level or the employee level. This level is for those who carry out the work. The principle that is intended to be focused the most for this level is **standardization**. The level presents to find which standard is applicable, then ensure its compliance and if it is the best way or best practice to work after. Furthermore, one can come up with input that can improve the current methods or standards they work according to. Figure 4 shows the principles and their description.

.. But everyone has to contribute!




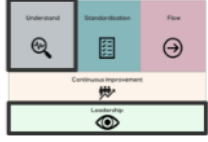




Level	What does this require of us?	Most used principles
The top manager/ BU-level 	<ul style="list-style-type: none"> <li>Set direction and facilitate the improvement work</li> </ul>	
Middle-level manager/ Team-level 	<ul style="list-style-type: none"> <li>Lead the improvement work on a daily basis</li> </ul>	
The employee/ Individual level 	<ul style="list-style-type: none"> <li>Find out which standards apply to you</li> <li>Ensure compliance with the standards and let us know if it is not possible or the smartest way</li> <li>Give input for improvements</li> </ul>	

Figure 4: Handbook – Organizational Levels with the principles

### 1.2.1 Action patterns

For each of the principles it is a set of action patterns (rules in use), see Figure 5. These action patterns describe their general practical use and their purpose. For each action pattern a reason is given of why that action pattern should be used and considered. There is also a checklist to make sure that all the content from the individual action pattern has been executed and considered. In these checklists the theory is also summarized. Furthermore, the checklist has been prepared into a separate document to make it easier for those working with the handbook to be able to cross out which action pattern has been carried out. See Appendix E for an example of the checklist. In addition to the checklist the action pattern is also exemplified so they are related with the initiative to be improved, as well as to explain the theory into practical examples so that those involved have more ownership of the handbook.

## 5 principles and related rules in use

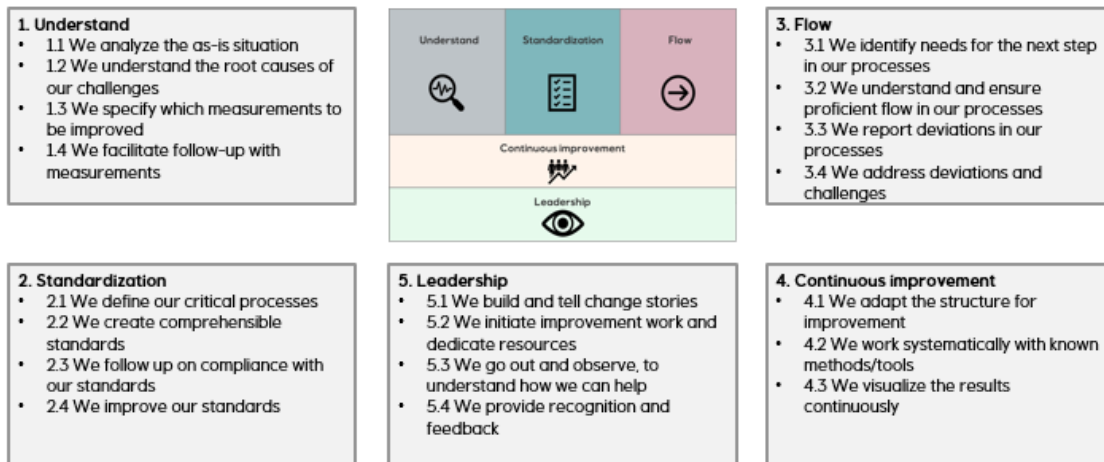


Figure 5: Overview of the principles and their action patterns

### 1.2 Research question and problem relevance

The case laid the foundation for this master thesis. It was therefore not of interest to initially explore whether the initiative was a success. It was however of interest to explore how it ended up being a success. Given that the mandate states that LoFo is the next step, it was informed that there have been previous improvement initiatives in the company. Figure 6 illustrates at which point the researchers got involved in the LoFo process.

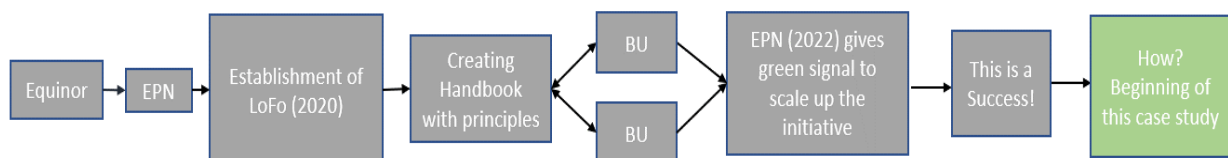


Figure 6: The figure shows the historical points, and the position of this case study

The case gave great insight into LoFo’s systematic approach and use of principles. Their mandate suggested that their success comes from their unique approach. Given how change management is a widely known and important topic in literature it was of great scientific interest to explore this claimed success. Furthermore, the case shows a great deal of focus on the use of the 5 principles. It is therefore also of scientific value to see how the principles use has contributed to this claimed success. Therefore, the research question for this mater thesis is as follows:

*“How do the use of principles lead to successful change management”*

## 2.0 Theoretical framework

To be able to answer the research question the researchers have selected relevant theories. The theories described are seen in the light of the research case and research question of this thesis. The theoretical framework will contribute to understanding the thesis topic, but it will also be a contributor when collecting data. The chapter will begin with an introduction to change management as it is one of the cornerstones of the thesis' topic, moving on to Taylorism, Lewin, Kotter, as well as covering leadership versus management. Then followed by Lean, principles, empowerment and then change fatigue.

Taylorism is selected to understand its early contribution to change management, and the use of management. Lewin's three-step model to change is drawn in, with regard to case description but his model has also been a contributor (Burnes, 2020, p. 33), or a template (Clegg et al., 2011, p. 371), to the descendants of recent OCM theories (Rosenbaum et al., 2018). Even regarded as the classic or fundamental approach to managing change (Cummings et al., 2016, p. 33), in addition to being embraced as a common framework for comprehending the organizational change process (By, 2005, p. 374). Therefore, leading to be of value to understand the case company's progress of change management and their model. However, the Lewin-model has been criticized for being too "simple" (Burnes, 2020, p. 32; Cummings et al., 2016, p. 33; Rosenbaum et al., 2018, p. 288). Hence, proceeding with Kotter's Eight-Stage process for successful organizational transformation to be able to understand change management more thoroughly and see it from a more practical perspective (By, 2005, pp. 375-376). Rosenbaum et al. (2018) has already carried out a study by drawing parallels between Lewin's model and Kotter's model and By (2005) has also carried out similar study where he compares Kotter with other OCM theories. Thus, these theories together will be a good starting point for moving forward with understanding the business organization with Lewin and rely on Kotter for a more practical understanding. Lean theory was largely based on Modig and Åhlström (2012), Zhou (2016) and James (2006), due to their research showing the complicated process of implementing Lean. Principles theory was based on largely the work of Skaar et al. (2020), with a connection between principles and Lean being exemplified by Womack and Jones (1996) and Liker (2004). Covey (2009) was used to explore the connection between principles and empowerment, this was made relevant due to the practical orientation described by Skaar et al. (2020) in connection to the case. Vidal (2007) research was used to further explore empowerment in practice and its relation to satisfaction of

workers. Finally, the work of Bernerth et al. (2011) and de Vries and de Vries (2023) was used to explore the issue of change fatigue, as it was known that the company had seen previous improvement initiatives.

## 2.1 Changing Management

Change management is an essential process for organizations that want to adapt to new opportunities and challenges. It entails organizing, carrying out, and keeping track of modifications to a company's systems, structure, and processes (Hussain et al., 2018).

### 2.1.1 Taylorism

Fredrik Winslow Taylor was one of the earliest forefathers of scientific management. His book “The principles of Scientific management, 1911” can be considered a classic in management and organizational literature. There he presents how the principles for industry and production companies would benefit the company by adopting division of labor and fixed work assignments (Kolstad & Halvorsen, 2005; Taylor, 1911). He goes on to say that such achievement can be accomplished through methodical division, measurement, standardization of work and through systematic and scientific knowledge (Kolstad & Halvorsen, 2005) and eliminate all type of sources that causes waste (Sangolt, 2006, p. 14). *“The principal object of management should be to secure the maximum prosperity for the employer, coupled with the maximum prosperity for each employee.”* (Taylor, 1911, as cited in Chapter 1: Fundamentals of scientific management). *“Maximum prosperity can exist only as the result of maximum productivity”* (Taylor, 1911, as cited in Chapter 1: Fundamentals of scientific management). He inspired and laid the foundation for optimization for the mass production timeline with his work and method. The overall goal was to create human work machines (Sangolt, 2006, p. 14).

*“In the past the man has been first; in the future the system must be first. This in no sense, however, implies that great men are not needed. On the contrary, the first object of any good system must be that of developing first-class men; and under systematic management the best man rises to the top more certainly and more rapidly than ever before”* (Taylor, 1911, as cited in Introduction).

Taylor wanted workers to be efficient mechanisms that were assigned only to their specific task and purposes (Sangolt, 2006). In other words, to standardize the workers so that they

were the best and most useful at only one task or job. To develop one best standardized task, one should use scientific methods. The management should directly supervise employees, as well as having their payment based on their performance. Leading to higher pay to workers that were most efficient and got most done (Kolstad & Halvorsen, 2005; Sangolt, 2006). F. Taylor believed that the only way the workers could perform and desire to work according to his principles and method was to offer incentive pay. The management was to pay an extra salary on top of the basic salary in accordance with measured performance where the best performer got the most (Kolstad & Halvorsen, 2005; Sangolt, 2006).

Managers were the designated ones who were to divide up the work process and determine the best way to perform work tasks, look for improvements, as well as ensure that workers performed work in a systematic and standardized way (Sangolt, 2006; Taylor, 1911). A key element is that the organization and planning of work tasks and their execution should have a clear distinction (Sangolt, 2006).

The superiors were to collect and systematize knowledge, and relevant information from all sides of the work operation and production process. Together with the gathered information and by using analyzing tools, the management must determine the most efficient way the worker can be instructed to best perform the task. In accordance with the working methods and standards for time management established. Management should also standardize and simplify the work task as much as possible (Sangolt, 2006; Taylor, 1911).

Although Taylorism became a trailblazer in its time and was recognized for standardization of work, and improving efficiency and productivity (Sangolt, 2006, p. 14), it was also criticized for several reasons. It was criticized for its focus on too much standardization of work tasks and for being dehumanizing (Blake & Moseley, 2010; Wagner-Tsukamoto, 2008). Moreover, it was criticized for neglecting human factors and that it led to loss of motivation and job satisfaction, as it connected salary to be the most or only motivational factor for the employees (Blake & Moseley, 2010; Grachev & Rakitsky, 2013, p. 518; Uddin & Hossain, 2015). Taylorism has had its share of criticism against it, and this criticism caused other theories to be developed by researchers and interns. Souza (n.a) mentions that the classical management model mainly emerged out of the contributions of F. W. Taylor and H. Ford (Souza, n.a). While others suggest that Taylorism and the criticism of it contributed to the emergence of Fordism, Toyotism and Lean (Stamm et al., 2009; Stewart, 2020).

## 2.2 Kurt Lewin

The second pioneer in the field of change management is Kurt Lewin. He is famous for his model of three stages of change: unfreezing, changing, and refreezing (Lewin, 1947). The three-step model of change is a widely used and respected framework for comprehending the organizational change (Burnes, 2020; Hussain et al., 2018; Rosenbaum et al., 2018). An article written by Rosenbaum et al. (2018) illuminates how the foundational element of Lewis has contributed to the ongoing research on organizational change management. Moreover, they compare different organizational change management models that have been introduced through the years. Rosenbaum et al. (2018) conclude that the research for last 50+ years has not fundamentally developed anything “new” and that the research contributed to assess how the ongoing application can be optimized into the future (Rosenbaum et al., 2018, p. 288). Furthermore, the researchers draw many parallels and direct links of the widely applied organization change management (OCM) from the past time (Rosenbaum et al., 2018, p. 299).

### 2.2.1 Kurt Lewin's 3-Step Model of Change

In the first stage, unfreezing, the current state of an organization is disrupted and the need for change is established (Lewin, 1947, pp. 34-35). At this stage, individuals are encouraged to let go of their values, attitudes and behaviors while also raising awareness of the need for change (Lewin, 1947, p. 9). Lewin submits that unfreezing is a crucial step in overcoming resistance and that people are typically averse to change (Burnes, 2020; Lewin, 1947)

In the second stage, change, the organization replaces its previous habits, attitudes, and values with new ones. New systems, methods, and procedures must be found and put into place so that they support the new aims and objectives. Lewin underlines that in order to ensure that the transformation is successful, this stage necessitates a significant investment in resources and time (Burnes, 2020; Lewin, 1947; Rosenbaum et al., 2018).

The final stage, refreezing, here the new behaviors, attitudes, practice, and values should be the new “status quo”. The “new frozen” state with its changes and additions should be strengthened and supported using informal and formal means, to ensure that the changes are embedded in the organization’s culture. Individuals should also be encouraged to apply the new changes, behaviors, attitudes, knowledge and pass on the new values that may have been

created through the three-step model of change (Burnes, 2020; Lewin, 1947; Rosenbaum et al., 2018).

Lewin's had major critics raised against his work and his three-step model (Burnes, 2004a, p. 977). *"The key ones are that his work: assumed organizations operate in a stable state; was only suitable for small-scale change projects; ignored organizational power and politics; and was top-down and management-driven"* (Burnes, 2004a, p. 977). Lewin's work has also been criticized for presenting something that is very complicated in the moderns' environments to be presented as something "simple", and even that the model created was not intended for change management or change agent (Cummings et al., 2016, p. 38). Furthermore, does Cummings et al. (2016)... argue that he never developed such a model, and it took form after his death" (Cummings et al., 2016, p. 33). Clegg et al. (2005: 376), as cited in Cummings et al. (2016, p. 34) expresses that the model is a re-packaging of Taylor's (1911) concept of scientific management. Clegg et al. (2011, p. 371) also indicates that the model has become a temple for most change programs. On the other hand, the model has also been criticized for being too simple and that it can easily be compared with other OCM theories (Cummings et al., 2016, p. 33). These critiques have been defended by many. Burnes is one of those who have actively defended Lewin's work (Burnes, 2004a, 2020; Cummings et al., 2016). Burnes (2020) presents that Lewin's model was intended to be used for change management, even though much of the work was based on field theory and concerns related to social psychology (Burnes, 2004a, pp. 995-998). Burnes (2004a, 2004b, 2020) also refers to that Lewin findings, works and the aspects are not taken into account in today's assessments, such as action research, field theory, social science and social change. Cummings et al. (2016) also point out that Lewin's other works, three pillars, should also be considered. Usually only the model itself is most often drawn forward and taken as the starting point. Still, it appears that other change management theories, practices and models can have had heritage, inspiration, directly or even subconsciously guided their work based on Lewin's (Cummings et al., 2016, pp. 49-50; Rosenbaum et al., 2018).

### 2.3 Kotter's eight stage process.

Kotter developed his model after researching 100 organizations that underwent change so that lessons can be learned and retrieved. These lessons were then converted into a procedural approach to managing the process and the eight-stage model was created (Kotter, 1996, p.



290; Rosenbaum et al., 2018, p. 290). The model draws on various concepts and theories from social psychology, organizational behavior, and management (Cummings et al., 2016, pp. 49-50; Kotter, 1996; Rosenbaum et al., 2018). Kotter (1996) points out that following his model would lead to successful change management. However, Appelbaum et al. (2012) suggest that applying Kotter’s model would likely improve the chances of success, but the model should not be considered as something that guarantees success.

Kotter’s eight-stage method of OCM is also compared with Lewin model in the article of Rosenbaum et al. (2018), see Table 1 below.

*Table 1: Shows similarities drawn between Lewin’s three step model and Kotter eight stage model*

<b>Lewin three-step model (Lewin, 1947; Rosenbaum et al., 2018, p. 292)</b>	<b>John Kotter eight stage model (Kotter, 1996)</b>
Unfreezing:	Establishing a sense of urgency (1)
	Creating a guiding coalition (2)
	Develop and communicate a clear shared vision (3) and (4) can be seen as components of the unfreezing process considering Lewin (1947) focus on “ <i>open the shell of complacency</i> ” (Lewin, 1947a, p.463, as cited in Rosenbaum et al., 2018, p. 292).
Change, also referred as moving (Rosenbaum et al., 2018, p. 289)	Communicate (4)
	Empowerment (5)
	Short-term wins (6)
Refreezing:	Consolidating (7)
	Institutionalizing (8)

Even Kotter (1996, p. 22) himself points out that the first four steps in the transformation process is to help defrost a hardened status quo. Followed by phase five to seven to introduce the new principles, referring to the **change** in Lewin’s model. The rest of the phases is to secure the changes into the corporate culture and make it stick. Even though phase four **communication** is introduced as both in freezing and change phases of Lewin’s model, it is

pointed out in the article to Rosenbaum et al. (2018) that the communication should be taken into both of Lewin's phases. Communication is essential and is thereby a part of both steps for the change to be successful.

### 2.3.1 Kotter's eight-stage process of Creating Major Change

#### Step 1: Establishing a sense of urgency.

The phase implies creating a sense of urgency. Establishing a sense of urgency is crucial for gaining cooperation for the change. Showing and creating a reason and meaning for the change that will lead individuals to be able to join a change, but also lead the change. Leaning thereby toward employees wanting and carrying out a change or improvement for the company's future and interest. Kotter (1996, p. 40) explains removing sources of complacency should be considered and carried out before presenting an urgency of change. With low urgency, it can be challenging to even put together a group that is interested in working on the change initiative. Given that there is high complacency, it will also be difficult to put together a group that has the credibility and power of influencing, guiding or even convincing individuals for the change vision. The point of this phase is to communicate and create an urgency for a need for change on the individual level. If the individuals do not feel a sense of urgency, it will not matter how hard you push, threaten or work. The momentum of change will die eventually regardless, before reaching the finish line. People will find excuses and thousands of other ways to withhold cooperating from processes that they think are the wrong way or unnecessary (Kotter, 1996, pp. 35-37).

#### Step 2: Creating a guiding coalition.

(Kotter, 1996) indicates that sometimes only one person gets the credit for change, but a single individual cannot transform a company so easily. In fact, accomplishing a major change requires a powerful force to sustain the process and drive the company through the change. Therefore, it is important to prepare a team that can pull off this powerful change. The team should communicate and develop the right vision, eliminate key obstacles, prepare, lead, manage, celebrate short terms wins and anchor new approaches deep in the organization. All these activities to be done by a single individual seems unlikely (Kotter, 1996, pp. 51-54). A strong coalition is always needed, and they should have shared objective, trust, and the right composition (Kotter, 1996).

### Step 3: Develop a Vision and Strategy.

*“Vision refers to a picture of the future with some implicit or explicit commentary on why people should strive to create that future.”* (Kotter, 1996, p. 68).

When it comes to the change process, vision clarifies three important purposes.

1. Clarifies the general direction for change and creates a mutual understanding by simplifying different decisions, meanings, and ideas.
2. Motivated people to act in the right direction, even if they must go against personal interest.
3. Coordinate the action of different people, in a fast and efficient way.

Clarifying the direction of change is essential. Because people can disagree in the direction, get confused or be in doubt of the need for change (Kotter, 1996, pp. 68-69). Clear vision can help make the right decisions by assessing whether they are in line with the vision. Start or end projects that do not contribute to the vision. Moreover, a clear vision can contribute to overcoming the personal challenges involved during a change process. Such as resistance, learning new skills and behavior, getting out of the comfort zone, or getting through difficult and stressful days. Good vision can contribute to overcoming these circumstances (Kotter, 1996, pp. 70-71).

### Stage 4: Communicate the change vision.

Vision is needed for a successful change, and therefore communication is equally necessary to make the vision and change known to the people. Communication within the company should be done in many different vehicles and paths. Message coming from different directions sits better with the individual. Clear messages should be used, and removal of useless information should be a priority. Unnecessary information that clogs expensive channels of communication should be limited and a clear purpose for any information should be determined. The author points out much of traditional communication can be filler, ego boosts or outright propaganda (Kotter, 1996, pp. 92-94). Messages should be repeated until they sit deep down inside the recipient's consciousness. Creating a vision takes time, effort and can even cause pain for an individual. They might have to craft something that goes against their beliefs, work ethic or personal interest (Kotter, 1996, pp. 87-88). *“Walk the talk or lead by example”* as cited in (Kotter, 1996, p. 95). This type of behavior is one of the most powerful ways of communicating in a new direction. When the top level not only communicates but also leads as an example, it can make employees grasp the direction better (Kotter, 1996, p. 95).

#### Stage 5: Empowering Broad-based action

Empowerment, or as Kotter showcases the idea of helping people become more powerful is important (Kotter, 1996, p. 101). Powerful people can lead them to take initiative and contribute to help implement the change, while people with low power can't contribute or want to contribute but have limited power and therefore can't follow through. Increasing people's empowerment would benefit the companies' characteristics to implement a change. Completing phase one to four successfully does a great deal to empower individuals (Kotter, 1996, p. 102). Empowering or equipping people with resources and power can contribute and motivate them towards implementing the change. Later in the theory chapter, empowerment in relation to the principles will be addressed.

#### Stage 6: Generation Short term wins

The generation of short-term wins not only motivates employees, but also shows that the organization is moving in the correct direction. Milestone is getting achieved and result and effect are visible for the employees. This is clearly shown by celebrating wins that come from the change effort. A study done by Kotter of three cases, where first case had no short-term wins, and second one had short term wins at about fourteen month and the last one had short term wins at fourteen and twenty-six months, see Figure 7 below. The influence on the company for positive longer-lasting effect was most notable in the last case. They also had the biggest business transformation and kept going even after three years. Role of short-term wins is many, and as mentioned from Kotter can lead to reinforcement, showcasing people that the sacrifices made are paying off, give them a small break from the moment for relaxation because things are going fine, re-charge the person's batteries before a new surge is on its way and process of short-term wins can help demonstrate that vision as achievable. Kotter goes on to show even more examples of the effect of having short-term wins, but the essence for short term wins is that it creates positivity and motivation on the individual, and positive atmosphere in the company (Kotter, 1996, pp. 118-126). Moreover, it can help keep the momentum going, but having a too big of a celebration can also kill the sense of urgency. Misinterpretation a big celebration can present the end of the change and the necessity of the sense of urgency (Kotter, 1996, pp. 131-133).

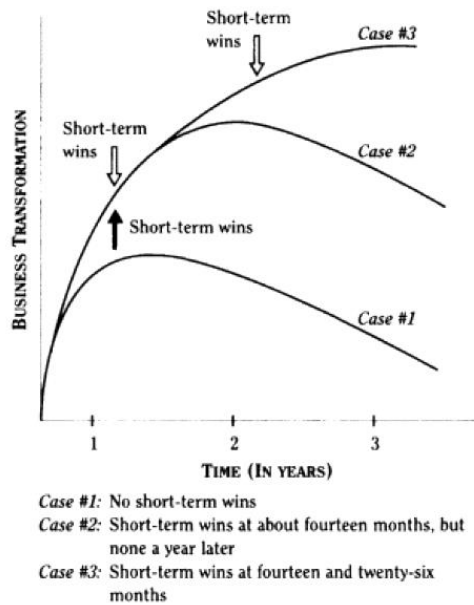


Figure 7: The influence of Short-Term Wins on Business Transformation (Kotter, 1996, p. 120)

Stage 7: Consolidation gains and producing more change.

