

CHALMERS



Analysis of the suggestion scheme at Atlet

*Master of Science Thesis in the Master Degree Programme, Production
Engineering.*

Emil Tisell

Lena Sundström

Department of Product and Production Development
Division of Production System
CHALMERS UNIVERSITY OF TECHNOLOGY
Gothenburg, Sweden, 2011

**Analysis of the suggestion scheme at Atlet's
continuous improvement system, Psst!**

Emil Tisell
Lena Sundström

Department of Product and Production
Development
CHALMERS UNIVERSITY OF
TECHNOLOGY
Göteborg, Sweden, 2011

Analysis of the suggestion scheme at Atlet's continuous
improvement system, Psst!
EMIL TISELL
LENA SUNDSTRÖM

© EMIL TISELL, 2011
LENA SUNDSTRÖM, 2011

2011 Department of Product and Production Development
Chalmers University of Technology
SE-412 96 Göteborg
Sweden
Telephone + 46 (0)31-772 1000

ABSTRACT

The purpose of this study has been to investigate how one would design Atlet's suggestion scheme (Psst!) to encourage and motivate employees. In order to investigate have problem areas within Atlet been defined in regard to motivational theories and Psst!. This master thesis have resulted in recommendations for a future design of Psst! and its surroundings and are to be seen as guidelines for Atlet.

The foundation of this master thesis consists of a literature study, statistical analysis of Psst! data, interviews and a benchmark with three companies. Five success factors have been defined and used throughout the report. By using the Psst! data and information from the interviews, have both quantitative and qualitative analyses been made. These analyses have been substantial to understand the group's situation at Atlet.

Currently Atlet has many leaders doing an extraordinary work with Psst! and much inspiration can be found within Atlet. The monetary reward presently offered is not seen as the primary drive but many believe it is still important.

Atlet has proved to be outstanding in using their visual planning tool KI-VP within the white-collar section. Planning Psst! activities together with all other activities in KI-VP would solve many problems in the white-collar section today. Using whiteboards in the blue-collar section to plan and visualize improvements would same for the white-collars improve Psst! and the motivation to involve in the process.

Atlet uses number of submitted and realized proposals per person as goal. Receiving more proposals has until today been a high priority. Using recommended planning tool would give realization a higher priority and will furthermore increase the motivation among employees. Reducing the timeframe of the process would henceforth result in a more productive Psst! system.

Implement the proposed recommendations would be a platform for creating a suggestion scheme that encourage and motivate employees to be more involved in Psst!.

Keywords: Continuous improvement, Lean, Motivation, Suggestion Scheme

SAMMANFATTNING

Detta examensarbete har avsett att utreda hur Atlet's förslagsverksamhet (Psst!) bör utformas för att engagera och motivera anställda. Att identifiera och analysera de existerande problemområden har även varit en del av uppgiften. Detta examensarbete har resulterat i rekommendationer för fortsatt arbete av Psst! och ges som riktlinjer till Atlet.

Grunden till detta examensarbete består av litteratur, statistiska analyser av Psst!-data, intervjuer av anställda vid Atlet och benchmark med tre företag. Fem framgångsfaktorer har definierats som även används genom denna rapport.

Genom Psst!-data, tillgodsedd av Atlet, kunde både kvantitativa och kvalitativa analyser genomföras. Dessa analyser har varit viktiga för att förstå grupperna vid Atlet och deras situation. Statistiken har även styrt intervjualet.

Genom intervjuer vid Atlet har följande registrerats...

Tolkningen av Psst!-processen är olika mellan grupper vilket leder till att grupper arbetar på olika sätt med Psst! För en majoritet är Psst!s mål känt men svar skiljer beroende vem som frågas. Det finns för närvarande många ledare vars arbete med Psst! är utomordentligt. Det finns stor inspiration att finna inom Atlet. Anställda ser inte de monetära belöningarna som huvudskäl till att arbeta med Psst!. Däremot tror många att den monetära belöningen fortfarande är viktig.

Våra rekommendationer till Atlet i korthet är...

Använd KI-VP för tjänstemän-grupper och whiteboard-tavlor för kollektiv-grupper för att involvera, förtydliga och förenkla Psst!.

Att lämna in förslag har idag hög prioritet. Genom att istället fokusera på att genomföra förslag kommer anställda spurras och motiveras till att använda Psst!. Genom att snabbare ge återkoppling men även genomföra förslag blir Psst! mer produktivt och aktivt. Förutsättning för detta är att ledare demonstrerar och visar på fördelar med Psst! för lagmedlemmar.

Att införa Psst!-möten förbättrar kommunikationen vilket i sin tur leder till fler genomförda förslag. Att använda en bestämd mängd tid avsatt varje vecka för Psst!-arbete skapar kontinuitet i förbättringsarbetet och håller igång systemet.

ACKNOWLEDGEMENTS

Acknowledgement is foremost given to Marita Christmansson, the supervisor at Atlet, whom has given support and guidance throughout the execution of this master thesis. Her time and involvement in this master thesis have helped us solve many issues. Acknowledgement is also given to Jon Andesson, supervisor at Chalmers University of Technology, who has supported us with guidance during the writing process. Finally acknowledgements are given to each and everyone that have been involved with this master thesis, that is Markus Billock at Autoliv, Jimmy Carlsson at Mastec Stålvall, Johan Elmenius & Co. at Väderstad, and everyone that has allocated time for interviews and discussions at Atlet.

Thank you all.

Emil Tisell
Lena Sundström

TABLE OF CONTENTS

1.	INTRODUCTION	1
1.1	BACKGROUND	1
1.2	PROBLEM DEFINITION	2
1.3	PURPOSE	2
1.4	LIMITATIONS	2
1.5	STRUCTURE OF THE REPORT	3
2.	ATLET'S PSST! SYSTEM	5
2.1	AIM OF THE PSST! SYSTEM	5
2.2	THE PROCESS	5
2.3	THE REWARD SYSTEM	8
2.4	VISUALIZATION	8
3.	METHODOLOGY	9
3.1	SUCCESS FACTORS	9
3.2	CONCEPT OF KI-VP	10
3.3	INTERVIEWS	11
3.4	LITERATURE RESEARCH	14
3.5	BENCHMARKING	15
4.	THEORETICAL FRAMEWORK	17
4.1	CONTINUOUS IMPROVEMENT	17
4.2	STANDARDIZED WORK	18
4.3	SUCCESS FACTORS	18
4.4	MOTIVATION	22
5.	EMPIRICAL STUDY	27
5.1	THE PSST! PROCESS	27
5.2	INTERVIEW RESULTS	32
5.3	EMPIRICAL REFERENCES	36
6.	ANALYSIS	43
6.1	THE PSST! PROCESS	43
6.2	AIM	45
6.3	LEADERSHIP	46
6.4	REWARD	49
6.5	VISUALISATION	49
6.6	SUMMARY OF PROBLEM AREAS	51
6.7	SUMMARY OF ATLET'S STRENGTHS	53
7.	RECOMMENDATIONS	55
7.1	IMPROVEMENT OF THE PSST! PROCESS	55
7.2	INCLUDE PSST! IN KI-VP FOR WHITE-COLLAR GROUPS	56

7.3	ESTABLISH A WHITEBOARD FOR Psst! ACTIVITIES FOR BLUE-COLLAR GROUPS	56
7.4	FOCUSING ON REALIZATIONS	57
7.5	DECREASE THE TIME FRAME OF THE PROCESS	57
7.6	ESTABLISH COMMUNICATION BETWEEN GROUPS	58
7.7	DEFINING A PROPOSAL	58
7.8	FOCUS ON ENGAGING GROUP LEADERS	58
7.9	FOCUS ON ENGAGING THE MEMBERS	59
7.10	FOCUS ON EDUCATION	59
7.11	DIRECTIONS ON HOW TO GIVE FEEDBACK	60
7.12	INFORMATION ON ATLET'S OVERALL AIM	60
7.13	USING MEETINGS AND FOLLOW-UPS	60
7.14	ALLOCATE TIME FOR Psst! ACTIVITIES	61
7.15	KAIZEN GROUPS	61
7.16	PUT THE Psst! MANUAL ON THE Psst! BOARD	61
7.17	THE OLD FILE HANDLING SYSTEM	61
8.	DISCUSSION	63
9.	CONCLUSION	65
10.	REFERENCES	67
11.	APPENDIX	69
11.1	INTERVIEW QUESTIONS	69
11.2	BENCHMARK QUESTIONS	70

DICTIONARY

AOS - Atlet Operations System
HP - High performing groups
KI-VP - Knowledge Innovation-Visual Planning
KPI - Key Performance Indicator
LGP – The management group of Atlet products
LP –Low performing groups
MS - Mastec Stålvall
PDCA - Plan Do Check Act
Performance – Related to Atlet's goal setting
PSST! – Atlet's suggestion scheme
Suggestion Scheme - A system for employees to detect problems, submit ideas and proposals in order to solve them.
Waste – Non-value adding activities.

1. INTRODUCTION

The following chapter presents an introduction to this master thesis. It includes:

- *Background*
- *Problem definition*
- *Purpose*
- *Limitations*

1.1 BACKGROUND

Atlet started by Knut Jacobsson and has been producing forklifts since 1958. Nissan Motors bought Atlet in 2007. Atlet has a complete product program with battery, diesel, and gas driven forklifts. Many of Atlet's forklifts have special customer characteristics, which require a flexible production system. Most of the components for the forklifts are produced and delivered by external suppliers controlled by Atlet's specifications and requirements.

The manufacturing plant is divided into five units having their own tasks and products. Each unit consists of a group from 15 to 40 employees together with a production leader. The units consist of fixed specialized assembly stations where two units include a line oriented production system. Apart from the manufacturing plant is there a white-collar section with several department groups supporting the production such as product development, purchase and logistics. Each department is divided into several groups. Production engineers are a supporting function within the production intended to solve upcoming problems and improve the production plant.

The forklifts are developed and produced by the products division with approximately 200 employees. Lean production translated into Atlet Operations System (AOS) pervades the whole product organization.

1.1.1 ATLET OPERATIONS SYSTEM

Atlet Operations System (AOS) aims to develop Atlet to improve their competitiveness. All departments, Design, production and supply chain is accessorial in this in order to match higher demands from the market. AOS is inspired by Toyotas Production System (TPS), which is often called lean production. One aim with AOS is to eliminate waste, which are non-value adding operations.

Important principals of the AOS are:

- Customer focus
- Focus on value adding activities
- Respect for the individual
- Eliminate waste
- Standardize operations

To achieve these goals have Atlet introduced the methods 5S, daily controls, the planning tool Knowledge Innovation-Visual Planning (KI-VP), Standardized operations together with a suggestion scheme for continuous improvements Psst!.

1.1.1.1 THE SUGGESTION SCHEME PSST!

Continuous improvement is a key factor within AOS. Psst! is a system aiming towards assimilate members experiences and ideas in order to

reduce waste and improve the conditions of the work environment. Psst! provides a system to collect, categorize, manage and implement these ideas. The aim is to build a culture with an innovative mode of operation, that is:

- To learn observing waste and connect them to losses
- To learn reacting on small and early warnings signals
- To learn acting in order to reset to standard mode
- To learn improving continuously in small steps

Atlet introduced Psst! in February 2009. The goal for 2009 was to receive ten proposals per employee and realizing two of them. Each year the goal has increased. In 2010 the goal was to receive six proposals per employee and realizing three of them. In 2011 the goal increased to eight received proposals per employee and realizing four of them. However, these quantitative goals have not been met during the years of 2009 and 2010. The groups within the different departments have different characters and the difference in performance is substantial. Some groups submit and realize a lot of proposals whereas others none.

In some cases may the statistics be misleading since some groups do not register submitted or realized proposals. Atlet has been looking at another data system, which has been validated to result in correct statistics, easier handling of proposals and clarified responsible distribution.

1.2 PROBLEM DEFINITION

The main subject of this master thesis is an evaluation of Atlet's Psst! system concerning two areas, namely the actual system and motivation. Following two questions are to be answered within this thesis, each briefly describing the areas.

- What problem areas exist at Atlet today in regard to Psst!
- How could one improve Psst! in order to encourage and motivate members to support Atlet's approach to continuous improvements?

1.3 PURPOSE

The purpose of this master thesis is to evaluate and recommend improvements for Psst! in order to increase motivation of employees.

1.4 LIMITATIONS

The evaluation encompasses only the Psst! system of AOS. The recommendations of improvements of the Psst! system are only to be guidelines for Atlet. No consideration of economical aspects will be included in this study. This master thesis will be handed to LGP as decision support for further development of Psst!.

1.5 STRUCTURE OF THE REPORT

A brief explanation of each chapter is illustrated in table 1.

Table 1: Explains the content of each chapter within this thesis.

CHAPTER	CONTENT
INTRODUCTION	Presents an introduction to this master thesis. It aims to provide a brief explanation of the background together with the problem definition and purpose.
THE PSST! SYSTEM	Presents how the Psst! process is designed at Atlet today. It covers the aim of the Psst! system together with a description of the process from a submitted to realized proposal.
METHODOLOGY	Presents the structure and how this master thesis has been executed.
THEORETICAL FRAMEWORK	Presents a theoretical framework in order to support reader with sufficient information to be able to make an analysis and conclusions within this master thesis.
EMPIRICAL FRAMEWORK	Presents the findings of what have been observed at Atlet. Results derive from both interview material and Psst! statistics. It also includes a description of the three companies that have been visited.
ANALYSIS	Presents an analysis with regard to the Psst! process, interviews, literature, and experiences from the three visited companies. The five success factors are the basis for this chapter.
DISCUSSION	The discussion attempts to evaluate how this master thesis was performed.

2. ATLET'S PSST! SYSTEM

The following chapter will present how the Psst! system works at Atlet. It includes:

- Aim of the Psst! system
- The process
- The reward system
- Visualization

2.1 AIM OF THE PSST! SYSTEM

The aim of having a suggestion scheme for Atlet is to emphasize the members' ideas and experiences in order to improve the work conditions. The idea is to get each member to observe defects within one's workplace and furthermore submit improvement proposals. The proposal may concern ergonomic, technical, product related and/or environmental issues. Proposals are to be regarded as an improvement that can be done in the group. This means that submitting a proposal should merely concern one's own group. Atlet elucidate the importance of making use of their recourses in the right way. A suggestion scheme will reduce waste and improve productivity. The aim is to build a culture with an innovative mode of operation, that is:

- To learn observing waste and connect them to losses
- To learn reacting on small and early warnings signals
- To learn acting in order to reset to standard mode
- To learn improving continuously in small steps

2.2 THE PROCESS

The Psst! Process is an internally model for managing new ideas and proposals as a basis for continuous improvement. The current Psst! process is illustrated in figure 1 and describes activities from submitted to realized proposals.

The activities in the process are submission, evaluation, realization and delegation of the matter to other units. By means of a spreadsheet file for administration one can track proposals from where in the process it is positioned. The different activities are explained in 2.2.1 File handling system.

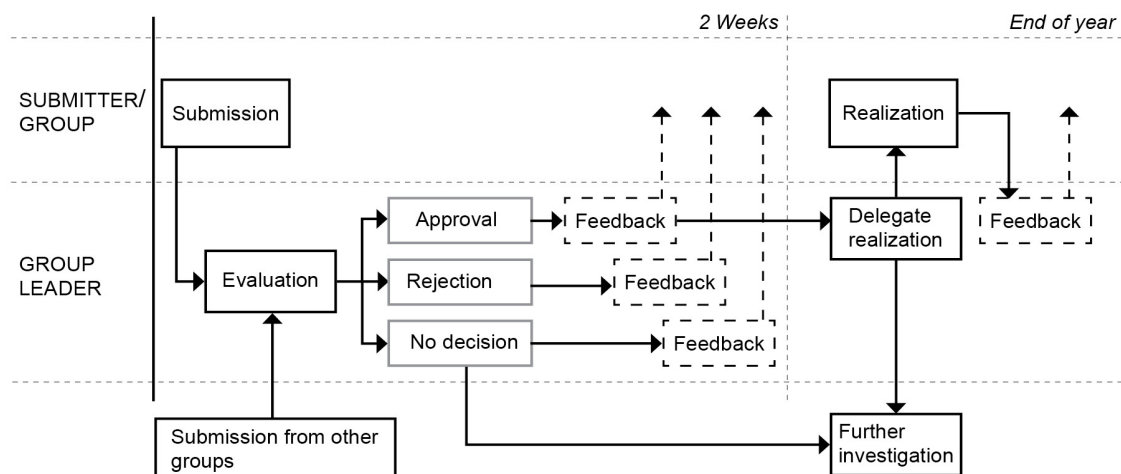


Figure 1: Illustrates the process from a submitted to a realized proposal

2.2.1 THE SPREADSHEET FILE

Atlet has a spreadsheet file where submitted proposals are being registered see table 2. The file should be updated after each action or decision. This means that each proposal has a status of where in the process it is situated. It enables the interested to track each and every proposal that has been handed in with the matter, dates, decisions, the responsible and the next step for each matter etc.

Table 2: Illustrates how the spreadsheet file visualises activities, decisions and other important information.

Process of Psst!	Proposal 1	Proposal 2
Date of submission		
Name of the submitter		
Name of the group		
Description of the proposal		
Decision		
Date of decision		
Reward for approval		
Responsible		
Date of realization		
Reward for realization		

2.2.2 THE PSST! BOARD

Each group has its own Psst! board including five boxes. These boxes are filled with blank forms, submitted proposals i.e. new proposals, proposals in process, realized and rejected proposals, see figure 2. The histogram in the middle of figure 2 visualizes the group's achievements in regard to the quantitative goals.



Figure 2: Illustrates the Psst! board.

2.2.3 SUBMITTING PROPOSALS

In order to submit an improvement proposal, members have to fill in an empty form, describing the problem, solution, estimated profit and estimated expense for a realization. This in turn shall be put in the box with new proposals, which should be reviewed regularly. In some groups it is possible to send an email using the same form.

