MASTER'S THESIS

# Developing a Strategic Procurement Process 

A Case Study at Boliden AB

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Abstract
BOLIDEN

## Abstract

Boliden is one of the leading mining and smelter companies in the world. Boliden have mines in Sweden and Ireland and smelters in Sweden, Norway and Finland. Their main products are copper, zinc, lead, gold and silver.

To make it easier to standardize the procurement process and introduce new leadbuyers, Boliden has decided to create a procurement manual. The primary purpose of the Manual is to provide an overview of Bolidens procurement operations, procurement processes and procurement information systems. As such, this Manual provides an awareness of mandatory requirements, policy considerations, guidelines, procedures and best practices. The manual will contain job descriptions for all roles involved in procurement, instructions on how to handle communications, purchasing ethics and policies and detailed descriptions of the procurement process and its sub processes.

In this project this manual is created through interviews and workshops with relevant personnel. The manual is adopted for presentation at the company intranet. In the process of creating this manual five main processes are identified: Governance and administration, strategic sourcing, contracting, operative procurement and supplier management. These processes are mapped in flowcharts and presented in the report.

The final conclusions of this report is that in order to be able to control and measure the procurement process in order to improve it, it has to be properly mapped.

Preface

## Preface

During the summer and autumn of 2006 I have conducted this study for my master thesis at Boliden Mineral AB outside Skellefteå. This master thesis is the final piece of my educational puzzle and I would like to thank everyone who made it possible.

First of all I would like to thank Mats Gustavsson CPO at the Boliden Group for trusting me with this project. I would also like to thank Mattias Berggren Commodity Manager at Boliden Group for all the time that he has invested in this project. An other important person that deserves a my gratitude is Stefan Sandberg, at the time management consultant at Cap Gemini, I would like to thank him for the support that he gave me in the early stages of the project.

I would also like to thank Torbjörn Wiberg at Luleå University of Technology for his supervision during this project. Finally I would like to thank my classmates for their invaluable tips and support during the project and all the friendly people at Bolidens procurement and logistics department for the positive way that they have welcomed me into their fellowship.

Boliden 3 October 2006


Magnus Blomberg

## LULEA <br> Table of contents

1. INTRODUCTION ..... 1
1.1. Background ..... 1
1.2. Purpose ..... 1
1.3. Limitations of the study ..... 1
2. RESEARCH METHODOLOGY ..... 2
2.1. RESEARCH STRATEGY ..... 2
2.2. METHODOLOGICAL APPROACH WHEN CREATING THE MODEL ..... 2
2.3. Literature Review ..... 4
2.4. Selection of respondents ..... 4
2.5. Data collection ..... 5
2.5.1. Secondary data collection ..... 5
2.5.2. PRIMARY DATA COLLECTION ..... 5
2.6. Reliability and Validity ..... 6
3. THEORETICAL FRAMEWORK ..... 8
3.1. The Strategic role of purchasing ..... 8
3.2. Purchasing organization ..... 10
3.2.1. LEVELS OF TASKS, RESPONSIBILITY AND AUTHORITY ..... 10
3.2.2. CENTRALIZED VERSUS DECENTRALIZED PURCHASING ORGANIZATION ..... 11
3.3. The PROCUREMENT PROCESS ..... 12
3.3.1. The governance process ..... 12
3.3.2. The Strategic Sourcing process ..... 14
3.3.3. The Contracting process ..... 20
3.3.4. The Supplier management process ..... 21
3.4. Purchasing Policy ..... 23
3.4.1. RISK ..... 23
3.4.2. ETHICS ..... 24
3.5. Authority ..... 25
4. SITUATIONAL DESCRIPTION ..... 27
4.1. Company description ..... 27
4.1.1. Organization ..... 27
4.2. THE SITUATION AT THE PROCUREMENT AND LOGISTICS DEPARTMENT ..... 28
5. RESULTS ..... 31
5.1. Purpose, target group and layout ..... 31
5.2. Main processes ..... 34
5.2.1. GOVERNANCE AND ADMINISTRATION ..... 35

Table of contents
BOLIDEN

### 5.2.2. StRATEGIC SOURCING <br> 35

### 5.2.3. Contracting <br> 35

5.2.4. OPERATIVE PROCUREMENT ..... 35
5.2.5. SUPPLIER MANAGEMENT ..... 35
5.2.6. LAYOUT OF MAIN ACTIVITIES ..... 35
5.3. SUb-PROCESSES AND ACTIVITIES ..... 36
5.3.1. GOVERNANCE AND ADMINISTRATION ..... 37
5.3.2. Strategic sourcing ..... 48
5.3.3. Contracting ..... 53
5.3.4. OPERATIVE PROCUREMENT ..... 60
5.3.5. SUPPLIER MANAGEMENT ..... 62
6. ANALYSIS ..... 64
6.1. The strategic role of purchasing ..... 64
6.2. Purchasing organization ..... 64
6.3. The Procurement process ..... 65
6.3.1. The GOVERNANCE PROCESS ..... 65
6.3.2. The strategic sourcing process ..... 65
6.3.3. THE CONTRACTING PROCESS ..... 65
6.3.4. THE SUPPLIER MANAGEMENT PROCESS ..... 66
6.4. Purchasing policy ..... 66
7. CONCLUSIONS ..... 67
8. REFERENCES ..... 68
$\qquad$ Appendix 1

BOLIDENS PROCUREMENT POLICY $\qquad$ Appendix 2

ABBREVIATIONS AND ACRONYMS $\qquad$ Appendix 3

## 1. Introduction

This chapter will give a short introduction to the company and the present situation. Other important parts of this chapter are the purpose of the study and limitations.