In this phase it implies using increased credibility to change all systems, structure and policies that don't fit together and don't fill the transformation vision. Promoting, developing, and hiring people who can implement the change vision, should be a priority for the company. Furthermore, one should revive the process with new projects, as well as consider new themes and agents of change. Some element of fails is that having too many projects simultaneously would lead to failure as humans have limited capacity to work on things simultaneously (Kotter, 1996, p. 141). Leaders and management should have delegated projects and fixed tasks, which would lead to cooperation and coordination between the project and the staff. Another valuable factor is leaders or staff that are willing to think long term and continue the change by themselves. Many can fall off, and even change jobs, as well as new employees may not have the same sense of momentum nor something to anchor the change to. New employees might simply not have the motivation, mindset, dedication or even trust to continue the change further. Leaders or management that have passion, drive, and mindset, don't so easily declare victory, give up or move on. Instead, they launch and continue with activities and projects that are necessary to do and accomplish in this phase, so the new practices are grounded in the organization's culture (Kotter, 1996, pp. 140-144).

Stage 8: Anchoring new approaches in the culture.

This phase concerns creating better performance through customer – productivity - oriented behavior, more and better leadership, and more effective management (Kotter, 1996, p. 21).

Some challenges that can be presented in this phase is that the change team works continuously to reinforce the new practice and anchor it in the culture that overwhelms the cultural influence and lead to a subtle conflict that is barely noticeable. As well as some of the changes and new practice can be incompatible with the culture. Therefore, when the top division and transformation program ends, the culture will reassert itself. For instance, if little or no effort is made to help the new practice grow deep roots, or make it sink down deep into the culture or not make it strong enough to replace it. It will make shallows roots for the new practice to commit in the culture (Kotter, 1996, pp. 146-147). Kotter (1996) refers to the expression shallow roots, where an organization must constantly and almost daily be reminded, pushed on by either management or the team responsible for the change. As soon as the attention goes away, organization starts going back to the old practice, the topic of change disappears, and the change would eventually die out. This leads to the organization not being able to anchor the change to itself or the organizational culture.

Another consideration which should be looked at is articulating the connections between new behaviors and organizational succession. As well as developing means to ensure leadership development and succession. These would contribute to making the new practice and new change to grow deep into the culture's roots (Kotter, 1996).

## 2.4 Leadership vs. Management

Despite being used as synonymous terms from different people, management and leadership are two distinct functions (Algahtani, 2014), and complementary systems of action (Kotter, 2001, p. 3). Algahtani (2014) carried out a literature study that examined if leadership and management are different. He started with 25,370 articles, which were narrowed down to 200 articles, and then to 37 articles that were considered.

His findings towards management are that they operate mainly with a focus on control, maintaining a well-functioning workplace and utilizing resources efficiently. Moreover, management skills are used to build, plan, and direct organizational to accomplish mission and goals (Algahtani, 2014).

The leadership skills involve focusing on potential change by establishing direction, aligning people, and inspiring and motivating. Furthermore, leadership should cope with new

challenges, and transform organizations in order to achieve a competitive advantage in the marketplace (Algahtani, 2014).

Kotter also mentions that management characteristics consist of plans and budgets, organizing and staffing, controlling, problems solving, as well monitoring result against plan, and produce orders. Management should produce a degree of predictability, and they should consistency produce short-term result expected by the stakeholders (Kotter, 1996, p. 26).

While leadership's characteristic is establishing direction, such as vision of the future, aligning people, by communicating vision and strategy, motivate and inspire to energize people to overcome obstacles and try to satisfy human needs. Leadership is also about producing positive, or extreme, and sometimes dramatic changes. (Kotter, 1996, p. 26).

Kotter place particular emphasis on that “.... *Leadership defines what the future should look like, aligns people with that vision, and inspires them to make it happen despite the obstacles*” (Kotter, 1996, p. 25).

Figure 8 shows a compilation of management and leadership can be seen, together with areas dedicated to them, where this is again in the context of vision, strategies, plans and budgets.

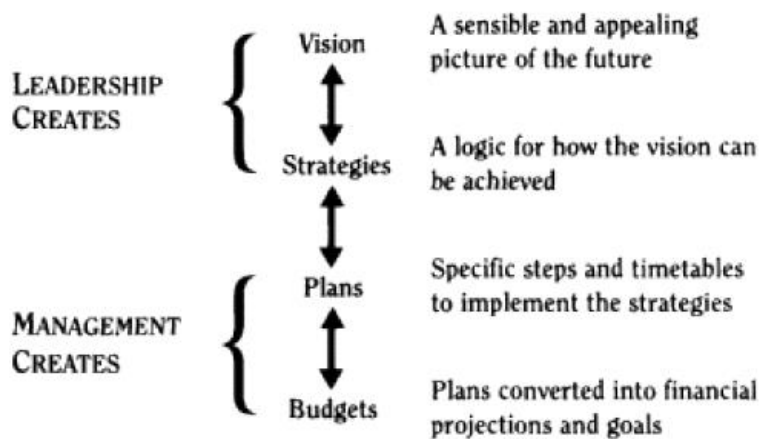


Figure 8: The Relationship of Vision, Strategies, Plan, and Budgets (Kotter, 1996, p. 71)

Kotter then goes on to show that vision, in itself, is an element in a larger system where strategies, plans and budgets are also involved. Although vision is a simple factor in a larger system, it is still by far the most important factor.

*“Without vision, strategy making can be much more contentious activity and budgeting can dissolve into a mindless exercise of taking last year’s number and changing them 5 percent one way or the other. Even more so, without a good vision, a clever strategy or a logical plan can rarely inspire the kind of action needed to produce major changes”* (Kotter, 1996, p. 71).

## 2.5 Lean

Lean is a well-known term used for a business strategy that aims to reduce waste, time and cost, and enhance the overall organizational effectiveness (Zhou, 2016). The origin of Lean can be attributed to the Japanese automobile company Toyota and their introduction of Lean in Toyota Production System (TPS) (Krafcik, 1988). Lean has since then seen a wider implementation among modern day companies due to increased energy and material costs, customer requirements and harsher global competition (Zhou, 2016). Companies have in other words used Lean to adapt to the new challenges they face. Lean comes with many different tools that can be used in its implementation it is however argued that that due to Lean's eastern origin it can often be challenging to implement Lean to introduce Lean to a western culture (James, 2006). This is further supported by Modig and Åhlström (2012) in their book “This is Lean” they describe a visit by a western scientist to Toyota, where the scientist was described by one of the Japanese top managers as naive. The top manager points out that it is typical for foreigners to come to Toyota, describe and develop tools based on what they had seen, but he points out that it is what they cannot see, that is even more important. Toyota Production System has an internal training program that takes 25 years to complete (Modig & Åhlström, 2012, pp. 126-144). The essence of Lean, according to Modig and Åhlström (2012) is *“long term vision, continuous improvement, target the source of the problem, respect others, and teamwork”* according to (Modig & Åhlström, 2012, p. 80). Another core element of Lean is to see the bigger picture or wholeness. Not only is this essential in Lean itself, but it is also essential in the implementation of Lean (Modig & Åhlström, 2012, pp. 126-144). The idea of wholeness is described by James (2006) and refers to a companywide transformation towards Lean. James (2006) insists that a whole transformation of the organization is necessary to achieve true leanness (James, 2006). It is therefore vital that the implementation process and use of Lean takes culture, strategy, and value into account. One must be able to explain how these elements are inter-connected and aligned in order to achieve success with the implementation as a whole (James, 2006).



Difficulties of implementing Lean is therefore often not in the tools or technology but rather miss management, lack of understanding and lack of commitment within the management. Challenges in implementation of Lean remain to be largely attributed to lack of understanding of the philosophy and lack of support from upper management, rather than the tools themselves (Zhou, 2016). Lean requires a holistic approach and a wide change of culture while new knowledge is applied, managements inability to adapt to these changes is often regarded as the number one reason for failure of Lean implementation. It is further suggested in the literature that lean should be implemented across all levels due to employes being a key part of Leans implementation and effectiveness (Zhou, 2016).

## 2.6 Principles

The idea of principles isn't new, one can argue that principles go way back in human history and a number of principles on warfare are still relevant today (Skaar et al., 2020). As far back as Art of War one can argue that Sun Tzu laid out pillars for the “house” of war, and these principles are still respected to this day by military and is even on the required reading list at the U.S. Military Academy at West Point (Tzu, 2016).

Skaar et al. (2020) presents the idea that principles are a way to bridge theory and practice. Principles are more action oriented than just pure theory, yet they are not as concrete in their description as practices, leaving room for interpretation. Principles are also more flexible as they can be implemented more or less effectively in different situations, making them adaptable and relevant across a multitude of different situations. Principles therefore function as a more adaptive practice, since it can be implemented across a variety of situations. Skaar et al. (2020) does argue however, that principles are still limited to their domain, suggesting that lean principles created for the automotive industry might not be directly applicable in construction. This does show the necessity to adapt principles as well as relevant theory to a given domain and this is why Lean as a whole has seen different iterations across different industries implementing their philosophy. The idea of adapting principles relevant for a given organization is also supported by Liker (2004). Liker (2004) with his 14 Lean principles points out that they are a good starting point for Lean, but any given organization needs to adapt their own. Liker (2004) was clear in that Lean is not about imitating the tools of Toyota but to develop your own. Principles themselves are action-oriented, functioning as a set of guidelines. It is therefore a fundamental part of principles to motivate change and

improvement of a current situation. It is very common to use practice-based principles to describe Lean, since it carries a western interpretation of a very much eastern philosophy. Examples of such principles are the 14 principles created by Liker (2004) and five principles of Lean thinking presented by Womack and Jones (1996). Skaar et al. (2020) further suggests that principles should not necessarily have a pre-determined sequence and that some of the strongest features of principles is that they can be combined together to yield flexibility, this is one of the core strengths of principles. Sequencing principles can often become methods and although they can be easier to understand having a clear mindset between them, they can lose one of their core strengths of flexibility.

Furthermore, any implication of principles in a given domain must take account of culture. In addition to principles varying depending on domain they should also vary based on culture, principles that are applied to Nordic countries might function differently in other countries such as Japan or USA (Skaar et al., 2020). This further strengthens the idea that direct implementation of Lean in western culture can be troublesome if the implementation does not take into account the cultural differences between Japan and western cultures. Skaar et al. (2020) concludes by stating that some of the power that principles hold is to function as guides they are non-conclusive and therefore call for reflection, interpretation and encourages people to reason and think for themselves.

## 2.7 Empowerment through principles

Empowerment can be described as giving increased responsibility, decision making and abilities to your front-line workers (Vidal, 2007). As described by Skaar et al. (2020), principles are supposed to function as a guide, and not a set of rules. Leaving room for interpretation and through this interpretation, it gives the user responsibility and decision making, since it is their interpretation. Under these circumstances the principles are believed to empower the individual. Further in this chapter the researcher will discuss how principles are related to empowerment. For this purpose, the researchers have leaned on the theory presented by S.R. Covey. It is however important to note that Covey's principles are fundamental and are not related to any specific business or industry nor is it related to Lean. The researchers will however only use Covey's Principle-Centered Leadership to draw the relation between principles and empowerment on a general level and therefore not delve deep into Covey's principles themselves. For any application of empowerment, the researchers will

lean more on Vidal (2007) and his research. Covey (2009) defines empowerment through principles with the following proverb, “*Give a man a fish, and you feed him for a day. Teach him how to fish, and you feed him for a lifetime*” Covey (2009, p. 256). Covey (2009, pp. 23-25) presents the idea that real empowerment is present when the workers understand their work but also the principles their work is based on. Covey defines the practice as *to do* and principles as *why to do*, he further puts an emphasis of the principles, claiming that if a worker understands the principles he will be empowered to act on his own and therefore be more independent (Covey, 2009, pp. 23-25). This fits well with MacDuffie (1995) core description of Lean, where he emphasizes the need for decentralization so the workers can be more independent. Covey (2009, pp. 23-25) insists that in order to see success in an organization, the principles and practice must be understood on all the levels of the organization. The fundamental idea of principles is therefore to have an idea penetrate all levels of an organization to achieve a common understanding of *why* the work is done (Covey, 2009, pp. 23-25). Principles then function as a tool of empowerment, so the workers become more independent and adaptive. They will then be more likely to adapt to rapid change and will need less guidance from the upper management, creating a more flexible workforce (Covey, 2009, pp. 23-25). In order to empower your workforce in practice and not only theoretically, there also needs to be a level of trust between the management and the workforce (Covey, 2009). Covey (2009) suggests that if trust is not present between the workforce and the management, then empowerment of the workforce is the wrong approach, and the alternative of control is more fitting. Trust is fundamental to empowerment, on the management level if you have trust in the workers, the knowledge they provide is superior to any measurement. A low-trust organization must rely on control (Covey, 2009). Without a high level of trust, true empowerment cannot be established nor sustained, and such trust is a long process to develop and there is no quick fix (Covey, 2009).

### 2.7.1 Empowerment in practice

Evidence of empowerment shows that empowerment is a key feature of Lean and any high-performance work organizations, there are however some critiques of said empowerment. Matt Vidal argues that there is insufficient evidence that empowerment has any clear connection with job satisfaction (Vidal, 2007). Vidal (2007) suggests in his finding that the psychological aspect in people is hard to change and in reality, it largely depends on what kind of person is exposed to empowerment. Vidal points out in one of his interviews a worker that describes how workers react to change and empowerment is largely dictated by that

workers attitude. For example, a seasoned worker who has been with the company for a while tends to lean towards doing things a specific way, because that is what he is used to. There is no amount of empowerment or change that will make him do anything different, because that is what he has done for so long, so that is what he wishes to keep doing. This type of worker has no interest in seeing the larger picture, they simply wait for something to arrive with them, where they can do the same job, they have always done, and pass it on further down the production line (Vidal, 2007). This does not mean however that this worker does a poor job, it simply suggests that a worker with such an attitude can be hard teach new things, as *“they don’t feel they should learn anything new”* (Vidal, 2007, p. 258). Vidal (2007) further explores how a worker's motivation, siting that this particular individual was far more interested in working on one specific task and do it very well rather than being introduce to a number of tasks in order to get a view of the entire process (Vidal, 2007, p. 261). These findings contradict MacDuffie (1995) on cross training and job rotation in order to get a larger sense of the scope of work, to spark empowerment. On the other hand, Vidal encounters workers that are happy to share ideas but there they have been unsatisfied with the way things went, claiming that nobody listened before and only started listening when things got really bad, and they had no choice (Vidal, 2007, p. 262). Vidal’s research shows work satisfaction to be a multidimensional topic and is not clearly decided by just empowerment (Vidal, 2007, p. 265).

However, although Vidal points out that empowerment can lead to good results within the work force due to the workers ability to adapt, he also found evidence of increased responsibility leading to unwanted increased stress level and dissatisfaction (Vidal, 2007, p. 266), which was a byproduct of attempting to empower the workers by giving them more responsibility. Vidal points out that Mcduffie’s core idea of Lean is essentially a decentralization, where a more flexible work force can make dictions and remove any buffers, leading to more efficient and productive advancements of continuous improvement (kaizen) (Vidal, 2007, p. 266). Vidal (2007) further points out, however, that smaller, incremental changes might have the benefit of bypassing a potential widespread stress inducing dissatisfaction of larger significant changes (Vidal, 2007, p. 266). Through his empirical study Vidal found that 3 out of 4 union plants resisted new high-involvement systems and the final 1 out of 4 was highly skeptical although not outright resisting (Vidal, 2007, p. 268). Vidal proceeds to point out that one of the plants had an early resistance of 70%, this was attributed to a history of management trying to make changes to reorganize which were ultimately

aborted. In one of Vidal's findings a manager stated that in order to get the workforce on your side it was absolutely necessary to convince a good number of informal leaders (Vidal, 2007, p. 268). Overall, Vidal points out that it is very much up to the workers' ability to adapt and in most cases, they do, but to different levels and degrees, finding no clear way as to how to measure it. It is simply referred to as a question of attitude (Vidal, 2007, pp. 259-265).

## 2.8 Change fatigue

Organizations that go through multiple changes can experience change fatigue amongst their employers (Bernerth et al., 2011). It is important to note that Bernerth et al. (2011) makes a clear distinction between change fatigue and change cynicism. Change fatigue is what an employee feels when they experience frequent change and can often be attributed to employee's negative experience with past changes. Change cynicism is an attitude that is found in employees that are pessimistic about change and the likelihood of success. Bernerth et al. (2011) presents evidence for change fatigue leading to reduced employee satisfaction.

In this way Vidal (2007) and Bernerth et al. (2011) both acknowledge satisfaction as a vital factor. Vidal (2007) concluded with his findings that it is largely up to a person's attitude, he did however, believe that a large portion of people had a strong ability to adapt when they felt it was necessary. Bernerth et al. (2011) states that change fatigue affects employee's ability to adapt, which will lead to inevitable failure in any implemented change.

Another paper discussing change fatigue is de Vries and de Vries (2023). Change fatigue is described here as a form of resistance that is based on previous experiences with organizational changes. Change should therefore be limited, and drastic changes should be avoided, if necessary. Furthermore, de Vries and de Vries (2023) puts an emphasis on reducing uncertainty, as that is one of the main factors to change fatigue, preferably by communication.

de Vries and de Vries (2023) presents older academic work on change and resistance to change. It describes a general assumption that resistance comes down to just self-interest and general cynicism to change, and as such must be eliminated or minimized, to the point of even having the managers use coercive methods. de Vries and de Vries (2023) argues against these assumptions, making the connection between previous experiences with change rather than

just attributing the resistance to cynicism and fear. de Vries and de Vries (2023) further makes the connection between change fatigue and exhaustion.

## 3.0 Method

In this chapter the researchers explain the methodological choices that have been made and carried out during the research. These choices will give an overall view of data collection and what impact it has on the quality of this research paper. The chapter also describes the methods used to attempt to reduce bias in the empirical data that was obtained. As well as which methods and choices have been used to ensure that the obtained empirical evidence is credible. Assessments, analyses, and processes will also be presented in this chapter, as well as which choices have been made regarding the thesis' further research.

Method from the Greek word *methodos* Johannessen et al. (2017, p. 25) refers to social science as following a specific path towards a goal. The most important characteristic of the method is that it creates systematicity, thoroughness and openness. In the big picture, it is about collecting, analyzing, and interpreting the data, and this is a central part of empirical research (Johannessen et al., 2017, p. 25).

### 3.1 Research design

When it comes to choosing a research design, researchers should reason and ask themselves fundamental questions to ensure that the right methods are used in relation to the problem and the research. Researchers must determine between extensive design or intensive design, qualitative or quantitative or mixed methods, as well as time perspective and the main design of the paper (Busch, 2021, p. 52). Busch (2021, p. 29) also points out that the research question should lead or set the starting point of the content of the central elements included in a research paper, and this also applies to the research design.

The extensive design, put forward by Butch (2021), involves collecting data from several respondents using, for example, a survey. This design is also suitable with a quantitative method, as it makes it easier to collect and analyze the data (Busch, 2021, pp. 52-53). While the intensive design allows the researchers to gain more in-depth knowledge and obtain data from few respondents, and therefore be suitable with a qualitative method. (Busch, 2021, pp. 52-53). Therefore, considering the research question of this thesis “*How does the use of principles lead to successful change management*”, and the case company it can be assessed that the problem is complex and cannot be answered simply. Regarding the fact that the research is to be explored in Norway's largest oil company, this alone indicates the

complexity of levels of data that must be obtained. Employees will be located both offshore and onshore where objectives can be seen differently, and the theory may be interpreted differently. For that reason, the researchers have proceeded with an intensive design, with qualitative design, that entailed obtaining data from few respondents.

### 3.1.1 Research methodology

Busch (2021, p. 54) present that there are several different research methodologies, and each have their own methodological challenges. For the researchers it was clear that a case study would be a suitable method to proceed with. This is because the phenomenon indented to be studied is strongly linked to the context. Indeed, in accordance with Busch (2021, p. 55), claims that it will not be sufficient to know the phenomenon without knowing the situation in which the phenomenon arises, as well as that a case study is relevant for “all” who will study a phenomenon in an organization Busch (2021). For this thesis, it is central that the case must be explored in the case organization contexts in order to understand the phenomenon, on which the thesis' research will be based. The phenomenon of this thesis is to study how the principal have led to successful change management in light of the case company.

The choice can be further justified with adherence to Yin (2018). Yin (2018, as cited in Chapter 1: Plan) explains that a case study is suitable as a research method, when “(1) your main research questions are “how” or “why” questions, (2) you have little or no control over behavioral events, and (3) your focus of study is a contemporary phenomenon “case”.” By drawing parallels to this master’s thesis research question which is of the type “how ...”, that will be investigated in present time, where the researchers are limited to only obtain empirical data with the intention of later elucidating the research question. Which means that the condition from Yin (2018) is complied with and thus the thesis has a good starting point for making use of a case study.

Furthermore, (Johannessen et al., 2017, pp. 205-208; Yin, 2018) show that one must consider whether a design for case study should be of either single-case or multiple-case design, and as well to either analyze single unit or multiple units. In this thesis, the right choice would be a single case design, but with multiple units of analysis (embedded single-case studies), (Yin, 2018). As the study will research and study the phenomena in an organization, but different groups, individuals, departments, and BU can be of interest regarding the research question.



In addition, Yin (2018) points out that if a research is to be carried out in-depth based on real and current events, that should be examined in a context linked to organization, it will be suitable as a case study. This also underpins the choice to proceed with an intensive design, with a qualitative method, as the thesis research will require that the conditions are investigated in-depth, in real time, to be able to shed light on the research question with certainty. Hence, it can be claimed that a case study will be suitable for implementation.

The research is to be carried out during a school semester, with a somewhat shorter time considering that the thesis must be delivered to the company for the classification of the thesis a few weeks before final delivery, as well as getting all the formalities in place. Regarding the scope and time frame of the master's thesis, the choice to use interactive design with qualitative data to obtain so-called soft data (Johannessen et al., 2017, p. 33) was further strengthened.

### 3.2 Method triangulation

Due to the social science elements of the research topic, it is necessary to be extra vigilant of potential bias in the gathering of empirical data. Since the empirical data is primarily gathered through interviews and is formed based on people's views and opinions, it is expected there to be some bias formed in the findings. In order to minimize the bias the researcher intend to make use of method triangulation(Thurmond, 2001). In agreement with Thurmond (2001), it can be claimed that the above distinctions are true. Therefore, method triangulation can strengthen validity and increase reliability. This was something the researchers tackled early on and strives to reduce the bias so that the data collected can be interpreted with a comfortable degree of assurance (Thurmond, 2001). Method triangulation involves obtaining data using two or more sources or methods. For this paper, it was intended to collect qualitative data from interviews and observations, and quantitative data from surveys. With the method triangulation it is desired to collect data that can be interpreted with a comfortable degree of assurance, as well as to get a wider pool of data to assess and make use of. However, the researchers of this paper do acknowledge that some level of bias will still be represented in the findings, and for that reason, the researchers will keep it in mind when evaluating the results and during the discussion.

Unfortunately, going forward, the researchers were not allowed to send out the survey. This led to the final selection being an intensive design, with the collection of qualitative data

through interview and observation. The consequence of not being allowed to send a survey will cause the benefits that come with using method triangulation, as described above, to disappear.

### 3.2.1 Intended survey to send

A survey was intended to be sent out after collecting the qualitative data. A survey was prepared based on the qualitative data obtained. The quantitative data from the survey was intended to underpin and support the qualitative data. The choice was based on Thurmond (2001) which promotes the procedure, called *method triangulation*. Busch (2021, p. 53) further, points out that combination would be time-consuming, but it would provide a good opportunity to utilize the strengths of both methods.