How often new proposals are being reviewed varies from the departments mainly due to the variation of involvement in Psst!. This means that the amount of submitted proposals varies and may concern different areas as ergonomic, technical and product development.

2.2.4 EVALUATE PROPOSALS

The responsibility of the group leaders is not only to make sure their groups submitting proposals but also to evaluate whether the submitted proposal is worth realizing in terms of cost, profit and complication of realization. If the submitted proposal is not sufficient it should be rejected, i.e. the case is closed. Management at Atlet means that:

“It is better to approve than reject proposals.”

The groups at Atlet attempt to realize as many proposals as possible by themselves. However, in some cases may the group leader need support from another unit to make a decision or for a realization. In this case the group leader must delegate the proposal to a concerned unit. The proposals within “No decision” and “Unrealized” in figure 1 may concern this cases if the proposals are untouched. It may also concern proposals that are put on hold for any reason or forgotten.

Atlet has a timeframe of two weeks from the day the proposal is submitted to reaching a decision. The decision does not have to be a direct answer of whether it is approved or rejected but may also be that further investigation is needed.

2.2.4.1 MOTIVATE APPROVAL

Approved proposals should by the group leader be decided whether it is implementable by the group itself. Feedback should henceforth be given to the submitter. If the group neither can decide nor implement the proposal themselves the task should be directed to another group. The approval of a submitted proposal should be documented in the spreadsheet file together with a direction of who should execute the realization.

2.2.4.2 MOTIVATE REJECTION

If a realization requires too much time and expenses it should be rejected. Henceforth should the group leader motivate the rejection in the spreadsheet file. The group leader should moreover give the information to the person that submitted the rejected proposal.

2.2.5 REALIZATION

When a proposal has been approved, the group leader should address the task of performing the realization to a suitable person within the group. If the group itself cannot realize the proposal shall be appointed to another group with better knowledge within the area.

There are no directions of how proposals should be realized since each has its own characteristics.

After proposals have been realized the leader should register the status into the spreadsheet file whereof the case is closed.

A proposal that may be on hold after approval or that has been forgotten due to any reason is placed within “Unrealized” in figure 1. This means that proposals that have not been processed by the responsible person are placed within this category.

2.3 THE REWARD SYSTEM

The current reward system is based on points corresponding to the same amount of money (SEK). The system implies that when a proposal is being approved and/or realized the group will be rewarded, regardless of whomsoever in the group has submitted or realized the proposal. Table 3 illustrates how the rewards are distributed within Atlet.

Table 3: Illustrates how the rewards are distributed within Atlet.

Activity	Blue-collar group	White-collar group
Submitting a proposal	200 points	100 points
Realization of a proposal;		
By the same group	200 points	200 points
By other group	100 points	100 points
By the same group	200 points	200 points

The intention of the reward is that the groups should spend their collected money on common activities as long as it is within Atlet’s framework such as organized dinners, study visit or cultural activities. The reward system’s purpose is to create incentives to submit more proposals and create a better collaboration within the groups by means of the activities.

2.4 VISUALIZATION

Visualization in this context means how aims, feedback and other important information are communicated within Atlet.

All groups at Atlet have a Psst! board together with a spreadsheet file where everyone can review the status of proposals. A manual of eight pages describing Psst! is available through Atlet’s intranet. The manual describes the importance of Psst!, a short description of the process from submitted to realized proposals, the responsible person and the prerequisites for receiving monetary rewards.

Since Atlet focuses on the number of submitted and realized proposals they keep count of each groups performance in regard to their yearly goals. This may be visualized in the spreadsheet file but also through a diagram on the Psst! board see figure 2. Rewards and group activities may also be displayed in the file.

3. METHODOLOGY

The following chapter presents the structure and how this master thesis was executed. It includes:

- *Success factors*
- *Concept of KI-VP*
- *Interviews*
- *Literature research*
- *Benchmarking*

3.1 SUCCESS FACTORS

Five factors of a successful suggestion scheme have been defined. It includes not only employees' motivation within an organization but also consideration to organizational theories and a suggestion scheme itself. The factors are often used in literature and the five of them can be seen as common denominators between different writers and philosophies within suggestion schemes (Ahlström, 2011; Nilsson, 1999; Östberg et al., 2010). They are all applicable and of interest to Atlet. There has not been any topic that could not be categorized to any of these five factors. That is why, specifically, these five success factors have been used.

The five factors will also support the investigation of defining problem areas within Atlet since it is a direction towards important areas. The five factors will also be used to explain a situational analysis at Atlet. The factors are divided into two categories namely the Psst! process itself and soft factors such as aim, leadership, reward and visualization. The factors are each briefly explained in table 4.

Table 4: illustrates the content of each success factor

SUCCESS FACTORS	CONTENT
THE PSST! PROCESS	Includes the overall process of Psst! in order to investigate if the system itself affects co-workers. The primary information is statistics of submitted and realized proposals. It also includes the groups' attitude towards Psst!, has Psst! affected involvement and team spirit?
AIM	Includes the overall aim of having a suggestion scheme together with quantitative goals. How well is the aim communicated within the organization and to what extent do employees know the importance of Psst!?
LEADERSHIP	Includes the leader's role in order to get a well working suggestion scheme. How do managers and leaders promote the suggestion scheme. How do they communicate with their groups and employees?
REWARDS	Includes how one should observe the monetary rewards. How important is the monetary reward at Atlet. What kind of feedback is given toward the groups and how is that communicated. What other incitement do employees need to get motivated and devoted to the Psst!.
VISUALIZATION	Includes how aim, leadership, culture and rewards are communicated within the organization. Visualization is important since it involves employees into the organization through communication.

3.2 CONCEPT OF KI-VP

KI-VP was used throughout this project. KI-VP is a planning tool, which enables a visual weekly, monthly, and a yearly planning horizon. The three planning horizons are separately visualized maps, which are posted on the wall where the daily/weekly meetings are held, see figure 3. The reason for using KI-VP was to plan the execution of this master thesis and to familiarize with the tool since it is included in the whole white-collar section of Atlet.

The concept of KI-VP includes breaking down goals, which shall henceforth be distributed and posted on the visual planning map. Breaking down goals gives actions such as activities, holidays or education, activities that require input from another person and critical problems and finally the delivery. Each action is displayed with different color post-its on the planning map, see figure 3.

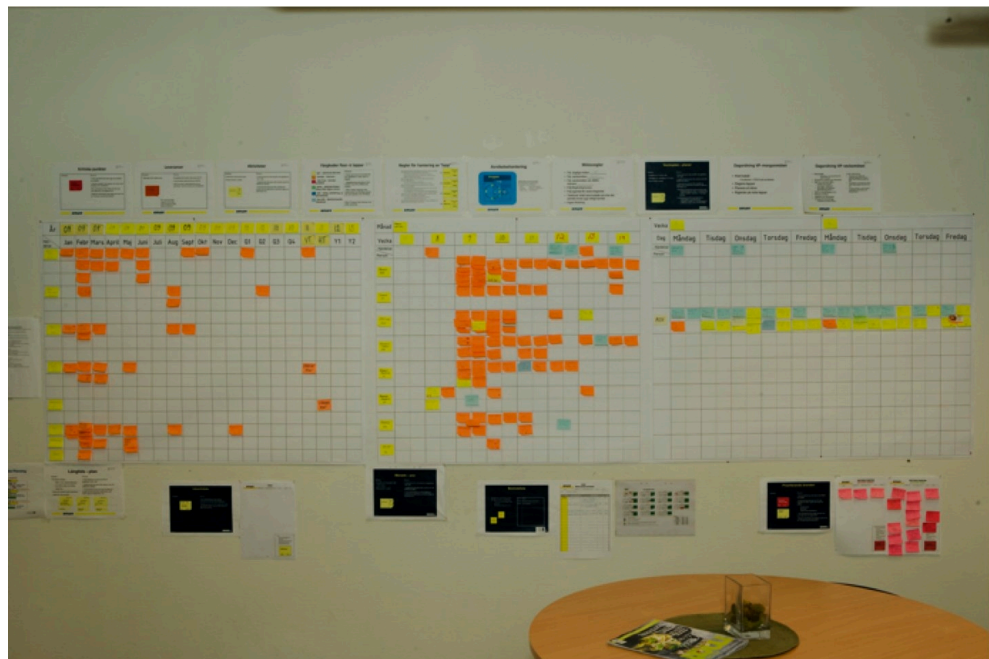


Figure 3: Illustrates the three planning horizons of Atlet's visual planning tool KI-VP

The long term (yearly) deliveries are translated into middle term (monthly), which then are translated into short term (weekly) deliveries. This means that the delivery, i.e. the final outcome, is divided into sub-deliveries and sub-sub deliveries. To reach each delivery an action plan is needed to divide the delivery into sub actions. In this way following will be acquired; an overview over who is responsible for each action and delivery, what needs to be done and when. It also visualizes whether anyone has too many on-going activities or too few. It does therefore level out the workload between concerned.



Figure 4: Illustrates how a weekly planning map of KI-VP may look like

Figure 4 illustrates a weekly planning map. Each row corresponds to a person's schedule where activities, deliveries, holidays etc. are displayed. Each person is responsible for updating and planning its own tasks. The columns correspond to the timeframe of the planning period that is in this case each day of a week.

KI-VP requires a continuous update. Therefore may the KI-VP meetings be kept short, informative, and effective. KI-VP has made the work within this master thesis more effective. It has highlighted critical issues, clarified what needed to be done, the time frame including holidays and other important matters.

3.3 INTERVIEWS

The perception of Atlet's suggestion scheme was merely based on interview and conversations. Initially an introduction to the process was provided through conversations, observations and an orientation within the file-handling system. Thereafter more correct and formal interviews were held with several selected groups.

3.3.1 INTERVIEW SELECTION

The aim with the interviews has not been to obtain a statistical representative opinion of Atlet. Instead the aim has been to get a notion of the different behavior that exists within Atlet. Groups with change of leadership, rebuilding of workstations or other issues affecting the work of the suggestion scheme was excluded in the selection of groups. The reason was to avoid temporary disturbances of the Psst! system in order to get an outcome corresponding to reality.

To get the wide set of behaviors, consideration was paid toward groups submitting and realizing many as well as few proposals. In order to obtain a broad and general opinion of Atlet's work with continuous improvement, both white- and blue-collar employees were part of the interview selection. Product development, Production, Logistic & Purchasing, and Manufacturing Engineering were interesting

departments from where groups have been selected. Selection was based upon Psst! statistics and directions from the supervisor at Atlet.

In order to emphasize different perspectives such as culture differences and difficulties at Atlet a leader together with a member have been interviewed in each group. The reason for having two persons interviewed in the same group was to have the possibility to control the congruence in answers from member and leader. It was also important to compare the answers based on same atmosphere and culture, which exist in the same group.

3.3.1.1 PERFORMANCE

The first concept was to plot groups in a graph with regard to their statistical performance. That is the number of submitted versus realized proposals. The graph in figure 5 is divided into four quadrants, which generated a distribution of groups where each quadrant represents a behavior. A selection of two groups in each quadrant, one white and one blue-collar group, by means of the supervisor at Atlet generated eight different groups. As named, two persons were interviewed within each group, whereof a total number of 16 interviews were conducted.

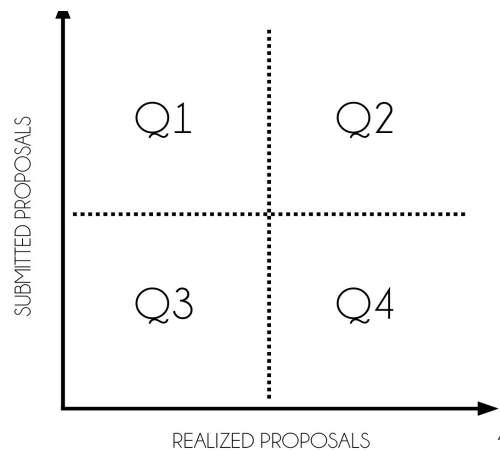


Figure 5: Illustrates the quadrants from where the groups derived from.

However, during interviews the groups did not appear to hold same performance as the statistics stated. Groups were rather placed within quadrant two and three, which means that it is a matter of HP and LP groups instead of the expected distribution of performances.

There is a noteworthy increase of performance in some groups during 2011. There are however a few months until the end of the year and the increase in the quantitative goal implies that 2010 is the most reliable year to highlight. Moreover are both the HP and LP groups positioned roughly in the same place in the graph with regard to the new goals of 2011.

HP GROUPS

The HP groups are the ones that are placed in quadrant two. These groups are closer to Atlet's quantitative goals of submitted and realized proposals compared to the low-performing groups.

LP GROUPS

The LP groups are placed within quadrant three. These groups have few submitted and realized proposals compared to the high-performing groups.

3.3.1.2 STATISTICAL DIFFICULTIES

The numbers of submitted and realized proposals are approximate since many proposals are not registered together with the malfunctioning spreadsheet file. Therefore the interviews and other observations at Atlet are a complement to the noted statistics.

3.3.1.3 INTERVIEW DIFFICULTIES

To sum up the eight groups selected consisted of four white-collar and four blue-collar groups. A leader and a member within each group where to be the basis for the interviews. This means that 16 interviews were to be conducted. However, when 15 interviews were conducted the result was obvious. The last interview would clearly not affect the result. Therefore proceeding with the analytical part was prioritized whereof 15 interviews were held.

Moreover was another interview held with another leader within a high performing white-collar group. The answers were merely supporting the theories but are not included in the interview results.

3.3.2 CONDUCTION

The interviews were initiated with a brief presentation of the master thesis, why they were interviewed, and henceforth the agenda. It was important to communicate the anonymity in order to receive trustworthy answers. The respondent was able to take a glance at the answers after the interview and correct misinterpretations. Interviews were held secluded, often in an empty cafeteria or conference room. The duration of the interviews lasted between 25-35 minutes. The questions used during interviews can be found in 11.1 Interview Questions.

3.3.3 DATA ANALYSIS

There were 15 interviews conducted. A spreadsheet form with all answers was created to make it easier to detect a linkage between answers and groups. The form was divided into four categories namely white and blue-collar, leaders and members. In this way a grid was constructed, which enabled a comparison of the answers between groups, leaders, members, white and blue-collar workers see figure 6.

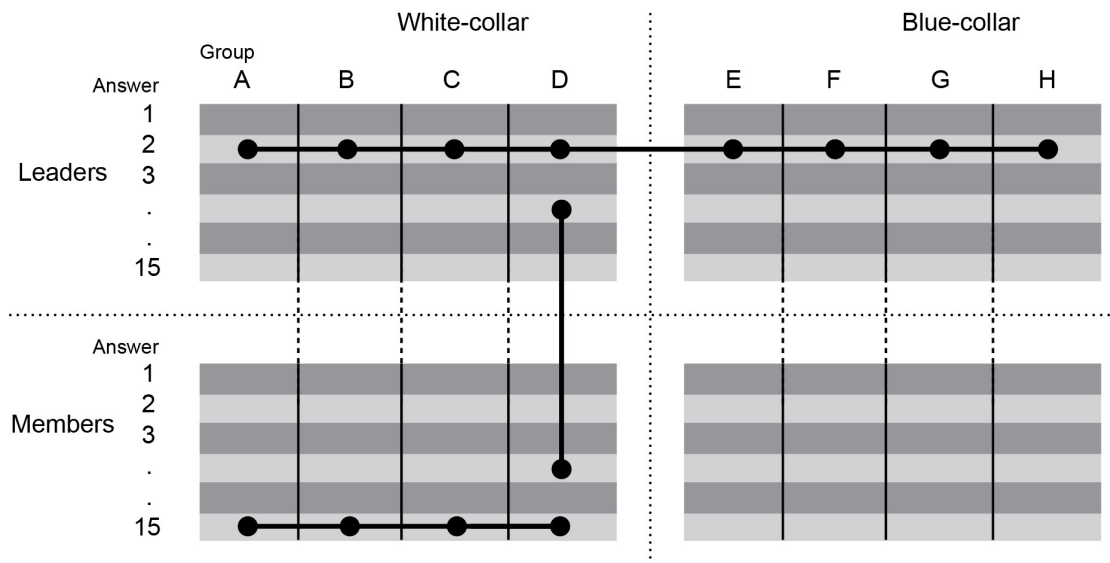


Figure 6: illustrates how the data was analysed after the interviews. Answers from white and blue-collar workers, leaders and members created a grid, which gave apparent patterns.

In figure 6 each row corresponds to answers of a specific question. The questions were the same for everyone except a few adjustments in regards to leaders and members. As an example, members described their leaders behavior and the leader described her/himself. Each column corresponds to the different groups with related leader and member.

This made it easy to highlight patterns. The behaviors of leaders and members within the HP and LP groups were also highlighted. The comparison was not executed until all interviews had been conducted.

Vertical lines in figure 6:

- Comparison within same square, (e.g. what are the white-collar members answers on question 15)
- Comparison between the neighboring squares. (e.g. what are the white and blue-collar leaders answers on question 2)

Horizontal lines in figure 6:

- Comparison within the same group, (e.g. what are a group's answers on a specific question. Comparing the leader and member within the same group.)
- Comparison of the members and leaders answers within white-collar workers or blue-collar workers.

3.4 LITERATURE RESEARCH

In order to support an analysis of Atlet's suggestion scheme Psst! a literature research has been done. The focus has been on motivational theories and continuous improvement, which are both used in a suggestion scheme. Books are foremost used within this research. Articles and journals are also used but not to the same extent.

3.5 BENCHMARKING

Executions of benchmarking serve as a complement to the literature:

- How have other companies implemented a suggestion scheme?
- What are the companies good at?
- What may Atlet learn from these companies?

For this master thesis work benchmarking would create new ideas and to get inspiration on how Psst! could be improved.