### 1.1. Background

Boliden is one of the leading mining and smelter companies in the world. Boliden have mines in Sweden and Ireland and smelters in Sweden, Norway and Finland. Their main products are copper, zinc, lead, gold and silver.

Boliden has recently acquired new facilities in Ireland, Norway and Finland. These facilities have different routines and practices for procurement than the other facilities in the company. This means that all purchasing has been done at each site and all possibilities to purchase with the full strength of the corporation has been made impossible. Boliden has decided to change this situation and strives to maximize the efficiency of the procurement function and save money. In order to do so they have decided to go from a decentralized procurement organization to a centralized one, where the purchasing will be organized based upon commodity groups instead of facility. Each product group will be represented by a lead-buyer who is responsible for all contracting within his/her product group. At the present time there are no common routines for this process and the process has not been mapped. This is a problem when commodities are to be moved from the old decentralized organization in to the new strategic procurement organization.

To make it easier to standardize the procurement process and introduce new leadbuyers, Boliden has decided to create a procurement manual. The primary purpose of the manual is to provide an overview of Bolidens procurement operations, procurement processes and procurement information systems. As such, this manual provides an awareness of mandatory requirements, policy considerations, guidelines, procedures and best practices. The manual will contain job descriptions for all roles involved in procurement, instructions on how to handle communications, purchasing ethics and policies and detailed descriptions of the procurement process and its sub processes.

### 1.2. Purpose

The purpose of this thesis is to create a substantial contribution to the procurement manual involving:

- A complete mapping of the future procurement process and its sub process.
- A proposal for Bolidens procurement policy.
- Identify, and where needed create, routine descriptions, tools and templates for all relevant procurement processes.
- Present all these parts in a clear and easy to use model


### 1.3. Limitations of the study

The responsibility for the advanced IT-support and implementation of the procurement manual onto the company intranet is not in the span of this project due to the need of special competence to handle the company intranet and document system.

## 2. Research methodology

This chapter will explain how the study was conducted, what methods were used and why.

### 2.1. Research strategy

In order to create the model best adapted to the company's situation, the research has been based heavily on empirical data from the interviews. The information gathered through interviews and workshops, has then been compared to present research to make sure that the solutions reached are in line with best practice according to those sources. The data gathered in this research is mainly qualitative data although some quantitative data has been used mainly in the spend maps, and other material related to the spend.

### 2.2. Methodological approach when creating the model

When this project started the company was in the middle of a restructuring of the procurement department, with fragments from the old organization working side by side with fragments from the new organization. Because of this special situation the classical approach to process mapping, where a snapshoot picture of the present situation is first created then possible improvements are identified and finally a future process map are created. Due to the ever-changing processes in the present organization it was decided that a snapshoot image of the present situation would be hard to create and would contribute very little value to the process. Instead a future process description was created that the ongoing changes in the department could be steered towards.

I have created 14 steps through which I intend to approach this issue:

1. The first step was to identify all present procurement activities in the company. This was done through secondary data in the form of documents routine descriptions and tools and template collected from the different sites. Some interviews with people in the organization also contributed to the identification of different procurement activities. Some ideas for necessary procurement processes were also collected from the literature review. However in this stage not only present activities were collected but also ideas for new processes that could improve purchasing. Basically an activity long-list was created of all activities that might have to be included in the new process map.
2. The second step was to organize the activities into groups so that main processes could be identified. It was also important to identify any connections between activities to be able organize them into sequential flows.
3. When the present activities where identified it was important to see which activities where interesting to keep in a future procurement process. This was done by interviews with management personal and through investigation of purchasing and logistics departments' targets and visions as well as the corporations' targets and vision. Present activities were also compared with theoretical models from the literature review.
4. Research methodology BBOLIDEN
5. When the significance of different activities and their interrelations were established. A first draft of an overall structure could be created based on theoretical models, interviews and collected material.
6. This first draft was presented to a focus group containing procurement personnel from all countries and with different roles in the organization. The focus group provided valuable input into the process and the overall structure were adjusted according to new information that was discovered in the focus group.
7. When an overall structure where established the next phase was to try to place all identified activities in the new structure. This was done through interviews with different persons from the procurement organization who provided their view on where different activities were to be placed.
8. Once all activities were mapped into the structure it was important to validate the new structure. This was done by presenting the structure to different people and get their views on it. As different persons gave different suggestions the structure evolved.
9. Based on the information collected a proposal for detailed structure was presented.
10. Since different persons were interviewed at different times it was important to make sure that the final structure were to everyone's satisfaction. So the final result were presented to a focus group so that it could be approved.
11. Once the structure was approved all tools and templates that were used by different people in different processes were collected.
12. Then the tools and templates were evaluated and the need for additional tools and templates were assessed.
13. The missing tools and templates were created in cooperation with relevant personnel from the organization.
14. When all necessary tools and templates existed, they were connected to the process map, and integrated into the complete structure.
15. Finally the complete process mapping with the integrated tools and templates were prepared for publication on the company intranet.