### 3.2.2 Deductive approach

When introduced to the case, the external supervisor from the company put the recommendation for relevant topics. In the meantime, a requirement was set that researchers had to provide a starting point for the research case, as well as the formulation of a research question. From the limited information that was available for the case. The case description was later built on by documents made available by the company, leading to a more precise research question. The research case and research question were then used to select relevant theory for the theoretical framework for the master's thesis. Busch (2021, p. 71) states that a deductive approach is based on existing theory that has been established by prior research, while an inductive approach is more suitable when approaching the empirical world without any expectations of reality and the aim is to develop theory. An abductive approach is positioned in between a deductive and inductive approach, by moving between theory and the empirical evidence. Therefore, a deductive approach is a good starting point since the existing theory will be evaluated, in order to proceed with the research.

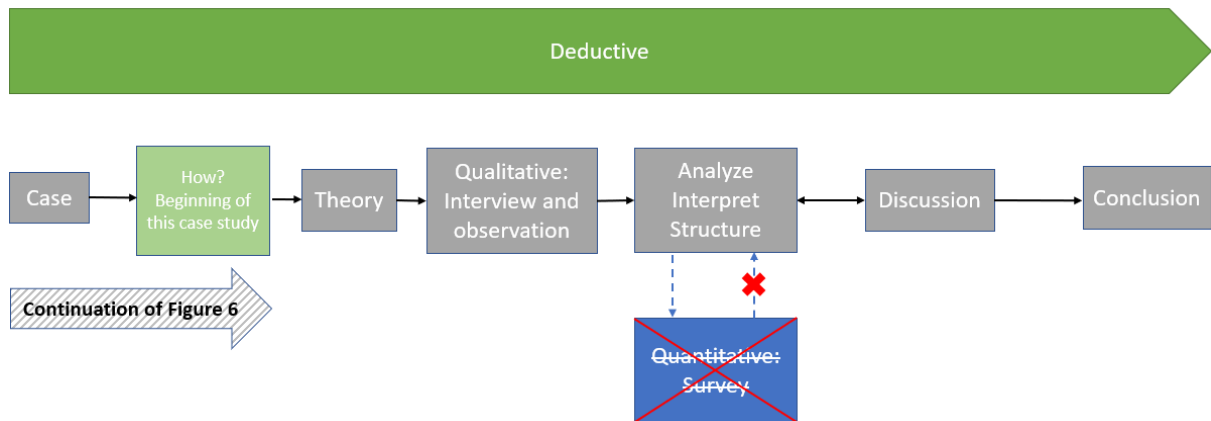


Figure 9: Research design model

Figure 9 shows the research design model. The qualitative findings are then analyzed, interpreted and structured. The survey was at this point developed and was intended to be sent out, in order to provide supplementary quantitative data. The qualitative findings were thereafter discussed in the light of theoretical framework.

### 3.2.3 Selection of theoretical foundations

Busch (2021, pp. 39-42) points out that the background for choosing a theory should be based on the research question of the assignment but can also be influenced by the empirical evidence that is available and to some extent by which method that would be used.

For that reason, the research question was taken as a point of departure, and it became the guidance to what the theory should be based on. When it comes to principles, the starting point from the research question was *"how do the use of principles..."* as this covered the search according to principles and gradually was lean also drawn in here, in addition to the case and this was addition to the information that was shared from the external supervisor. When it comes to the second part of the research question *".... successful change management"*, a search for change management was carried out. Search engines such as Google scholar, web of science, ScienceDirect, as well as books from the library and libraries website, Oria, were used to collect theory and create a theoretical framework. Keywords such as: Change management, lean, principles, change fatigue were used and new expressions and words from the searches were adopted and further used to search for literature.

Subject books, documents, articles, as well as scientific journals within change management, principles, lean, and syllabuses from the subjects below have been used and contributed to form the basis for the thesis.

- IND418 - Continuous Improvement and Lean
- IND419 - Design and Engineering Management
- ME425 – Research Methods

### 3.3 Method for data collection

For this assignment, observations and interviews have been carried out where the aim was to obtain qualitative data, in the form of soft data, which has later been analyzed by the researcher. This is due to the methods chosen, as the phenomenon is to be explored in depth, and the method of implementation is a case study examined in an organization. Of that, the chosen data collection method is rooted in Yin (2018), which shows that the choice of retrieving the data is commonly from documentation, observation, interview, archival records, direct observations, participant observation, and physical artifacts. Whereas this study conducts data collection through interviews and observations for the primary data, and the use of case company documents to build the case (Harris, 2001; Johannessen et al., 2017). Yin (2018), also point out that a good case study would rely on wanting to use multiple method to secure the empirical data. Which also supports the use of observations in addition to interviews.

#### 3.3.1 Interview

Kvale and Brinkmann (2009, p. xvii) put forward that through a conversation people can, among other things, understand each other, comment on each other, answer each other's questions. Conversation gives insight into people's perception and their perspectives on how they perceive the world of life. Qualitative research interviews are suitable when opinions, attitudes and experiences are studied. Often an audio recording can be used during the interview, which allows the interviewer to later write out the recording (Johannessen et al., 2017; Kvale & Brinkmann, 2009, p. 145). Johannessen et al. (2017, p. 145) refers to the fact that interviews are suitable when researchers need to give freedom to the candidate to express themselves freely, and not be limited to a questionnaire form. This allows for expression that would not be able to reconstruct from other methods such as observation or structured questionnaires (Johannessen et al., 2017, pp. 145-146). With the background that the case for this thesis is linked to organizations, it can be argued that interviews will be a method that will provide deep understanding and enriched knowledge and perspectives of the topics

intended to be researched. Interviews can therefore contribute to the desired level of information that would be needed to understand the phenomenon.

There are mainly three different ways to conduct interviews. (1) Unstructured interviews, the interviews are open and can be informal. Questions can be around one topic and there are usually no structured or pre-prepared questions. They are flexible, and let the candidate speak freely. (2) Structured interview involves following a set structure and fixed question, and the researcher ticks off actual answers. Meaning that the flexibility of discussion is limited to the questionnaire in the interview guide. Intermediate between these two interview types is called (3) semi-structured interview. This type of interview allows for in-depth answers from the candidate, where there is still a certain form of structure within the chosen topic and regarding the questions.

Semi-structured interview uses the interview guide as overall base. If no systematization is used, it can be difficult to structure data, therefore there should be some form of structure so that it is possible to compare data from the various candidates (Johannessen et al., 2017, pp. 147-148). Considering this, the researchers continued forward with semi-structured interviews. This method allows for comparison but also gives room for follow-up questions to be addressed to the candidate being interviewed. This would lead to a deeper understanding of the phenomenon and topic, as well as a form of standardization that can be followed. This will allow the researcher to later compare the result or data that was obtained. Similarly, the study of Vidal (2007), was carried out using a semi-structured method.

*“While these workers (and plants) are not statistically representative, the in-depth, open-ended interviews offer two advantages: the ability to explore and find themes salient to the interviewees and the opportunity to more thoroughly probe understandings and experiences on these and other themes” (Vidal, 2007, p. 256).*

The researchers of this thesis thus support themselves in using the same method for this thesis.

According to methodological literature, a decision should be made as to who should be observed or interviewed (Busch, 2021, p. 57). A decision must also be made on the number of candidates, selection strategy and recruitment (Johannessen et al., 2017, p. 29). Moreover,

does (Johannessen et al., 2017, pp. 116-117) state that in a qualitative investigation, people with the greatest possible knowledge of the phenomenon, its context, should be selected. This method is called *strategic selection* of candidates, where the target group is first selected and then people are selected from the target group (Johannessen et al., 2017, p. 117). When it came to the selection of the candidates, the methodological literature led the way, and the selection of candidates is elaborated and substantiated below.

It is important to keep in mind that the selected candidates for the interview are only people that have been directly exposed to the handbook and its principles. It is therefore reasonable to believe that these employees do not represent the average employee nor are these employees chosen at random. Due to the controlled spread of the handbook and principles within the organization however, the researchers believe that choosing among the people that have been involved in the work with the principles and the handbook, is better than choosing random workers that may or may not have encounter the handbook and its principles. The researchers have therefore no reason to believe that this selection of candidates will have a negative impact on the study. In addition to the selection criteria being involved directly with the project, it was also important that the candidates represent a wide variety of involvement based on the levels within the organization. The candidates were therefore selected to also represent the three levels in the organization and some questions varied based on that.

Regarding the research question, an interview guide was drawn up (Busch, 2021, p. 59). The interview guide was to deal with different perspectives and the information the researchers wanted answers to. Interview guide is shown in Appendix I. With the chosen method, semi-structured interview, it allowed the researchers to be able to ask follow-up questions, as well as other questions if the candidate did not understand the question or the context of them. The candidate was also allowed, to choose between the language English or Norwegian. The language chosen by all the candidates was Norwegian, regarding the fact that the candidates felt they could have a fluent interview and that they could express themselves fully. A total of 20 candidates were interviewed, with each of the interviews lasting between 45 minutes and up to 1 hour. This proved to be an extension job of analyzing and transcribing the data, this however, gave researcher substantial empirical findings to discuss. One-to-one interviews were used, with a focus on in-depth interviews, with the desire for extensive and detailed descriptions from the candidate (Johannessen et al., 2017, p. 146). All the interviews were done using Microsoft Teams and were recorded. Due to technical reasons an external person

needed to 'click record' within the Equinor Microsoft Teams system. The person then left the call. NSD approval was applied for and approved, see Appendix H. An information letter was sent out to all the candidates in advance and written approval was requested, see Appendix G for the information letter. They were also informed at the start of the interviews about their rights and can change their mind before, during and after the interview. The recording's storage, purpose and who has access to the interview recording were also reviewed.

### 3.3.2 Observation

As presented earlier by methodological literature, one must consider who will be interviewed and observed (Busch, 2021; Johannessen et al., 2017). In this study the researchers could not influence the choice of what or who they could observe. As the researchers were told that they can only observe what the company allows, it led to the researchers to proceed with an open mind. The reason for observation was to get a different perspective of the phenomena and the context. This would help the researchers to understand the execution itself, the actions and check the agreement with what was said, against the data obtained, and would create points of discussion. Observation would also supplement the research question from a different perspective, as well as illuminate the discussion by using other perspectives (Johannessen et al., 2017, pp. 129-130). Johannessen et al. (2017, pp. 129-130) also point out that subconscious thoughts influence actions to a much greater extent than people think. Visual information and other information that appeals to researchers' senses can often be stronger and more important influences for choices and actions than speech/reason appeals. Therefore, observation will provide access to information that would be difficult to obtain through other methods. This underpins the reason why the researchers will use observations. Other points of view and perspectives that can be drawn from the meetings can shed light on the empirical data obtained to reduce possible bias.

### 3.4 Qualitative data analysis

This chapter will show how the researchers have proceeded and analyzed the qualitative data that was collected.

#### 3.4.1 Empirical data from interview

Before the interviews an interview guide was created to organize and structure the topics that were supposed to be covered (Johannessen et al., 2021, p. 153). These topics and themes were based on the established theory and topics needed to answer the research question. The interview always started with the same three questions, after that it followed a semi-structured structure with themes and topics as guide. The interview candidates were also grouped into organizational levels determined by the company's organizational structure. The topics for onshore and offshore were the same. The differences between offshore and onshore as well as difference in phases, is exactly why the researchers chose to have a semi-structured interview. This difference made it easier to distinguish what topic was put most emphasis on and was further used in the interpretation of the candidate's general views. Appendix I shows the interview guide and the related covered topics. During the interviews, notes were taken as part of the interview. Later the recordings and notes were transcribed and used to make general summaries of individual candidates. As the data from the interviews were recorded, the points of interest and topics were interpreted and structured (Johannessen et al., 2021, p. 151). Later these topics were analyzed, grouped and used to create summaries of individual BUs, LoFo (Johannessen et al., 2021, p. 153). The themes and topics in the summaries were then used to research the phenomenon in question (Johannessen et al., 2021, p. 163)

#### 3.4.2 Structuring interview data

It was important for the researchers to get a clear overview of the LoFo process in order to understand the phenomena tackled by this thesis. In order to understand the phenomena tackled by this thesis, it was important to gather interview candidates from the three main phases, pilot, transition and self-driven. This was with the ulterior motive that the researchers should get a clear overview of the LoFo process and the situation of each of the BUs. This in turn could shed light on the problem as the principles are used at different levels and phases.

Hence, it was important to get representatives of all the organizational levels, as it was established in the theory of the importance of involving all organizational levels in lean implementation and in the principles theory. This gave the researchers a broader



understanding of the complexity of the initiative and the organization. This further leads to different opinions coming from offshore and onshore, further dividing into their respective categories. The complexity of the case lead to the creation of the summaries for each BU in its respective phase, with the same elements covered across all interviews in order to be able to see how the initiative progress and how the opinions to the initiative progress with it. This is all done to get a broader sense of the initiative and to answer the research question not only based on the evaluation of one phase but based on the evaluation of the three main phases. It is therefore important to distinguish between the summaries and the three phases in order to see the results in light of their respective phase. In addition to the BUs, three LoFo candidates were also interviewed. These candidates have a central role in the LoFo initiative. This gives further depth to the study and gives the researchers the ability to gather data from all the organizational levels involved (only exception is EPN which is not within the scope of the research question).

### 3.4.3 Empirical data from observations

When it came to the observations, the researchers were restricted because of the company polices and their internal validations. This meant, it was up to the company to assess the access restriction for researchers. This applied to meetings, documents, internal websites and information sharing.

The researchers were allowed to join LoFo's meeting one day a week and gained restricted access to the handbook's website. In advance of the meetings the researchers were told what role they can have. Either as inclusive observer or a bystander (Johannessen et al., 2017, pp. 132-133). All the observations were *open*, meaning that the researchers and participants were involved in the Microsoft Team's meetings with web cameras on. The researchers were allowed to note down actions, behaviors and content that could be relevant for the results or discussion points for the research (Johannessen et al., 2017, p. 129).

The researchers took notes during the meetings for themselves. The noted findings were then assessed and discussed immediately after each individual meeting between the researchers. This was to cross-examine the findings and to ensure that the interpretation was of common understanding and there was an agreement between both researchers.

Regarding confidentiality, the notes and cross-examinations could not be attached to the assignment. Thus, it was chosen not to elaborate on the observations, type of meeting or when the observation was carried out. This was in connection with confidentiality, the company's and candidates' premises, privacy, as well as maintaining that observations cannot be traced back to their origins. For that reason, the observation was listed in a short format.

#### 3.4.4 Company documents

As for the same reason as discussed in the previous chapter, researchers were limited by the case company on the access of documents. This limited the researchers to only receive additional documents that were checked and assessed before receiving them. Researchers have considered and analyzed the company documents and found it to be used to develop the research case description.

### 3.5 Research Ethics

Research and the credibility of the research depends on researchers following the given ethical principles and guidelines (Government, 2015). In 2014, "general ethical guidelines" were drawn up by the National Research Ethics Committee (Committees, 2019; Committees, 2014). This is essentially not a substitute for the essentials within research ethical guidelines and cannot replace subject-specific guidelines either. The general research ethical guidelines are meant to serve as gateway for the researchers and can provide insight into concerns of research ethics (Committees, 2019).

The researchers of this paper are obliged to send information about the research project to the Norwegian Center for Research Data (NSD) (Johannessen et al., 2017, pp. 88-90). An application must be made, and only after permission has been granted can the researchers start collecting and processing the privacy data. To comprehend voluntary informed consent, the researcher took use of the NSD information letter template and completed the information related to the research. This information letter was sent out to all the candidates in advance and written approval was requested, see Appendix G for the information letter. They were also informed at the beginning of the interviews about their rights and that they can withdraw their consent before, during and after the interview. The recording's storage, purpose and who has access to the interview recording were also reviewed (Johannessen et al., 2017, pp. 83-93). Only those who were present during the digital interview will be able to send requests for access to the recording. This was again after those involved in the interview had undergone

two-factor authentication, and only then could they be allowed to submit a request for permission to record, which again had to be approved before one was given final access. This applied to all the interviews individually. The process made it safer for the candidate if, after the interview, they changed their mind and did not want to give access to the recording. Access could also be withdrawn when desired.

The case company wanted a confidentiality agreement between the researchers and the representatives from the university in UIA. The company had also expressed itself to keep the thesis non-public available, and only a final decision after review of the thesis will be able to change the decision on public access to document. This meant that the researchers had to be careful with the content in the documents, and with the use of documents itself.

Because of the restriction and the sale pitch it has partly influenced the researcher's academic freedom. As for instance, if the sale pitch would have not succeeded it would have affected the entire research. The company was also to assess the number of years the thesis should have been withheld from the public, with regard to its content.

Integrity, credibility and confidentiality must be maintained between all parties involved. Upon completion of research, all shared data on the company's preferred platform will be deleted, and the access granted to selected parties will be removed.

### 3.6 Method Quality

The scientific method choices that have been made during the research would contribute to, and affect, the quality of the study, and the reliability of the results. In order to ensure a satisfactory quality of the research, a description must be given of choices related to the execution of the research. Furthermore, should the researchers show awareness on what effects the scientific method choices have had (Busch, 2021, p. 61). As the research design is rooted in a case study, with a qualitative method, Yin (2018) shows that there are four criteria to discuss regarding method quality: construct validity, internal validity, external validity, and reliability.

As a qualitative method has been used, the discussions will be carried out with a greater emphasis on an interpretation-based point of view. The method assessment discusses the critical analysis of one's research, as well as explaining what has been done to ensure quality (Busch, 2021, p. 62). The interviews took place over Teams, which is ideally not optimal, it was communicated from the company that Teams was a common platform to use after COVID-19. The assessment from the researchers is that if the interviews had taken place physically, there would still have been suspicions that the candidates may have withheld information. For that reason, the conversation would have been affected regardless of whether the interview had been carried out physically or digitally.

Before the interviews, the researchers were a little worried that the candidates might push themselves to finish the interview quickly and get back to their hectic day, but this was not the case. All the interview candidates remained calm, and at the end of the interview the researcher mentioned the time that was left and whether they wanted to continue. The impression is that the candidates were not affected by stress, nor under pressure during the entire interview. Which results in them having time to think about the question before answering. Nevertheless, the impression is that digital interviews proved to be a good method. Both parties were respected, and a good atmosphere was maintained throughout the interviews. Interview candidates seemed open and honest, even with the digital form of communication.

### 3.6.1 Construct validity

Johannessen et al. (2017, pp. 231-232) submits that validity can be increased by the researcher producing open and detailed information about the research procedure. Which is covered by the method chapter in this study. Additionally, the submitted data can be interpreted, transcribed, and used in terms of its own interpretations can be influenced by the researchers. In order to reduce the researcher's influence on the interpretation of data, regular conversations were held during the research. For the observations, thoughts and interpretations were discussed immediately after the meetings, and it was possible to ask the source to ensure that the perception and interpretation of the observation were fully understood. The same procedure was used when analyzing secondary data to retrieve data that was of interest with regard to the research.

During the interviews, both researchers were present and took notes. The main countermeasure against bias and distortions was that recordings were used. Immediately after each interview, the researchers started to transcribe the interviews. The fact that both researchers were present was regarding mitigating bias, as well that the recording could be watched again, to check if the transcribed material was properly understood and interpreted. This increases the construct validity as it means that the data could be verified against the recordings. Note that the people are kept anonymous, but the case company is not kept anonymous. Thus, the data cannot be traced back to the candidates.

Yin (2018) presents three tactics that are available to increase construct validity when doing case studies. The first is the use of multiple sources of evidence when collecting data. A second tactic is to establish a chain of evidence, also relevant during data collection. The third tactic is to have the draft case study report reviewed by key candidates. To counteract this, both researchers were present, and the transcripts were combined into a summary, per BU, in order to get a complete and clear insight into the empirical evidence. As well the use of observations as supplementary source was used to uncover biases. The last-mentioned tactic was intended to be used but was assessed as not feasible without going beyond the time set for the thesis. It was already mentioned to the researchers that the interviewing candidate has a hectic everyday life, and will the research be assigned one person to correspond with regarding the interviews. Thus, several factors began to come into play, e.g. that a copy of the transcription could be sent to the wrong person. Also, variations between oral language and

written language can be perceived differently, which can trigger a desire to change the written language. The researchers wanted as few adjustments as possible, as this could lead to bias and alteration of the data.

### 3.6.2 Internal validity

The assignment was aimed at a new implementation initiative. Thus, the target group was already set, in addition, therefore, going forward with a strategic selection of those who have been part of the initiative. In order to maintain anonymity, it is chosen not to share which positions were interviewed.

Johannessen et al. (2017, p. 232) point out two ways to increase the interval validity. The first one is that researchers should have persistent observations, something that the researchers of the thesis took to use, by attending the meetings. As well as taking time to discuss the finding that can be of relevance for discussing point after each meeting.

The second one: Method triangulation.

It was planned and thought of by the researchers to use the triangulation method to obtain data from three sources. The last source was to be a survey. As it was intended to be sent out after the interviews and most of the observations had taken place. This would have led to countermeasures against bias and perhaps provided a greater sense of accuracy. The researchers were allowed to use the company's survey, but after a review it was seen that the survey did not cover the same scope as the research. In addition, there is a difference between a survey sent by the company and a survey created and sent by the researchers.

### 3.6.3 External validity

With qualitative case study, the focus is on the transfer of knowledge instead of generalization, in terms of statistical analyzes which can be used in other studies (Johannessen et al., 2017, pp. 233-234). In this study, the focus has been on strengthening internal validity and the transferability of the research (Barnes et al., 2005). Unlike generalizability, transferability does not involve broad claims, but invites readers of research to make connections between elements of a study and their own experience, or situation (Barnes et al., 2005, pp. 1-2). In other words, they "transfer" the results of a study to another context (Barnes et al., 2005, p. 6).

Johannessen et al. (2017, p. 232) puts forward that the results should be verified, possibly let other competent people analyze the same data material to see if they arrive at the same outcome. In such a study, with a limited time perspective, as well as the fact that only those involved are those who can analyze data material. Therefore, this was not the focus of the researchers at first. As the researchers had access to the recording, the analyzed material could be checked against the recordings to reduce bias or misinterpretations.

#### 3.6.4 Reliability

The objective of reliability is to be transparent with your research and its execution so that if a later researchers follow the same procedures as described in the thesis, they, hopefully, will arrive at the same findings and conclusion (Johannessen et al., 2017, p. 234; Yin, 2018).

The verifiability of the study has always been in mind throughout the study's lifetime. From the start of the study, the researcher started studying the case in depth, based on the available information. This helped to create a good starting point and a research question that could be used throughout the research without a change. A method chapter has been presented and presents which methodological and analytical choices have been made, as well as how these have been carried out. Moreover, Figure 6 was drawn up to illustrate the position of the research.

Hence the developed interview guide presents questions and topics that were investigated. The interviews that were carried out were semi-structured, and for that reason a later retest will not directly give the same answers, but the content and context presented through the interviews will possibly be similar to the findings for the assignment. This is due to the fact that researchers had persistent observations, and a selection of 20 key people who were interviewed. Where the candidates were strategically selected, and these were first-hand experience with the context in which the research phenomenon was to be studied. However, this is a qualitative case study, which means that external sources can influence a retest, and that the same person can also change their interpretation when a retest takes place. With a new person, their experience, attitude, and thoughts will have a great influence on the empirical data.

Another source that can influence a re-test is the sources that were used to the case description. As the company develops, it may affect the sources presented when the case description was created. Therefore, an attempt was made to present as many as possible of the permitted sources as appendixes that contributed to building this case study.