3.5.1 SELECTION OF COMPANIES

Requirements of the selection of companies were following:

- Having a suggestion scheme system.
- Being physically located at most 300 km from Atlet.
- Not having close relationship with Atlet.
- The benchmarking companies ought not to be influenced by each other.

The following was desired from the companies:

- Being a manufacturing company
- Being a company associated with a well working suggestion scheme.

Atlet has been inspired by two companies namely Autoliv and Väderstad when designing Psst!. Väderstad has received prizes due to their success with their suggestion scheme. Autoliv has been highlighted within other contexts for their great performance. However Matsec Stålvall (MS) was externally discovered by means of recommendations from a Lean consultant. MS has no connections to Atlet except the use of Atlet trucks in their warehouse. The three companies each meeting the requirements is to be the foundation of the benchmarking research. The three interesting companies were:

- Autoliv
- Mastec Stålvall
- Väderstad

3.5.2 CONDUCTION

The process was initially started with pre-work where developing questions and KPI: s was framed.

- What areas are the most important?
- What information is important to extract?

Having the five success factors in mind was the basis for developing the questions. In order to be well prepared for the visit a research of each company was done. The visit was executed by discussions by means of the prepared questions. Each company gave a tour at the plant and an introduction of their file-handling system. The after-work consisted mainly on compiling the received data. An analysis of the compiled data was done after conduction of every company involved. The three parts can be represented with pre-work, visit and after-

work. The questions used during company visits to gain information can be found in 11.2 Benchmark Questions.

4. THEORETICAL FRAMEWORK

The following chapter will present the theoretical framework. It includes:

- *Continuous improvement*
- *Standardized work*
- *Success factors*
- *Motivation*

4.1 CONTINUOUS IMPROVEMENT

Continuous improvement is as the name implies an approach to improve performance. Continuously increasing customer demand, new technology and a changing market puts high pressure on organizations. Not only shall the right product be delivered but also in the right time and to lowest possible price. Continuous improvement is often used as a tool in order to keep up with the changing market (Pascal, 2002, p.7; Kaufman, 1999, p.1).

Lewis and Slack (2008, p.168) mean that continuous improvement is cyclical in nature. The repeatedly questioning and adjusting the detailed workings of processes makes it a never-ending cycle. The improvements are carried out in small steps and become embedded within the way of working. It is more important for improvements to be carried out regularly than to be large. (Lewis & Slack, 2008; Liker, 2004).

Östberg et al. (2010, p.52) mean that with a suggestion scheme it is evident how and where co-workers shall submit their proposals. However, many managers without a suggestion scheme mean that a system of such type is limiting creativity. What these managers do not understand is that a suggestion scheme would make the work much easier and more effective.

S: Saves
Y: Yourself
S: Stress
T: Time
E: Energy
M: Money
(Östberg et al., 2010, p.51)

“Organizations in Sweden’s biggest possibilities are to learn how they can take advantage of its enormous potential of improvement and innovation that is in co-workers ideas and creativity” (Östberg et al., 2010, p.7). Österberg et al. (2010, p.7) mean that co-workers see problems their managers do not.

The involvement of members is important in Lean philosophy and can be achieved through a suggestion scheme. The purpose is to create an innovative and creative work environment that involves everyone. Workers creative ideas may contribute to improve working condition, raise output, improve quality standards, facilitate the introduction and development of new technologies and processes and thus ensure that the enterprise remains competitive. A suggestion scheme can also be a method of motivating employees to develop their individual creativity and apply experience and knowledge for both the enterprise and their own good. This in turn may increase the involvement in the company.

The proposals may cover a wide range of subjects as product development or work related problems. These in turn may be of either technical or administrative nature. (Klotz, 1988, p.336)

4.2 STANDARDIZED WORK

“Today’s standardization ... is the necessary foundation on which tomorrow’s improvement will be based. If you think of “standardization” as the best you know today, but which is to be improved tomorrow – you get somewhere. But if you think of standards as confining, then progress stops.” (Ford, 1926 cited in Liker, 2004, p.140).

Ford means that it is impossible to improve any process until it is standardized since it otherwise will result in more variations. However, if a defect is discovered and the standard procedure was followed, then the standard needs to be modified. (Liker, 2004, p.140)

The driving force behind continuous improvement is deviations from the standards. Lean production embodies the learning cycle of Plan-Do-Check-Act (PDCA), which is how improvement work is performed.

4.3 SUCCESS FACTORS

Five factors of a successful suggestion scheme are each described below. The factors are The Psst! process, aim, leadership, reward system and visualization.

4.3.1 THE PSST! PROCESS

The benchmark with Autoliv, MS, and Väderstad exemplifies alternative ways to design a continuous improvement process or system. More information can be found in each section (5.3.1 Autoliv, 5.3.2 Mastec Stålvall, and 5.3.3 Väderstad).

4.3.2 AIM

If traveling, the goal is to get to a certain destination. Answer the following to succeed with the goal:

- Where is present location
- Where is desired destination
- What route and means of transport to use

If one is unsure about the present location then one can never know when desired location has been reached. It is also needed to know how to get to the travel between present location and desired destination.

Same rules that apply to travel apply to improvement work (Ahlström, 2011, pp.14-15). To be able to close the gap knowledge of present situation, desired situation, and how to move from the first to the second is needed. Compare to when walking through a city. One does not automatically show up at the right position without knowing the answers.

When working with no restrictions one does not know what to deliver and the creativity will die together with the unpronounced desire from the employer (Ahlström, 2011, p.53). Having continuous improvement without directions will therefore create fewer proposals. Humans do not work well with *full restrictions* or with *no restrictions*. Therefore

stating what proposals that are of interest, i.e. to focus, is a way to receive more proposals. Östberg et al. (2011, p.74) say restriction through focus will not restrain the improvement system. The consequence is instead that ideas without improvement potential will not be submitted from the beginning. Also be sure to measure progress with useful KPIs. These are also easy to follow up (Ahlström, 2011, p.61).

4.3.3 LEADERSHIP

A company often cannot do without their members or leaders. They are both crucial to run a company. Though to improve the system leaders can use the following activities.

4.3.3.1 ENGAGEMENT FROM LEADERS

If the suggestion scheme for some reason does not work it is seldom caused by the members (Nilsson, 1999, p.53). Members will not autonomously organize a suggestion scheme without directions from management. That is why leadership and top-down activities are needed. This does not mean that the top management should be the system. What it really means is that it should be formed and promoted from the top but maintained and run from the bottom. You cannot expect members to create an improvement system on their own. That is why management is needed. Though members like any other employee can always improve an existing improvement system.

At the Candelia factory, which Nilsson (1999) uses as case example, employees received training and education to be able to use the system in the best way (Nilsson, 1999, p.57). Leaders received short but frequent sessions with tips on how to involve and activate others. According to Nilsson (1999, p.57) the approach worked and gave results. To give information and tips but also to do it frequently and continuous is a good way to create the desired involvement and engagement from the top and middle management. It is this that motivates employees, not the cash (Nilsson, 1999, p.79).

4.3.3.2 FEEDBACK AND RESPONSE

Humans, like a car on cruise control, are in need of a feedback loop to know how they are doing. If an employee has no idea if a proposal is good or bad it is hard to know if proposals of that kind are desired. Not knowing also decreases the willingness to hand in more proposals. It is therefore of high value to receive response and to receive it quickly. A complete response to the question is not always necessary (Nilsson, 1999, p.22), just the response that now the question is under investigation is enough. At Toyota, like many other companies, the response time is kept below 24 hours. This decreases the risk of employees being worried that no one cares about their proposals. A well-run system will make sure that proposals are answered on time.

One important aspect after a proposal has been submitted is that the focus should only be whether realization is possible and profitable or not. If the answer is no, close the matter. Keeping projects alive that might be realized in the future is a bad idea. It is better to say no early (Nilsson, 1999, p.23).

4.3.3.3 IMPLEMENTATION

For a member it is natural to feel that ones idea is of no significance if it is not implemented. Low realization rate of course influences the motivation to leave proposals in a negative way. Little implementation will lead to fewer proposals and high implementation will lead to more

proposals (Nilsson, 1999, p.23; Ahlström, 2011, p.16). That is why implementation of proposal is of such an importance. Jack Welch, former CEO of General Electrics often used the expression too much talk for a little do (Ahlström, 2011, p.16). With this he means that instead of discussing solutions and being in meetings one should focus on making things happen. Again that is the importance of getting proposals implemented and seeing a change. Therefore having a slow system with much lag in it will create problems, both practical and motivational ones. Companies having loops going by the top management, taking extra time, often run into this type of problems. This will similarly lead to fewer proposals (Östberg et al., 2010, p.71). To compensate companies can prioritize proposals that can be implemented within a reasonable timeframe in order for the employees to see results. Some proposals may be good but are complicated and therefore required longer investigation. These proposals are better off being cancelled (Nilsson, 1999, p.23).

4.3.3.4 PROMOTION

Promoting the system basically means convincing employees that the system is worth its efforts. E.g. show statistics, let employees see the result of their contribution, give feedback and appreciation, etc. Imai (1993, pp.85-86) emphasizes the support from nearest leader. A practical example of promotion from Nilsson (1999, p.70) is that the CEO of the company hands in the largest amount of proposals. By seeing your leader believing in the system both in theory and by practicing it a conviction is created. This can be a strong promotion.

Highlighting successes and creating the feeling of success leads into a virtuous circle (Ahlström, 2011, p.41). The same boost is created through showing results or changes. Apart from the motivational thrust, showing statistics and improvements examples has a practical benefit. Nothing gets left behind. By going through new proposals and to give updates on old proposals the risk of forgetting or losing a proposals decreases. Both these effects (motivational and control) can be combined with graphs or numbers with important KPIs. It is then easy and fast to review the current situation, but it also becomes necessary together with putting effort into the system. According to Pascal (2002, p.110) good KPIs could be:

- Total number of proposals
- Proposals per team member
- Supervisor participation percentage
- Approval ratio
- Rewards awarded
- Average reward points per team member

4.3.3.5 INVOLVE EVERYONE

An important factor with continuous improvement is to involve everyone. Typically it is expressed by getting everyone involved you gain more than having one manager doing ten persons work (Bergman & Klefsjö, 2011, p.46). Though when it comes to culture it is important that no one is excluded nor above the system. Being left outside or seeing someone being too good to be a part of the system will oppose the improvement work. Same applies to anchoring of new ideas. If something is changed without information resistance will spark. Östberg et al. (2011, p63) emphasize teams to discuss ideas with the intention of involving everyone and having everyone in the process.

This then creates an environment where everyone shares expertise and aspects, which creates more and better ideas.

4.3.3.6 COACHING IDEAS

When adopting the culture of continuous improvement thinking patterns need to be changed. Likewise are changes in leadership needed. If contribution of thoughts and ideas from members is desired, management need to work in a different way, e.g. by encouraging, promoting, and instruct (Östberg et al., 2010, p.66). Another solution is to let management coach members. The leader would then not punish a bad proposal but instead in a constructive way help the member to hand in a better proposal the next time. A member should never have to be afraid of submit a proposal. With the power of rejecting or approving a proposal comes the importance of acting in the right way (Nilsson, 1999, p.24).

Though coaching is not always suitable. Pascal (2002, p.108) says that depending on level of maturity different strategies are to be used. Level four is the highest maturity and one the lowest.

1. Tell the member what to do
2. Show the member how it is done
3. Do it with the team member
4. Let the team member do it self and spur learning by asking question.

4.3.4 REWARDS

There are many reasons why people submit proposals. Östberg et al. (2010, p.49) believe people hand in ideas because they want to see them implemented, get confirmation, solve the employees' and the company's problems. It is always important for a system to support its aim and purpose.

To motivate and drive employees most companies have different ways of rewarding good proposals. These can be divided in monetary and non-monetary rewards. Monetary rewards can be a cash bonus, gifts, or any tangible things that can be bought for money. Non-monetary rewards can be recognition, awarded employee of the month, getting the best parking space reserved for you or similar intangible things. The drive can be created by both, but have different effects. Östberg et al. (2010, p.35) emphasize that no world-class company uses monetary rewards. So the use of monetary or non-monetary rewards can be seen as a lever of maturity.

There are many problems with monetary rewards. They lead to envy, fairness problems, much administration, less cooperation, fewer ideas, etc. (Östberg et al., 2010, p.38).

Östberg et al. (2010, p.49) though suggest trying a semi monetary system. In their particular case you will receive lottery tickets as rewards for handing in proposals. This will also not necessary lead to that the person with most ideas getting the best price. It is not the cost but the act that is of importance; it can be something as simple as a celebration with cake during a Friday coffee break.

4.3.5 VISUALISATION

A way of conveying these (success) factors is by using visual means. Illustration is a big part of Lean (Liker, 2004) and has often proven

helpful. A simple way is to use a whiteboard with updated illustrations and KPIs. The four factors (4.3.1 Aim to 4.3.4 Leadership) can be communicated with the help of visualization by doing the following (*note, this is not necessary the situation of Atlet*):

The Psst! Process – Again please see the benchmark with 5.3.1 Autoliv, 5.3.2 Mastec Stålvall, and 5.3.3 Väderstad for further information.

Aim – Having brief written goals with big letters visible make it hard to forget. Even if employees know the goals visualization will make it striking and will constantly remind employees of the shared vision and goals.

Leadership – Update employees with information regarding the suggestion scheme. Tip of the week might also be an entry. All sorts of promotions can be posted here. An information board where promoting information can be published and visualized is a great tool (Ahlström, 2011, p.47). Degree of involvement, progress, benefits of continuous improvement, etc. are some of the things that could be seen as promoting.

Rewards system – Use charts to inform. Fill it with all sorts of information showing how the reward system is working. When struggling with a problem it can be helpful to be reminded of the benefits to keep on going. Numbers and illustrations of interest could be; numbers of submitted proposals, numbers realized proposals, examples of realized proposals.

4.4 MOTIVATION

Writers of Lean or continuous improvement books often have their own opinion and ideas of motivation. These are often practical and to some extent based on research within psychology. To complement the motivational theories from Lean and continuous improvement Hackman and Oldham's job characteristics model from work redesign (1980) has been used.

4.4.1 JOB CHARACTERISTICS MODEL

The model, seen in figure 7, is divided into three states (core job characteristics, critical psychological states, and outcomes) and three moderators. These are described under corresponding heading together with the motivating potential score (MPS).

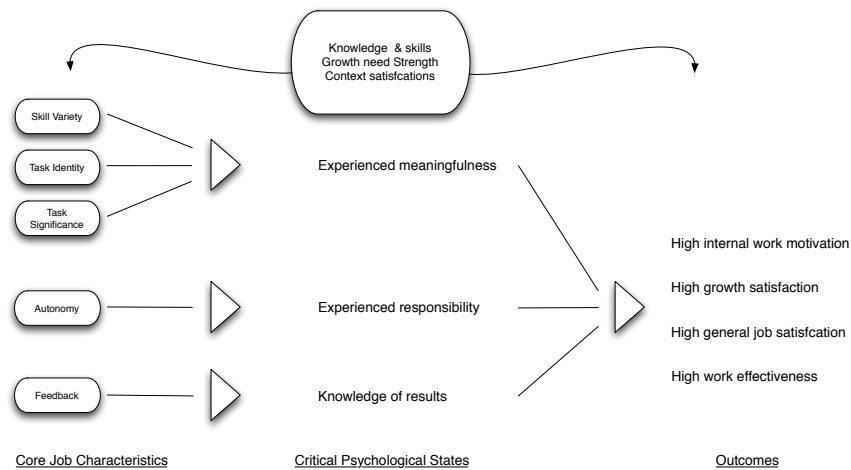


Figure 7: Job Characteristic Model free from Hackman & Oldham (1980)

4.4.1.1 CORE JOB CHARACTERISTICS

Experienced meaningfulness of work

Skill variety (SV) – Is the variety of skills required to complete the task. If employee possesses the SV, work will be positively challenging. If employee does not possess SV work will be negatively challenging and non-motivating. By having to use a variety of skills to complete a task, instead of just monotonically work, the task will be experienced as more meaningful.

Task identity (TI) – Is how large amount the task is compared to the whole process. I.e. is the employee creating something from the beginning to the end, or just assembling a nut on a machine. If the employee has the ability to see the whole picture and understand in what way the employee is contributing, The employee has higher possibility of experiencing the work more meaningful.

Task significance (TS) – Is the impact or influence the task has on the employee. If the employee is creating something life fulfilling the employee has a better possibility of experiencing meaningfulness than if creates something that was of little importance or impact.

Feeling of personal responsibility for outcome

Autonomy (A) – Is the amount of freedom, independence, and discretion that comes with the task. Is the work effort dependent on the worker or are the employee's actions unnoticeable. With increased autonomy, the employee feels higher personal responsibility for success and failure. This since the employee becomes more willing to accept personal accountability for outcome of their work according to Hackman and Oldham (1980).

Knowledge of the results of one's work

Feedback (F) – Is the degree which the employees receives information of the results and personal performance. It is very important that the feedback gets delivered straightaway and preferable automatically through the work process.

4.4.1.2 CRITICAL PSYCHOLOGICAL STATES

The core job characteristics lead to three critical psychological states. They are *experienced meaningfulness*, *experienced responsibility*, and *knowledge of results*. To be able to create an enriched work the critical psychological states are of importance. That might be why the MPS is based on these three states.

4.4.1.3 OUTCOMES

So what connection has feeling meaningfulness with performance? According to the theory when experiencing meaningfulness, responsibility for output, and knowledge of results the output and performance of the employees increases. Employees will have high *internal motivation*, *growth satisfaction*, *general job satisfaction*, and *work effectiveness*.

The meaning of the four outputs can shortly be described as:

Internal work motivation – Motivation received through the task itself instead of through external rewards.

Growth satisfaction – Satisfaction obtained when learning and evolving, i.e. growing through ones work.

General job satisfaction – The job is all in all satisfying. If the thought of changing work is occurring often the general job satisfaction tend to be low.