This process can also be seen in figure 2:1.


Figure 2:1. The stepwise approach of creating a process map to procurement manual.

### 2.3. Literature Review

To gain an understanding of how procurement processes can be organized the project was initiated with a vast literature review. The literature review was conducted mainly through Luleå University Library. The databases used are J-stor, emerald and ebsco. These databases have given some input to the work but most of the input comes from printed material in the form of books. The results from the literature review have been used mainly to verify the information gathered in interviews and workshops.

### 2.4. Selection of respondents

Snowball sampling did the selection of respondents both for the secondary and primary data collection. This means that the first respondent is asked to recommend a few other persons who might also have valuable information for the research (Denscombe, 2000). The advantages of this method is that a large number of relevant respondents can be selected in a short time without detailed knowledge of the organization and the researcher can get a good connection to the respondent since he has been "recommend" by someone else (Denscombe, 2000). Since both these
conditions were met, the knowledge of the organization was limited and there was a great need for good contacts with relevant respondents, it was decided that snowball sampling would be the best sampling method for this study.

### 2.5. Data collection

In this project both secondary- and primary data were used.

### 2.5.1. Secondary data collection

To get a picture of the present situation in the procurement organization secondary data were collected. The data that was collected were routine descriptions, process descriptions, tools and templates for procurement from all facilities in the corporation. This was done via e-mail and all Country Procurement Managers and Lead-Buyers where asked to submit all materials of this type for investigation. All documents that were submitted were then mapped into the different processes.

### 2.5.2. Primary data collection

The primary data collected were in the form of interviews and focus groups. Usually the interviews were used for data collection to create proposals for presentation to the focus groups. Then the focus groups were used to validate the data collected through interviews. Often persons who were interviewed were also in the focus group and could then make sure that the answers that they had given were interpreted correctly.

### 2.5.2.1. Interviews

Interviews were conducted with personnel involved in the purchasing process. The interviews were conducted as semi-structured interviews, where the respondent was presented a topic, which then were discussed rather openly. Usually the result from the interviews were not a protocol or specific answers but more often a sketch describing their views on a certain process or activity. During interviews the respondents were also asked to present any template or examples of documents that they used during different activities or processes. These documents were then collected and used when creating the tools and templates part of the model. The roles in the company that were interviewed were:

- Chief Procurement Officer (CPO). The purpose of the interviews with the CPO was to get his overall views on strategy and break them down to instructions for the creation of commodity strategies. The CPO:s input were also important to Governance and administration process and especially the target setting and follow up parts. Interviews with the CPO were also used to get approval of drafts and clearance to continue working according to specific ideas.
- Procurement Support. The role of procurement support is a support function to the CPO and the person with the most detailed overall knowledge of all procurement processes. The interviews with the procurement support officer were initially used to get an overall picture of all the processes. Later the input from the procurement support officer was used to create routines and templates for reporting from the operative organization to the CPO. The role of procurement support officer was changed during this project so the leaving procurement support was interviewed on the present situation and the entering
procurement support was interviewed on how he wanted the future situation to be.
- Country Procurement Managers (CPM). Each country had a CPM who was responsible for all buyers and all purchases not yet represented by a commodity manager.
- Lead-Buyers/ Commodity Managers. Lead buyers are the foundation of the new organization and the interviews with theme were used to create operative processes of contracting, supplier management and strategic sourcing. The Lead buyers were also the main contributors of tools and templates. The title Lead buyer was changed to Commodity Manager during this project so both titles will occur in this report but the role is the same.
- Buyers. Buyers are operative personnel on each site doing the actual purchasing within commodity groups not represented by commodity managers.
- Quality managers. There was a parallel project in the organization to create a quality manual and this manual was supposed to incorporate routine and process descriptions. To ensure that the descriptions created in this project were in line with those in that manual interviews were conducted with quality managers.


### 2.5.2.2. Focus groups / Workshops

Some of the inputs to this project were gathered through focus groups or workshops. These workshops were usually used to verify and improve the results from interviews, often based on a draft created after the interview. Then the people gathered at the workshop could discuss the final draft and make changes so that my interpretations of the interview material were correct. This also gave the opportunity to discuss those sections where the results from the interviews were inconclusive and the best option could be chosen. The most commonly used focus group were the Procurement Strategic Team which were compounded of:

- The Chief Procurement Officer (CPO)
- The Procurement Support Officer
- All Country Procurement Managers
- Representative for the Lead-buyers
- Representative for the Buyers

But other focus groups were used from time to time.