### 3.7 Limitations and challenges

It was early on clear to the researchers that the research question would require precision due to the time limitations. The researchers knew that in order to answer the research question with some credibility there needed to be a sufficient number of candidates, representation for all the levels of the organization and include the three main phases. Although it was considered due to the time and busy schedules EPN were not included in the research, and the focus was limited to LoFo and the BUs involved with the LoFo initiative. In order to limit the scope of the interviews, it was decided to only interview relevant candidates, meaning candidates that had seen involvement in the initiative. The theoretical framework was limited to change management, principles and lean. This was based on the known elements of the case. The research question was also limited under the assumption that the LoFo initiative was a success, therefore strategy theory on implementation was not focused on, but rather implementation of Lean was explained in the Lean theory. This was done due to the known elements of Lean from the case description. The focus of the study was also limited to the principles and not their action patterns. The action patterns are however seen as an important element to the principles, so although their functionality was never explored fully, they were still considered during the assessment of the principal use. This study limits itself to focus on the principles used by the company and not other external principles.

Regardless of the initial limitations the interviews still proved challenging, the number of interviews grew quickly as the researchers wished for a wide representation for better credibility. The bureaucracy of the company leads to the necessity for researchers to convince the individual BUs to participate in the interviews. During this convincing a focus on value for the individual BUs, from the thesis had to be presented. Due to the tight schedules of the offshore workers and the top management the interviews sometimes got postponed and rescheduled. Due to the number of candidates and the amount of information gathered it was a challenge to transcribe the results and make them presentable. The transcription was first done for each candidate and was later used together to represent a summary for each BU and LoFo.



## 4.0 Result

The beginning of the chapter addresses the qualitative data obtained from the interviews. Later in the chapter, the general observations are presented. Regarding the structure and the choice of the procedure for the presentation of interview data, see chapter 3.4.2 Structuring interview data for justification.

### 4.1 Data from Interviews

It was important for the researchers to get a clear overview of the LoFo process in order to understand the phenomena tackled by this thesis. It was therefore important to gather interview candidates from the three main phases, pilot, transition and self-driven.

The following results are general summed up views of the candidates related to their respective organizational levels and a summary of the said views as representations of the state of the BU. The BUs are represented by offshore teams and onshore teams. The three BUs are also in different stages of implementation. The sum-up of the BU views gives a general idea of that BUs state in their given phase. Table 2 below gives an indication of the most relevant topics for the research question from each BU. Below you will also find a sum-up of LoFo candidates.

#### 4.1.1 BU X Summary

**Principles and handbook:** The introduction was extensive and too theoretical according to some candidates onshore, while candidates offshore describe a very practical oriented introduction. This is due to some candidates being involved in early introduction where the introduction was more focused on theory rather than practice. Some candidates report that it took time to understand the practical use of the handbook and principles, the relevant cases and practical examples, however, helped a lot. Most candidates put an emphasis on the “understand” principle. There is a general mix on how the candidates view the handbook and the principles. Some candidates refer to it as management tools, other candidates state that ideally the principles are and should be for everyone. Most candidates could recite the principles, however 2 out of 4 candidates offshore could not.

**Involvement:** Most candidates agree with the case-by-case involvement and are satisfied with the initial involvement of people. Some candidates offshore, however, express desire to see more involvement of the workers offshore now that the BU is in the self-driven phase. All the

candidates offshore unanimously agree that for any long-term effect offshore workers must be involved more. Most candidates do, however, also point out that time scheduling is very busy offshore and that an effort must be made by the management to give time to do improvement work, otherwise improvement work will be down prioritized.

**Long-term:** All candidates point out that should the principles and the handbook see any long-term use then they must be actively used and supported. Most candidates are skeptical of long-term use primarily based on their previous experiences with other short lived improvement initiatives.

**Measurements and results:** Most candidates attribute success partly to measurements, except for one candidate offshore, that has a negative view on bureaucracy and sees the focus on measurements as another form of bureaucracy. The other candidates describe measurements contributing to increased motivation. Measurements are also described as being examples of success stories that can be used to win people over to the initiative. Establishing good measurements is not always easy but several candidates, especially onshore, insist that it is necessary.

**Lean:** All candidates see parallels between Lean and the LoFo initiative to some degree. Candidates describe how Lean faded with time and how that is not an uncommon occurrence with improvement programs. One candidate describes that as a natural process within the organization and that it is normal, other candidates especially offshore show elements of frustration. The relation candidates have to Lean vary and is positive to some extent. Most candidates agree that Lean had done many good things. Overall, offshore candidates seem to miss Lean more than candidates onshore. One candidate offshore even pointed out a desire to see the Lean work continued rather than having a new initiative altogether. Another candidate pointed out that Lean's focus on the individual and what the individual worker could do for improvement was unique and both worked well and was well received.

**Change fatigue:** Change fatigue is observed in 2 out of 3 candidates onshore and 4 out of 4 candidates offshore. Candidates that show change fatigue have a greater initial skepticism to the initiative and a bigger level of uncertainty surrounding the longevity of the improvement initiative. The two candidates onshore describe how they have overtime become less skeptical to the initiative due to the documented results, the level of uncertainty however seem to persist. One of the offshore candidates says this in relation to previous improvement programs: *"You know we have a drawing at the platform it is a drawing of a graveyard with tombstones, each tombstone represents earlier improvement initiatives, some tomb stones are*

*so old flowers grow next to them.*” This drawing is also referred to by another offshore candidate.

**Empowerment:** Candidates onshore and offshore both confirm that Lean had an empowering effect on the workers offshore due to better scheduling and a general focus on involving the workers offshore. As well as having an individual driven focus. One candidate states that the principles should ideally empower people to work and think independently but has not yet seen any evident change in that domain.

**Success:** The candidates attribute the success so far largely to the result-oriented focus and measurements. Some candidates offshore however are more skeptical on whether this can be considered as a success with the little inclusion of offshore. The offshore candidates insist that involvement offshore is necessary for any long-term goal.

**Additional:** Overall the BU in the self-driven phase remains to be reliant on the LoFo resource. There is also a clear distinction of how the initiative is viewed onshore and how it is viewed offshore. The BU has had its focus largely on improvement work done onshore thus far and this divide is evident in the candidates. With the BU being in the self-driven phase the improvement work is supposed to be largely self-sustaining with start-up of their own initiatives. An overall assessment of the candidates, however, reveals that the BU is not self-sustaining and is too reliant on the LoFo resource person. This is pointed out by multiple candidates. Furthermore, there appear to be difficulties in involving offshore, and there seem to be a higher level of skepticism and uncertainty offshore. Some candidates offshore appear to disagree with the current approach of involvement and spread of the principles and handbook. This has led to offshore seeing the principles being used as more like management tool and report that they are therefore discouraged from using and spreading the principles and handbook themselves. Although all candidates agreed the limited involvement of people was a correct decision in the pilot-phase, offshore candidates expect more involvement and introduction offshore now that they are in the self-driven phase. Some candidates onshore also point out that the rate of improvement projects has slowed down overtime going into the self-driven phase. Reports on work culture change vary and are overall unclear, however there is observed a significant focus on measurements developing across the board. When asked, almost all candidates agree that principles can function as a bridge between theory and practice.

#### 4.1.2 BU Y Summary

**Principles and handbook:** Some candidates had been introduced to the handbook and the principles ahead of time as part of their early involvement. Other candidates saw a practical introduction that focused on a particular case. The candidates differ in which principle is the most relevant to them based on their work, however they agree that all 5 principles are equally important. Some candidates pointed out that the principles were relatively easy to understand and where in many ways common sense, other candidates drew parallels to Lean. Some candidates report that the principles have seen active use since the pilot phase. Some candidates agree that the principles can function as a common ground between shifts offshore, in order to motivate standardization, but this must be implemented correctly.

**Involvement:** Almost all candidates agree with the selective involvement of the LoFo initiative, only the candidate with little to no previous involvement with Lean expressed a wish for a more companywide introduction.

**Long-term:** All candidates were informed that LoFo was a long-term plan. Some candidates show skepticism based on previous experiences. One candidate described the initiative as a long-term goal with short-term steps. Most candidates agree that for any long-term success the support from LoFo must be there, otherwise things will go back to the way they were just like with the previous initiatives. Most candidates are, however, optimistic about the long-term plan of LoFo.

**Measurements and results:** All candidates onshore put an emphasis on the importance of measurements, stating it as a source for motivation and success. One offshore candidate, however, had a more skeptical look to it, pointing out that not everything can be measured, not all work can have short-term measurements, some work needs long time to see the effects off. The short-term measurement focus is confirmed by two onshore candidates as well.

**Lean:** 4 out of 5 candidates related the principles to Lean and saw clear parallels. The offshore candidate compared Lean and LoFo's approach for introduction and had a more positive attitude to the practical approach. The offshore candidate further stated that a practical introduction and examples are necessary to get the offshore workers onboard with the initiative. One onshore candidate goes in depth to present the shortcomings of Lean. Pointing out that Lean involved the management too little and had a too high focus on Lean tools, these shortcomings have been tackled by LoFo.

**Change fatigue:** Change fatigue is observed in 3 out of 5 candidates to some degree. The candidates that show no change fatigue is the candidate that had no previous experience with improvement programs within the company. And one candidate who expressed that it was

hard to tell whether the candidate's skepticism was natural or whether it was based on previous experiences. The level of change fatigue varies, however the offshore candidate suggests the level of change fatigue and skepticism is high offshore. This is why the candidate puts an emphasis on presenting relevant practical examples as proof of the principles and handbook working.

**Empowerment:** Most candidates describe empowerment in terms of being heard and listened to. No candidates seem to attribute empowerment to the principles themselves.

**Success:** Most candidates claim it is too early to tell if the initiative is a success. One candidate suggests that the results and measurements serve as an example of success, and that it is all about keeping that momentum going.

**Additional:** Overall, the BU in the transition phase shows great motivation to continue with the initiative although some early warnings about involvement of offshore have been raised by some candidates. Most candidates also state that they are still very dependent on LoFo for support. One candidate goes as far as to state that the need for LoFo's support will always be there, and without constant push from LoFo this initiative will fade away. When asked, almost all candidates agree that principles can function as a bridge between theory and practice.

#### 4.1.3 BU Z Summary

**Principles and handbook:** All candidates agree with the practical introduction of the principles. Several candidates point out that this practical approach and results must be present in order to convince offshore that this initiative works and will contribute to making their work easier. All the 5 principles were introduced as equally important, however only 2 out of 5 candidates could name the 5 principles without support. One candidate offshore and two candidates onshore could not recall the principles.

**Involvement:** All candidates are satisfied with the involvement method, however, the offshore candidates wished they were involved a few weeks sooner. This is also supported by one of the onshore candidates, the candidate wished for sooner involvement so less time is spent on updating the offshore candidates being involved late. Several candidates point out involvement of offshore is important to secure support and spread of the handbook and principles offshore in the future. Some candidates like the limited involvement due to it creating smaller groups of people and easier to be heard and listened to.

**Long-term:** 4 out of 5 candidates recall being informed of the long-term focus of the initiative. Most candidates believe this initiative can work in the long-term, however support from LoFo will be necessary.

**Measurements and results:** No clear focus on measurement has been observed among the candidates, however the focus on practical examples and results has been mentioned as a convincing factor that this initiative will work.

**Lean:** Most candidates reflect positively on Lean initially although the main critique is the lengthy theoretical focus. The candidates did further point out that when the support for Lean stopped it simply faded away. Several candidates draw this parallel to LoFo as well, pointing out that without adequate support chances are it too will fade.

**Change fatigue:** 4 out of 5 candidates express a general skepticism to the program based on previous experiences with other improvement programs in the organization. Out of the 4 candidates 2 are offshore and 2 are onshore. Some candidates further describe the same skepticism in some of their co-workers.

**Empowerment:** It is too early to make any decision on whether any significant empowerment has developed due to the initiative although the candidates from offshore are happy to be involved and feel heard.

**Success:** According to most candidates it is too early to state whether the initiative is a success, they are, however, hopeful for the future.

**Additional:** Overall, this BU in the pilot-phase has different views on what the principles are and who they are for. Some candidates relate principles as a common ground, a form of standardization. Other candidates insist it is a management tool first and foremost relevant for bigger projects and some candidates believe the principles are for repetitive work and will not function well in a dynamic atmosphere. Some candidates relate the principles of “Flow” to communication, possibly due to the practical work in the current case, focusing on communication between onshore and offshore. Some candidates describe difficulties of communication between onshore and offshore as well as the busy schedule of offshore. Some candidates were asked if principles can function as a bridge between theory and practice, those candidates agreed with that statement. This BU describes a great deal awareness for skepticism based on previous experiences and attributes that to be one of the key challenges to overcome.

Table 2: Shows an overview of the BU candidates and some important elements for further discussion.

BU	Operation Phase	Organizational levels represented (number of representatives)	Offshore Representatives	Onshore Representatives	Some important elements
BU X	Self-driven	Top management (2) Middle management (2) Individual (3)	4	3	<u>Change Fatigue</u> <u>Empowerment</u> <u>Lean</u> <u>Success (results/measurements)</u> <u>Long-term (Involvement)</u>
BU Y	Transition	Top management (2) Middle management (1) Individual (2)	1	4	<u>Change Fatigue</u> <u>Lean</u> <u>Success (results/measurements)</u> <u>Long-term</u>
BU Z	Pilot	Top management (1) Middle management (2) Individual (2)	2	3	<u>Change Fatigue</u> <u>Involvement</u> <u>Lean</u>

#### 4.1.4 LoFo Summary

**Principles and handbook:** The candidates all have extensive knowledge and experience with improvement programs and Lean. The reason for LoFo's start-up was the need for a handbook, it was reported that individual BUs attempted to make a handbook, so it became LoFo's task to make a common handbook. LoFo was also limited in scope and is only set to operate in EPN not companywide like Lean. Other examples of principles were used as inspiration to create the handbook.

**Involvement:** The candidates put an emphasis on teaching by doing, using relevant cases in their introduction of the principles. LoFo also aims to learn as they go and adapt changes based on experiences with the different BUs. Some of the candidates report that there is a challenge with the transfer of responsibility. Ideally in the self-driven phase the BU is

supposed to continue the work that LoFo introduced with the initiatives in the pilot phase. This has proven challenging for whatever reason. One candidate report that this is due to LoFo maybe doing too much work for the BUs in the pilot phase leaving little room for the BUs to learn to work independently. One candidate points out that the principles are too theoretical for offshore workers and a practical approach with examples is necessary for further introduction.

**Long-term:** A candidate reports that there was never a vision established for LoFo. Long-term is decided largely by EPN on whether LoFo is allowed to continue their work past 2024. LoFo will be reassessed in its entirety by the

**Measurements and results:** It is further explained that LoFo needs results to present to EPN to further justify the initiative. In this way the goal of measurements is twofold, to satisfy EPN and to motivate the people involved through visible progress.

**Lean:** The candidates acknowledge that the principles are in many ways Lean and the LoFo initiative is based on a lot of feedback on the unsuccessful Lean implementation. The candidates point out some differences between Lean and LoFo:

- The Lean initiative was focused more on offshore and had a more theory-based approach with courses. LoFo has a more onshore focus (although offshore also see involvement) and is more practically oriented and makes use of existing problems and cases.
- The Lean initiative was also companywide involvement while LoFo focuses on EPN.
- Lean had a much bigger scope and had more resources. LoFo has a smaller scope and has to constantly report back results to EPN.
- LoFo is more focused than Lean on involving the management, so the management can continue the work in the future.

**Change fatigue:** The candidates report that they are aware to some degree of change fatigue and are therefore aiming to take a humble approach with LoFo, focusing first and foremost on motivation and getting people onboard with the initiative.

**Empowerment:** On the topic of empowerment one candidate points out that the measurements and results can function as a form of empowerment. Another candidate states that in the long-term only the people working with the handbook might feel a sense of empowerment.

**Success:** The candidates agree to the initiative being a success to some degree based on the results so far and the measurements, allowing them to continue the work.

**Additional:** On the principles themselves there are some mixed reports from the candidates.



One candidate states that the principles are for everyone and are not a management tool, the second candidate states that the principles are more than just a management tool but without the management the initiative will not be sustained, the third candidate insists that some principles are not relevant for some people, depending on their work. Referring to principles 1-3 being relevant while 4-5 is not relevant for the workers offshore for example.

## 4.2 General observation

It was observed and highlighted in one of the shared documents that the local improvement department known as LoFo, will be reassessed in its entirety in the second quarter of 2024 by the EPN top management. Based on their results and effects LoFo will either continue or be discontinued initiative.

It is observed that bottom up, is starting from the BU and not the individuals. Another observation is that there is no vision established for LoFo. LoFo is learning as they go, practicing the desire to “do as they teach”, this is observed in multiple meetings where this has been a topic.

It is also observed during morning meetings a form of frustration or stress regarding to be able to deliver rich measurements, results and effects that will be further sent up in the hierarchical system. It has been seen that the meetings emphasize progress, both in terms of results and progress plans. LoFo have drawn up a separate Excel file with several points that are reviewed to ensure good progress. Mainly there are three levels which are to be considered and their process. 1. Status of pilots and effects, 2. Status of culture and 3. Status of plans. Under each level, there are additional questions that are asked of the deployed LoFo candidates from the BUs. Some of the questions are direct and usually have one answer, while others are asked to answer from a gut feeling. The answer from the gut feeling is often flexible and smileys or percentages are used to indicate the level of how well things are going or the status of how they feel things are going. It is seen in general that it is not from these LoFo meetings that those involved feel the pressure, but it seems somewhat from being able to deliver this further up into the system, which is the pressure felt by the LoFo staff in the meeting. All the activities and means that were presented in the meetings and the involvement of the LoFo people are helping to reduce this pressure. Here they express their experiences, measurements, progress, stories, and they get support from other candidates. The LoFo staff can easily ask if they are wondering about something or ask for help, as well as ask for extra support if a local improvement leader needs it.

## 4.2 General observation operation model

It's been observed that the LoFo initiative works after their operating model, as presented in the case description. While also continues to update their LoFo plan document with weekly updates on their experience, feedbacks, and progress. It's been observed that the LoFo team

have learned from previous experiences, and they change their method of introduction when moving from BU to BU. Additionally it is seen that the initiative involves the management of a BU more than the previous Lean initiative so the management stays up-to-day, can learn, and continue the strived towards the goals of the mandate. During the self-drive phase it is intended that the BUs use the LoFo operating model for any new improvement initiatives.

It is observed that documenting effects and measurement is a vital part of being able to know if they are on the right track, as well as being able to present results. It has been observed several times from the meetings that the reason for documented effects and measurements is that it can be interpreted as indications on whether they are on the right path or not, as well as serving as motivation for the people involved.

It is said that LoFo started off with the intention to mass introduce the initiative to everyone in the first BU, but the feedback showed that it was not well received in the BU.

It is quoted:

*“At the beginning of the first business unit, the idea was to reach as many people as possible, with an **out to everyone** mindset so that as many people as possible would know the handbook. But in recent times we asked ourselves what value does this method provide? Since if I attend a course today and will not use what I learned until 3 months from now. So how much do I really remember from the 3-hour course that was 3 months ago? This led us to reason for what value do we want to create and for who do we want this value to be acknowledged? ..... from this we concluded that in the first instance we should involve people who are affected or “hit by” the improvement initiative that is desired to improve” (cited from LoFo meetings).*

It was informed that a survey was sent out to the first and second BUs. Which lead to adjustments in the introduction. The introduction became less theory heavy and more practical oriented related to a case.

#### 4.3 General observation handbook

Handbook was developed together with the first BU. The BUs that have recently used the handbook have created their own success stories. As the handbook is to be changed following

the pilots and the improvement initiative to make it more personal for the individual BU by filling it with examples. This simplifies the use of the handbook to make it more understandable for those who will use it. Giving the BU opportunities to engage in adapting the handbook to their use. In turn, creating ownership to the handbook.

#### 4.3.1 Action pattern

It is observed that the action patterns are supposed to work as guidelines as it describes what to consider and not how they should proceed, they are still considered as action patterns that should be followed. Moreover, it further observed that 2<sup>nd</sup> principle **standardization**, by using action pattern is supposed to create comprehensible standards or work processes with the goal to make “the best one”. These standards or work processes are further meant to be used to prepare work processes which must be of the "best" standards to carry out the process. One Point Lesson (OPL) is mentioned to be of greater importance in the action pattern.

## **5.0 Discussion**

In this chapter, the results will be discussed against the theoretical framework that has been presented earlier in the thesis, as well following the theoretical framework structure.

Therefore, the discussion chapter will proceed in that context to elucidate the research question, and to provide an answer.

### **5.1 LoFo operating model vs change management framework**

The LoFo operation model seems to have similarities with Lewin's model, where the first preparation & partly of the Pilot phase, seeking to unfreeze, then pilot & partly transition phase seeking to change, and transition & self-driven phase seeking to refreeze. The reason for the overlapping of the phases is because the models do not overlap consistently, but there are similarities between the models. As presented by the theory Lewin's model, it can be easily compared to other OCM theories. Hence, the LoFo operation model will also be elucidated in the light of Kotter's eight-step model. Table 3 shows how LoFo operational model works parallel to Lewin's and Kotter's steps for successful change management. This assessment was done based on the results and the literature.

Table 3: Shows LoFo's operation model in relation to Lewin's three step model and Kotter eight stage model.

<b>Lewin three-step model</b>	<b>John Kotter eight stage model</b>	<b><i>LoFo's operation model together with the <u>Missing parts according to empirical results</u></i></b>
Unfreezing:	Establishing a sense of urgency (1)	<i>Preparation-phase</i> Build handbook competence. Identifying the larges gaps Finding the initiative Establishing measurement and plans
	Creating a guiding coalition (2)	<i>Preparation-phase &amp; Pilot</i> Strategically selection of the local reference groups for the pilots Verify measurements and estimates. Create structure for follow-up of measurement.  • <b><u>Missing Vison</u></b>
	Develop and communicate a clear shared <b>vision</b> (3) and (4)	
Change	Communicate the change <b>vision</b> (4)	<i>Pilot &amp; Transition</i> Motivation and documenting measurements Communicating the change and sharing experience  • <b><u>Missing Vision</u></b> • <b><u>Missing clear sense of Empowerment</u></b>
	<b>Empowerment</b> (5)	
	Short-term wins (6)	
Refreezing:	Consolidating (7)	<i>Transition and Self-driven</i> Follow-up on established pilots and initiate new improvement pilots. Be sustainable and manage improvement initiatives on their own.  • <b><u>Findings suggest stages are not fulfilled, and partly failing</u></b>
	Institutionalization (8)	

The finding suggests that the Refreeze step in Lewin model has not been fully overcome, as well that LoFo has sufficiently followed Kotter's 1<sup>st</sup>, 2<sup>nd</sup> and 6<sup>th</sup> step, and Lewin's Unfreeze and Change steps. However, in the 3<sup>rd</sup> and 4<sup>th</sup> step in Kotter's model there is a lack of vision. There is a further lack of empowerment to cover Kotter's 5th step. Furthermore, the results suggest that difficulties in the consolidation and institutionalizing phase come down to trouble with transfer of responsibility. The partly failure of the last phase is believed to not only contribute to consolidation and institutionalization but is also due to previous missing parts such as vision and empowerment. Overall, the table illustrates missing parts which are believed to be the reason for failure in refreezing.