Work effectiveness - The results in qualitative and sometimes quantitative output, depending on definition (Miner 2005, p 79).
Moderators

4.4.1.4 MOTIVATING POTENTIAL SCORE (MPS)

MPS is determined upon a function of the critical psychological states, i.e. how the worker perceives the job. The key is therefore not how much the output is or the actual motivational circumstances but rather how the worker experiences it. The formula can be seen in equation 1.

$$MPS = \frac{SV + TI + TS}{3} * A * F$$

Equation 1: Calculation of Motivating Potential Score Hackman & Oldham (1980)

A job with high MPS then has the potential to be motivating to the employee. It can be noted that if SV, TI, or TS is zero (or close to) the MPS can still be kept high. Though a zero on autonomy or feedback will lead to the lowest MPS.

4.4.1.5 MODERATORS

So far this theory and the MPS is not influenced by personality. Without influence of personality the theory would say that every one would experience a certain work in the same way. Though this is not true, work can be rewarding for one person and dissatisfying for another person. The moderators explain who will and who will not respond well to a work with high potential to be motivating. Hackman and Oldham uses the following three moderators:

Knowledge and Skill - A difficult or close to impossible task is hard to take joy in. It will instead be perceived as frustrating and un-motivating. If knowledge and skill needed is acquired the task would not be frustrating or un-motivating. Instead it there is a possibility to

take joy in it. This is why knowledge and skill of the employee compared to the task need to be taken into account.

Growth Need Strength – Is to what extent the employee grasps the possibility to improve and develop. This is a need within us where some people have a stronger need to grow and expand than others. An employee with strong growth need strength would react positively and with energy to a new task. The task would be seen as a new possibility.

Context Satisfaction - Work contains different parts and some of them might not be perceived satisfying to the employee. The context can make the employee more or less resistant to change. E.g. an employee that is discontent with its work will spend most of its energy on getting through the day. A request for more extensive work content, even if the employee were qualified for it, would probably be met with contempt. If the employee instead likes the context of work a change or addition to the work would not immediately be met with skepticism.

5. EMPIRICAL STUDY

The following chapter presents the empirical study. It includes:

- The Psst! process
- Interview results
- Empirical references

5.1 THE PSST! PROCESS

The Psst! process is investigated with regard to statistics. The interviewed groups are plotted in figure 8 in relation to number of submitted and realized proposals in 2010. The groups in the figure marked with a dashed circle are highlighted in regard to their statistical performance. The circles with a W in figure 8 stands for white-collar groups. Henceforth, B stands for blue-collar groups.

Performance in this sense does merely concern the statistics of submitted and realized proposals i.e. Atlet's goal. Figure 8 illustrates how performance varies between the groups. The dashed lines of 6 submitted and 4 realized proposals in figure 8 illustrate Atlet's goal. This is from where the high performing (HP) and low performing (LP) groups derives from.

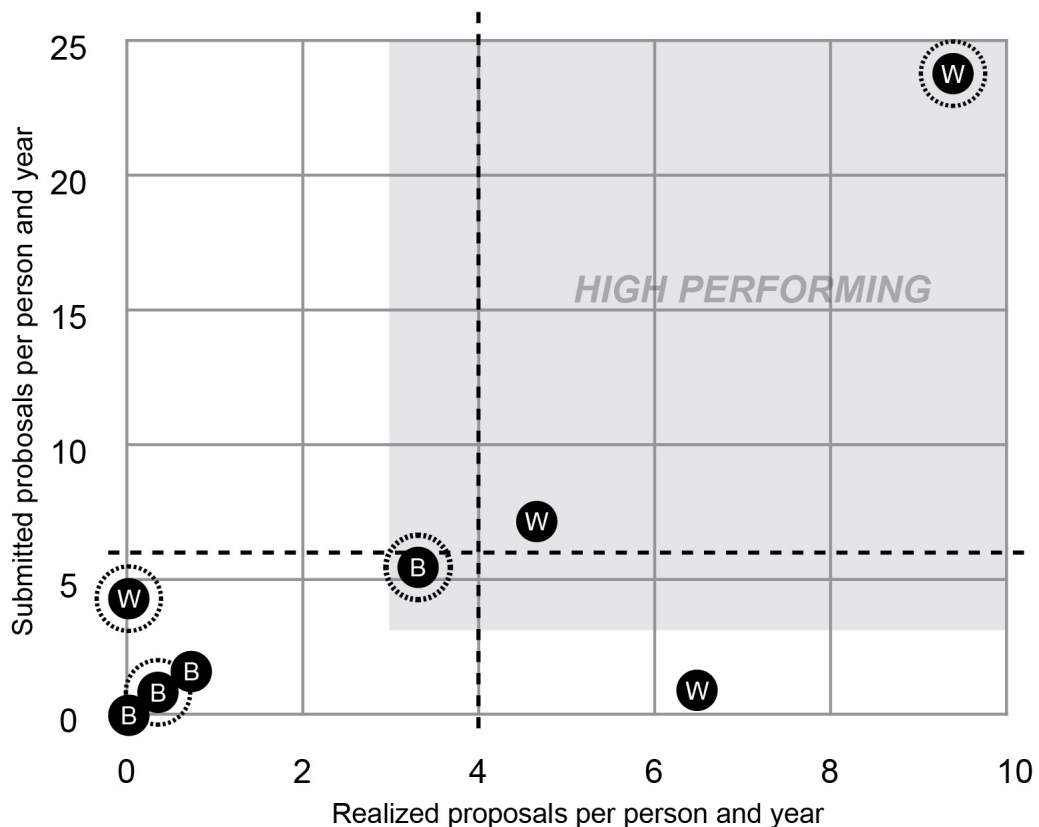


Figure 8: Illustrates the performance of the concerned groups. Each group is named with a letter W for white-collar workers and B for blue-collar workers.

The HP area consists of two white-collar groups above the dashed lines of Atlet's goal. However, an exception is made concerning one blue-collar group since it is positioned close to the dashed lines comparing to the others. It is therefore included in the HP area. Note that these numbers and goals in figure 8 are from 2010.

5.1.1 FLOW AND STATE

Figure 8 illustrates the performance of each group with regard to its statistics of submitted and realized proposals. Furthermore are each group's flow and state of proposals investigated further. Four groups are highlighted within this thesis and are presented in 5.1.2.1 The blue collar-groups and 5.1.2.2 The white-collar groups.

5.1.1.1 ILLUSTRATION OF FIGURE 9

The three larger boxes in figure 9 represent the years of 2009, 2010 and 2011. The year of 2010 is highlighted. Outcome from each box i.e. proposals with no decision or approved but not yet realized is marked within the big triangle from the boxes. Note that the triangle adds not only unfinished proposals from its own year but from all triangles from earlier years.

All triangles describe the flow of proposals going in and out from each year. The black triangles pointing out from the system is closed matters.

A submitted proposal, in the triangle pointing in, needs to be evaluated i.e. a decision of approved or rejected. Lack of time, postponement, oblivion or if the matter needs further investigation remains in the system i.e. no decision.

An approved proposal aims to be realized, however with lack of time or support from other group it may be difficult, even impossible to realize. Realized proposals is classified as closed matters and unrealized as remaining in the system.

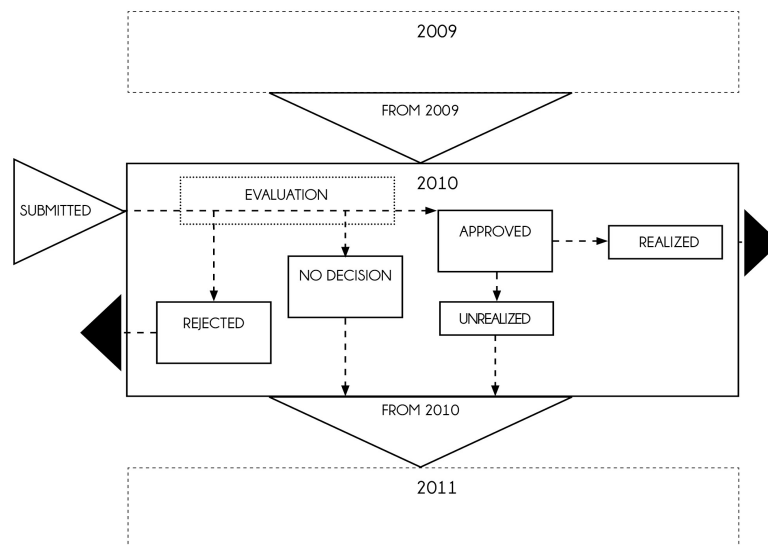


Figure 9: Illustration of the figure, which describes the Psst! process with regard to its statistics.

5.1.2 HIGH PERFORMING GROUPS

Out of the eight interviewed groups have four been highlighted to illustrate tendencies and bottlenecks. The selected groups fall within the framework of the high and low-performing groups in relation to white and blue-collar groups

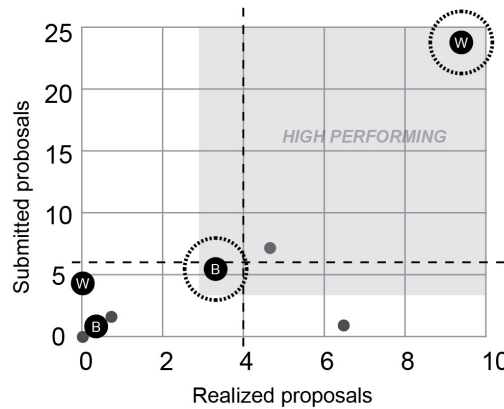


Figure 10: Illustration of the two high performing groups that is being highlighted

5.1.2.1 THE BLUE-COLLAR GROUP

The blue-collar group within the high performing area is highlighted since it was included by exception. Figure 11 illustrates the number of proposal that each activity in the process contains after the year of 2010.

Of the 110 submitted proposals 10 have been rejected and 72 have been approved see figure 12. 28 proposals are still under evaluation and 14 have not yet been realized. This means that 42 (28 + 14) proposals remains in the process from 2010. These proposals have been transferred to the year of 2011 together with remaining proposals from 2009.

This group is interesting since the members are very engaged in the Psst!. Assembly stations together with detailed tasks in a line make it possible to find many improvement areas. However, many proposals i.e. 25 out of the 28 proposals that remain in the evaluation criteria need further investigation and support from another group. The bottleneck becomes therefore the delegation of responsibility to other unit. Consequently increases the big triangles out of the yearly boxes from 39 to 79 proposals.

During 2011 two persons were hired in order to realize proposals. The submissions of proposals increased immediately during this period. There is moreover a frustration over proposals that cannot be realized.

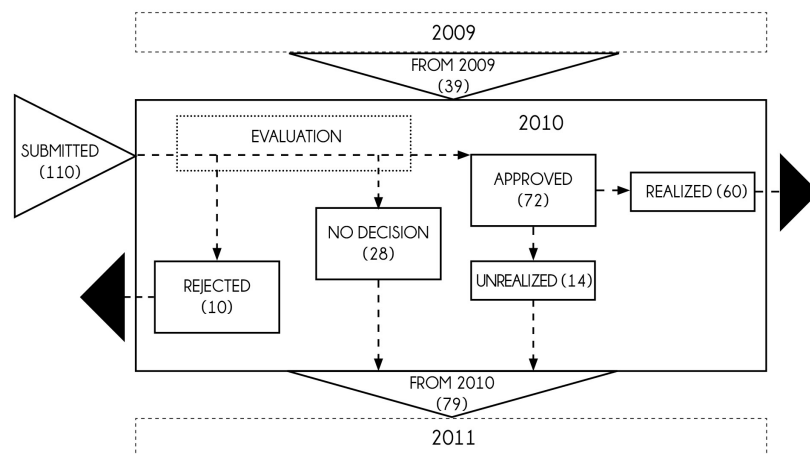


Figure 11: Illustrates the number of proposals that each activity in the process contains after the end of the year of 2010.

5.1.2.2 THE WHITE-COLLAR GROUP

The white-collar group within the high performing area is highlighted since it has the best performance of all groups. The group furthermore includes proposals within their KI-VP. Figure 12 illustrates the number of proposal that each activity in the process contains after the year of 2010.

Of the 189 submitted proposals 24 have been rejected and 163 have been approved see figure 12. Two proposals have not yet reached a decision. 75 proposals have been realized during the year.

More than half of the approved proposals have not yet been realized. The bottleneck is therefore either to perform realizations or rejection of too few proposals. Approving proposals with too little resources to realize them leads to unrealized proposals.

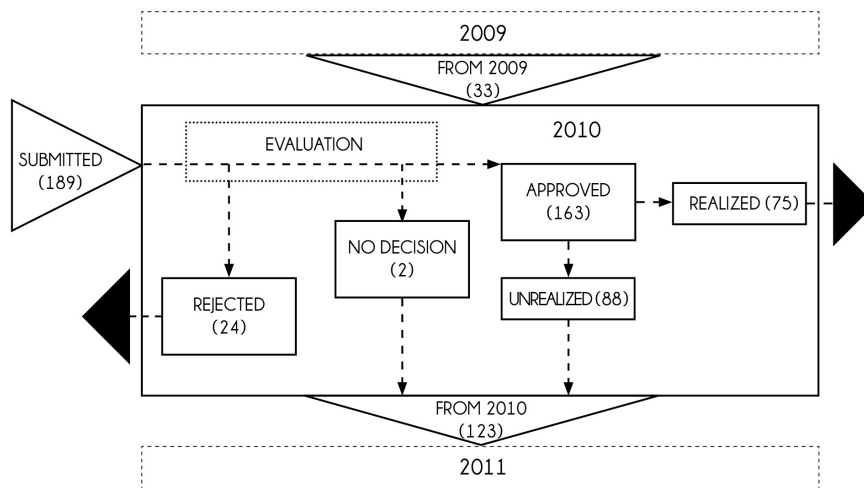


Figure 12: Illustrates the number of proposals that each activity in the process contains after the end of the year of 2010.

5.1.3 LOW PERFORMING GROUPS

The two low performing groups are highlighted with dashed circles in figure 8 and 13.

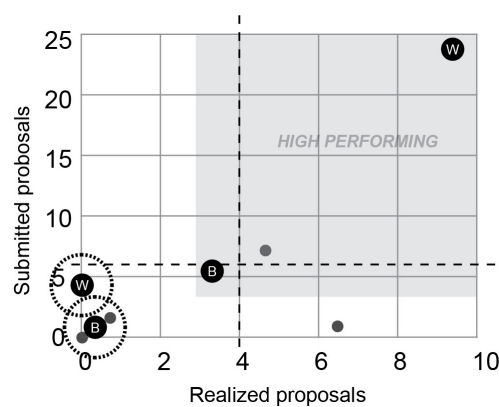


Figure 13: Illustration of the two low performing groups that is being highlighted.

5.1.3.1 THE BLUE-COLLAR GROUP

The blue-collar group within the low performing area, see figure 13, is highlighted since it has few submitted proposals moreover each submitted proposal is realized. This means that proposals are taken seriously. Figure 14 illustrates the number of proposal that each activity in the process contains after the year of 2010.

Of the 34 submitted proposals 3 have been rejected and 30 have been approved, see figure 14. One proposal has not yet reached a decision. All approved proposals have been realized during the year of 2010.

The bottleneck within this group is the low input of submitted proposals. No proposals are directed to another group.

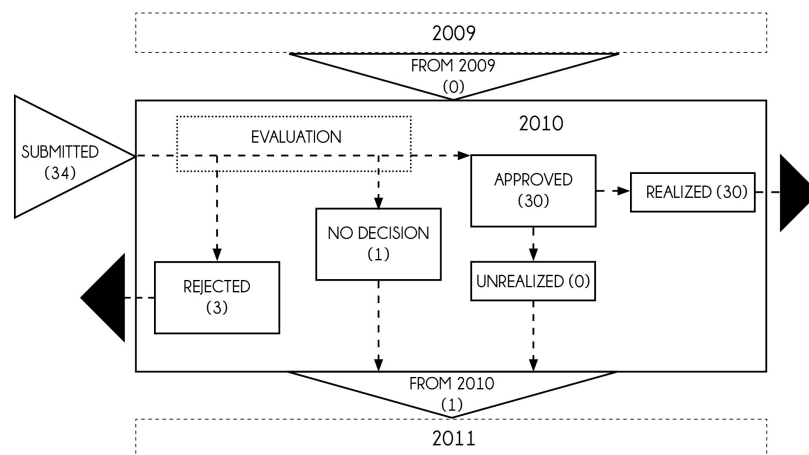


Figure 14: Illustrates the number of proposals that each activity in the process contains after the end of the year of 2010.

5.1.3.2 THE WHITE-COLLAR GROUP

The white-collar group within the low performing area is highlighted since it does not work with Psst! at all. Figure 15 illustrates the number of proposal that each activity in the process contains after the year of 2010.

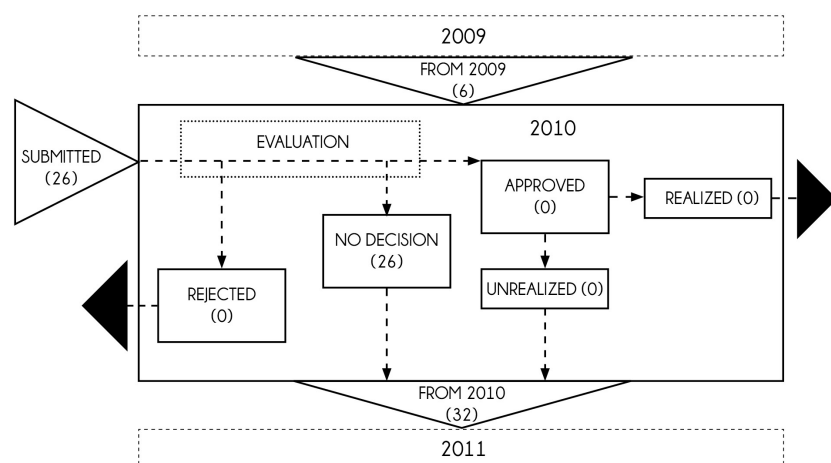


Figure 15: Illustrates the number of proposals that each activity in the process contains after the end of the year of 2010.