### 2.6. Reliability and Validity

Since this entire project are based on interviews and observations and there are very few measurable facts to work with it is important to try to make the results as valid and reliable as possible. When conducting interviews it is always a risk that things are misinterpreted. To minimize the risk of this multiple persons has been asked to present their views on every process mapped. Another way to ensure the right interpretation is to try to create the process map in cooperation with the person leaving the information. This has been done through workshops were the process map has been drafted and adjusted on a whiteboard. When the workshop was over the
process was drawn in the computer, and to further validate the results it was presented both to the person involved in the development process, and to other person with knowledge of the mapped process. This way of validating the results should ensure both that the information received from the respondent wasn't distorted both also that the information given was in line with other people's views on the same processes.

## 3. Theoretical Framework

This chapter presents a theoretical framework. This framework was used to validate the information gathered through interviews and workshops. But the theoretical models were also used to make sure that the right questions were asked.

### 3.1. The strategic role of purchasing

Purchasing has for a long time been considered primarily as an operational function without any strategic importance (Baily, Farmer Jessop \& Jones, 1994). However in resent years the strategic importance of purchasing has been given more attention. One reason for this could be the trend of increase in outsourcing. Companies tend to outsource a large number of activities that were earlier part of their own operations (Van Weele, 2005). This outsourcing means that costs that were once internal costs such as wages and overheads are now external in the form of purchased gods or services. Baily et al (1994) states that the average manufacturing company disposes of well over half of its income on materials, supplies and services. This means that the strategic significance of purchasing most be realized.

The purchasing function can usually contribute to the competitive position of the company in many other ways than just through cost savings. Van Weele (2005) presents a few of these ways, such as:

- Reduction of quality costs. Purchasing can reduce quality costs by make sure that selected suppliers deliver a product or service that does not need extensive quality control. Purchasing can also reduce quality costs by making sure that the components bought do not lead to complaints on the final product.
- Product standardization. Purchasing can contribute do lower costs by striving for a reduction in product variety. This can be achieved by reducing the number of different components and/or the number of suppliers
- Contribution to product design and innovation. Often innovations in industry come from suppliers or are results from intensive interactions between suppliers and buyers. By actively encourage this kind of interactions purchasing can contribute to the continuous innovation and improvement of products.
- Stock reduction. Through imposing a solid discipline on supplier and enforce it, purchasing can minimize the need for safety stocks of components. This might include such actions as demanding a consignation stock to be held at the facility by the supplier. These types of actions can significantly reduce the amount of stock needed and thereby the capital employed.
- Increasing flexibility. If the company wishes to offer flexibility to its customers it might also have to demand it from its suppliers. The use of EDI and synchronized data systems can make it easier to inform suppliers about change in demand over time.
- Fostering purchasing synergy. Many companies have a business unit structure where the business units are fairly autonomous. In such a structure the business unit manager are responsible for both revenue and costs, hence purchasing is usually done locally. In these cases the purchasing officers at the
different units can make significant savings by coordinating their purchasing with other units.

Chen, Paulraj and Lado (2004) states that strategic purchasing is a vital link in a working supply chain. They mean that strategic purchasing can give a firm a competitive advantage by enabling the firm to:

- Foster close working relationships with a limited number of suppliers
- Promote open communication among supply-chain partners
- Develop long-term strategic relationship orientation to achieve mutual gains

Chen et al (2004) states that strategic purchasing will lead to communications with suppliers, a limited number of suppliers and a long-term orientation. They mean that this will lead to a higher customer responsiveness, which means that the buyer gives feedback to the supplier and the supplier makes changes accordingly which leads to mutual gains and ultimately a higher financial performance, see figure 3:1.


Figure 3:1. The contribution of strategic purchasing to the companies financial performance. (Chen et al, 2004)

Chen et al (2004) proves all of these connections to be significant except for the statement that Long-term orientation leads to higher Customer responsiveness, there is such a relation but the effects are not large enough to be significant.

However Chen et al (2004) has a rather special view on the number of suppliers to be used and marginalize the risks involved in having very few suppliers. They state that the fewer suppliers the better under all circumstances and that the risks of a supplier to act opportunistic is counterweighted by the increase in trust which sounds a bit naive.

The conclusion to be drawn from their research however is that strategic purchasing can be an important link in the supply chain and contribute to the overall financial results of a company.