Additional there is some frustration being pointed out, as this involves reporting to the next level in the hierarchy. This type of emotions is to be found in the process of change management and should be mitigated (Cummings & Worley, 2014; Rosenbaum et al., 2018). Some positives are that LoFo staff have weekly meetings and have a supporting group where one can present their thoughts, feelings and wishes. In agreement with Kotter (1996) and his second step, it can be argued that no change comes from a single individual, a strong team is needed where one can share objectives, trust, and experience.

#### 5.1.1 What defines successful change management?

It was initially not the aim of the task to investigate the "success" of the LoFo initiative, as it was already emphasized at the start of the thesis that this was interpreted as a success. On the other hand, it was noted that this was a point that had to be addressed and clarified in relation to the research question.

The findings from this study suggest that the initiative is a success so far considering the findings from BU that is farthest in the process, and the LoFo representatives. At the same time, the other BUs state it is too early to say. It seems, as well, that the BUs need support from Lofo, and it partially emerges from the empirical data that if LoFo disappears, the initiative will disappear with them. Many candidates point out that they need to be reminded by the management to continue the change initiative. Moreover, the finding shows that going into the self-driven phase there is an issue with transfer of responsibility for future initiatives. This has led to a slowdown in initiatives and more potential strain on the one LoFo resource person left to support. Taken together, these results describe what Kotter (1996) refers to as shallow roots, especially for the BU that is in the self-driven phase. This may indicate the

reason why BU in the self-driven phase has not yet managed to become completely self-supporting.

Despite this, the result points more towards it being a success because of the measurements, and that it comes to the overall view that they are positive about this in the future. In contrast to Kotter's 8<sup>th</sup> step to successful management, it appears that the change initiative is not a success. Because all the steps in his model are not met. Indeed, there is a difference between what Kotter (1996) shows to be a success and what the company believes is a success. Kotter (1996) point toward defining vision and suggest that vision would drive the change and people of the change through the organization. The findings suggest that no vision is presented in LoFo, but only goals of where the company wants to be. Therefore having no vision leads to missing stage three of Kotter (1996) eight stage model, meaning that a cornerstone to his model is missing. The need for a long-term vision is further supported by Modig and Åhlström (2012, p. 80) in relation to Lean. From the findings, BU in self-driven phase is suffering as they are unable to anchor the new changes to the culture of the company, as well as they are getting aware that the initiative process seems to lessen and that they are unable for the BU to become independent. Whether the lack of vision alone is creating this cannot be said for sure, however, it is believed to be a contributor.

There are many different OCM theories (Burnes, 2004b; Cummings & Worley, 2014; Rosenbaum et al., 2018), which can refer to vision with and without, take for example Lewin. Lewin's model does not show in-depth where the fault or obstacle may lie in such a widespread condition, but with Kotter's model it becomes easier to find a fault as his model contains several elements. Even though the case company can presumably from the finding be stated that they don't manage to refreeze embedded in the organization's culture and create the new "status quo", it can still be stated that they have managed to deliver improvement work with their pilot initiative. A reasonable approach to tackle this issue could be to create a vision that most of the individual can stand by. Then moving on to Empowerment, for then tacking on step consolidating (7<sup>th</sup>) and Institutionalization (8<sup>th</sup>). Indeed, this would fulfill Kotter's eight steps to success, but it still would require a lot of work. However as put forward by Appelbaum, Kotter's eight stages do not necessarily guarantee success.

From the findings, it appears that this is a success, and the discussions of the findings show a positive attitude towards calling it success for now. The researchers agree that it has been a



success so far, but if it persists in the long term without addressing the points mentioned, there is doubt as to whether this will be a lasting success.

## 5.2 Lean vs. LoFo

Early on it was stated in the case that LoFo took an untraditional approach to change management and that was a contributor to their success. The results confirm that the traditional way is referred to as Lean implementation that was the prior improvement initiative at Equinor. An initiative that was cancelled and has since faded away in large parts, according to the interview candidates. LoFo aimed to learn from the failure of the Lean implementation and has made several adjustments. Where LoFo differs from Lean is in its choice of implementation. The literature suggests that when it comes to Lean implementation it is necessary to involve all levels of the organization (James, 2006; Modig & Åhlström, 2012; Zhou, 2016). This is believed to not be the case for LoFo nor the goal. The results indicate the use of selective involvement with a big focus on practical application. A focus on measurements and results with a focus towards short-term steps. And a focus on involving the management so they can continue the work long-term, which is emphasized by the 5<sup>th</sup> principle. Nevertheless, as mentioned before the principles are clearly inspired by Lean, but with a twist to suit Equinor's domain.

LoFo shows elements of attempt to be very dynamic with not only learning from previous mistakes of Lean implementation but also learn as they move forward with the initiative. It's been observed that LoFo puts an emphasis on “do as they teach”, displaying a wish to not only improve the BUs but also their own initiative. The results uncover an internal system of feedback and experience sharing, giving LoFo the ability to learn as they go and adapt.

### 5.2.1 Bottom up

LoFo does not involve all the people on the worker level as Lean is advocating. Instead, the “bottom-up” referred to in the mandate has proven to be a way of involving the BUs in the initiative and let them decide on what cases need to be tackled and improved by the initiative. The results suggest the reason for this decision is based on some knowledge of general resistance towards improvement work on the working level, based on previous experiences.

### 5.2.2 Measurements and the result-oriented culture

The focus on measurements has led to almost all candidates reciting it as an important factor for success. In the attempt to introduce the principles and handbook, the measurements have gotten a significant focus. This has led to the enforcement of a measurement work culture. Through the observations made and the candidates interviewed there is seen a tendency of how people contribute success to measurements. This serves as proof of some cultural change or at least enforcement of focus on measurements. Although measurements and the result focus are part of the principles it still remains to be seen what survives long-term, the principles or the measurements. Regardless it is evident that the LoFo initiative has achieved some form of cultural change with the people involved.

The general focus on measurements has been traced back to how the company seems to operate. EPN demand results and results are needed to convince people that this initiative is worth spending time on, this can be seen as an indication to promote a result-oriented culture. Most of the findings therefore point towards the organizational bureaucracy. These measurements and focus on results carry familiarities with Taylorism. Covey (2009) does relate measurements to a form of control and connects it with lack of trust and empowerment. The results show however, that the desire for control lies with EPN and not LoFo. The results have however, been observed to function as motivation and used as short-term wins described by Kotter (1996), LoFo has in this way been successful in fulfilling Kotter's 6<sup>th</sup> stage. LoFo has in this way adapted taken something that is usually related with the wish to control and used for motivation. Although according to theory this is not ideal, it still is reported by most candidates an important factor to success and as a convincing factor to fight resistance.

### 5.2.3 Selective involvement

It is unclear whether the selective involvement approach by the initiative is due to known cases of change fatigue, lack of resources for a companywide involvement or whether it is due to the previous unsuccessful attempts of Lean. The empirical evidence suggests that it is possibly a mix of all three. Nevertheless, the selective approach seems to have garnered widespread support in the majority of cases and has possibly been a way to combat change fatigue within the company. The results suggest that limiting the people involved leads to smaller groups where ideas and opinions are easier heard, it is possible that this approach gives a small sense of empowerment to the people involved. One can argue that although the

selective involvement or involvement in stages contradicts the Lean implementation theory, it still follows the Lean key idea of limiting waste (Womack & Jones, 1996). Since the people have been observed to ignore information not relevant for their job, then a wide scale introduction and involvement would be counterproductive. This selective involvement and small incremental changes rather than a companywide focus fits well with Vidal (2007) suggestion for companies that experience resistance to change. The lack of a holistic implementation of the principles may also be the reason that a clear change in work culture across the BUs has not been observed yet.

### 5.3 Principles as a bridge to practice

The results indicate the 5 principles and their action patterns function very well in practical application which agrees with Skaar et al. (2020) on that principles by themselves are very action oriented. This way the action patterns seem to be good tools at enabling and introducing the principles and what they are meant to do in practice. It is possible that the action patterns take away from some of the flexibility principles have to offer, by directly attributing the principles to specific task. This, however, remains to be seen, as of right now the results indicate great satisfaction with the practical orientation of the principles.

The cultural changes make it difficult to adopt Lean directly (Modig & Åhlström, 2012). Therefore, it was important to make the distinction between eastern and western use of Lean. The findings confirm that LoFo has taken great inspiration from Lean and other places principles have seen success, in their development of the 5 principles. They have in large parts followed the idea presented by Liker (2004) in using Lean as a foundation to adapt principles to suit their need. Their next learning point from Lean fits well with Zhou (2016) and James (2006) findings, that in order to have any success in implementation the upper management must be involved. The findings confirm that the involvement of the upper management or rather lack thereof is believed to be a big reason for the failed implementation of Lean prior to the LoFo initiative. This has been observed to be a driver in the practical use of the 5<sup>th</sup> principle.

On the functionality of the principles results vary. The principles in practice do seem to have a flexible interpretation as described by Skaar et al. (2020). This has led to LoFo being able to apply principles to relevant cases and bridge the barrier between theory and practice

successfully. As the results show the principal “Flow” has been interpreted as communication by several candidates that work on a case involving communication issues between onshore and offshore. But it is unknown whether the people will adjust their view of the principles based on the case or whether “Flow” will always be related to communication for those candidates. Furthermore, the case initial suggested that the principles had been introduced differently on the organizational levels, this, however, was only found in the case of BU X. BU Y and BU Z had no such clear distinctions. It is possible this can be attributed to BU X being the first BU exposed to the initiative and that is how the principles were presented in the beginning then later changed, however no evidence was found for this possibility. It is far more likely that the difference in introduction comes down to individual views of how the principles should function in the organization and the lack of any common vision within LoFo itself. This has led to some level of confusion of what principles apply to whom, this could be the reason for higher frustration offshore at BU X.

Based on the findings the company is in an overlapping stage between centralization and decentralization. The principles and LoFo is trying to be flexible but the hard bureaucratic organization of the company makes it necessary for LoFo to adapt to. Although Covey (2009); MacDuffie (1995); Skaar et al. (2020) advocate for decentralization, it is still a difficult thing to achieve with just the use of principles. It is believed that the principles will work better in a decentralized environment. However, for now LoFo is forced to balance the flexibility of principles and adapting to the organizational result driven bureaucracy.

### 5.3.1 Development of principles of Lean to Equinors domain

The development of the 5 principles can be seen as by in large an adaptation of Lean principles to fit Equinors domain. This fits well with existing theory (Liker, 2004; Skaar et al., 2020) and might be an explanation of why Lean was less successful prior. These principles have seen positive feedback and are referred to as understandable and common sense put in a system.

### 5.3.2 Flexibility and adaptability

The initial thought of implementing the principles differently across organizational levels could lead to adaptability and flexibility seems to not be the case, rather the results suggest it creates a level of inconsistency in the implementation. The results point out some inconsistencies of which principles are for whom and contributes negatively. The results of

BU X show a higher level of frustration amongst the offshore workers due to disagreements of involvement. As mentioned by Skaar et al. (2020) and also by Covey (2009) principles are flexible enough on their own, leaving room for interpretation, it is therefore little need to further divide the principles use in different organizational levels as it causes further confusion like the results illustrate. The results however suggest that this is done out of necessity for the heavy bureaucracy present with the organization. Because LoFo has been forced to adapt to the expectations put on them it can explain both the focus on measurements and the sequencing of the principles. Although Skaar et al. (2020) warns against these sequences it is believed to be done by LoFo to adapt to their environment. The results does support Skaar et al. (2020) however, in that some candidates do see the handbook as a method. It is, however, unclear whether this is a net negative, due to how the organization operates.

### 5.3.3 Taylorism in the 2<sup>nd</sup> principle

The 2<sup>nd</sup> principle and its action patterns indicate a desire to create the best OPL, or to create the “one and best” standard or work process that would describe how a task should be performed. It, therefore, seems to be some similarities between how LoFo operates and Taylorism. Taylor went ahead to say that standardization was needed to make it more efficient, where the executor had to execute, and the management was supposed to plan, organize, look for improvements and standardize work task (Sangolt, 2006; Taylor, 1911). Thus, parallels can be drawn where Taylor put forward that management should be responsible for this. The findings and method of LoFo show that they are trying something similar, but that they have in fact chosen to include some of the workers in the BUs. As it appears the LoFo initiative team, with the established new improvement initiative, is supposed to create the most effective and “the best method” of procedure that should be followed for the workers involved, and the subsequent workers. As mentioned in the theoretical framework, Taylorism has been criticized for standardizing the task too much. It's therefore important to consider the possible negative aspects of standardization.

## 5.4 Empowerment

Skaar et al. (2020) concludes by stating that some of the power that principles hold is to function as guides they are non-conclusive and therefore call for reflection, interpretation and encourages people to reason and think for themselves. Covey (2009) state similar views and

refers to this as empowerment, and states that the goal of principles by in large is to empower the individual to act independently. Although Vidal (2007) critiques to what degree empowerment affects job satisfaction, even he acknowledges that empowerment is still one of the factors.

In retrospective of the findings, it is indicated that LoFo wishes to teach the management of each individual BU to be independent and drive the improvement work further. It is both stated in the operation model, and it is found in the qualitative findings. The wish to teach the management is seen as a clear relation to Covey's definition of empowerment. It is therefore clear that a lot of the empowerment potential of LoFo's principles lies in the "Leadership" principle by design. Covey (2009) also makes it clear that true empowerment is only possible when a level of trust is present. The findings show mixed results. It is observed that there is a lack of trust in the offshore workers to understand the theoretical aspects of the principles, leading to a desire to focus primarily on management and keep the principles strictly practical for the workers. This has shown good results in the pilot-phase and transition-phase, however, in the self-driven phase some challenges of involvement arise. Whether this is due to higher expectations of involvement from the workers offshore at that stage, or whether it is a general show of frustration after being dissatisfied for a longer period of time with the involvement is unclear. However, the workers display a higher dissatisfaction rate than other phases, due to the lack of empowerment through involvement. The results suggest that for any long-term use of the principles and the handbook there must be a sense of empowerment since according to Covey (2009), this is one of their core strengths of principles compared to other methods. It is true that satisfaction of employees is not only determined by empowerment, but it is an important factor, nonetheless.

#### 5.4.1 Management vs. Leadership

As part of the findings the researchers found that the translation of the 5<sup>th</sup> principle may be somewhat confusing. The translation is "leadership", however a large part of the description and action patterns are related to "management". The literature makes a clear distinction of the two terms and how the word leadership leads to empowerment pointed out by Covey (2009). It is therefore here part of the problem of refreezing is believed to take place. The results show that LoFo attempted to do both. Parts of the principle describe motivation and inspiring people to act, yet LoFo lacks the fundamental of a vision. The results therefore indicate that the attempt to inspire for a long-term work is usually met with a large dose of

skepticism. The other parts of the principle describe structuring and management of resources, the focus on measurements further underlines the idea of control which is related to management. Furthermore, as mentioned before there is a great deal of confusion about who this principle is relevant for, causing further inaccuracies. Although it is true according to Skaar et al. (2020) that principles should serve as a guide and not a rule set, it is still important to make sure the guide is working as intended.

It is also important to keep in mind that an overfocus on management can easily lead to more control and less empowerment, as seen from the criticism that was directed at Taylorism. As mentioned, this can lead to dehumanization and demotivation amongst the workers. The results indicate further demotivation will lead to severe resistance to the initiative.

#### 5.4.2 Empowerment through the 5<sup>th</sup> principle, or rather lack thereof

Due to the aforementioned confusion of the 5<sup>th</sup> principle, the researchers further observed its abilities to empower. The results suggest that if the 5<sup>th</sup> principle is withheld from the lower organizational levels, the feeling of empowerment will be missing. This leads to a bigger level of dissatisfaction, lack of ownership, and even outright dismissal of the initiative. Earlier it was mentioned that a higher level of frustration found offshore at BU X. The reasoning behind this comes from the idea presented by some candidates stating that principle 1-3 are relevant for workers offshore while principles 4-5 are not relevant. This finding is of interest because it contradicts the other idea that is found in the candidates, that the principles are for everyone and that they are connected. By taking away the 4<sup>th</sup> and the 5<sup>th</sup> principle from the workers offshore you are taking away their role in the 4<sup>th</sup> principle continuous improvement and their responsibility and potential empowerment through the 5<sup>th</sup> principle. The workers offshore at BU X relate empowerment to Lean's way of involvement in the initiative prior, focusing on the individual. This can explain the higher level of frustration found amongst the offshore workers at BU X, since the largest complaint observed is lack of involvement. Referring back to Kotter (1996), it is important to empower the people, since these people will help to take action and spread the initiative. This should not be limited to the management but should be the focus for everyone directly involved with the initiative.

## 5.5 Change fatigue

The organization is suffering from change fatigue amongst its employees. The degree of change fatigue is unknown, and it varies amongst employees, but the empirical findings show that 13 out of 17 candidates that are part of a BU report some level of change fatigue. Change fatigue is also observed to be more widespread offshore than onshore, with all of the offshore candidates reporting change fatigue (7 out of 7), while a smaller percentage onshore report change fatigue (6 out of 10). The findings suggest that LoFo is aware of some change fatigue. LoFo has therefore made conscious decisions on how to introduce the initiative. Such as, selective involvement, practical introduction, motivation through short-term wins. LoFo candidates describe a humble approach and focus communication, in an attempt to reduce skepticism. This idea fits well with de Vries and de Vries (2023) and is an element that can battle change fatigue. This, especially the principles ability to be used in a practical introduction has seen positive feedback. Based on this and Skaar et al. (2020) description of principles being action oriented, it is believed that principles function as a great tool to battle change fatigue. Furthermore, since there is an established link between empowerment and satisfaction (Vidal, 2007) and a strong link between empowerment and the principles (Covey, 2009), it is reasonable to assume that the principles can be even more effective to battle change fatigue, when utilized as described by Covey (2009) and Skaar et al. (2020).

### 5.5.1 The drawing

The story of the drawing that was observed during two interviews illustrates very well the change fatigue that is felt offshore. The drawing describes very well the idea that these types of initiatives start-up periodical, and the feeling offshore generally feel towards them. Based on these findings it is believed that LoFo will have a bigger challenge offshore than onshore. Since it was earlier established that for any long-term success it is necessary to involve offshore, it is believed that a big challenge to overcome change fatigue for LoFo is still ahead.

### 5.5.2 The long-term uncertainty and skepticism

Despite the attempts made by LoFo to limit skepticism the uncertainty of the longevity of the initiative still persists. The BUs in the transition phase and self-driven phase express uncertainty on whether this initiative will continue. Whether people remember Lean in a good or negative light, has little effect on the change fatigue present here. Because the general idea of wasting time and resources to learn about a new initiative that will simply disappear, is



enough of a negative experience itself. It is the fact that there is constant change and new initiatives come and go and become simply extra work. This kind of view from employees is not unique, Vidal (2007) found similar opinions in his research. Under normal circumstances this would come down to the worker's ability to adapt. However, when employees suffer from change fatigue it affects their ability to adapt (Bernerth et al., 2011). The results indicate that LoFo has been able to battle some of the skepticism but the uncertainty for the future still persists. Based on this it is believed that change fatigue is LoFo's biggest challenge now and in the future. It is further believed that if LoFo disappears things will go back to the way they were, and the handbook will fade away. This is suggested by the lack of independence and sustainability in the self-driven phase.

## 5.6 Answer to the research question

The findings suggest that the principles in large part led to successful change management due to their ability to overcome change fatigue and empower employees. As mentioned before the findings show different interpretations of success. It is therefore reasonable to assume that the initiative has been successful so far, however, it was found that success can be interpreted differently. Therefore, the researchers choose to put an emphasis on the success described by Kotter (1996). Although some problems have been uncovered, the initiative is believed to still possess the ability to be successful long-term. LoFo should make adjustments to their initiative in the long term. Should adjustment not be made for long-term success it is believed that the initiative will struggle. The principles have led to successful change management the following ways:

- The principle's ability to incorporate measurements and results, facilitating short-term wins regularly.
- The principle's function as a bridge between theory and practice, making them relevant for all organizational levels.
- The principle's ability to be relevant to all levels of the organization can empower workers and fight change fatigue.
- The principle's ability to be used for practical application further battle change fatigue.
- The principle's ability to personalize Lean to fit into Equinors domain.
- The principle's ability to be flexible and be used in different practical applications regardless of the different cases at individual BUs

## 6.0 Conclusion

In this thesis the researchers have explored the use of principles, with the intent to answer the research question: “*How do the use of principles lead to successful change management*”.

To illuminate the research question, the researchers have participated in several meetings to understand how LoFo proceeds with their operational model. In addition to the meeting observations, 20 candidates were interviewed. The result from the study indicated that the use of principles has helped the company to succeed with change management in several ways. The master thesis is a case study, which uses qualitative data and presents findings set in the light of the company’s situation. The main objective is not to create transferability, however other companies can still be able to benefit from this thesis provided they are in a similar context as the research company.

Equinor is a company with complex organizational structure with onshore and offshore employees, as well as having shifts. This is believed to have made improvement work difficult and complicated due to the number of people involved and the schedule that need to be accounted for. Furthermore, the results indicate resistance and skepticism found among the candidates, more so in offshore candidates than onshore candidates. This resistance and skepticism are based on previous organizational changes and improvement initiatives and is referred to as change fatigue.

In light of this complexity and change fatigue, it is believed that the small incremental changes through selective involvement and introduction rather than a companywide initiative, is one of the reasons for success. This has been enabled with the practical approach using the principles. The findings suggest general positive feedback in regard to the practical use of principles to solve relevant issues. Because of the principles action-oriented nature, they are indicated to be good guides for solving problems. With action patterns supporting this process. The principles are believed to be a factor of success due to their ability to be relevant to all levels of the organization. Whether the principles and the handbook are seen as a management tool or a practical application differ, however, the feedback of the principles is largely positive due to them being easily understood and their relevance easy to explain. The principles are also seen to remain relevant regardless of the different cases in the different BUs. This can be seen as an indication for the principle’s flexibility in application to practical cases. In this way it can be argued that the principles serve as a good example of Lean being

adapted into Equinor's domain. Regardless of whether LoFo follows Lean implementation theory.

Furthermore, it is described how a result-oriented culture and focus on measurement has been seen in the company. Principles have been indicated to be incorporate results and measurements into their use, giving an opportunity to use it to facilitate short-term wins regularly. The principles are believed to be one of the reasons for success as they seem to work well to battle change fatigue. It is therefore observed that should this improvement program have any long-term success it should continue the work and not stop it, as people have experienced things will simply fall back to their old habits. Should the LoFo initiative be discontinued, it is believed it will only attribute to further change fatigue and more skepticism to any future improvement programs, it is possible that this will inevitably lead to long term resistance towards change management.

The results indicate that this initiative has been successful so far, however, for long-term success some adjustments are believed to be needed. As the initiative moves into the self-driven phase the results show a general desire for more. There is a desire for the BU to be more self-reliant and sustainable in their future improvement work and there is a desire from offshore to be more involved. Based on the findings it is suggested for LoFo to establish a long-term vision. It is further suggested, to facilitate responsibility through the 5<sup>th</sup> principle in order to encourage empowerment in all individuals and not just the managers. The lack of empowerment through the 5<sup>th</sup> principle is also believed to be attributed to no significant change in work culture being found. Moreover, when it comes to principles attribution to successful change management, the researchers of this thesis put an emphasis on the connection between satisfaction and empowerment together with people's ability to adapt and how change fatigue can limit that ability.

Based on the findings in this thesis the conclusion of the study is therefore that principles have partly contributed to successful change management at Equinor alongside other integrated systems. The researchers only acknowledge partial contribution to success, due to the complexity of change management and the complexity of company's organizational structure. It can therefore not be said with certainty that the principles were the decisive reason for success.