Of the 26 submitted proposals 0 have been rejected and approved, see figure 15. All 26 submitted proposals remains in the system.

The proposals do not come further than the evaluation criteria in the process due to lack of time and prioritization. The bottleneck in this context is the group leader. This means that remaining proposals from each year increases. From 2009 to 2010 proposal remaining in the system increase from 6 to 32.

5.1.4 BOTTLENECKS

From the statistics have five bottlenecks been identified. Note that all eight groups have been considered even though only four have been illustrated as examples in this report.

1. Number of submitted proposals in LP groups
2. The leaders in the low performing groups
3. Proposals directed to other groups
4. Too few realizations
5. Timeframe of the process

5.2 INTERVIEW RESULTS

Combining the statistics with employees' perception of Psst! resulted in the following information. The result is based on the interviews of all the groups, see table 5, together with observations and discussions. The italic text within the quotation marks is the questions asked.

Table 5: Illustrates interview selection.

	Leaders	Members	Total
HP	3	3	6
LP	5	4	9

5.2.1 PERCEPTION OF PSST!

5.2.1.1 "How does the Psst! system work for you?"

The perception of how the Psst! system works in the HP and LP groups is illustrated in table 6.

Table 6: Illustrates leaders and members' perception of how Psst! works in HP and LP groups.

Perception of how Psst! works	HP members	HP leaders	HP
Poor	0/3	0/3	0/6
Moderate	1/3	2/3	3/6
Excellent	2/3	1/3	3/6
	LP members	LP leaders	LP
Poor	1/4	3/5	4/9
Moderate	3/4	2/5	5/9
Moderate	0/4	0/5	0/9

A member within the LP group said:

"You submit proposals at your own initiative"

5.2.1.2 “What positive effects is Psst! providing?”

The respondents in the HP and LP groups’ perception of the positive effects of Psst! is illustrated in table 7.

Table 7: Illustrates leaders and members’ perception of the positive effects that Psst! is providing in the HP and LP groups.

Perception of the positive effect of Psst!	HP members	HP leaders	HP
Poor	1/3	0/3	1/6
Moderate	1/3	1/3	2/6
Excellent	1/3	2/3	3/6
	LP members	LP leaders	LP
Poor	0/4	0/5	0/9
Moderate	3/4	3/5	6/9
Excellent	1/4	2/5	3/9

5.2.1.3 “How important is Psst! to you?”

The importance of having Psst! for the HP and LP groups is illustrated in table 8.

Table 8: Illustrates the HP groups’ perception of the importance of having the Psst! system

Perception of Psst!'s importance	HP members	HP leaders	HP	LP members	LP leaders	LP
Un-important	2/3	1/3	3/6	0/4	0/5	0/9
Important	1/3	2/3	3/6	4/4	5/5	9/9

Only one white-collar group perceived the Psst! as unimportant in the HP groups since they do not use the system to make improvements. The two respondents in the group meant that:

“It is important to receive proposals but the system itself is not important to us.”

“Psst! is made for those who do not have the same possibility to affect”

“Blue-collar compared to white-collar units has different functions. Psst! does not work for everyone.”

“The system is a load when proposals should be realized, it is quicker and easier to do it yourself (without Psst!)”

Remarks from respondents emphasizing Psst!’s importance are:

- Makes proposals hard to ignore (by putting them into a system)
- Involves and increases participation
- Gives the possibility to improve performance and work situation
- Eliminates deviations

5.2.1.4 *"Do you feel appreciation for your efforts in Psst!"*

Five of the respondents, only members, answered that they received appreciation from leaders, fellow members or both. The two members who did not receive appreciation are groups that are not active within Psst!

5.2.1.5 *"Have Psst! affected the well-being positively?"*

More than every other answered that Psst! has affected the well-being positively. In the HP groups three quarters stated that Psst! has affected the well-being positively while a majority of the LP groups perceived no difference.

5.2.2 AIM

5.2.2.1 *"Why does Atlet have Psst!?"*

There is no difference between HP and LP groups' answers regarding the knowledge of Atlet's overall aim. However, the leaders have, regardless of the performance, possessed distinct knowledge compared to members. The answers to why Psst! is of importance can be expressed in the following categorize:

Leaders

- To get engagement from employees
- Savings in production
- To reach the improvement requirement from Nissan
- Develop the units to become better
- To stay competitive

Members

- Do not know
- Affect my environment.
- Embrace ideas
- Small improvement leading to something significant

5.2.3 LEADERSHIP

All leaders said their role was of importance in order to get Psst! working. Almost every leader said that the system relies upon themselves. Some leaders said they were initially important. Same leaders meant that groups would become autonomous with time.

5.2.3.1 *"What is done by your leader to receive more proposals" and "What is done by you to receive more proposals"*

A difference in leaders behavior can be identified between the HP and LP groups.

Leaders within HP groups

- Notices and highlights employees ideas
- Conduct meetings, reviews, and group discussions
- Encourage
- Remind
- Display positive results
- Engage and motivate employees
- Delegate, share responsibility

Leaders within LP groups

- Do nothing
- Whine
- Nag
- Complain about their leaders

Some leaders within the LP groups take more actions to use Psst! than others.

Almost no leader presented statistics during meeting with member. During meetings, half of the leader gave feedback on proposals' status, regardless of group performance.

5.2.3.2 "Do you get the support you need from your leader"

Differences between the members emerge with regard to HP and LP groups. Members within HP groups merely get the support they need from their leaders. Members within LP groups have a general hesitation.

The leaders, regardless of performance, meant that they either got support or not. However, some meant that they did not need support since they were already engaged. The white-collar leader of the illustrated LP meant that his leader ought to be more active with Psst! and communicate a higher priority.

5.2.3.3 "Have Psst! affected the engagement of employees"

Employees within HP groups say that involvement has increased with Psst!, due to more discussions and the need of more cooperation.

Leader of group H, blue-collar and LP, says:

"Group members discuss more, which has created a better cooperation"

The pattern in the LP groups is not apparent. Most of the respondents mean that the engagement is unchanged. None of the leaders emphasize that Psst! has created more engagement. However few members say that the group activities have created a better team spirit.

5.2.4 REWARD

5.2.4.1 "Are you satisfied with the monetary reward?"

Most of the employees were satisfied with the reward. Few had considered the matter.

5.2.4.2 "How important is the monetary reward for you to submit proposals?"

All leaders and members within the HP groups perceive the reward as unimportant see table 9.

All members within the LP groups perceived the reward as important except one group.

A member within one LP white-collar group said:

"It is important, but not necessary. The reward can be removed, however that would require a better engagement from the management."

Table 9: HP groups' perception of the rewards importance to submit proposals

Perception of the reward	HP members	HP leaders	HP
Un-important	3/3	3/3	6/6
Important	0/3	0/3	0/6
	LP members	LP leaders	LP
Un-important	1/4	3/5	4/9
Important	3/4	2/5	5/9

Table 10: How members' and leaders' perception correlates within LP groups.

Group	W	W	B	B	B
Members:	I	I	-	I	UI
Leaders:	I	UI	I	UI	UI

5.2.5 VISUALIZATION

All groups have a Psst! board, which is visualizing where in the process proposals are. Some groups also put a draft of the Psst! file close to the board. Others visualize statistical performance of their own group.

The two white-collar groups in the HP area have integrated Psst! into KI-VP. This means that the Psst! activities are visualized through the Atlet's planning tool.

5.2.6 FLAWS

In the end of each interviews flaws of Psst! and how they can be improved have been discussed. Some of the problems that surfaced are:

- The spreadsheet file does not work.
- When delegating a proposal it is never realized.
- Proposals in the system and between departments are not transparent.
- Too much administration.
- Psst! is not a cohesive system, it is just a bunch unconnected actions.

5.3 EMPIRICAL REFERENCES

The following chapter will present the empirical references including:

- Autoliv
- Mastec Stålvall
- Väderstad

5.3.1 AUTOLIV

Autoliv, founded in Vårgårda 1956, is developing and manufacturing safety system to the auto industry. They have products such as seat belts, airbags, and associated electronics. 750 persons are working at Autoliv in Vårgårda but the company is globally distributed. The system for continuous improvement was introduced in 2003.

5.3.1.1 THE SUGGESTION SCHEME

Autoliv have based their suggestion scheme on the PDCA cycle just like Atlet. A proposal is handed in on a paper blanket, similar to Atlet's. But instead of having one blanket there are three coupled together. First blanket going to a board identical to Atlet's, second is aimed to stay with the submitter.

Each shift starts with a meeting where the group leader discusses proposals with the members in order for everyone to get involved and to compile everyone's opinions. Proposals have to be discussed and approved by all group leaders within each shift whereas the time limit of a decision is 24 hours. The submitter must get information within these 24 hours. The person responsible of the proposal is appointed and receives the blanket describing the matter. The responsibility of realization lies with that person. After realization the blanket is put into one of the holder on the board, signed with date and name of the responsible person. In order to close the matter another person is bound to control the executed work whereof a signature is required. Henceforth is a graph of implemented proposals and a spreadsheet file updated. The same system but separate is the basis for deviations, similar to Mastec stålval's.

5.3.1.2 AIM

Autoliv's aim of having a system for continuous improvement was difficult to distinguish but was simply made out of becoming better. The company merely focuses on implementation of as many proposals as possible. Autoliv have a goal of realizing nine proposals/employee this year. Last years goal was six and next year will be twelve realized proposals/employee. Today, Autoliv have realized 15 proposals/employee, which is more than appointed. The reason for why focus only lies within realization instead of pushing members to submit more proposals is because they receive more proposals than Autoliv can realize. Meaning that realizing proposals will keep members to submit proposals.

5.3.1.3 LEADERSHIP

A leader at Autoliv is perceived as a coordinator since every action and solution is discussed in the group. Autoliv has for everyone regardless of position allotted time for the continuous improvement work. There is one support function close to the production plant working with improvements. This means that group leaders have direct access to specialist knowledge. The members in production do seldom realize proposals by themselves but rather hand over to the unit best suited for the realization, mostly the support function group. This group consist of the knowledge needed to perform all types of improvements whereas a product engineer and a quality manager is involved.

The engagement of improving the organization and taking each proposal serious pervades the whole organization. Leaders expose their engagement working actively with realizing proposals, distinct prioritizing of proposals and when a problem occur of a certain area will a group be appointed to solve the matter. One example is if the goal of number of realized proposals would not be met. In that case would the problem be brought up during meetings whereas a plan would be set up to solve the matter. In order to get employees more involved in the system does Autoliv focus on education. Managers mean that a system becomes obsolete if you do not have the discipline to use it in the right way. Every other week do managers meet to

discuss the system and provision should be appointed to retain the system at its best. Meetings are organized every other week with the group leaders in order to motivate and support their work with continuous improvement. One of the responsible of the Autoliv Production System (APS) means that the most important thing is to be clear in what we are after.

5.3.1.4 DIRECTING IMPROVEMENTS

Management at Autoliv has little guidelines towards the members in order to receive certain type of proposals. That however should be done more often says one of the responsible of the APS. He means that it has proven to be easier for members to discover better and more ideas since they know what to focus on. But other improvement areas are treated in projects, which have been directed from the management. These projects are created from without the most critical measured values from quality, cost, delivery, safety and motivation namely (QCDSM) Based on these categories and the most critical value is a group created to solve the critical matters.

5.3.1.5 REWARDS

Feedback is given within 24 hours after a submitted proposal. Same rule is applied for approved and rejected proposals. Submitted or realized proposals do not generate direct rewards. Continuous improvement is considered to be a part of everyone's daily work, which is why rewards are excluded. However, Autoliv attempt to encourage employees in another way comparing to Atlet. In every quarter, a number of proposals are selected in different categories from without the best proposals. Same applies to the yearly continuous improvement ceremony. In this way are selected proposals emphasized and have henceforth created a competitive incentive to submit good proposals. It is also to visualize what Autoliv has done to keep everyone involved. The group that submitted the winning proposal receives 450 SEK per person. This award should be used for team activities.

5.3.1.6 VISUALIZATION

The white-collar workers are having a visualized map for the planning, similar to Atlet's KI-VP. The proposals from production are first prioritized within the group and then placed on the wall-mounted calendar. The calendar clarifies who is responsible for the approved proposals and the timespan to realize it, which is between two to four weeks depending on the department. When prioritizing proposals it is important that the worker only go out for the amount of proposals they can realize whereof it is highly important to reject proposals that are of less priority. Introducing visual planning has facilitated responsibility distribution and reducing the time span of realizations. It has furthermore resulted in more realizations.

Autoliv, like Atlet, uses boards for proposals where proposals lie in different holders depending on where in the PDCA cycle it is. Each group has their own board. The QCDSM is also a visual tool to indicate critical areas where focus must lie to continuously become better. These are however not visible for the production groups but serve as indicators for what white collar workers should focus on and henceforth could direct improvement proposals towards production if necessary.

5.3.2 MASTEC STÅLVALL

Mastec Stålvall (MS) is a subcontractor of packaging and filling machines. The work consists mainly on assembly together with testing. The company has just over 100 employees and until 2006 MS was a part of Tetra Pak. Today they are a self-going company with 95 % of the sales going to Tetra Pak.

5.3.2.1 THE PROCESS

The improvement work is divided into two categories namely improvement proposals and tags. Tags are defined as the deviation from today's standards. It could be anything that disturb or restrict the daily work i.e. missing tools or materials. Improvement proposals are improvement of every other area e.g. a new standard, improved standard or improved ergonomics.

MS's system for continuous improvement includes both categories thus aiming strictly to improve today's standards. The system pervades the whole organization from white to blue collar workers. Tags and improvement proposals are submitted in a computer program.

DATASYSTEM

The data system for tags and proposals is an Internet based system named AM. When leaving a tag or proposal, a number of boxes need to be filled out. Personal data, date and what item the matter concerns must be typed in several boxes. There are several linked boxes that automatically relate to each other e.g. each group relates to a number of machines and each machine relates to several disturbances etc. Typing whom the matter concerns will directly send a text-message to that person, for he/she will be the responsible for the matter.

TAGS AND IMPROVEMENT PROPOSALS

The tags and proposals are merely realized by group leaders and white-collar workers. The time frame of realizations varies but is usually within one to four weeks. The decision is always made within 24 h. A tag without any concern becomes automatically red, which seldom happens. The tags are at the best responded within 15 minutes.

5.3.2.2 AIM

The aim of MS's system for continuous improvement is connected to the overall aim of the company. Their philosophy is to deliver quality products with a good delivery precision towards the customers. The hard competition in the market has made it essential to always be flexible and effective. In order to meet these goals, lead-times, 5S, standardization, improvement and engagement has been a major focus.

5.3.2.3 LEADERSHIP

MS have put a lot of effort involving everyone. It is everyone's responsibility to use creativity and an innovative approach to the work environment. The demand is not only directed towards the shop floor but also to the management. The incentive for leaving tags and proposals is merely for your own good. The organization spends a lot of time solving tags and improvement proposals. Each tag or proposal is taken seriously or else will the trust of the system be at stake. MS vision "there is no point of having a system in which few believes in". Little good comes from such system. The key for MS has been to get everybody engaged and motivated. It is a long process but heavily important for an organization.

Management has emphasized education, explanation and information sharing towards their workers in order to increase their understanding and acceptance of change. MS's vision is hereby not only the management issues it becomes the whole organization's issue. The key is pedagogy according to MS. MS has almost the same daily agenda as Atlet. However, yesterday's tags are treated in every morning session. This is only an update and is not aimed to be problem-solving session. In this way improvement becomes a daily routine involving everyone.

DIRECTING IMPROVEMENTS

Management direct tasks and improvement areas whereas the performance is made by co-workers i.e. management controls the improvement. Management decides what areas the week or month's task should include. This has proved to imply plenty and better proposals being submitted. Members perceive the directions as facilitating instead of coming up with desultory proposals. Besides the daily improvement work at MS, the CEO has recently started running long term improvement work, Kaizen. Today's there are two teams consisting of people from different departments together with co-workers from the shop floor. The aim is to go from a small-scale to an overbridged long term perspective e.g. VSM whereas the second teams aim is to take care of the specific knowledge in production.

5.3.2.4 REWARD SYSTEM

MS have no reward system for submitting tags or improvement proposals specifically. The job is regarded as a part of the daily work. MS vision is that a reward system is contradictive to that. It is not the rewards that motivate people but the engagement from the leaders.

5.3.2.5 VISUALISATION

A weekly meeting with the group together with the manufacturing engineers is organized where the status of tags is updated. A review of what tags and proposals are submitted, how many, and what action that are to be performed, prioritizing, time frame and by whom. MS says that despite we could solve the problem today; we first need to inform everyone and give members time to process the solution. MS sets a date when the new solution should be introduced. In this way, it clarifies management contribution and participation in the happenings.

Monthly meetings are held in order to have a long term plan in the daily improvement work. There are accessory of the different departments in order to get all perspectives. The aim of this meeting is to go through what the next step is i.e. what the group should work with.

5.3.3 VÄDERSTAD

Väderstad is a family owned company established in 1962 by Rune Stark. The company produces agricultural machinery for soil tillage and seed drilling and leader within their field in Europe. Close to 700 people work at Väderstad roughly 50 km west of Linköping. Today the company is global and has 13 subsidiaries in countries such as Spain, Russia, and Australia. The fall of 2010 Väderstad received 20 000 proposals.

5.3.3.1 THE SUGGESTION SCHEME

Väderstad's suggestion scheme resembles Atlet's. Workers submit proposals through their own created data system, VIKKI. By means of VIKKI it is possible to consult with specialist knowledge. Response should be received within 15 days otherwise will the person

automatically be blacklisted. The black list implies that it sends a warning message after due time. This list visualizes matters when they are forgotten and shortens the through put time of the handling.