### 3.2. Purchasing organization

Axelsson and Laage-Hellman (1991) states that the shape of the organization is essential for procurement performance. They imply that how the organization is to be governed is depending heavily on the type of organizational structure adopted. Axelsson and Laage-Hellman (1991) identifies three ways to organize purchasing according to specialization:

- Specialization based on commodity
- Specialization based on facility
- Specialization based on supplier

In the first case a specific buyer deals with specific products or services, in the second case a buyer deals with all purchasing for a specific facility, and in the last case a specific buyer deals with all purchasing from a specific supplier (Axelsson and LaageHellman, 1991)

### 3.2.1. Levels of tasks, responsibility and authority

In purchasing organization three levels of responsibility can be identified, strategic level, tactical level and operational level. Each level are concerned with different types of issues. The strategic level is the highest level and are concerned with more overall issues, while the level of detail are higher at the tactical level, and the operational level are concerned almost entirely with everyday details.(van Weele, 2005)

### 3.2.1.1. Strategic level

On the strategic level are decisions made influencing the long-term market position of the company. These types of decisions are usually positioned rather high up in the organization preferably at top management level. (Van Weele, 2005)

Examples of purchasing decisions on the strategic level according to van Weele (2005) are:

- The development and issuing of operational guidelines, procedures, and task descriptions, which provide authority to the purchasing department.
- The development and implementation of auditing and review programs in order to monitor and improve purchasing operations and performance.
- Decisions to outsource activities, which currently have been executed by the company to outside suppliers.
- Establish long-term contracts and contacts with certified and/or preferred suppliers.
- Decisions related to adopting a supplier strategy based on multi- versus single sourcing.
- Major investments decisions.
- Decisions with regard to backward integration.
- Decisions related to policies concerning transfer-pricing and intercompany supplies.
- Decisions related to policies on reciprocal arrangements, counter trade and barter-deals.


## 3. Theoretical framework

### 3.2.1.2. Tactical level

The tactical level constitutes of decisions such as supplier selection and supplier evaluation and development. Decisions about purchasing actions that affect products and processes are also usually placed on the tactical level. (Van Weele, 2005)

Examples of purchasing decisions on the tactical level according to van Weele (2005) are:

- Agreement on corporate and/or annual supplier agreements.
- Preparing and developing value analysis programs, programs aimed at design review and product standardization.
- Adopting and conducting certification programs for suppliers in order to improve the quality of incoming goods and materials.
- Selecting and contracting of suppliers in general, and programs aimed at supply-base reduction, in particular.


### 3.2.1.3. Operational level

The operational level contains the daily activities of ordering and expediting. This level is also concerned with delivery surveillance and follow up on orders.

Examples of purchasing decisions and activities on the operational level according to van Weele (2005) are:

- The ordering process
- All expediting activities related to released orders.
- Troubleshooting: solving daily problems on supply and payment in relationship with the supplier.
- The monitoring and evaluation of supplier performance.


### 3.2.2. Centralized versus Decentralized purchasing organization

One major decision that has to be made when building the purchasing organization is the degree of centralization (van Weele, 2005). The two extremes in this are centralized organization and decentralized organization.

### 3.2.2.1. Decentralized purchasing structure

The decentralized structure is common in companies with a business unit structure. With this type of structure the business unit manager is usually responsible for the financial result of the business unit, and are therefore often responsible for all purchasing within the business unit. One major disadvantage with this type of organization is that the company cannot use its full bargaining power since each negotiator can negotiate only for the spend of his/her business unit. This means that the same company can have different agreements with the same supplier, so that one business unit gets one price and another unit another price. This type of organization is usually favored when a company has business units with different needs and the products purchased at the different units are unique for each unit. (Van Weele, 2005)

### 3.2.2.2. Centralized purchasing organization

In a centralized purchasing organization a corporate level purchasing department are responsible for all purchasing. With this type of organization decisions about product specifications are made centrally, and the same goes for supplier selection. Contracts with suppliers are usually negotiated centrally and the same terms and conditions are valid for all business units. With this type of organization contracts tend to be longterm agreements that states from which suppliers purchases can be made and to what prices and delivery arrangements, but the actual purchasing within the agreements are usually carried out by the business units. The main advantage of this organization is that the negotiators are negotiating for the entire spend of the company and hence have a much larger leverage on the supplier and a stronger negotiation position. This usually leads to better prices and other arrangements. Another advantage of this organization is that this tends to lead to a higher level of standardization of products purchased. The disadvantage is that it creates problems in responsibility when a business unit manager are responsible for his result but cannot affect his cost for purchased goods. This organizational structure is usually appropriate when multiple business units purchase similar products or services.(van Weele, 2005)

### 3.3. The procurement process

Van Weele (2005) presents a basic model of the procurement process. This process has six steps:

1. Define specifications
2. Select supplier
3. Contract agreement
4. Ordering
5. Expediting
6. Evaluation

This process gives a rather good overall picture of the operative handling of procurement, but it lacks descriptions of other parts of procurement such as measuring performance and advanced supplier management. So to get a broader view of the subject research on other parts of the procurement process has also been investigated.

### 3.3.1. The governance process

The governance process is a process that has as a main purpose to measure the performance of the procurement and logistics department, but also to supply guidelines in the form of instructions and policies.