## **Suggested recommendations that might be worth consideration**

Based on the work done in the thesis the researchers present some points worth discussion for the company and evaluate practical application:

- LoFo should establish a vision. The vision should function as a common ground for LoFo, establishing clarification on the relevance of principles for the organization levels and establishing a long-term vision.
- The 5<sup>th</sup> principle should be the driver for empowerment and responsibility, taking inspiration from Lean and putting an emphasis on what every individual can contribute to the success of improvement work. This should include the management but not be limited to it. This is believed to facilitate empowerment and the principles relevance for workers offshore.
- LoFo should continue their work long-term and should be the main improvement initiative long-term. If LoFo stops their operations and is in turn replaced by a different improvement initiative, it will lead to increased change fatigue.
- LoFo must continue its support for the given BUs long-term and establish new long-term goals that the BUs should try to meet with support of LoFo.
- For any long-term goal, involvement of offshore workers is necessary. LoFo should therefore consider how to tackle the introduction and spread of the 5 principles offshore.
- It is worth considering extending the transition phase to 12 months in order to further facilitate independence of the BUs from LoFo.
- The focus on measurements and results has led to a measurement culture strengthening within the BUs. This can potentially lead to the principles becoming second focus and not the first. An assessment should be made on what kind of long-term culture LoFo wishes to facilitate.
- Change fatigue should be measured periodically and treated as the biggest challenge to overcome for the initiative.
- The principles should be used as a full package, the 5 principles should apply for everyone and rather than focusing on which principle is less relevant for some, the focus should be how these principles are relevant for all.
- The difference between management and leadership should be evaluated in relation to the 5<sup>th</sup> principle and some changes should be considered.

## **Future research**

The case of change management at Equinor is a developing case and the work is ongoing. This master thesis opens for future research on change fatigue. It would be interesting to send out the intended survey and compare the findings of this thesis. As this might give an indication of the degree of change fatigue in the company. The level of change fatigue and how it develops over time could be an interesting research topic for the future as well as how to reduce change fatigue.

It would be interesting for future research to explore how well principles battle change fatigue, this thesis presents some factors that affect the battle against change fatigue. Such as doing a prolonged study following multiple BUs through their phases. Furthermore, it can be of interest to explore how other OCM theories can improve the existing LoFo operational model.

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# Appendix

## Appendix A – Mandate

MANDAT For Forbedringsarbeid		Neste steg i en varig, selvdrevet forbedringskultur i UPN
<p>UPN ledelse har iverksatt initiativet Lokalt Forbedringsarbeid -Neste steg som skal videreutvikle arbeidet med daglige, lokale forbedringer og sikre at dag-til-dag forbedring fortsatt er en viktig del av innsatsen for å styrke konkurransekraften til selskapet. Equinor sin kontinuerlige forbedringsstrategi som handler om hvordan vi jobber for å sikre målbasert forbedring i våre verdikjeder ligger til grunn for initiativet. Det er et ønske fra ledelse og foreningene om å stå sammen om dette initiativet og å etablere et mandat for arbeidet.</p>		
Formål/ønsket situasjon	Leveranser (fra felles A-standard 03.11.20)	
<ul style="list-style-type: none"> <li>Målet for initiativet er neste steg i en varig, selvdrevet forbedringskultur i UPN, der hvordan vi jobber med daglige forbedringer og hvilke forbedringer vi jobber med sikrer kvalitet og flyt i arbeidsdagen for den enkelte (etablert I fellesskap)</li> <li>Konkretisere hvordan vi i UPN driver dag til dag kontinuerlig forbedringsarbeid</li> <li>Skape suksesshistorier sammen</li> <li>Engasjere organisasjonen</li> <li>Bedret samarbeid mellom foreningene og ledelse i UPN</li> </ul>	<ul style="list-style-type: none"> <li>Etablere felles håndbok for hvordan alle i UPN jobber med kontinuerlig forbedring i hverdagen</li> <li>Etablere, gjennomføre og evaluere pilot(er) og sikre læring/deling på tvers</li> <li>Etablere Kompetanse og kommunikasjonsstrategi og pakker for å istandsette organisasjonen (treninger)</li> <li>Evaluere leveransene mot ønsket situasjon og foreslå veien videre (nå-situasjon vs ønsket situasjon)</li> </ul>	
Organisering av arbeidet	Milepæler	
<ul style="list-style-type: none"> <li>Opgavestruktur med tre hovedarbeidsstrømmer som drives av UPN Lean coacher. TV/VO deltar etter ønske/kapasitet og lokale TV/VO deltar i lokalt arbeid</li> <li>Initiativleder Siri Berge Aarestrup</li> <li>Partsammensatt referansegruppe etableres med alle Foreningene representert (DPN TV) og HVO og andre relevante roller fra ledelsen/organisasjonen</li> </ul>	<ol style="list-style-type: none"> <li>Forankring av mandat i UPN BU &lt;27.11.20&gt;</li> <li>Etablert kommunikasjonsside &lt;30.11.20&gt;</li> <li>Info i AFF &lt;10.12.20&gt;</li> <li>Etablere treninger (kompetanse og kommunikasjonsstrategi) &lt;20.12.20&gt;</li> <li>Oppstart treninger &lt;11.01.21&gt;</li> <li>Etablere og prøve ut KF Håndbok v0 i KHN &lt;30.05.21&gt;</li> <li>Etablere pilot(er) og kunde, gjennomføre, ta ut læring &lt;30.05.21&gt;</li> <li>Egenevaluering av behov for initiativet: Evaluering og skalering &lt;30.08.21&gt;</li> </ol>	
Samordning og grensesnitt	Oppsiderisker	Nedsiderisker
<ul style="list-style-type: none"> <li>UPN Forbedring</li> <li>«AFF»</li> <li>UPN BU</li> <li>UPN LED</li> <li>OX/JOS Forbedringsledere</li> <li>Samarbeidsorgan</li> </ul>	<p>Ansatte blir involvert/Eierskap og forankring            Godt arbeidsmiljø (engasjement og motivasjon)            Ny driv i forbedringsarbeidet            Sikre/Forbedret flyt            Styrket samarbeid og tillit mellom foreningene og ledelse</p>	<p>Ansatte blir ikke tilstrekkelig ivaretatt/involvert            Tid/Kapasitet            «Nok et initiativ/forbedringsinitiativ»            Vi er for utålmodige –mangelfull «stayer-evne»/Vi tar oss ikke tid til å stabilisere prosessene            Risiko for at samarbeid utenfor initiativet og i mandatet påvirker resultatet negativt</p>

## Appendix B - LoFo operating model

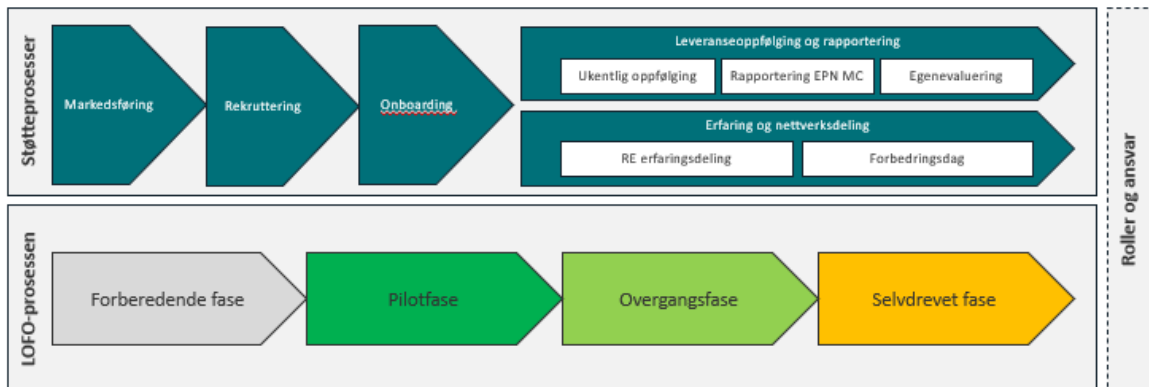


### Roller og ansvar i de forskjellige fasene av LOFO prosessen

	Forberedende fase	Pilotfase	Overgangsfase	Selvdrevet fase
LOFO	Hovedansvar <ul style="list-style-type: none"> <li>å finne ut hvor skoen trykker</li> <li>Utarbeide mandat for hver av pilotene</li> <li>Modne MC på håndboken</li> </ul>	Hovedansvar <ul style="list-style-type: none"> <li>Scoping av piloter som støtte til ledelse og arbeidsgruppe</li> <li>Støtte og hjelpe lokal forbedringsleder i trening av håndboken</li> <li>Fasilitere MC-møter</li> <li>Rapportere inn til EPN MC</li> <li>Ta lead på utarbeidelse av fase- og installasjonsvise planer</li> <li>Starte opp lokal referansegruppe</li> </ul>	<ul style="list-style-type: none"> <li>Gradvis overlevere piloter og MC-møter til lokal forbedringsleder og linjeledere</li> <li>Støtte lokal forbedringsleder i det som trengs</li> <li>Støtte lokal forbedringsleder i oppstart av nye initiativer</li> </ul>	<ul style="list-style-type: none"> <li>Følge opp hvert RE i mandagsmøter (rapportering), og støtte lokale forbedringsledere basert på denne input</li> <li>Arrangere forbedringsdag</li> </ul>
Lokal forbedringsleder	<ul style="list-style-type: none"> <li>Delta i å finne ut hvor skoen trykker</li> <li>Delta i å utarbeide mandat for hver av pilotene</li> <li>Lære seg håndboken og kjenne materialet godt</li> </ul>	<ul style="list-style-type: none"> <li>Deltar i piloter</li> <li>Delta i MC møter</li> <li>Delta i rapportering til EPN MC</li> <li>Lære seg håndboken og linke til praktisk forbedringsarbeid</li> <li>Delta i utarbeidelse av fase- og installasjonsvise planer</li> <li>Delta i oppstart av lokal referansegruppe</li> </ul>	Hovedansvar <ul style="list-style-type: none"> <li>Gradvis overta piloter og MC-møter til lokal forbedringsleder</li> <li>Rapportering til EPN MC via LOFO</li> <li>Sikre at RE jobber iht. faseplaner</li> <li>Sikre at installasjoner jobber iht. deres planer</li> <li>Starte og følge opp KF-grupper</li> <li>Sikre at nye initiativer som startes gjøres iht. håndboken</li> <li>Sikre at arbeidet i lokal referansegruppe fortsetter</li> </ul>	Hovedansvar <ul style="list-style-type: none"> <li>Drive håndboksarbeidet videre sammen med MC og linjeledere</li> <li>Rapportere om utfordringer og behov for hjelp til LOFO</li> <li>Bidra på årlig forbedringsdag med historier fra eget RE</li> <li>Dele erfaringer (i fast struktur) med andre lokale forbedringsledere</li> <li>Sikre at nye initiativer som startes gjøres iht. håndboken</li> <li>Sikre at arbeidet i lokal referansegruppe fortsetter</li> <li>Sikre at RE gjør egnevaluering 6 mnd. etter implementering</li> </ul>

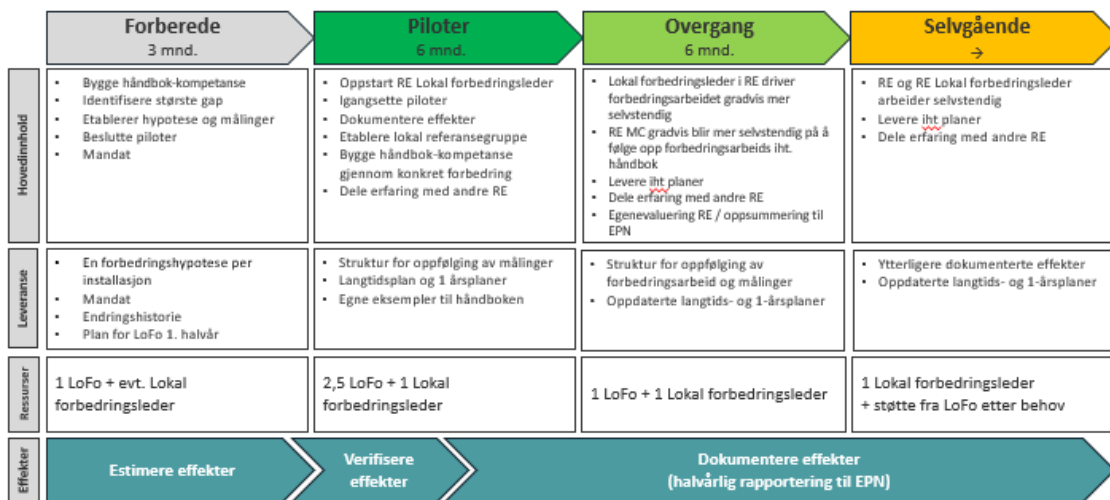


### LoFo prosesser



Open

## This is the way we work in LoFo



Open

## Erfaring og nettverksdeling


Klikk for å legge til en undertittel

## RE erfaringsdeling – Lokal Forbedring Nettverksmøte

Møtebeskrivelse – Fast deling mellom lokale forbedringsledere			
<b>Når og hvor</b> • Tid: 1,5 time • Sted: Teams eller fysisk • Hyppighet: Månedlig	<b>Agenda</b>		
	Hva	Ansvarlig	Tid
<b>Deltakere og eier av møtet</b> • Alle lokale forbedringsledere • Eier: Lokale forbedringsleder KHN	• En runde rundt bordet: hva skjer og hva er vanskelig? (one pager) • Faglig presentasjon til neste møte • Noen arenaer vi bør inn på for å dele erfaring? • Noen deler en erfaring (Som er blitt enig om i forrige møte) • Diskusjon		30 min 10 min 10 min 30 min 10 min
	<b>Mål og hensikt</b> • Sikre at alle RE som er i gang med LOFO, eller har implementert LOFO, deler erfaringer og hjelper hverandre når det trengs. • Lokal forbedringsleder har ansvar for å ivareta sitt RE sine interesser i møtet (for eksempel at lærerik informasjon tas videre eller avtales egne møter om med de riktige ressursene)		
<b>Forberedelser</b> Alle forbereder seg ved å fylle ut <i>følgende dokument</i> → alle lokale forbedringsledere. Frist: 1 uke før møtet. • One-pager som oppsummerer hvor skoen trykker totalt sett → LFL KHN og SLSN	<b>Leveranse</b> • One pager lagres <i>her</i> • Erfaringsdeling lagres <i>her</i>	<b>Grunnregel</b> • Alle skal ha lest gjennom nyge, søkt avklaring i forkant om noe har vært uklart. Forberedt seg på hva de lurte på og har kommentarer til	

Oppm

## Appendix C - Handbook








### Handbook EPN

## Version 1.2 (22.02.23)




Contain:

- Why, What, and How
- Principles, Rules in use, and examples
- Tools and templates

Understand 	Standardization 	Flow 
Continuous improvement 		
Leadership 		

## The handbook will contribute to creating a better workday for everyone!









Level	How should the handbook contribute to making the workday better?
The top manager/ BU-level 	<ul style="list-style-type: none"> <li>The handbook gives the leadership a description of how KHN will address challenges so that we ensure goal achievement</li> <li>The handbook gives the leader a description of what responsibility the top leadership has in the improvement work, and what the leadership should do – specifically</li> </ul>
Middle-level manager/ Team-level 	<ul style="list-style-type: none"> <li>The handbook provides specific descriptions of how one should handle various challenges the middle-level managers/teams may face</li> <li>The handbook describes how to ensure that the entire department/team contributes to improving the results</li> </ul>
The employee/ Individual level 	<ul style="list-style-type: none"> <li>The handbook ensures that everyone can contribute to making the workplace better and this help to ensure that the right challenges/obstacles are addressed in a systematic way</li> <li>The handbook makes it easier for everyone to know which standards are applicable and how to report deviations/improvements to the standards</li> </ul>

2 |

Open

## .. But everyone has to contribute!



Level	What does this require of us?	Most used principles
The top manager/ BU-level 	<ul style="list-style-type: none"> <li>Set direction and facilitate the improvement work</li> </ul>	
Middle-level manager/ Team-level 	<ul style="list-style-type: none"> <li>Lead the improvement work on a daily basis</li> </ul>	
The employee/ Individual level 	<ul style="list-style-type: none"> <li>Find out which standards apply to you</li> <li>Ensure compliance with the standards and let us know if it is not possible or the smartest way</li> <li>Give input for improvements</li> </ul>	

3 |

Open

## In KHN we comply with the 5 principles to ensure good workdays for everyone



We have a foundation for prioritising and can document that the improvement work provides effects

We have good standards that describe best practice and «how» we should work, to ensure compliance and continuous improvement of the standards

We have a good flow of products, services, and communication in our work processes

All levels in the organization contribute to continuously improving our results

The leadership (and those with an area of responsibility) are able to set direction, organize and follow up improvement work that gives the desired effects

Open



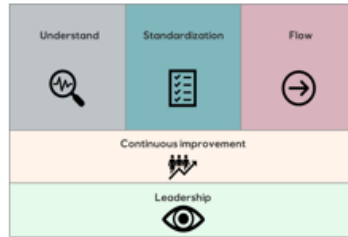
## Main structure and principles



# 5 principles and related rules in use



- 1. Understand**
- 1.1 We analyze the as-is situation
  - 1.2 We understand the root causes of our challenges
  - 1.3 We specify which measurements to be improved
  - 1.4 We facilitate follow-up with measurements



- 3. Flow**
- 3.1 We identify needs for the next step in our processes
  - 3.2 We understand and ensure proficient flow in our processes
  - 3.3 We report deviations in our processes
  - 3.4 We address deviations and challenges

- 2. Standardization**
- 2.1 We define our critical processes
  - 2.2 We create comprehensible standards
  - 2.3 We follow up on compliance with our standards
  - 2.4 We improve our standards

- 5. Leadership**
- 5.1 We build and tell change stories
  - 5.2 We initiate improvement work and dedicate resources
  - 5.3 We go out and observe, to understand how we can help
  - 5.4 We provide recognition and feedback

- 4. Continuous improvement**
- 4.1 We adapt the structure for improvement
  - 4.2 We work systematically with known methods/tools
  - 4.3 We visualize the results continuously

# The purpose of the principles, rules in use, checklists, and examples



All principles have a «front page» that summarizes the principle's purpose and rules in use

The purpose with Understand	Rules in use
<ul style="list-style-type: none"> <li>• We have a solid foundation for prioritizing</li> <li>• We can document that the improvement work provides effects</li> </ul>	<p><b>1.1 We analyze the as-is situation</b> So that we identify / understand the most important areas for improvement</p> <p><b>1.2 We understand the root causes of the challenges</b> So that we know that we are addressing the problem</p> <p><b>1.3 We specify which measurements to be improved</b> So that we ensure effects are rooted in the goals of the business</p> <p><b>1.4 We facilitate follow up with measurements</b> So that we determine a basis for monitoring progress</p>

Front page of principle 1

Each rule in use is explained on a «theory slide» and is summarized in a checklist

**Rule in use 1.1. We analyze the as-is situation**  
\*1.1.1 We identify / understand the most important areas for improvement

The rule in use 1.1.1 is explained on a theory slide (left) and summarized in a checklist (right).

**Checklist**

1.1.1.1 We identify / understand the most important areas for improvement	<input type="checkbox"/>
1.1.1.2 We understand the root causes of the challenges	<input type="checkbox"/>
1.1.1.3 We specify which measurements to be improved	<input type="checkbox"/>
1.1.1.4 We facilitate follow up with measurements	<input type="checkbox"/>

Theory slide with the rule in use 1.1: We analyze the as-is situation. The checklist is shown as a table on the right side

Each rule in use is exemplified. The checklist follows and illustrates which points have been completed

**Examples of the rule in use 1.1. We analyze the as-is situation**

What you will see: Examples of the rule in use 1.1.1.1: We identify / understand the most important areas for improvement. The examples show how the rule in use is applied in practice.

What the data tell us: Examples of the rule in use 1.1.1.2: We understand the root causes of the challenges. The examples show how the rule in use is applied in practice.

What we see together: Examples of the rule in use 1.1.1.3: We specify which measurements to be improved. The examples show how the rule in use is applied in practice.

What we see together: Examples of the rule in use 1.1.1.4: We facilitate follow up with measurements. The examples show how the rule in use is applied in practice.

Exemplified by the rule in use 1.1, that shows that 3 out of 4 checkpoints have been completed

## Appendix D – Researchers survey

### Survey Masteroppgave


\* Obligatorisk

1. Hvilken plattform cluster hører du til? \* 

- KHN
- SLSN
- GF


2. Hvilken rolle har du? \* 

- Individuell bidragsyter (eks. fagingeniør, operatør)
- Teamleder (eks. Fagansvarlig)
- Leder (eks. D&V leder, vedlikeholdsleder (and))
- Toppleder (eks. PLS, prosjef)
- Annet

3. Hvor lenge har du vært i organisasjonen? \* 

- Mindre enn 1 år
- 1-2 år

- 
- 2-3 år
  - 3-4 år
  - 4-5 år
  - 5-10 år
  - Mer enn 10 år

4. Arbeidssted - jobber du \* 


- Onshore
- Offshore

5. Hva er håndboken for deg? \* 


- Metode
- Tankegang
- Arbeidskultur/væremåte
- Arbeidsrutiner
- Veileder
- Ekstraarbeid
- Byrde
- Kjenner ikke til
- Annet

6. Hva er prinsippene for deg? \* 


- Metode
- Tankegang
- Arbeidskultur/væremåte
- Arbeidsrutiner
- Veileder
- Ekstraarbeid
- Byrde
- Kjenner ikke til
- Annet

7. Hvor skeptisk er du til forbedrings initiativet basert på tidligere erfaring med forbedrings arbeid hos Equinor? (På en skala fra 1 til 5 der 1 er ikke skeptisk og 5 er svært skeptisk) \* 


1                      2                      3                      4                      5

8. Kommer dine kollegaer til å benytte håndboken kontinuerlig fremover? \* 


- Ja
- Nei
- Vet ikke

9. Kommer dette forbedringsinitiativet til å forsvinne og blir erstattet med ett nytt forbedringsinitiativ? \* 

- Ja, mest sannsynlig
- Nei, dette har kommet for å bli
- Vet ikke

10. Er aktiv oppfølging nødvendig for at forbedringsarbeidet skal fortsette? \* 

- Ja
- Nei
- Vet ikke

11. Hva er det som har gitt deg mest myndiggjøring (Empowerment)? \* 

- LoFo initiativet
- Kontakt med min nærmeste leder
- Prinsippene
- Håndboken
- Føler ikke jeg har fått myndiggjøring (empowerment)
- Annet

12. Er LoFo sitt initiativ bedre enn tidligere forbedringsinitiativ? \* 

- Ja
- Nei
- Det er det samme
- Verre

## Appendix E - Checklist

Principle 1: Understand		Principle 2: Standardization		Principle 3: Flow		Principle 4: Cont. Improvement		Principle 5: Leadership		
<b>1.1 Analyze the as-is situation</b>		<b>2.1: Critical processes</b>		<b>3.1: Needs for next step</b>		<b>4.1: Structure for improvement</b>		<b>5.1: Change stories</b>		
Checklist	Ok	Checklist	Ok	Checklist	Ok	Sjekkpunkt	Ok	Checklist	Ok	
Numbers and facts		Defined criteria		Customer needs		Imp. work is organized		Easy to understand		
Employees and managers		Systematic way		Supplier needs		Organization is followed up		Why		
Observed the process		Most important first		The end customer's needs						
Find current standards				Documented needs and measurements						
				Follow-up on compliance						
<b>1.2: Root causes</b>		<b>2.2: Standards</b>		<b>3.2: Proficient flow in our process</b>		<b>4.2: Known methods/tools</b>		<b>5.2: Initiate improvement</b>		
Checklist	Ok	Checklist	Ok	Checklist	Ok	Sjekkpunkt	Ok	Checklist	Ok	
Structured analysis		Users gives input		Find your processes		Receive ideas		Prioritize		
Different eyes		Easily accessible		Physical flow		Process ideas		Understood challenges		
documented		Content i.a.w. template		Administrative flow		Work with measures		Resources		
		The document is managed		Define lead time		Feedback		Follow up		
						Goal achievement				
<b>1.3: Measurements</b>		<b>2.3: Compliance</b>		<b>3.3: Report deviations</b>		<b>4.3: Visualize results continuously</b>		<b>5.3: Observe and understand</b>		
Checklist	Ok	Checklist	Ok	Checklist	Ok	Checklist	Ok	Checklist	Ok	
Baseline and goal		Direct observation		Solution to reporting deviations		Understand status		Visibly present		
Timeline		Follow-up target figures					Find status		Ask questions	
Contribute to important goals		Deviation treatment					Visualization of goal achievement		Deviations	
		Collect data on compliance								
<b>1.4: Follow up</b>		<b>2.4: Improve our standards</b>		<b>3.4: Address deviations and challenges</b>				<b>5.4: Recognition and feedback</b>		
Checklist	Ok	Checklist	Ok	Checklist	Ok			Checklist	Ok	
Meeting structures		Arenas for assessment		Understand the problem				Constructive feedback		
Meeting rules		Based on data and facts		Most important measures				Right behavior		
Numbers and measurements		Responsible		Follow up if it works				Success		
Responsibilities and roles		Everyone has knowledge								

## Masteroppgave – intervjuer BU Deltagere

Masteroppgavens problemstilling er som følger: «How do the use of principles lead to successful change management?»