The file system most often sends the Vikki to the contributor's leader. Vikki has a lot of functions build in, such as sending proposal to people affected by proposal or to get a specialist opinion.

Once an idea is registered it needs to be answered by the respondent the system sends it to. During the morning meeting the next day feedback will be given and if the proposal is approved it will be put up on the team's white board. The proposal is then presented and discussed by the whole group (during morning meeting). By doing so the proposal will be known to the whole group, the groups knowledge can be used to its fullest, and everyone is involved in the continuous improvement work. The proposals from last day have then been discussed, hopefully solved, and visualized for everyone to see on the team's white board.

5.3.3.2 AIM

Quantitative goals, such as handed in and implemented ideas, are set by the group itself. Some groups have very high ambitions and others are more modest.

When the production group at Väderstad (group leading the continuous improvement work) set the goals of the continuous improvement, they simultaneously estimated the requirement to reach the production goals (such as lead time, quality, inventory turnover, etc.). Their actions directly influenced the production and henceforth the workers attitude towards the suggestion scheme. Today, Väderstad has received many awards for the high number of submitted proposals per employee.

5.3.3.3 LEADERSHIP

Together with the continuous improvement work leaders have put a lot of effort on involving and engaging everyone. Making the groups more autonomous was one approach; informing and supporting everyone was another. Having the VIKKI system present made the process easier since the process of submitting proposals is straightforward. The group leaders have not been chosen by others but have voluntarily agreed to the position and responsibility. That is believed to have had a great success as the person that agreed upon the responsibility has a personal interest and engagement in the system. Vikki is their first and only priority a part from their daily work. This has directly influenced the group members positively. A repetitive quote during the meeting was:

“Not making decisions is a bigger problem than making wrong decisions”

Education and training of the VIKKI system is an important approach to engage representatives. It is the representative's duty to inform the group about important information hereafter. However education and training is sometimes directed to the group. The management is working actively within the system and during meetings there is a knowledge exchange and discussion of how to improve the VIKKI system rather than specific proposals.

The representatives of the suggestion scheme have four hours allocated to work with the improvements.

The hours may be divided within the team but the responsibility lies foremost on the representative. Allocate time for dealing with improvement work has eliminated the excuses of not having time.

5.3.3.4 REWARD

The rewards are based on the same system Atlet has. The only difference is that instead of receiving 200 SEK for an approved proposals you receive 100 SEK. Henceforth instead of receiving 100 SEK for a realized proposal you receive 200 SEK. The aim is for the group to do activities together once in a while.

There is an early reply together with feedback after submitting a proposal. When there is no further investigation of the matter will the submitter receive an answer within the next few days. Otherwise the person responsible has 15 days to investigate the matter.

The production group at Väderstad has started highlighted one proposal each month in order to engage members and group leaders. The proposal is said to be one of many instead of highlight the best in order to avoid further investigations.

5.3.3.5 VISUALISATION

Apart from having a transparent data system, Väderstad uses whiteboards in the production to visualize proposals that will be realized. The groups have their own boards where proposals have been selected and prioritized. During meetings are the groups discussing how to realize the matter, the responsible and the time span to execution. This is henceforth visualized on the whiteboard. Some groups also have a graph showing how the group performs in relation to their VIKKI goals. Others emphasize monthly important realization.

6. ANALYSIS

The following chapter will present the analysis of this master thesis. It includes the five success factors:

- *The Psst! process*
- *Aim*
- *Leadership*
- *Reward*
- *Visualisation*

From the analysis problem areas and Atlet's strengths have been summarised:

- *Summary of problem areas*
- *Summary of Atlet's strengths*

6.1 THE PSST! PROCESS

Studying the different groups in regard to their statistical performance identified four behaviours:

1. Groups using the Psst! system
2. Groups performing improvements without using Psst!
3. Groups registering after realization
4. Groups doing nothing

The wide set of behaviours and how Psst! is practically interpreted have proved to vary within the groups. Psst! is henceforth not a standardized process and is interpreted and performed differently between groups. Some groups have come up with their own operation mode and others do not include the Psst! activities in their daily tasks. The most important aspect is that group 2 “Groups performing improvements without using Psst!” have the highest performance in regard to Atlet's quantitative goal.

The different behaviours within the groups may cause obstruction when proposals are being directed to another group. The different behaviours make the communication and cooperation more difficult, which blocks the Psst! process.

6.1.1 PERCEPTION OF PSST!

There is a significant difference between how HP and LP groups think Psst! is working (table 4). LP groups tend to be more negative to how the system works in comparison to the HP groups.

The effects of Psst! were perceived as between moderate and high within both LP and HP groups (table 5). Thus, LP groups also observe and appreciate the positive effects of Psst! similar to HP groups. This indicates that most employees have observed and henceforth appreciate Psst!. The problem is rather a matter of how it works and not having a system for continuous improvement.

One white-collar member within the HP area meant that the system should not work in the same way for white-collar groups as for blue-collar groups. The member belonged to the group with the behaviour “Groups performing improvements without using Psst!” The perception of the positive effects and the importance of having Psst! was therefore negative.

However, the negative perception was rather aimed at how badly the system works and not having an improvement system.

The importance of having the Psst! system was in general perceived as positive within both HP and LP groups, see table 8 and 9. The perception of having a Psst! system for members within the LP groups tend to be more important in comparison to the leaders' perception. This may derive from that members appreciate having the possibility to affect ones environment whereas leaders may have more responsibility to take care of the proposals.

This is a positive starting point for Atlet since despite the poor perception of how Psst! works do most of the employees appreciate the system in terms of positive effect and importance.

6.1.2 BOTTLENECKS

The performance of the four groups in section 5.1.2 indicated that there exist five bottlenecks within the process. The other four groups are not highlighted but confirmed the result.

Low submission within the LP groups is a bottleneck. Employees within this category are negative towards how the system works which may explain the low submission rate. Focusing on improving the system will most likely increase the number of submissions and furthermore improve the value of the proposals.

Leadership is another bottleneck that has appeared in the LP groups. Leaders have an important role of engaging members and controlling the Psst! system. Leadership will be further discussed in chapter 6.1.3.

Directing proposals to other departments are as earlier stated a major problem within Atlet regardless of performance. This has accumulated frustration and resignation within many groups as almost every directed proposal is waiting on a decision or/and realization. This means that directing proposals results in increased unfinished proposals. This may cause a vicious cycle, see figure 16. The Psst! system requires good cooperation, communication and engagement in every group. It also requires that all groups work actively within realizing improvements and that the system is standardized. The reason for this is because directing proposals to a group that is not active will block the process.

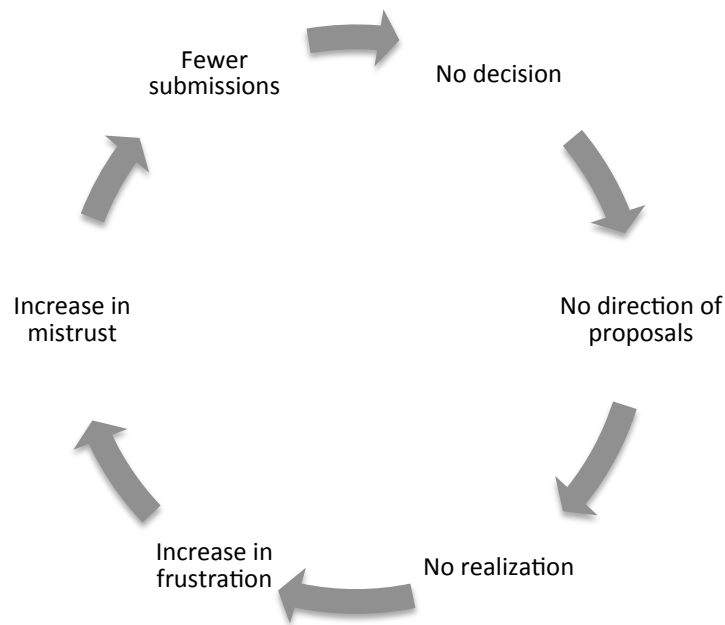


Figure 16: Illustrates a possible vicious circle.

Focusing on receiving more proposals rather than focusing on realization of proposals is another bottleneck. Atlet started Psst! in 2009 with the attempt to receiving as many proposals as possible. This was a good starting decision. Today Atlet has come far with its suggestion scheme. The focus merely causes frustration within many groups since too few proposals are being realized. Therefore a change in focus towards better engagement from employees is important. By focusing on realizing proposals employees are going to see the difference they make and it will furthermore increase motivation to submit more proposals. It is important that the management and group leaders mediate their engagement and cooperation to realize as many proposals as they can. This will affect employees' motivation positively. Since there is no allocated time for Psst! activities it is sometimes difficult to realize proposals as it requires time and effort. Receiving more proposals with little recourse to manage them would only cause a bigger pile of proposals.

The timeframe, that is the evaluation-time and time for realizations of the process, is long in compared to its potential. This mediates low priority of Psst!, which in turn is reducing employees' engagement. Reducing the timeframe would result in more realizations, communicating engagement from Atlet, which in turn would increase the number of submissions. Having a long timeframe does merely risk forgetting proposals and receiving more than Atlet can cope with. This means that longer timeframe implies more submissions during that time, which limits the process capability.

6.2 AIM

This research indicated that members regardless of type of collar or performance are uncertain of Atlet's overall aim. Many members emphasized the possibility to affect ones environment, which is off course positive but not requested. Blue-collar members possessed less information about Atlet's overall aim comparing to the white-collar

members. All leaders possessed great knowledge and were well prepared. The answers were directly associated with Atlet's overall aim.

The management is very skilful in mediating the importance of reaching the quantity goals toward the groups. If Atlet want to go even further with their continuous improvement work and not stop in the present situation, it is essential to focus on propagation of Psst! including Atlet's overall aim. Understanding is the key to prosperity as it gives the possibility to be more involved, which generates more and better proposals. This is however not the biggest issue within Atlet since members in general are positive towards having Psst!.

Atlet desires to have an effective system for continuous improvement. The step for Atlet is to improve the Psst! system. Atlet have an excellent starting-point and have the ability to come really far with their continuous improvement work.

6.3 LEADERSHIP

The leader's role has proven to be significant for the engagement of members, which all leaders highlighted. However, there were distinct differences between the leaders' behaviour between the high and low performing groups despite the collar. Some leaders have proved to be a bottleneck within the Psst! process.

6.3.1 HIGH PERFORMING GROUPS

The leaders behaviour of the HP groups, see chapter 5.2.3 empirical research, has proven to have a direct positive impact on members engagement. Leaders active engagement and involvement within the Psst! system is directly transmitted to members. Meetings and reviews, highlighting proposals, reminding and group discussions have prove to have positive effects on members. By doing so does the leader involve the members in decision and happenings. By means of the result together with the literature it merely can be stated that leaders engagement is a prerequisite to motivate members. Members confirmed and complemented leader's behaviour, which also was a characteristic feature and verification of the leaders engagement.

6.3.2 LOW PERFORMING GROUPS

The leaders behaviours within the LP groups were characterized by more negative attitudes comparing to the leaders within the HP groups. The members' attitude was consequently the same or worse. Members' knowledge of the process of Psst! was merely an unanswered question. That is believed to affect members' motivation negatively. The reason for those leaders' behaviours can be distinguished by the bottlenecks of the system i.e. the limitations of how the process works. The LP groups mediates high frustration of how the Psst! system works. That however cannot be the only reason why those leaders are not devoted to the Psst! process since the system works the same for the HP groups. How come the leaders within the LP groups have a negative attitude towards Psst! then? That may be a combination of the system's slowness, their leader's prioritization of Psst! and the group's possibility to perform realizations by themselves.

Many members within the LP groups became confused when receiving the question if they receive support from their leaders. Psst! has not been mediated as a high priority, which may be from where confusion

derives from. One leader means that the reason for the low priority of Psst! is because of his own leader's un-engagement.

6.3.3 THE LEADERS ROLE

The leaders role is essential in order to maintain a working suggestion scheme. If a suggestion scheme does not work it is seldom caused by the members mean Nilsson (1999, p. 53). That is why leadership and top down activities are needed. This means that the suggestion scheme should be formed and promoted from the top but maintained and run from the bottom. (Nilsson, 1999, p 53) This also applies to Atlet's organization. It is important to mediate this message to the group leaders since understanding would increase their motivation and consequently the members' motivation.

Promoting Psst! is therefore an essential part for Atlet. Promoting the system basically means convincing employees that the system is worth its efforts mean Imai (1993 p. 85-86). This applies both to leaders and members at Atlet. Since there is a variation of the group leaders engagement at Atlet should the top management start work more actively with promoting Psst!. Many group leaders work independently with their Psst! activities without guidance or support from their leaders. There is however different ways of promoting a suggestion scheme. Nilsson (1999, p. 70) emphasize that the top management or the CEO should submit the largest amount of proposals. This would be a strong promotion since members often act after their leaders behaviours. Another promotion could be to realize submitted proposals and show what the group have achieved (Nilsson, 1999, p. 23). This will be further discussed in chapter 6.1.3.4. Today Atlet and its groups use their quantitative goals to promote the system. The focus is merely to achieve these goals within the groups. It is not a problem itself but becomes one when it is the only focus. The quantitative goals lack the message of mediating the group's actual achievement.

The group leaders at Atlet have their individual execution of performing Psst! activities. It rather becomes an individual interpretation of Psst! then a cooperation to become better. This means that members same as group leaders needs coaching, feedback and directives.

Ahlström (2011, p.53) means that humans do not work well with neither full restriction nor no restrictions. Having directives of focus areas for groups will therefore increase the number of proposals. Directives from the group leaders at Autoliv have proved to increase the number of and the quality of the proposals. The group members found it easier to come up with ideas. Östberg et al (2010, p.66) mean that coaching members is a strategy that will motivate them. Pascal (2002, p.108) means that depending of the company's maturity should different strategies be used.

1. Tell the members what to do
2. Show the members how its done
3. Do it with the team member
4. Let the team member do it self and spur learning by asking questions

Atlet have no restriction whatsoever within the groups. This means that employees have more difficulties in finding an idea. This could also affect the quality of the submitted proposals.

6.3.4 FEEDBACK AND IMPLEMENTATION

Nilsson (1999, p. 22) means that feedback is a prerequisite to get engaged and involved within an activity. This applies to the employees at Atlet in the same way. Groups within the HP area give direct feedback. The concept of group discussion is a way to highlight proposals and henceforth give a direct feedback in regard to its importance. Some leaders within the LP groups are not active within Psst! where little or no feedback is given.

Leaders have no rules or directions of how to give feedback solely to make a decision within two weeks. The HP groups have a smaller timespan between a submission and a decision usually within a week concerning proposals that the group itself can realize. This means that the response time of feedback is shorter for the HP groups. Nilsson (1999, p.22) means that the response time should be kept as low as possible.

Nilsson (1999, p.23) also means that it is not good to keep projects alive that might be realized in the future. At Autoliv the responsible of approving and realizing proposals means that it is better to reject proposals that cannot be realized within a recent timeframe, which is a maximum of four weeks. The pile of unfinished proposals will otherwise constantly increase.

Today Atlet has many proposals waiting for decision or realization. This rucksack has increased over the years after Psst! was introduced. Atlet started the suggestion scheme with the focus of receiving as many proposals as possible. At the same time did the top management mean that it is better to approve then reject proposals. This philosophy has continued until today. Despite the variation of activeness of Psst! within groups does Atlet receive a large amount of proposals which needs to be processed. Approving to many in regard to Atlet's recourses to realize cause more frustration within the groups then it helps.

Nilsson (1999) means that few realizations leads to frustration and consequently fewer submitted proposals. Atlet is currently in a position where submissions tend to decrease within some groups due to this frustration. Therefore ought Atlet focus on realizing proposals and prove their appreciation and benefit from the employees effort.

6.3.5 INVOLVE EVERYONE

Involving everyone is an important factor to motivate employees. (Bergman & Klefsjö, 2011, p.46) Having a suggestion scheme as Psst! is a way to involve everyone. However, after a submission most of the groups at Atlet are not accessorial in the process until they get appointed a task from the leader. Östberg et al (2011, p.63) emphasize groups to discuss proposals with the intention to involve everyone in the whole process. This would automatically create an environment where everyone shares knowledge and expertise. This would result in more submissions and better ideas.

6.4 REWARD

Everyone regardless of collar or performance perceived the monetary reward as satisfying. Few had never considered the matter and could therefore not give more thought or opinions. The investigation also included how important the monetary reward was for employees in order to submit proposals.

6.4.1 HIGH PERFORMING GROUPS

Everyone, leader and members within this category perceived the monetary reward as unimportant see table 7. This means that the reward itself is not the incentive to submit proposals. Instead it is the ability to affect ones' own environment. This means that removing the reward would not affect the number of submitted or the standard of the proposals within HP groups. It is desirable to have employees uninterested in the reward. It is an indication that employees have a positive attitude towards the system and are not driven by the reward. Therefore when employees are negative towards Psst! the reward becomes more important.

6.4.2 LOW PERFORMING GROUPS

The LP groups did not give a clear pattern of the rewards importance as the HP groups did, see table 7. Most of the members within LP groups submit proposals merely to receive money. The activities were especially emphasised. Seeing little results within the group, the frustration of the slow Psst! process and poor information and activity from the leader implies that the reward becomes the only positive result of submitting proposals. One white-collar member that emphasized the rewards importance meant that:

“The reward is important, but not necessary. The reward can be removed, however that would require more engagement from the management”

6.4.3 FAIRNESS

Östberg et al. (2010) mean that monetary rewards is a matter of maturity of the company meaning no world-class company uses monetary reward. Atlet stands in a position where the reward is in general perceived as unimportant. However there are many groups within the LP area that still highlights the reward's importance. This together with that all groups appreciate the activities that comes from the reward. It is therefore difficult in this stage to remove or adjust the reward.