### 3.3.1.1. Measuring purchasing performance

Axelsson and Laage-Hellman (1991) states that a suitable way to govern purchasing is through target setting and measuring. They state that this could be done through Key Performance Indicators. The authors divide the KPI: s into seven categories:

- Price related KPI:s
- Quality related KPI:s
- Delivery related KPI:s
- Inventory related KPI:s
- Savings related KPI:s
- Activity Related KPI:s
- Other

Axelsson and Laage-Hellman (1991) presents a large number of KPI:s within these categories

Van Weele (2005) presents two areas in which purchasing performance can be measured, purchasing effectiveness and purchasing efficiency. He states that purchasing effectiveness is a measure of what has been accomplished and purchasing efficiency is a measure of what resources has been used to accomplish it. He divides this two measures further, see figure 3:2.


Figure 3:2. Purchasing performance according to van Weele (2005).
Based on van Weeles (2005) four dimensions; Cost/price, Product/Quality, Logistics and organization, presents Lööw (2006) a large amount of KPI:s that can be applied in the construction industry but some of these are rather general and can be applied in

## 3. Theoretical framework

other industries. These KPI:s were organized into a dashboard to make them more accessible and easy to understand.

### 3.3.2. The Strategic Sourcing process

Developing a sourcing strategy is a complex process and there are a lot of factors that has to be taken into account, which factors vary between companies, commodities situation and environment.

One of the most common strategic decisions is the one of single versus multiple sourcing. This decision is discussed by Saunders (1994), Dobler and Burt (1996) Heniritz et al (1991) as well as others.

Dobler and Burt (1996) present a number of issues to be taken into consideration when dealing with strategic and tactical issues regarding purchasing.

## Early supplier involvement

Dobler and Burt (1996) states that if suppliers are involved early in the buyers design process they can contribute with their expertise in the following nine areas.

- Material specifications
- Tolerances
- Standardization
- Order sizes
- Process changes in supplier's manufacturing
- Packaging
- Inventory
- Transportation
- Assembly changes in buyers plant

The authors present four reasons for utilizing early supplier involvement:

- Get suppliers input before the design is frozen
- Capitalize on the latest technology
- Save time since design cycles are getting shorter
- Let the supplier know that they are part of the team


## Number of suppliers

Dobler and Burt (1996) states that another aspect to consider when developing a strategy is how many parallel sources of supply should be used. A company can chose to take all supply from a single supplier, which is usually called single sourcing, or they can take their supplies from two or more suppliers, called dual or multiple sourcing. The different strategies are appropriate in different situations. According to Dobler and Burt (1996) single sourcing is appropriate when:

- Better prices can be achieved through larger volumes (economies of scale)
- Quality is important.
- A strong influence over a supplier is advantageous.
- Lower costs are incurred to source, process, expedite, and inspect. 3. Theoretical framework BOLIDEN
- The quality, control, and coordination required with just-in-time manufacturing require a single source.
- Significantly lower freight costs may result
- Special tooling or machinery is required, and the use of more than one supplier is impractical or excessively costly.
- Total system inventory will be reduced
- An improved commitment on the supplier's part results
- Improved interdependency and risk sharing result
- Time to market is critical

On the other hand Dobler and Burt (1996) states that dual or multiple sourcing may be appropriate:

- To protect the buyer in times of shortages, strikes or other emergencies.
- To maintain competition and provide a back-up source. Having a main supplier who is awarded about $70 \%$ of the volume and a second who has the other $30 \%$ of the volume usually does this. Then economies of scale can be maintained and a back up ensures supply.
- To meet local content requirements for international manufacturing locations.
- To meet customer's volume requirements.
- To avoid lethargy or complacency on the part of the single source supplier.
- When the customer is a small player in the market for a specific item.
- When the technology path is uncertain.
- In areas where suppliers tend to leapfrog each other technologically.


## Share of supplier business

Dobler and Burt (1996) states that when a company decides it purchasing strategy they have to decide how large share of the suppliers turnover they want to constitute. The larger share they constitute the more influence they will get but if they withdraw their business they might put the supplier in a difficult situation, which in turn might reflect badly on them selves.

## Buying locally, nationally or internationally

One thing that has to be considered when developing a sourcing strategy according to Dobler and Burt (1996) is whether to source locally, nationally or internationally.

Local sourcing has the following benefits according to Dobler and Burt (1996):

- Closer cooperation between buyer and supplier is possible due to the close geographical proximity.
- Delivery dates are often more certain since transportations are only a minor factor in delivery.
- Lower prices can result from consolidated transportation and insurance charges. A local supplier, in fact, brings in many local buyers' orders in the same shipment.
- Shorter lead times frequently can permit reductions or elimination of inventory.