### Hvorfor er dette nyttig?

Masteroppgaven vil kunne bekrefte hva vi har fått til og hvor vi kan forbedre oss. De ønsker å samle inn data fra [redacted], dette vil gi dem en mulighet til å dømme bruk, implementering og tilpasning av håndboken og dens prinsipper. De vil så kunne gi oss en bekreftelse på hva som er gjort riktig og hva vi kan ta med videre og gjøre annerledes på de fremtidige RE-ene.

### Hva får vi igjen?

Oppgaven vil kunne bidra til at Lofu kan legge enda bedre til rette for forbedringsarbeidet i EPN. Samt vil dokumentet være nyttig for hele EPN fordi vi får undersøkt hvordan arbeidet har pågått og dokumentert hva som har fungert bra, mindre bra.



### Praktisk Informasjon

De intervjuer 6-7 personer som har hatt en sentral rolle i pilotene -- på BU eller Lofu. Intervjue vil vare i 45 minutter per kandidat. Kandidatene vil bli spurt om deres erfaring på godt og vondt. Intervjuene utføres på Teams og det er ønskelig å ta det opp for at studentene skal kunne høre det om igjen om nødvendig.

Alt som har med konfidensialitet er godkjent sentralt i Equinor og dokumentert i egen NDA avtale



Open





## Vil du delta i forskningsprosjektet?

### *What are the important factors of the success story of EPN Improvement program in Equinor.*

Dette er et spørsmål til deg om å delta i et forskningsprosjekt hvor formålet er å innhente data for å benytte det til masteroppgave. I dette skrivet gir vi deg informasjon om målene for prosjektet og hva deltakelse vil innebære for deg.

#### Formål

*Vi skal skrive avsluttende Masteravhandling og vi vært så heldige å få Equinor som case bedrift.*

#### Norsk:

*En håndbok ble iverksatt på noen plattformer hos Equinor og er et aktivt prosjekt for å implementere den på tvers av alle plattformer. Håndboken består av 5 nøkkelpinsipper og er tilpasset i små variasjoner på tvers av Equinors plattformer i dag. Gitt hvordan det er et aktivt prosjekt har vi muligheten til å evaluere denne implementeringen på ulike stadier. Equinor hevder at deres utradisjonelle måter å implementere på har ført til bedre resultater enn med tradisjonell implementering. Det er en flott mulighet til å se hvordan ledelsen implementerer denne håndboken og tilpasser den på tvers av sine plattformer. Vår studie kan illustrere hva de gjør bra og hva som kan forbedres som er relevant for eventuelle videre implementeringer og tilpasninger. Vår interesse ligger i ledelse og se hvordan menneskene på hver plattform reagerer på implementeringen av de 5 prinsippene. Vår metode er: Empirisk studie ved hjelp av primærdata samlet inn gjennom intervjuer og undersøkelser.*

#### English:

*A Handbook was implemented at some platforms at Equinor and is an active project to implement it across all platforms. The Handbook is made up of 5 key principles and is adapted in small variations across Equinors platforms today. Given how it is an active project we have the opportunity to evaluate this implementation at different stages. Equinor claims that their untraditional ways of implementation has led to better results than with traditional implementation. It is a great opportunity to see how management implement this handbook and adapt it across their platforms. Our study can illustrate what they do well and what can be improved which is relevant for any further implementations and adaptations. Our interest lies in management and see how the people on each platform react to the implementation of the 5 principles. Our method is: Empirical study using primary data collected through interviews and surveys.*

### **Hvem er ansvarlig for forskningsprosjektet?**

*Studentene i prosjektgruppen og veileder ved Universitetet i Agder, samt Lofo og Are fra Dusin.*

*Hvis aktuelt, nevnt navn og beskriv samarbeid med andre institusjoner, ekstern oppdragsgiver etc.*

*Are Jaastad – Ekstern veileder fra Dusin.*

*Tove Stenberg Vold – Ekstern veileder fra Lofo i Equinor*

*Tehmur Ali Ifzal – Student ved Universitetet i Agder*

*Alexander Evgeny Andreassen – Student ved Universitetet i Agder*

### **Hvorfor får du spørsmål om å delta?**

*Utvalget er Strategisk Valgt ut. Du er dermed valgt ut på grunn av din involvering og kjennskap til Lofo og pilot prosjektene.*

*Valget har tatt en stund, mens sammen med studentene, Are og Lofo (Tove) har vi kommet frem til at du er en meget god kandidat for oss å intervjuer til vår masteroppgave.*

### **Hva innebærer det for deg å delta?**

*Intervjuet vil bli transkribert og det er lagt høyt vekt på at tilbakesporing ikke skal være mulig. Dermed forblir du anonymisert i oppgaven og kun innholdet blir benyttet i oppgaven etter transkripsjon. Tema er å snakke rundt implementeringen av Lofo sin metode og deling av ditt synspunkt. Det vil være en semi-strukturert intervju hvor vi har klare spørsmål, men samtidig underveis kan vi stille oppfølgingsspørsmål, eller så er det mulig å ta en enkel samtale.*

*Det er flere enn bare du fra pilot prosjektet som skal delta. Det er både ledelsen, meldere fra Lofo, operatører fra plattformer og mellomledere fra plattformer.*

### **Det er frivillig å delta**

Det er frivillig å delta i prosjektet. Hvis du velger å delta, kan du når som helst trekke samtykket tilbake uten å oppgi noen grunn. Alle dine personopplysninger vil da bli slettet. Det vil ikke ha noen negative konsekvenser for deg hvis du ikke vil delta eller senere velger å trekke deg.

Deltakelsen og informasjonen som blir fordelt vil ikke føre til noen negative konsekvenser for deg eller arbeiderplassen i senere tid. Opplysningene blir tatt godt vare på og transkriberes fortløpende. Dataen vil bli benyttet i en masteroppgave der formålet er å innhente eller avdekke hvilken suksess faktorer som har vært en bidragsyter til at metoden til Lofo med håndboken har vært en suksess.

### **Ditt personvern – hvordan vi oppbevarer og bruker dine opplysninger**

Vi vil bare bruke opplysningene om deg til formålene vi har fortalt om i dette skrevet. Vi behandler opplysningene konfidensielt og i samsvar med personvernregelverket.

- De som har tilgang til innhentet data fra å intervju er prosjektgruppen (Tehmur og Aleksander), samt Tove Stenberg Vold fra Lofø.
- Dataen lagres etter Equinors retningslinjer. Innlogging krevet 2 faktor, samt kan ingen andre utenfor de nevnte i dette informasjonsskrivet få tillatelse til å komme til dataen.
- Det blir ikke nevnt navn, og intervju transkriberes omgående. Samtidig vil midlertidig lagrings navnet bli erstattet med nivået du arbeidet på og en tall.

### **Hva skjer med personopplysningene dine når forskningsprosjektet avsluttes?**

Prosjektet vil etter planen avsluttes 19.Mai 2023. Alt av lagret datamateriale, personopplysninger og opptak vil slettes etter prosjektslutt 19.mai 2023 om ikke før. Blir dataen transkribert og benyttet i masteroppgaven og skal ikke ytterligere benyttes så vil dataen, personopplysninger og annet bli slettet. Det vil ikke være mulig å gjenbruke datamateriale.

### **Hva gir oss rett til å behandle personopplysninger om deg?**

Vi behandler opplysninger om deg basert på ditt samtykke.

På oppdrag fra Universitet i Agder og Equinor som case bedrift har Sikt – Kunnskapssektorens tjenesteleverandør vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

### **Dine rettigheter**

Så lenge du kan identifiseres i datamaterialet, har du rett til:

- innsyn i hvilke opplysninger vi behandler om deg, og å få utlevert en kopi av opplysningene
- å få rettet opplysninger om deg som er feil eller misvisende
- å få slettet personopplysninger om deg
- å sende klage til Datatilsynet om behandlingen av dine personopplysninger

Hvis du har spørsmål til studien, eller ønsker å vite mer om eller benytte deg av dine rettigheter, ta kontakt med:

- *John Skaar ved Universitet i Agder. Telefon nummer: 91909313 Email: john.skaar@uia.no*
- *Tove Stenberg Vold ved Lofø Equinor Email: tovvo@equinor.com*

Hvis du har spørsmål knyttet til vurderingen som er gjort av personverntjenestene fra Sikt, kan du ta kontakt via:

- Epost: [personverntjenester@sikt.no](mailto:personverntjenester@sikt.no) eller telefon: 73 98 40 40.

Med vennlig hilsen

*Prosjektansvarlig*

John Skaar

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## Samtykkeerklæring

*Tilpass avkryssingsboksene etter hva som er aktuelt i ditt prosjekt. Det er mulig å bruke punkter i stedet for avkryssingsbokser. Men hvis du skal behandle særskilte kategorier personopplysninger og/eller de fire siste punktene er aktuelle, anbefaler vi avkryssingsbokser pga. krav om eksplisitt samtykke.*

Jeg har mottatt og forstått informasjon om prosjektet What are the important factors of the success story of EPN Improvement program in Equinor, og har fått anledning til å stille spørsmål. Jeg samtykker til:

- å delta i Intervju

Jeg samtykker til at mine opplysninger behandles frem til prosjektet er avsluttet

---

Kandidatens underskrift:

---

Tehmur Ali Ifzal:



[Meldeskjema](#) / [What are the important factors of the success story of EPN improve...](#) / Vurdering

## Vurdering av behandling av personopplysninger

Referansenummer  
828801

Vurderingstype  
Standard

Dato  
02.02.2023

### Prosjekttittel

What are the important factors of the success story of EPN Improvement program in Equinor.

### Behandlingsansvarlig institusjon

Universitetet i Agder / Handelshøyskolen ved UiA / Institutt for strategi og ledelse

### Prosjektansvarlig

John Skaar

### Student

Tehmur Ali Ifzal

### Prosjektperiode

01.01.2023 - 19.05.2023

### Kategorier personopplysninger

Alminnelige

### Lovlig grunnlag

Samtykke (Personvernforordningen art. 6 nr. 1 bokstav a)

Behandlingen av personopplysningene er lovlig så fremt den gjennomføres som oppgitt i meldeskjemaet. Det lovlige grunnlaget gjelder til 19.05.2023.

[Meldeskjema](#)

### Kommentar

#### OM VURDERINGEN

Sikt har en avtale med institusjonen du forsker eller studerer ved. Denne avtalen innebærer at vi skal gi deg råd slik at behandlingen av personopplysninger i prosjektet ditt er lovlig etter personverregelverket.

#### DATABEHANDLER

Intern skytjeneste med avtale fra bedriften er oppgitt som databehandler. Vi legger til grunn at behandlingen oppfylder kravene til bruk av databehandler, jf. personvernforordningen art. 28 og 29.

#### FØLG DIN INSTITUSJONS RETNINGSLINJER

Vi har vurdert at du har lovlig grunnlag til å behandle personopplysningene, men husk at det er institusjonen du er ansatt/student ved som avgjør hvilke databehandlere du kan bruke og hvordan du må lagre og sikre data i ditt prosjekt. Husk å bruke leverandører som din institusjon har avtale med (f.eks. ved skylagring, nettpørreskjema, videosamtale el.

Personverntjenester legger til grunn at behandlingen oppfylder kravene i personvernforordningen om riktighet (art. 5.1 d), integritet og konfidensialitet (art. 5.1. f) og sikkerhet (art. 32).

#### MELD VESENTLIGE ENDRINGER

Dersom det skjer vesentlige endringer i behandlingen av personopplysninger, kan det være nødvendig å melde dette til oss ved å oppdatere meldeskjemaet. Se våre nettsider om hvilke endringer du må melde: <https://sikt.no/melde-endringer-i-meldeskjema>

#### OPPØLGING AV PROSJEKTET

Vi vil følge opp ved planlagt avslutning for å avklare om behandlingen av personopplysningene er avsluttet.

Lykke til med prosjektet!

## **Topp leder Nivå**

How was the introduction to the LoFo initiative?

Were you introduced to all 5 principles?

Was there a specific focus on some principles, while less focus on others?

*Principles and handbook*

*Involvement*

*Long-term*

*Measurements and results*

*Lean*

*Change fatigue*

*Empowerment*

*Success*

*Additional findings related to the phase*

## **Mellom Leder Nivå**

How was the introduction to the LoFo initiative?

Were you introduced to all 5 principles?

Was there a specific focus on some principles, while less focus on others?

*Principles and handbook*

*Involvement*

*Long-term*

*Measurements and results*

*Lean*

*Change fatigue*

*Empowerment*

*Success*

*Additional findings related to the phase*

## **Den ansatte/Individ nivå**

How was the introduction to the LoFo initiative?

Were you introduced to all 5 principles?

Was there a specific focus on some principles, while less focus on others?

***Principles and handbook***

***Involvement***

***Long-term***

***Measurements and results***

***Lean***

***Change fatigue***

***Empowerment***

***Success***

***Additional findings related to the phase***

## **LOFO candidates**

How was the introduction to the LoFo initiative?

Did you introduce all 5 principles?

Was there a specific focus on some principles, while less focus on others?

***Principles and handbook***

***Involvement***

***Long-term***

***Measurements and results***

***Lean***

***Change fatigue***

***Empowerment***

***Success***

***Additional findings related to the phase***

## **Top Management (Level 1)**

### **Candidate L - BU X (onshore)**

The candidate shows great understanding and motivation towards improvement work and has been involved with LoFo at an early stage during its initial kick off. The candidate points out that it took some time to get introduced to the principles and get used to it, out of the 5 principles the principles “understand” has had most time spent on it. The candidate notes that from what the candidate can remember the Kick-off involved a wide range of people both onshore and representative from offshore. In the beginning of this introduction, it was hard to see the benefit of the principles or the handbook, but the candidate points out that he was curious, nonetheless. The candidate also points out that there was a general need for improvement. The candidate notes that there was generally more skepticism towards any improvement programs offshore. The candidate was worried for a while during the introduction, due to it not being clear on how these principles can be used in practice. This, however, was made clear later.

The candidate knew about Lean and saw clear parallels between the principles and Lean but noted that when Lean was introduced companywide a few years ago, the candidate was away. Once the candidate returned, the candidate witnessed how Lean vanished and saw little use over time. The candidate reminiscence a positive attitude from the offshore team towards Lean when it was used stating that the workers felt involved in their improvement work, and there was made time for it on their schedule. On the topic of schedules offshore and time management the candidate pointed out that the crew offshore are constantly struggling with their schedules and priorities, this inevitably leads to improvement work often being neglected due to it not being the main priority at the time.

When asked about the handbook's long-term plan and use, the candidate points out that the handbook and its principles must see active use, if not used or supported it will fade away from people's memories. On the topic of measurements and results, the candidate reflects back on the past stating that they had poorer measurements before, usually some generic measurements with “green” or “red” symbolizing “good” or “bad”. With digitalization, however, it is now easier to achieve good measurements and the candidate is happy to see measurements used in the LoFo initiative due to them being a good tool to “understand”.

The candidate continues to talk about priorities when discussing the use of the handbook and principles offshore. On the long-term changes the candidate points out that it will take time and the improvement work must be backed up by practical examples if it wants to succeed offshore. With more resources the candidate suggests that the improvement work could be done faster, and more improvement projects could be started. The candidate finishes up by stating that the candidate is motivated to continue the work, that the initiative has done a lot of good but when it comes to long-term change and success the goal has not been reached. The candidate also points out that there is no change in work culture among the people exposed to the handbook and the 5 principles, but they seem to have a better acceptance of the work. Finally, the



candidate states the opinion that the handbook and the principles are primary management tools.

### **Candidate M - BU X (offshore)**

The candidate represents the top management offshore. The candidate reflects back at the introduction of LoFo as something that was a little too theory focused. The candidate was involved in the very beginning. The candidate points out the general skepticism that is present offshore to improvement work due to previous experiences with improvement programs such as Lean. The candidate further points out that this improvement work must have a good “sales pitch” offshore due to their tight schedules and limited resources. The candidate states that it is hard to defend another improvement initiative and improvement work in general offshore. The candidate continues by stating that the offshore team need practical examples and “proof” that it can help their workday. The candidate points out that the offshore team had seen some introduction in the beginning.

On the topic of involvement, the candidate strongly believed in the involvement of the workers in any long-term improvement work, and described “bottom-up” however, due to previous improvement programs and the general negative feelings associated to Lean it is better to not involve the workers without any direct practical examples and solid evidence of results, otherwise they will not be convinced. Therefore, the candidate points out that the current approach of involving the leadership first and establishing measurable results in order to form a convincing success story, is the best approach.

The candidate points out that the time limitations put on the different phases on the improvement work are too optimistic. When asked about which principles are the most important the candidate leans towards “understand”, stating that this principle is most used in practice. The candidate further continues by talking about improvement work. The candidate states that a lot that is already done is good, some people already continuous improvement and these people should be rewarded. The work is on-going and LoFo has relatively high priority still. The general involvement of offshore is satisfactory for the candidate. The candidate remembers the LoFo resource person visiting offshore a couple of times. The candidate finishes up by stating that offshore is all about priorities in a busy schedule some LoFo initiatives will be naturally down prioritized over health and safety issues for example. The candidate points out that the end goal is empowering the workers to think and act independently in relation to improvement work, but this will take time. Finally, the candidate believes in the long-term vision but just like improvement work done before the candidate believes this improvement will also change name and be different over time.

## **Middle Management (Level 2)**

### **Candidate J - BU X (onshore)**

The candidate was involved in a thorough theoretical introduction. The candidate has experienced the introduction to Lean before and drew similarities pointing out that the principles are a different formulation of Lean theory. The candidate further adds that the principles represent in many ways “common sense”. The candidate did have some skepticism about the improvement project due to earlier unsuccessful implementation of Lean and upon getting the heavy theoretical introduction felt some level of despair. These feelings, however, did disappear in time and the candidate is now happy with the initiative. The candidate does however point out that now that they are in an “end phase” it is less focus on the initiative, other projects get prioritization and they struggle to get any time to look for new improvement projects to initiate by themselves, all though there is a clear drive from the leadership to do so. The candidate further points out that it is good that the leadership is motivated and involved, however and states that without the leadership support this initiative would not see any further use. The candidate does not use the principles in normal work but tries to make an effort to use them as a common understanding with the candidate's colleagues.

The candidate was informed of the long-term nature of the program, and it was made clear that this initiative was made to stay. The candidate does however note that things have gone way slower now that they are in the “self-driven phase” and are supposed to drive the initiative themselves. The candidate says that offshore are more negative to these types of changes as there is a general “come and go” attitude towards improvement programs, and the candidate expresses the desire to have involved some more of the offshore crew. The candidate expressed the desire to have more LoFo resources, ideally one resource person per project rather than the one LoFo resource they have for the entire BU.

The candidate expresses that the long-term plan is possible but will take a lot of work and a lot of time, the candidate further expresses a wish that the transfer-phase was longer. In terms of the measurements the candidate expressed a great deal of enthusiasm suggesting that the measurements helped to motivate the people involved, seeing concrete results for the initiative.

### **Candidate R - BU X (onshore)**

The candidate has knowledge of the principles and the handbook as well as earlier improvement initiatives. The candidate's role is primarily onshore. On the topic of change fatigue, the candidate simply states that change and reorganization is part of the life of the organization and that these improvement programs simply follow that. The candidate did not mind the changes in improvement programs and accepted that as a natural thing within the organization, referring to it as “business as usual”.

When asked about the handbook and principles, the candidate states that all the 5 principles are equally important but the “understand” principle serves as an important starting point for everyone. The candidate further talks about how the handbook and principles are not a management tool to him and that “the dream” is of course to get everyone to use the handbook even on the working level but does point out that it is not very realistic. The candidate further explains that the workers are not academics, they

are more focused on getting their job done, it is therefore fine if the workers work after the principles without knowing that they do.

The candidate had been informed of the long-term plans of LoFo. On the topic of Lean, the candidate states that the handbook and the principles are a continuation of Lean. The candidate did, however, state that people see this differently and that some people were more positive than others when LoFo was first introduced. The candidate does state that LoFo is a success thus far and attributes it largely to the measurable results. The candidate points out that the focus on measurements and to document effects is different from what was done during Lean. On the topic of worker empowerment, the candidate does state that the handbook's goal is to facilitate empowerment in the workers. The candidate continues to talk about time management and scheduling and how priorities must be made, even more so offshore. On the topic of the future of improvement work, the candidate clearly states that they are absolutely dependent on the LoFo resource person for support.

## **Individual (Level 3)**

### **Candidate O - BU X (offshore)**

The candidate has long experience in the company and has seen multiple improvement initiatives. The candidate is positive to the initiative and is generally happy with involvement in the beginning. In the later phase the candidate points out the leadership was rushing the initiative forward, but the candidate expresses an understanding for this. The candidate points out that the initiative sees less activity and a lower level of priority offshore due to the amount of work and tight schedule. The candidate uses the word bureaucracy to describe general shortcomings with the initiatives and earlier improvement initiatives.

The candidate was introduced to the principles and the handbook early on, but it was heavily packed into a practical application. The candidate did need a reminder of what the five principles were. On the topic of the importance of principles the candidate stated that all the principles were important but if the candidate had to choose the most important one it would be the principle "understand". The candidate describes the handbook and the principles as good tools but in practice they see little use on the worker level, they are far more used in bigger projects. The candidate further explains they have a ton of different tools and methods to go through in their daily life, so little time is allocated for the handbook. The candidate points out a general polarization between offshore and onshore.

The candidate can see some parallels to Lean, and was informed of the long-term goal of LoFo initiative but states the following:

"You know we have a drawing at the platform it is a drawing of a graveyard with tombstones, each tombstone represents earlier improvement initiatives, some tombstones are so old flowers grow next to them."