Östberg et al (2010) also mean that monetary rewards leads to envy, fairness problems, administration, less cooperation and fewer ideas. However, Väderstad, which also uses monetary rewards similar to Atlet's, means that removing the reward is desired, but almost impossible, since it would raise extremely high reactions within the organisation. Neither MS nor Autoliv have monetary rewards, both agreeing upon Östberg's et al statement. Autoliv together with MS have gone out for similar interpretations of the improvement work as the Lean philosophies. The two companies visualize proposals regularly with the intention of visualizing everyone's achievement.

6.5 VISUALISATION

Visualisation is a part of the Lean philosophy and has often proved to be helpful according to Liker (2004). Both white-collar groups within

the HP area are using a visual planning tool. This is interesting since both have a statistical performance that exceed Atlet's quantitative goal. No other group has such high performance. These two groups are using KI-VP to plan realizations of proposals. Other groups focus on visualizing the achievement of Atlet's quantitative goal.

One interesting aspect within these two HP white-collar groups is that their visual planning method is synchronized with the whole Psst! process. By using this planning tool, proposals can be realized quicker and hence increases the number of realizations. The focus automatically becomes the realizations.

KI-VP implies that each person in the group plan their own activities. This makes the distribution of responsibility clear as it is visualized who is doing what, when and how.

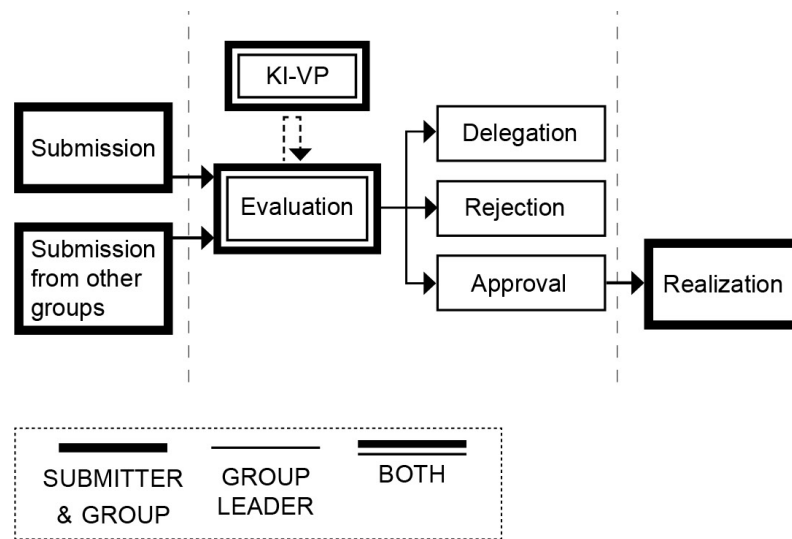


Figure 17: Illustrates the process from a submitted to realized proposal for a white-collar group using KI-VP.

Figure 17 shows the distribution of responsibility in the two white-collar groups that are using KI-VP. The evaluation criteria are rather an activity that includes the whole group. It requires discussions and communication between the group members and group leaders. The reason why the two groups have such high performance may rely upon their visual planning tool. However, without an engaged leader the KI-VP tool would not be a support. KI-VP requires a continuous engagement and update. I

Including Psst! into KI-VP does not imply extra work since all white-collar groups within Atlet already use KI-VP. The blue-collar group within the HP area does neither plan nor visualize proposals in the same way, but work really hard in realizing as many proposals as possible. Including Psst! activities in KI-VP implies:

- Group discussions involve the whole group, where more valuable proposals may appear. Due to the discussions within the group will the proposals keep a good standard when being delegated. Feedback will automatically be given during the discussions.

- Groups have to prioritize proposals that are to be realized. The most important proposals will get a high priority.
- The planning consists of a clear responsibility distribution. It optimizes everyone's work tasks and secure that no one is overburden. The remaining proposals that are not prioritized should be rejected.

Using KI-VP has most likely decreased proposals with no decision since it requires a continuous update. One of the white-collar groups, see figure 12, has only two proposals that have not reached a decision. However the group has 88 proposals waiting on being realized. This means that the group plan too many realizations compared to available recourses. Atlet communicates that it is better to approve than reject proposals, which may cause this problem

The HP groups are in general better in visualizing statistics compared to the LP groups. Some blue-collar groups focus solely on highlighting statistics. Planning is the leader's responsibility from where delegation of activities is done. Atlet's Psst! manual, placed on the intranet, contains important information. Placing the manual at the Psst! board would make it easier for members to get hold of information regarding Psst! resulting in more involved members. Atlet is highly successful in visualising information about 5S. Doing the same for Psst! could be one key to get everyone more involved.

6.6 SUMMARY OF PROBLEM AREAS

This part includes a summary of the identified problem areas within Atlet

6.6.1 THE PSST! PROCESS

Too few submitted proposals from LP groups.

The groups within the LP area tend to submit too few proposals in relation to Atlet's goal.

Obscured responsibility distribution when directing proposals to other departments.

Directed proposals to other departments often lead to waiting for a decision or realization. This results in unfinished proposals that remain in the system.

Realization has little importance.

To Atlet the focus lies on receiving more proposals instead of realizing the ones that already exists. There is no allocated time for Psst! activities which may cause the phenomenon. This concerns all groups.

Timeframe too long

The timeframe consist of two weeks regarding the decision. Long waiting time mediates that Psst! has low priority and creates piles of proposals waiting to be realized.

Too much administration

The spreadsheet file needs continuous update where each step in the process is documented.

6.6.2 AIM

Members possessed little knowledge of Atlet's overall aim.

Members merely indicated the possibility to affect ones environment whereas leaders where well prepared and possessed greater knowledge of Atlet's aim.

6.6.3 LEADERSHIP

Psst! has a low priority in many groups.

Psst! is avoided in many groups, mainly within the LP groups.

Unengaged leader affects the members' engagement negatively.

The reason for the negative attitude towards Psst!, especially concerning LP groups may be a combination of the inertia of the system, leaders prioritization of Psst!, and the group's possibility to perform realizations by themselves.

Too little engagement from the top management.

The top management engagement is a way to propagate and convince employees to engage in the system.

Too little feedback in the LP groups.

Since some leaders of LP groups are not active with Psst! is feedback omitted.

No directions of how and when feedback should be given.

Leaders use common sense of how and when feedback should be given. Unengaged leaders consequently do not prioritize feedback.

Many proposals are postponed and consequently forgotten.

The pile of unfinished proposal increases. This means that proposals easier becomes postponed. Since there are too many proposals waiting, it becomes hard to prioritize them.

Variation in execution of Psst!

Groups have different degree of activity within Psst! and the behaviour of the groups varies. This may obstruct the process when a proposal is directed to another group.

6.6.4 REWARD

The reward is counterproductive to Atlet's desire of making Psst! a daily task

A daily task is not generally rewarded. By rewarding daily tasks Atlet communicates that submitting proposals is a task beyond the frame of the daily work tasks.

The reward is counterproductive to the positive effects of Psst!

Instead of focusing on the positive effects of Psst! members within LP groups are focused on the reward and social activities.

Poor engagement from leaders makes the reward important.

Leaders that communicates the positive aspects of Psst! and showing devotion to the system do not need the reward to motivate members. It generally concerns the LP groups.

Envy and unfairness between groups.

Some groups receive money after doing a daily task. Merely the white-collar groups do this as their daily task may include improvement areas.

6.6.5 VISUALIZATION

Knowledge of other groups' activities are inadequate.

There is a lack of communication and cooperation between groups regarding improvement work. The file handling system does not allow groups to review others work, which might cause double work. This concerns everyone.

The spreadsheet file is a restriction

Many leaders, regardless of performance, stressed the limitation of the spreadsheet file. The file does not always work properly.

Visualization is merely on statistical accomplishment.

Leaders and managers visualize the statistical performance accomplished by groups. One graph is usually posted on the Psst! board, which few inspects. Others print the spreadsheet file and post it on the Psst! board.

No visualization of activities nor responsibilities to perform a realization.

Members have no way of knowing what has been done or what needs to be done. The transparency of activities needed to complete a realization is low.

6.7 SUMMARY OF ATLET'S STRENGTHS

This section includes a summary of Atlet's strengths.

6.7.1 THE PSST! PROCESS

The system is simple.

Current Psst! process is simple and robust with no complex or advance stages.

Employees have understood the positive effect of Psst!

Despite the issues with the system, almost all members have understood the importance and positive effects of having a Psst! system. That is a good starting point for Atlet.

Many of the employees appreciate the Psst! system.

The system is important for many as it gives them the possibility to affect their work environment.

Some groups are engaged and devoted to the system.

In some groups Atlet has succeeded with its intention to engage employees. It is therefore not unreasonable to do the same for other groups.

Psst! contributes to better team spirit.

Team spirit and engagement within Atlet have increased in the HP groups. This means that working together with continuous improvement strengthens the team spirit and engagement positively.

6.7.2 AIM

Atlet knows where it is and where it wants to go

Atlet has put a lot of effort in mediating the aim. It appears especially within the leader role.

6.7.3 LEADERSHIP

Leaders possess great knowledge

All leaders understand the concept of continuous improvement, which is a great strength and tool for Atlet in their continuous improvement work. It is also positive that leaders and groups wanting to develop Psst! are granted the opportunity.

High respect for own proposals and deadlines

Group leaders often treat proposals, which stay within the group, with care and speed. As long as a proposal stays within the group there is seldom problem with receiving feedback or deadlines.

Feedback is given within the HP groups

Leaders who are more engaged and active tend to give direct feedback.

The spark of innovation

Some employees' enthusiasm to submit valuable proposals is affecting other members.

Psst! is a part of the daily work within some groups

Some members are writing a proposal without seeing it as a separate activity. It concerns merely the HP groups.

6.7.4 REWARD

Engagement from leaders makes the reward unimportant.

Everyone within the HP groups submit proposals merely for improving their environment rather than receiving money. Many have understood the positive effects of Psst!, which makes the reward less important.

6.7.5 VISUALIZATION

Experts in visualisation

Atlet is an expert in visualizing activities such as KI-VP, 5S and daily controls. The knowledge, experience and habit of using visualization exist.

The synergy of KI-VP and Psst!

The two white-collar groups positioned within the HP area include Psst! in their daily KI-VP activities. This results in group-discussions, prioritizations of proposals, planning of the realization.

7. RECOMMENDATIONS

Based on the analysis and empirical results, would a fundamental recommendation for the future of Psst! be to allocate resources for Psst!. Allocating resources to Psst! will give Atlet a great advantage in an economical and employee satisfaction perspective. Apart from this could the following improvements of Psst! take Atlet to the next level and furthermore motivate employees to involve in the system.

7.1 IMPROVEMENT OF THE PSST! PROCESS

Atlet is highly qualified in visualization. Doing the same for Psst! would ease the Psst! process substantially. The recommendation is a six-step process including visualization for evaluation, prioritization, planning and follow-up.

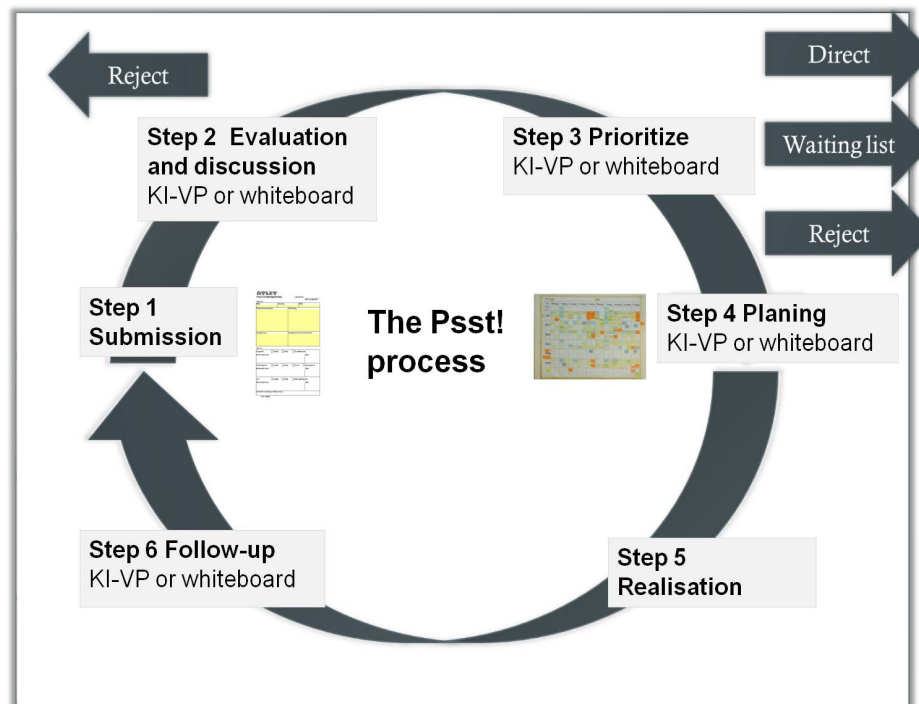


Figure 18: Illustrates a recommended Psst! process.

The steps are each described below:

Step 1: Submission

Employees submit proposals on the paper forms as before.

Step 2: Evaluation and discussion

The group together with the group leader discusses proposals and exchange knowledge. Proposals that are not good enough are being rejected.

Step 3: Prioritize

The group together with the group leader prioritizes proposals. Proposals that cannot be realized within the group are directed. Proposals that have a low priority are rejected. Proposals that have lower priority but would generate a high effect is put on a waiting list.

Step 4: Planning

The group together with the group leader plans realizations in a visual planning tool. The tasks are divided within the group.

Step 5: Realization

A person that has been appointed a realization performs it.

Step 6: Follow-up

After a realization should the improvement be followed-up.

7.1.1 THE VISUAL PLANNING TOOLS IMPLIES

- All members are included since visual planning requires discussions and prioritizations of proposals.
- The distribution of responsibility becomes closer to uniform since everyone gets appointed tasks.
- That focus lies on realizations.
- Visualization of practical achievements and not quantitative goals.
- Allocation of time to do Psst! activities.
- The time frame of the process will be decreased.
- That feedback and a continuous communication between members and the group leader are required.
- That the deadlines will be easier to keep track on.
- Making sure all groups work with Psst! activities, which automatically eases the delegation of proposals.

Supported by:

The same foundation as what supports 7.2-7.14.

7.2 INCLUDE Psst! IN KI-VP FOR WHITE-COLLAR GROUPS

KI-VP is already established and used in the white-collar groups, which can be read in 6.3.5 Visualization. The major recommendation is therefore to include the daily Psst! activities in KI-VP. Many problems will automatically be solved. The approved proposals should henceforth be processed in the KI-VP like any other daily activity for the white-collar groups.

Supported by:

All three benchmarking companies in 5.3 Empirical References uses some kind of planning system to keep the suggestion scheme active. The use of planning improvements in a simple and visual way have been seen at Autoliv (see 5.3.1 Autoliv).

7.3 ESTABLISH A WHITEBOARD FOR Psst! ACTIVITIES FOR BLUE-COLLAR GROUPS

To improve visualization and planning in blue-collar groups establishing a whiteboard similar to the KI-VP board is recommended. The same process and responsibility distribution applies for white and blue-collars, see 6.1.5 Visualization and figure 15. With this solution

evaluation of proposals includes both members and leaders. The reason for not implement KI-VP in the blue-collar section is because they do not use it in their daily planning. It requires a continuous update and it will cause more work then profit.

Figure 19 illustrates how Atlet could design their whiteboard in the blue-collar groups. The four columns consist of the problem, the solution, the responsible person, and the due date of realization. Each row represent approved proposals.

Supported by:

Even if 4.3.5 Visualization stresses the importance of visualizing this is mainly supported by the work and results from Väderstad who uses similar solution (see 5.3.3 Väderstad).

PROBLEM	SOLUTION	RESPONSIBLE	DATE
Underbetta den för många för många för många för många	Bygga mer teknisk maskin för operatörer som vill driva och köra	B. S. L.	Jan 3
Den som vill för den som vill för den som vill för den som vill	Ge grupp mer att göra i uppgifter och i maskin maskin maskin	J. L. M.	Oct 29
The new machine is not so good as the old machine	Bygga maskinering maskinering för bilen	M. E.	

Figure 19: Recommended whiteboard

7.4 FOCUSING ON REALIZATIONS

Atlet has come to a point where focus on receiving more proposals does merely lead to frustration since too few are being realized. Thus the recommendation to focus on realizing submitted proposals. It will consequently affect the value and the number of submitted proposals positively. Implementation of proposals allows employees to see their own achievement and will increase motivation instead of increasing frustration. Using visualized planning will automatically solve these issues. However, it is important that everyone is conscious of realization and actively work with the aim to realize as many proposals as possible.

Supported by:

It is clearly stated in 4.3.3.3 Implementation the importance of realizing improvements. This is something both Autoliv and MS value much (see 5.3.1 Autoliv and 5.3.2 Mastec Stålvall).

7.5 DECREASE THE TIME FRAME OF THE PROCESS

Focusing on realizations is important to motivate members to submit proposals. As read in 6.2.1 The Psst! process this is one of Atlet's problem areas. Decreasing the time frame of the process, i.e. the time between submitted proposal, decision and realization, is essential to improve even further. By using recommended visual planning for realizations Atlet will focus on realizations and decreasing the time frame of the process. This will make it possible to realize more

proposals than today. Atlet should also work actively with decreasing the time frame and not only rely upon the effect of recommended visual tools as KI-VP and the whiteboard.

Supported by:

Theory clearly states in 4.3.3.2 Feedback and Response the importance of giving fast response. MS gives the first response within half an hour. Autoliv has instead prioritized fast implementation and rather decrease the whole process instead of giving extremely fast response.