## 3. Theoretical framework

- Rush orders are likely to be filled faster.
- Disputes are usually more easily resolved.
- Implied social responsibility to the community are fulfilled

National sourcing has the following advantages according to Dobler and Burt (1996):

- Larger economies of scale in comparison with local suppliers
- National companies can usually provide superior technical assistance.
- Larger national companies have greater production capacity and therefore greater production flexibility to handle fluctuating demands.
- Shortages are less likely with because of their broader market.

International sourcing is a lot more complex than the first two alternatives. When sourcing from abroad many issues has to be taken into account, and it is hard to pinpoint the exact benefits of international sourcing, they depend on what product is sourced from what country, and the benefits could be anything from finding the lowest price to finding the highest quality. (Dobler and Burt, 1996)

## Purchasing from a Manufacturer or a distributor.

When purchasing gods it is important to make a decision whether to buy from a distributor or directly from the manufacturer. In general it is more expensive to buy from a distributor than from the manufacturer, but instead the distributor can add other values to the product. The distributor can for instance stock products from many different manufacturers and thereby make it possible to order many different products with only one order this saves money in ordering, receiving, control and invoice handling. It is also often possible to buy smaller quantities from a distributor than from a manufacturer. The conclusion is that the smaller and less significant the purchase the more likely it is that a distributor is the way to go, for instance MROarticles are often purchased from a distributor. (Dobler and Burt, 1996)

## Environmental considerations

In some cases environmental considerations has to be taken into account when purchasing. It is imperative that the buying firm makes sure that their suppliers does not handle environmentally problematic substances in such a manner that it could hurt the buying company. This could be through bad publicity or in some cases the buying firm might even be financially liable for problems created by a supplier. (Dobler and Burt, 1996)

## Ethical considerations

A Buyer most always be aware of potential conflicts of interest when developing a sourcing strategy and in particular when choosing suppliers (Dobler and Burt, 1996). For more information about this see chapter 3.4.2, ethics.

### 3.3.2.1. Supply market research

To be able to decide upon a sourcing strategy it is imperative to have all relevant information about the supply market. To get this information supply market research can be conducted. Van Weele (2005) presents the following systematic approach to conducting supply market research:

1. Determine objectives. What exactly is the problem to be solved? What information is desired? How accurate does the information have to be? These questions are to be answered in this stage. If you do not know what you are looking for its not likely that you are going to find it.
2. Cost-benefit analysis. What will be the cost of the research? How many manhours are required for the research? Will the value of the obtained information outweigh the expense?
3. Feasibility study. What information is already available within the company, in statistics and publications? A good documentation service can be invaluable. A lot of powerful databases can be found publicly or at universities.
4. Design of research plan. The creation of a research plan is an important step to make sure that you are well prepared. It should contain all relevant steps of the intended research.
5. Execution of research activities. In this stage the actual research is conducted according to the plan.
6. Preparing research report and evaluation. When the research is conducted a report containing the assignment as well as the obtained results should be prepared.

Van Weeles approach to supply market research is also presented in figure 3:3
3. Theoretical framework

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Figure 3:3. Supply market research according to van Weele (2005)
Supply market research can be conducted on three separate levels according to Van Weele (2005):

- Macroeconomic research. In macroeconomic research general factors for an entire country is investigated such as unemployment, labor cost, inflation or consumer prize index.
- Mesoeconomic research. At this level an industry is analyzed rather than an entire country, and more specific variables are investigated such as capacity, supply and demand.
- Microeconomic research. In microeconomic research specific suppliers are analyzed.


Figure 3:4. Different levels of supply market research according to van Weele (2005).

### 3.3.2.2. Kraljic's Matrix

A commonly used tool when working with strategies is Kraljic's matrix. This matrix is divided into four squares were, commodities or suppliers are classified according to their financial impact on the company, and the supply risk. See figure 3:5. (Van Weele, 2005)

The four classes are:

1. Leverage products are products with high financial impact but low supply risk. These products are usually sourced by competitive bidding.
2. Strategic products are products with high financial impact as well as high supply risk. These products are usually sourced through partnerships.
3. Routine products are products with low financial impact as well as low supply risk. The strive in the sourcing process for these products are to source them with as few man-hours as possible, for instance through automated systems.
4. Bottleneck products are products with high supply risk but with low financial impact. The commonly used strategies for these types of products are to secure the supply.
(Van Weele, 2005)


Figure 3:5. Kraljic's matrix, (based on Van Weele, 2005)

### 3.3.3. The Contracting process

Dobler and Burt (1996) identifies eight steps in the procurement process:

- Recognizing, define and describe the need
- Transmit the need
- Investigate qualify and select the supplier
- Prepare and issue the purchase order
- Follow up the order
- Receive and inspect the material
- Audit the invoice
- Close the order


### 3.3.3.1. Specifications

One way to make the purchasing department aware of a need in the organization is according to Dobler and Burt (1996) to send a purchase requisition. Such a requisition should include

- Description of the material
- Quantity
- Date required
- Estimated unit cost
- Operating account to be charged
- The date of issue
- Authorized signature 3. Theoretical framework BOLIDEN

Dobler and Burt (1996) suggests that purchasing requisitions can be built in to the companies ERP-system so that the user only fills out a pre-designed template, which then is automatically sent to the appropriate buyer.