The candidate does point out it was sad to see Lean disappear as the candidate did witness improvement. The candidate liked that Lean focused on the individual's ability to make improvements. The candidate further points out that improvement work including LoFo is done from top down and not from bottom up and it therefore largely feels as extra work for the workers offshore who already have extremely busy schedules. The candidate points out that LoFo does a lot of good work, but it is too early to call it a success. On the topic of measurements, the candidate calls the focus on measurements as another example of bureaucracy.

### **Candidate P - BU X (offshore)**

The candidate describes his involvement as part of an improvement group as well as a mechanic offshore. The candidate did not remember the five principles. The candidate describes mixed feelings in the introduction to the handbook and the principles. The candidate was personally positive but there were others that were more negative. With time and work the candidate described a general acceptance of the initiative over time. The candidate attributes the general negativity to both previous experience with improvement work and with the improvement initiative came at a specific busy time for offshore workers. On the topic of earlier improvement programs and the idea of long-term goals the candidate referred to the same drawing that Candidate O did.

The candidate continues talking at length about time management and recourse management offshore and how the amount of work makes constant focus on the handbook and principles difficult. The candidate is, however, hopeful that the initiative will last and lead to long-term change and would say that it is a success so far. The candidate refers to an upcoming meeting in one month. Which will further spread the idea of the handbook and principles with more people offshore. The candidate in general believes more updates should be given on LoFo and suggests small briefings on it when one first arrives offshore. The reason for this is because the candidate explains there are so many information channels it is hard to keep track, a 5min briefing would be nice so the information is easier to access.

The candidate uses also the word bureaucracy for negative experience with Lean. The candidate further points out that LoFo is better in that respect as it gives the workers more choice and they feel more involved. The candidate finishes up by stating that the handbook is more like a guide and that it is for everyone.

### **Candidate T - BU X (offshore)**

The candidate describes the LoFo introduction as something that was practically oriented, they were presented with a case and worked on that case and as their work progress they got introduced to more of the handbook and the principles. The idea of long-term focus was presented. The candidate compares LoFo initiative and Lean initiative stating the differences Lean was focused much more on the workers, LoFo is focused much more on the management. The candidate disagrees with this approach. The candidate insists that the workers have a way of feeling left out, they hear about LoFo, but they don't get introduced to it. The candidate suggests that this is the initiative's biggest flaw and that if they don't actively involve and introduce the handbook to the workers it will never spread and lead to any long-term results. The candidate further states that the longer it takes to introduce it to the workers the more difficult it will get. Even though the BU is in the self-driven phase the offshore workers are still mostly in the dark, according to the candidate. Although there are a lot of different opinions present, the candidate respects the Lean initiative choice to focus on involving the workers.

The candidate is not skeptical of improvement work but states that some workers are due to previous experience. The candidate also points out that the schedule offshore is very busy. The candidate also puts forward the idea of an improvement initiative having a connection with downsizing the workforce. During the Lean initiative the company went through a downsizing of the work force, the candidate states that some workers see these things as connected and therefore are more skeptical of improvement initiatives as well.

On the topic of the current state of the initiative the candidate said that they are completely dependent on the team onshore. On the topic of spread the candidate does not see handbook and principles spread by itself and wishes for LoFo to do an introduction offshore. The candidate further states that it is the management's job to

spread it. The candidate then points out that Lean also fell off with time without any support. The candidate further states that it would perhaps be more beneficial to continue Lean rather than trying something new. The candidate states that the handbook and principles are a good method but as of right now it is more of a tool for the management. The candidate does point out that the principles themselves are not necessary a management tool, but the lack of spread to the workers makes it feel like it. The candidate does, however, state an admiration for the amount of work LoFo has been able to do onshore but does miss the same kind of drive offshore. Finally on the topic of success, the candidate states that whether this initiative is a success depends largely on who you ask, to the candidate this is not a success. However, the candidate states that if we were to ask the management, they would probably state it is a success.

## **Top Management (Level 1)**

### **Candidate C - BU Y (offshore)**

The candidate describes the candidate's feelings towards the initiative as positive but more so due to its nature of general improvement rather than the method of improvement itself. The candidate points out that these improvement programs are nothing new and that they have been present at Equinor on rotation throughout the last 10-20 years. To him and many others this has become a routine and a way to get financial support to tackle any issues they are already aware of. The candidate does however express that this is necessary work, although from the candidate's experience these improvement programs don't last, they still solve some issues and remind people to seek improvement where they can.

When asked about whether this improvement program stands out in a better way, the candidate does note a couple things. The candidate points out that it is good they ask for feedback and have chosen a more practical approach rather than theoretical. The candidate compared the theoretical approach to the introduction of Lean they had prior to this where a bunch of PowerPoint presentations and all of Lean theory was taught to almost everyone. The candidate pointed out that in the case of Lean although it had some initial success it quickly disappeared once the funding for the program stopped. The candidate agrees with the selective approach of implementation as well, pointing out that this is much better than a wide scale approach. On the topic of principles, the candidate was introduced to all 5 but pointed out that these principles are not unique, they are in many ways the same thing just formulated a different way, the candidate drew parallels to Lean and also risk management. When asked about whether there were some principles more important than others, the candidate said that the principle "Understand" was most important in the candidate's opinion but only slightly. When asked about the improvement programs success the candidate stated that it was too early to say but so far, the feedback has been good. When asked about whether the principles should be pushed down to the worker level, the candidate was more skeptical. The candidate pointed out that there is great skepticism on the working level due to earlier improvement programs that have come and gone. And if the principles and the handbook were to be implemented widely on the working level it needed to have clear

practical examples and clear examples of problems this improvement program has solved. On the question of the hardcore results, the candidate stated that it was a good thing but pointed out that a number can't always be put on all forms of improvement. On the topic of hardcore results and measurements, the candidate explained that not all changes can be measured short-term, some require long-term investment.

The candidate further explained that this stuff takes time and not all improvement can always be measured quickly. On the topic of future work and the transition to the “self-driven phase” the candidate was more skeptical due to the candidate’s earlier experience, but the candidate didn’t outright dismiss it. The candidate pointed out that they will in any case need someone in a position to constantly drive the improvement, but this position would quickly turn into a “nagging position”, but without it, the candidate believed things would fall back to the old ways. The candidate points out that in the candidate’s opinion most workers offshore are against change.

Suggesting that they will need a “nagging position” to constantly push them.

The candidate sums up by stating belief in the initiative and its work and finds it good and beneficial but due to previous experience the candidate is skeptical about introducing it to the workers right now. As for any long-term change, the candidate refers back to all the other initiatives that had the same goal and points out that this needs constant work and if the improvement program stops, things will simply go back to the old ways, and any problems will just wait to the next improvement programs to solve with new financial means.

Finally, on the topic of whether the principles could function as a bridge between theory and practice, the candidate believed they could.

### **Candidate G - BU Y (onshore)**

The candidate has been involved in LoFo prior to the candidate's current position and has extensive understanding and knowledge of improvement initiatives. The candidate was therefore aware of the 5 principles and the handbook long before they were introduced. The candidate approached the initiative in a more practical manner. The candidate solved some problems practically then presented the revelation that the method that they used was exactly like the handbook described and the use of the 5 principles. This way the candidate introduced the handbook and principles through a practical approach first then a general introduction. The candidate put an emphasis on the use of measurements in order to document results as proof of success. The candidate related the LoFo initiative to the previous Lean initiative. The candidate pointed out that Lean was good in terms of the company wide focus and the general investment willingness shown by the company to invest into improvement programs. The Lean initiative however had two main flaws according to the candidate:

- The leaders were poorly involved, and the leaders were poorly trained to continue the work.
- The focus on the different Lean tools and methods was too big and was poorly related to actual relevant work.

The candidate does point out that there is a significant difference between short term and long-term results and that the long-term results are hard to measure but short-term

results are important to measure early to present evidence of success. The candidate refers to the handbook as “common sense put in a system”. When asked to comment on the length of the different phases, the candidate admitted that these phases are optimistic and are done as a sales pitch, realistically the improvement work will take longer. When asked about implementation offshore the candidate acknowledges that it will take longer time to implement there, and it is therefore important to involve offshore leaders so they can take the handbook and principles to their colleagues. The candidate points out that the initiative so far is a success so far, but continued work is necessary for the future, and it is now important to “keep it going”.

## **Middle Management (Level 2)**

### **Candidate H - BU Y (onshore)**

The candidate is well informed of general improvement work. The candidate expresses that the principles have helped to form a common understanding, giving room for a common goal, which makes prioritizing tasks easier. The candidate expressed satisfaction with the result focus and putting numbers on problem solving. The candidate is aware of the long-term goal but suggests that it will be a challenge offshore and that thorough follow-up is necessary to achieve success. The candidate describes some conflicts with the offshore team, there was present some frustration of not being involved earlier. In relation to Lean the candidate suggests that these principles and this way of implementation are better, as Lean was very theoretical, and people interpreted Lean in different ways. While the principles are interpreted the same way, according to the candidate. When asked what principles were the most important the candidate put focus on the “Leadership” principle due to the candidate's previous experience with Lean implementation, where lack of leadership follow-up was the reason for its failure.

## **Individual (Level 3)**

### **Candidate D - BU Y (onshore)**

The candidate shows a great deal of positivity to the initiative. The candidate points out that the candidate is new at the company and therefore are not aware of any earlier improvement programs. The candidate does, however, find this program quite useful. The candidate could not draw any parallels to lean and had no idea what Lean was. The candidate felt like the candidate's opinions were heard and the candidate was motivated to work on the initiative, when asked about the 5 principles the candidate related it to current work and put an emphasis on “Understand” as well as “Flow and continuous improvement”, in the candidate's line of work “standardization” was every important, the candidate pointed out that different workers do the job different ways and that complicates the candidates' position. The candidate explained that the candidate once wanted a change, but the current shift said they couldn't do it, while the shift after stated that it was no problem and could be done. When asked, the candidate stated that the candidate would like to see a wider implementation. The candidate has heard rumors of earlier implantation of improvement programs and that they were less successful but



has not experienced it them. The candidate did agree with the more practical approach but had nothing to compare it with. When asked about long-term results and whether they could handle “self-sustaining phase” the candidate stated “not yet” but the candidate believes they could in the future and that long term implementation was possible. The candidate did, however, note an observation of mixed feelings about the initiative and stated that in the first meeting about the initiative someone stated they wished to have no part in this and that this was a waste of time to them. On the topic of success, the candidate does not wish to call it a success yet.

### **Candidate F - BU Y (onshore)**

The candidate expressed extensive knowledge of LoFo, due to the candidate’s early-stage involvement in LoFo itself. Our questioning was, however, targeted at the candidate’s experience with the candidate’s direct work on one of the pilots. As part of the candidate’s day-to-day job the candidate has extensive knowledge of improvement work. The candidate was involved in the LoFo work due to the candidate’s position and wish to be involved, on the question of whether more people should be involved, the candidate pointed out that the candidate agrees with the limited involvement as the candidate compares to the unsuccessful wide involvement with Lean a few years before. But when it comes to spreading the knowledge down offshore, the candidate wished that some of the offshore workers or their representatives were involved sooner, so the spread would be easier. The candidate also specified the difficulty of different shifts on the topic of work culture, pointing out that the best would be to have one shift representative from the workers in the meetings that involve offshore plans. The candidate was informed of the long-term goal of LoFo and although the candidate was naturally skeptical, the candidate was still positive to the improvement program itself. On the question of whether this skepticism came from previous results of Lean, the candidate pointed out that it is hard to tell whether the candidate’s skepticism came from that or the candidate’s natural level of skepticism. The candidate did however state that although the long-term goal was known the nature of the work was very short-term focus in the candidate’s opinion, for example the focus on measuring results was very short-term. So, in the candidate’s opinion they worked towards a long-term goal with short-term steps.

The candidate was introduced to all five principles. Referred to the principles as generic and that they cover a lot. All the principles were used equally and were equally important, but the candidate’s personal view was that the general goal was to create “Flow” for the candidate’s case project. The candidate points out however, that if these principles were to be used by the workers, they need to be shown the value of it, with examples of success. The workers are extremely busy according to him and a lot of them will feel it's another burden if it's integrated properly. The candidate does point out that the principles are used amongst the candidate’s co-workers and by the candidate, stating that the principles have given them common understanding to work on the given case project, the nature of this project is onshore. The candidate does state that the principles could help to get a common understanding offshore between the different shifts and could lead to improvement that way, but the candidate again emphasizes that this must be integrated correctly. The candidate agrees with the implementation in

“stages” and the candidate is aware that people were not too happy with the previous improvement programs, referring back to employee surveys on the topic. The candidate’s opinion is that the different shifts must be involved in order to successfully implement it offshore, and this in turn is necessary for any long-term success. When asked why it involves all the shifts and not just one of the shifts, the candidate pointed out that the shifts are different and have different work culture, and they themselves have a high level of group affiliation to their individual shifts. One shift won't necessarily be able to convince another to work a certain way.

## **Top Management (Level 1)**

### **Candidate E - BU Z (onshore)**

The candidate expressed a general sense of satisfaction and agreed with the implementation method. The candidate reflects back at the implementation of Lean and how that was done unsuccessfully. The focus on theory over practice with Lean and the lack of long-term support led to its unsuccessful change in the candidate’s opinion. The candidate agrees with the current LoFo approach and believes in long-term success, however, the candidate insists that support will be necessary. The candidate points out that it would be beneficial to involve representatives for the workers offshore earlier in the pilot, due to them coming in late they were behind and had little knowledge of the principles according to the candidate. Yet it would be beneficial for these people to be the once convincing the workers of the improvement work and the principles, as that would be more effective. The candidate agrees with the principles serving as a bridge between theory and practice the candidate does however points out that real case results must be present to convince the workers, due to them viewing this type of improvement program as more work and they are already very busy. The candidate further explains that there is skepticism about this type of work due to previous unsuccessful results.

The candidate was informed of the long-term plans early on but does, however, believe that follow-up must be present for long-term cultural change among the workers. The candidate expresses the need to “sell” the improvement work, the principles and the handbook to the workers and that the results must be convincing enough for them to understand that the improvement work will make their workday easier. When asked about principles the candidate was introduced to all 5 principles, when asked which principles does the candidate believe to be the most important the candidate points to the “understand” principle. As for personal involvement the candidate represents a vital role for any improvement program and was therefore involved from the very beginning.

## **Middle Management (Level 2)**

### **Candidate K - BU Z (onshore)**

The candidate showed little knowledge of the 5 principles themselves but was aware of the improvement program. The candidate did however compare the improvement

program to existing methods in the organization and had not used the five principles on an individual level. The candidate does however point out that principles are a useful tool when working together in their group to establish common understanding. The candidate did not define the project as a success yet but did believe it can be a success in the future.

### **Candidate I - BU Z (onshore)**

The candidate was introduced to the 5 principles but could not recall them. The candidate reflects on the principles as a management tool to be used to implement standardization. The candidate reflects back on Lean as something that was good in the beginning but later lost support and fell off. Lean was focused on a lot of courses and theory according to the candidate and LoFo is better in this regard due to LoFo's general focus on practice and results. The candidate suggests that the principles are good for repetitive work but that they are less useful in dynamic environments. The candidate had little information of long-term goals of LoFo. The candidate continues by describing a general negativity/skepticism among people regarding improvement work in general. Because of this the candidate finds it hard to believe that the workers on the platforms will see much use of the principles, the candidate further emphasizes on the difference between people onshore and people offshore as well as a different work culture between the shifts offshore. The candidate does suggest involving the leaders offshore earlier would be a good idea, as well as involving some of the workers.

Furthermore, the candidate continues by describing some general conflicts between offshore and onshore, how communication has been a problem, and how offshore tight schedules make it difficult to prioritize improvement work.

On the topic of involvement, the candidate does point out that involving the offshore team gives them a form of ownership that they can further present and spread themselves.

### **Individual (Level 3)**

#### **Candidate A - BU Z (offshore)**

The candidates expressed a great deal of respect for the decisions to involve only the few people the improvement program directly affects. The candidate felt more heard and listened to in a smaller group of people than a larger group of people. The candidate compared this to a previous initiative by the company of implementing Lean. The candidate's observations were that Leans traditional implementation was too generic and broad and had little practical examples. The candidate further criticized earlier implementation of Lean by using outdated practical examples, so the candidate saw little practical use of it. The candidate much more preferred a small group of people getting introduced to the improvement program and was happy with being asked to be involved. The candidate did, however, express a wish to be involved sooner as the candidate was contacted a little late compared to when the work directly affected the candidate's area of work. The candidate was not informed of the long-term plan of companywide cultural change and appears to be satisfied with being involved in what is happening now and the current short-term improvements. The candidate was satisfied with the principles and when asked to define the most important or relevant one for the candidate's work, the candidate couldn't and explained that they are all connected and important. In the conversation of principles, the candidate showed limited use in

practical scenarios and scenarios outside the current improvement project but did acknowledge the possibility of use of these principles in other projects and somewhat agreed that the principles formed a bridge between theory. The candidate did relate principal Flow to communication between land and offshore teams since lack of communication was in the candidate's view a disruptor in the project. The candidate further expressed respect for their improvement manager stating that they seem motivated and knowledgeable in what they do.

### **Candidate B - BU Z (offshore)**

The candidate expressed belief in the improvement work and respected the idea of targeting something that is indeed a real issue. Similar to candidate A however, this candidate was involved at a later stage and expressed wishes of being involved earlier. Regardless of that, the candidate showed motivation to be a part of the improvement work. The candidate further expressed the views of the candidate's colleagues on the operator level when it comes to improvement work and drew parallels to Lean and the unsuccessful implementation of that. The candidate further described what matches the idea of change fatigue among the workers and stated that there is a general belief that these improvement programs come and go and that there is a possibility the workers on the ground will not take it seriously. The candidate did personally believe however that there is a way to change this view, and it entails using real practical examples and also presenting success stories to show that it works. The candidate did however point out that the success stories need to be of relevance and a general credibility, the candidate further explained that if the management present insufficient evidence in form of just numbers with no context, it will be less believable due to numbers being easily manipulated according to the candidate's opinion.

The candidate continued to point out that this healthy skepticism is present due to the many improvement programs seen come and go with little to no result. In relation to earlier improvement programs, the candidate is positive to the direct involvement of LoFo and hoped that it would continue rather than letting the BU run their own course after the given pilot is finished. Contrary to candidate A, the candidate saw little practical use of the principles and stated that they seem to be more relevant for larger organizational projects rather than practical work offshore. The candidate did, however, also state that the candidate's knowledge of the handbook and its principles is limited and the introduction to them was rather swift. Any further questions regarding principles and the handbook were deemed too soon to assess but the candidate was hopeful for this improvement program so far, most things were done right in the candidate's view. The candidate did however describe the importance of flow and related that to communication.

## **LoFo Candidates**

### **Candidate N (onshore)**

The candidate has extensive knowledge of the principles, handbook and Lean. The candidate has been involved in multiple improvement initiatives. The candidate acknowledges the parallels between Lean and points out that the principles are Lean.

The candidate describes the flaws of the Lean initiative done previously:

- Lack of involvement of the management

- Lack of focus on practical examples and practical application

These flaws have been tackled by the LoFo initiative according to the candidate. The candidate points out that EPN wishes that the initiative is well received and agreed with but that it is not necessary to go forward with the initiative. The candidate does however point out that so far most have welcomed the initiative and that it helps a lot to have them being positive and open to LoFo. The candidate points out that the principles are made simple and that they should feel very natural. The candidate further describes the principles as more than a management tool and suggests the principles are for everyone. The candidate explains that the initiative of LoFo is adapting as it moves from BU to BU, for example there are issues that came up about involvement at one BU that has been changed for the next one. In other words, LoFo constantly adapts and learns as they go.

On the topic of measurement, the candidate notes that it is necessary. The measurements function as motivators and a way to convince the workers offshore which are harder to convince according to the candidate. Good measurements are hard to achieve but are necessary. The candidate says that there is some visible change primary common ground and understanding. The candidate points out that it is clearly visible that a lot of people, especially offshore, suffer from change fatigue due to so many previous unsuccessful improvement initiatives. The candidate points out that the long-term goal is necessary for this kind of project due to their size and scope but that it is up to the EPN management how many resources will be given in the long term for the project.

Upon introduction of the principles and the handbook at BU Y there were some adjustments made compared to BU X. The candidate explains that it was a larger focus on practical application and cases and less focus on theoretical introduction. Then throughout the work on individual cases more of the principles and the handbook were introduced. The candidate does point out that people were generally positive during the introduction but later on had some trouble taking over responsibility and continuing the work independently.

### **Candidate S (onshore)**

The candidate has extensive knowledge and experience with improvement work. The candidate draws parallels between the Lean initiatives and LoFo initiatives but points out some clear differences:

- The Lean initiative was focused more on offshore and had a more theory-based approach with courses. LoFo has a more onshore focus (although offshore also see involvement) and is more practically oriented and makes use of existing problems and cases. The Lean initiative was also companywide involvement while LoFo focuses on EPN.
- Lean had a much bigger scope and had more resources. LoFo has a smaller scope and has to constantly report back results to EPN.

The candidate then continues to describe why the LoFo initiative was started. It was observed that the individual BUs began to form their own handbooks. LoFo was given the task of doing this more methodically and making a general handbook, that can be applied and used across the BUs. It was at this point that principles were considered, taking inspiration from different sources, the 5 principles were developed with action patterns.

On the topic of change fatigue, the candidate is aware that it is somewhat present in the organization but is unaware to what degree. The candidate admits that the initiative has been met with mixed feelings. Because of this the candidate describes that LoFo has a humbler approach and wishes to first and foremost motivate people and get people onboard with the initiative. The candidate expresses a desire to empower the workers through the work with the handbook and principles, pointing out that it's absolutely necessary. The candidate further states that LoFo without documented results will fail and LoFo without motivation and empowerment will fail. On the topic of the Lean initiative and the downsizing of the work force that happened, the candidate stated that the downsizing was due to low oil prices at the time and not as a part of the Lean initiative. Finally, the candidate describes the handbook and principles as something way more than a management tool, but without leadership support it will not last. The candidate also expresses a desire for more resources to continue the work long term.

### **Candidate U (onshore)**

The candidate has several years of experience with improvement work. The candidate expresses that principles 1 and 5 are the most relevant principles for the candidate. While for workers offshore principles 1-3 are most relevant, while principle 4 and 5 are not relevant. The candidate puts an emphasis that a relevant case must be available before an introduction offshore is possible. On the topic of the state of BU X self-driven phase, the candidate states that it is uncertain whether the BU is as self-sufficient as it should be. The candidate further explains that LoFo was potentially doing too much in the earlier phases, not encouraging people to work with the improvement initiatives on their own, leading to them being more dependent on LoFo even when entering the self-driven phase. The candidate does state, however, that three new improvement projects are going to start up soon.

The candidate states that there has been a deliberate focus on avoiding heavy theory introductions. The candidate is uncertain about long term cultural changes, although the candidate does state an observation of a more measurement culture developing. On the topic of success, the candidate states that LoFo is a success because EPN has allowed them to exist due to their ability to provide results and measurement. On the topic of empowerment, the candidate states that measurements lead to empowerment. The candidate points out that the organization has a lot of organizational change and turbulence. Further on the topic of previous improvement initiatives before LoFo and general reorganization initiatives in the company, the candidate expresses the view that not much is permanent in the organization and that change, and reorganization is normal.

The candidate also points out that the improvement work must be sustainable. Right now, it is not sustainable as the candidate points out there is a large degree of pushing that is necessary.