7.6 ESTABLISH COMMUNICATION BETWEEN GROUPS

Delegating a proposal to another group requires communication and that all groups are active with realizations, see 6.2.1 The Psst! process. The recommendation is to continue using paper copies of delegated proposals. A copy of the delegated proposals should be physically put by the delegated groups' Psst! board, which close to every group has. The original paper form should stay within the group. Group submitting proposal will still have a copy of their proposal, not forgetting about its existence. Delegated group will have a mixture of proposals from their own group and other groups. Henceforth proposals will be treated in the same way regardless of origin. Proposals will then as described be discussed and prioritized. Approved proposals should then be planned in the visual planning tool.

Supported by:

Seen in 5.3 Empirical References cooperation between groups is necessary when the group cannot be fully autonomous. Communication between groups has therefore been a requirement to make the suggestion scheme work at benchmarking companies.

7.7 DEFINING A PROPOSAL

Defining a proposal mainly concerns white-collar groups since their daily tasks may be similar to Psst! activities. The recommendation is to specify what is included in a proposal. It could be something:

- Implementable in near future
- Profitable for Atlet and the group
- Within projects: An improvement of the work method rather than improvement of the projects different tasks.

Supported by:

In 4.3.2 Aim the importance of focus described. At Autoliv and Väderstad there is a strong use of KPIs. To use these it is necessary to know what is wanted.

7.8 FOCUS ON ENGAGING GROUP LEADERS

It is essential having leaders engaging in- and promoting Psst!, see 6.2.3 Leaders. The recommendation is to give group leaders coaching, directions and feedback through their leaders, see figure 20.

- Coaching could be actions such as support for occurring problems or continuous updates of what is happening.
- Directions could be actions such as giving the leaders and members specific focus areas.

- Feedback could be actions such as giving an update of actual status of a proposal.

This would consequently clarify work tasks, understanding and knowledge of the Psst! system and directions of important focus areas for leaders and consequently the members.

Supported by:

Seen at Autoliv (5.3.1 Autoliv) involving the group leaders makes a big difference for the suggestion scheme. This is something that also can be found in theory (4.3.3.1 Engagement from Leaders).

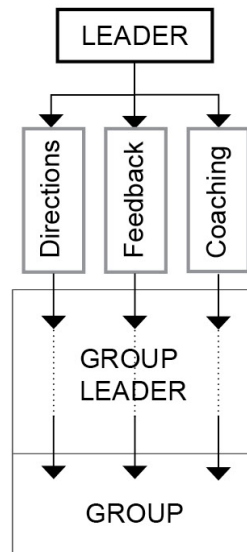


Figure 20: Illustrates how to engage group leaders and the group members

7.9 FOCUS ON ENGAGING THE MEMBERS

It is the group leader's responsibility to engage and inform members on the Psst! system. The recommendation is to give members coaching, directions, and feedback.

As read in 6.2.3 Leadership very few members are active within Psst!. The majority of the proposals are generated from a small proportion of all members. A way to involve everyone is to focus on engaging the members that possess an indifferent attitude towards Psst! and continuing with the ones that oppose Psst!. This method was recommended during one of the interviews from a group leader. Using a Psst! representative could ease the group leaders' work and involve even more members in Psst!, see 5.3.3.3 Leadership.

Supported by:

Both the Empirical References (see 5.3.1 Autoliv, 5.3.2 Mastec Stålvall, 5.3.3 Väderstad) and the theory in 4.3.3.5 Involve Everyone supports this.

7.10 FOCUS ON EDUCATION

There is almost no education on how to use Psst! presently. Many employees mean that they want to learn more about Psst!. Conducting education for both members and leaders will give more knowledge and

understanding. It will consequently result in a better attitude as it clarifies work tasks.

Supported by:

It can be seen in 4.3.3.1 Engagement from Leaders the importance of education (and training) to be able to use the suggestion scheme in the right way.

7.11 DIRECTIONS ON HOW TO GIVE FEEDBACK

Today there are no directives or guidance on how to give feedback. Recommendations are that Atlet set up rules and educate leaders in this topic. This will clarify the leader's role and help them give better feedback.

Supported by:

It can be seen in 4.3.3.2 Feedback and Response the affection feedback has on employees, who then impacts the suggestion scheme.

7.12 INFORMATION ON ATLET'S OVERALL AIM

Atlet has come far with deploying their overall aim and Psst!'s importance. However, there are still too many members in need of more information to thoroughly understand their contribution to Atlet. The recommendation is to include Atlet's overall aim in the education and furthermore visualize the aim on every Psst! board. It is the group leader's responsibility to clarify and communicate the aim to members. This also emphasizes the importance of having engaged leaders.

Supported by:

Mainly highlighted through 4.3.2 Aim.

7.13 USING MEETINGS AND FOLLOW-UPS

Engaging the leaders and members by giving coaching, directions and feedback needs a platform. The recommendation is to gather assigned employees to meetings of various kinds.

They could include:

- The group leaders together with their leaders could meet each month to discuss difficulties, positive and negative results of Psst! matters. Exchanging experiences and ideas to overcome difficulties would consequently create a supporting culture as in 6.3.1 The Psst! process.
- The members together with their group leader could each week discuss Psst! matters. By allocating time to inform members of submitted proposals and forthcoming realizations everyone would become involved. It is also a way to promote the system.

Follow-ups are a way to make sure that nothing is missed and that the realization is executed as planned. There should be general guidelines regarding follow-ups for all groups since some groups have it and others do not.

Supported by:

The use of meetings and follow-ups has, according to companies in 5.3 Empirical References, been a key ingredient for success with the suggestion scheme and involving employees.

7.14 ALLOCATE TIME FOR Psst! ACTIVITIES

Another recommendation is to allocate time for Psst! activities. The time could be used for Psst! meetings, realizations or group discussions. Allocating resources to make realization possible and faster is a necessity. By including Psst! in the visual planning tool does the group automatically allocate time for Psst! activities. Also, allocating time for Psst! activities makes everyone bound to engage in the system.

Supported by:

Through interviews both members and leaders have mentioned the lack of time for Psst! activities. Also seen at Väderstad (see 5.3.3.3 Leadership) is how allocation of time improves the suggestion scheme.

7.15 KAIZEN GROUPS

Atlet should appoint kaizen groups who work with improving important matters or larger projects. The group should consist of a cross functional mixture of employees with backgrounds corresponding to the improvements nature.

Supported by:

Since this has not been included in this master thesis therefore there is no support for this.

7.16 PUT THE Psst! MANUAL ON THE Psst! BOARD

Putting the Psst! manual on the Psst! board instead of keeping it on the intranet would make it more simple to get hold of the information.

Supported by:

Having information available is something seen at benchmark companies in 5.3 Empirical References.

7.17 THE OLD FILE HANDLING SYSTEM

Replacing the spreadsheet file with a file handling system would improve today's administration problems mentioned in 6.2.1 The Psst! process. A qualified alternative is the file system by C2 management that has been demonstrated at Atlet. Increased functionality, communication, and synchronization would improve Psst!, which C2's file handling system offers. The C2 solution could especially be satisfying to some white-collar groups' struggling with today's spreadsheet file. Though the recommendation for Atlet is to visualize their planning rather than upgrade to C2's file handling system. Atlet has a huge potential to become skillful in the continuous improvement work. Another file system does not solve Atlet's current problems.

Atlet should continue with these recommendations and see how far they will take Atlet. Conducting a pilot study group, investigating if C2's file handling system will improve Psst!, could be of interest to Atlet.

Supported by:

As said in 4.3.5 Visualization it is important rather to visualize the system than to hide it in a file system. At the same time it has been seen at Väderstad (see 5.3.3 Väderstad) that a file handling system similar to C2's comes with many benefits. The theoretical framework and empirical references therefore stands in contradiction.

8. DISCUSSION

This master thesis delivers an evaluation of Atlet's suggestion scheme Psst! since many groups have until now not reached the quantitative goals. By means of five success factors, namely the Psst! process, aim, leadership, reward and visualization, have the research described Atlet's position today and recommendation of how to reach Atlet's goals. This includes Atlet's strengths and existing problems concerning Psst! and recommended improvements. The recommendations are therefore very relevant to improve Psst! even further. Recommendations are partly based on existing Psst! activities such as visual planning tool KI-VP. This would immediately solve many existing problems with little require effort.

The five success factors originated from motivational theories (Ahlström, 2011; Nilsson, 1999; Östberg et al., 2010). The success factors created a structure for this research, simplifying execution. However, the success factors do not cover more general perspective of continuous improvement according to Lean. Continuous improvement should be directly connected to standardize work. Focusing on Atlet's suggestion scheme and excluding the general concept of continuous improvement does not change the result. The same problem and improvement areas, i.e. the recommendations, would still have been discovered. Though the result would have been more general and the investigation of recommendations less thorough. This master thesis has not included an investigation of kaizen groups, which is a significant part of continuous improvement. The recommendations and result of this study could therefore be expanded and improved by including kaizen groups.

It was not successful for this master thesis work to find representatives for interviews by dividing the performance in four quadrants. However, despite the misjudgment the groups did explicitly divide themselves into low and high performing groups in regard to number of submitted and realized proposals. The interview results confirmed the statistics in many ways. The only drawback was that the HP groups consisted of three groups compared to five in the LP groups. One group within the HP area used its own system for improvements partly including KI-VP. This means having few HP groups may be insufficient to make general conclusions. It has therefore been easier to conclude behaviors of the LP groups.

The use of benchmarking to complement both literature and knowledge from Atlet has proved to give practical understanding and support for this master thesis. The selection of companies resulted in an understanding of the various types of executions of a suggestion scheme.

The advantage of using the visual planning tool KI-VP has proved to be substantial for own purposes. Experiencing those advantages by oneself makes it easier to apply and understand how and why including Psst! in the daily KI-VP activities would improve Psst!.

It is difficult to acquire thorough knowledge of a complex organization such as Atlet in a few months time. Having the privilege to spend time on site and visit other companies gave us a practical understanding of how to establish a suggestion scheme. Atlet has come a long way in building a company culture that appreciates affecting ones environment. Atlet is in a perfect position to improve Psst! and have

henceforth the possibility to become really successful in its continuous improvement work.

9. CONCLUSION

The implementation of Psst! differs a lot between the groups at Atlet. Hence, groups have different experiences of Psst!. Some groups dislike Psst! while other show great interest and appreciation. The disinterest is to some extent caused by implications when delegating proposals to another group. We have seen delegation of proposals creating problems. Most often the driving force of Psst! is not the monetary reward. Instead it is the interest of helping Atlet. In groups where Psst! is working well the well-being and involvement have increased.

With the completion of this master thesis following recommendations have been given to Atlet:

- Decrease lead-time for responses on proposals, and focus on the realizations of proposals.
- Evaluate, prioritize, and plan suggestion through group discussion.
- Visualize proposals with the help of KI-VP and whiteboards.
- Promote Psst! by educating employees in continuous improvement.
- Allocate time for members and leaders to work with Psst!.

10. REFERENCES

Ahlström, J., 2011. Bäst i Världen: En enkel bok om framgångsrikt förbättringsarbete. Stockholm: C2 Management. ISBN 978-91-633-8758-6.

Bergman, B. Klefsjö, B., 2010. Quality from Customer Needs to Customer Satisfaction. Lund: Studentlitteratur. ISBN 978-91-44-05942-6

Hackman, J. R. Oldham, G. R., 1980. Work Redesign. Massachusetts: Addison-Wesley Publishing Company. ISBN 0-204-02779-8.

Imai, M., 1993. KAIZEN – Att med kontinuerliga, stegvisa förbättringar höja produktiviteten och öka konkurrenskraften. Kristianstad: Konsultförlaget. ISBN 91-7005-027-9

Kaufman, R., 1999. Work your suggestion scheme. New Straits Times [e-journal] 2 Available through: ProQuest database [Accessed 22 September 2011].

Koltz, V., 1988. Staff suggestion schemes. International Labour Review [e-journal] 127 (3), p335. Available through: EBSCOhost database [Accessed 22 September 2011].

Liker, J.K., 2004. The Toyota Way: 14 Management principals from the world's greatest manufacturer. New York: McGraw-Hill.

Nilsson, L., 1999. Den vakne jägaren: Hur man engagerar alla i företaget i jakten på ständing förbättringar. Stockholm: Consultus. ISBN 91-630-5376-4.

Pascal, D., 2002. Lean Production Simplified: A plain-language guide to the world's most powerful production system. New York: Productivity Press. ISBN 9781563272622.

Petersson, P. Ahlsén, S., 2009. Lean: Gör avvikelser till framgång. 2nd ed. Bromma: Part Development. ISBN 978-91-633-2796-4.

Slack, N. Lewis, M., 2008, Operations Strategy. 2nd ed. Essex: Pearson Education. ISBN: 978-0-273-69519-6.

Östberg, L. Schroeder, D. M. and Robinson, A. G. 2010. Små Idéer: Stora Resultat. Västerås: SIS Förlag. ISBN 978-91-7162-784-1

11. APPENDIX

11.1 INTERVIEW QUESTIONS

11.1.1 FOR MEMBERS

INLEDNING

1. Hur upplever du att Psst! Fungerar för dig?

Intervju-tabell 1: Psst! nytta och funktion för medlemmar

	Fungerar dåligt	Fungerar OK	Fungerar utmärkt
Ingen nytta			
Medel nytta			
Stor nytta			

2. Hur viktigt är det att ha ett Psst! system för dig?
3. Varför?
4. Varför tror du att det är viktigt för Atlet med Psst!?

ENGAGEMANG OCH KOMMUNIKATION

5. Har du lämnat in förslag någon gång?
6. Hur upplever du hanteringen av förslag som har lämnats in?
Är du nöjd?
7. Känner du att dina förslag uppskattas. Om ja -på vilket sätt?
8. Om du har en ide, känner du att Psst! kan hjälpa dig att genomföra idén?
9. Kan du ge några exempel på vad gruppchef gör för att få in fler förslag?
10. Tycker du att Psst! hjälper dig att påverka din arbetssituation och trivsel?
11. På vilket sätt har Psst! påverkat lagandan i gruppen?

BELÖNINGSSYSTEM

12. Är du nöjd med belöningen av godkända och genomförda förslag?
13. Hur viktig är belöningen för att du ska lämna in förslag?
Mycket oviktig oviktig viktig mycket viktig

Psst!

14. Vilka brister upplever du att det finns i Psst! systemet?
15. Har du några förslag hur du hade velat lösa dessa brister?

11.1.2 FOR LEADERS

INLEDNING

1. Hur upplever du att Psst! Fungerar för dig?

Intervju-tabell 2: Psst! nytta och funktion för ledare

	Fungerar dåligt	Fungerar OK	Fungerar utmärkt
Ingen nytta			
Medel nytta			
Stor nytta			

2. Hur viktigt är det att ha ett Psst! system för dig?
3. Varför?
4. Varför, tror du att Atlet jobbar med Psst!.

ENGAGEMANG OCH KOMMUNIKATION

5. Vad gör du för att få in fler förslag?
6. Tar du upp förra eller denna veckans statistik under gruppmöten?
7. Har du i gruppen någon återkoppling på vad som händer med förslagen?
8. Hur viktig är din roll för att förslag kommer in?
9. Känner du att du får det stödet du behöver från dina överordnade?
Om nej, vilket stöd hade du behövt?
Om ja, vilket stöd får du?
10. Har Psst! skapat mer engagemang från personalen?

BELÖNINGSSYSTEM

11. Är du nöjd med belöningen av godkända och genomförda förslag?
 12. Hur viktig tror du belöningen är för att gruppen ska lämna in förslag?
- Mycket oviktig oviktig viktig mycket viktig

Psst!

13. Vilka brister upplever du att det finns i Psst! systemet?
14. Har du några förslag hur du hade velat lösa dessa brister?

11.2 BENCHMARK QUESTIONS

Mål med förbättrings arbetet

1. Vad har ni för mål med ert förbättrings arbete?
2. Hur gör ni för att förmedla målet till era anställda?

Förslag

3. Hur jobbar ni med förbättringar och har ni ett förbättringssystem?
4. Kommer det påtryckning uppifrån, har ni delmål med verksamheten?
5. Lämnar individen in förslag eller diskuteras förslag först i gruppen?
6. Har ni möten?
7. Hur många förslag lämnas in per vecka eller månad?
8. Vad fokuserar ni på? Vad är det för typ av förslag? (Tekniska, ergonomiska, stora, små)
9. Försöker ni fokusera på kvaliteten på förslagen?

10. Är det nivån olika beroende på vilken grupp man tittar på?
Finns det kulturskillnader?

Utvärdering

11. Vem tar beslut om förslagen ska genomföras?
12. Hur tas beslutet? Baserat det på någonting? Finns riktlinjer?
13. Tidsbegränsning på när återkoppling ska vara given?
14. Andel förslag som grupp själva kan genomföra?

Implementering

15. Om ingen, vad händer då? Registrering?
16. Om ja, vem utför förslaget? Gruppen? Självstyrande?
17. Tidsbegränsning?
18. Hur lång tid brukar det ta att införa ett förslag?
19. Hur gör ni det?
20. Lämnas det över till någon annan om gruppen själva inte kan utföra det?
21. Vad händer då?
22. Har ni kontroll på var/vem som tar över förslaget och när det utförs

Datasystem/administrativt

23. Hur ser erat data system ut (om ni har ngt?)
24. Jobbar ni administrativt och hur? Om inte - skrivs det ned?
Om Ja - vad gör ni?

Belöningssystem

25. Har ni något belöningssystem?
26. Är det peningbaserat eller feedbackbaserat? Båda?
27. Är belöningen individuell eller gruppbaserad?
28. Hur uppfattar du vad medarbetarna tycker om systemet.
 - Har det uppstått konflikter i gruppen p.g.a. individnivån på förslagen?
 - Har arbetet gett en bättre sammanhållning i gruppen?

Allmänt om systemet

29. Var skulle ni säga att era flaskhalsar?
30. Vad upplever du som fungerar bra? Varför?
31. Vad upplever du som fungerar dåligt? Varför?