### 3.3.3.2. RFP and supplier selection

According to Dobler and Burt (1996) should the request for quotation (RFQ), or request for proposal (RFP) as it is sometimes called, should be carefully prepared. The RFQ should contain the same basic information that will subsequently be included on the purchase order. (Dobler and Burt, 1996)

### 3.3.3.3. Negotiation strategies

Many authors state that a win-win negotiation strategy is to prefer to competitive strategy (Fisher, 1999, Cronin-Harris, 2004, among others)

Cronin-Harris (2004) presents five steps to go through to ensure a win-win negotiation situation.

1. Decide on priority interests and rank them. This is done before the actual negotiation situation in order to know what demands can be sacrificed for others.
2. Assess the other sides' priorities. In this stage a negotiator should put him self into the other parties shoes in order to get a picture of what he wants.
3. Know that money represents other needs. This is important because if money is the only factor to consider there can be no win-win negotiation.
4. Plan factual inquiries carefully. In the initial state of the negotiation it is important to try to find out as much as possible about what the other party wants because it is then easier to meet him and reach a good deal.
5. Plan money moves based on objective principles. This means that since money usually is the hardest part to agree upon it might be good to back up all monetary claims with objective facts, because these are usually hard to argue with.

### 3.3.4. The Supplier management process

Van Weele (2005) presents three major questions that have to be asked in the supplier management process.

- For which commodities should the number of suppliers be reduced?
- For which commodities should the current number of suppliers be maintained?
- For which commodities should the number of suppliers be increased?

Van Weele (2005) states that the present trend is to focus sourcing strategies on reducing the number of suppliers and that this cannot go on forever. He also states that the reduction of suppliers should not be a goal but rather a mean to achieve something else.

Van Weele (2005) suggests the following steps in the supplier management process:

1. Contract review. In this step all existing contracts with suppliers are analyzed. To identify and find all existing contracts might be a problem since there can 3. Theoretical framework
be a substantial amount of contracts that are outside of the purchasing department. The objective of this stage is to determine which price agreements have been made, whether the actual performance and satisfaction with the supplier have been documented and to assess the risks and the responsibilities involved.
2. Competitive bidding amongst current and new suppliers. The purpose of this step is to analyze the entire supply market by inviting more companies than the present suppliers to make an offer. The final outcome of this step is a contract with the "best-in-class" supplier.
3. Optimizing the supplier relationship and value chain mapping. The first two steps in the process focuses on selecting the most suitable suppliers while this third and final step focuses on getting the most out of these suppliers. In this step concrete objectives and targets on price and cost reduction, quality improvement, lead-time reduction and improvement of costumer service are settled. Many companies have teams of specialists from different disciplines from both parties involved in this target setting process. One of the major purposes of this activity is the exchange of ideas for improvement activities on both sides. Usually the suppliers have to do most of the work in this process and gradually become integrated into the customers' business process. Another part of this step is to analyze the entire supply chain through value chain mapping, where the source of origin of every component is determined

### 3.3.4.1. Types of supplier

Van Weele (2005) presents four types of suppliers depending on how developed the relation to each of them are. The least developed relationship is with the supplier, which is any supplier delivering anything to the company and the most developed relationship is to a design partner, see table 3:1.

Table 3:1. Different types of suppliers (Van Weele, 2005)

| Less developed relation |  |  | More developed relation |  |
| :---: | :---: | :---: | :---: | :---: |
| Aspect | Supplier | Preferred Supplier | Supply Partner | Design partner |
| Relationship characteristics | -Operational | -Operational | -Tactical | -Strategic |
| Time-horizon | -Order to Order | -1 year | -1-3 years | -1-5 years |
| Quality | -As requested by producer <br> -Quality control by producer | -As requested by producer <br> -Quality control by producer and supplier | -"Sign-off" by  <br> supplier  <br> -Quality  <br> assessment by  <br> supplier (Process <br> quality)  | ""Sign-off" by <br> supplier  <br> -Early supplier <br> involvement in <br> design.  <br> -Quality  <br> assessment by <br> supplier (Process <br> quality)  |
| Logistics | -Orders | -Annual agreement + Calloff orders | -Periodical scheduling of materials requirements by producer | -Electronic Document Interchange (EDI) |
| Contract | -Order to Order | -Annual agreement (1 year) | -Annual agreement (> 1 year) -Quality agreement | -Design contract <br> -Life of type responsibility (product liability supply) |
| Price/cost | -Price | -Price + rebate | $\begin{array}{ll} \hline \text { Price }+ & \\ \text { Cost reduction } \\ \text { targets } & \end{array}$ | - Price based on calculation. <br> Continuous improvement (design, quality, cycle time) |

### 3.4. Purchasing Policy

Dobler and Burt (1996) defines a policy as:
A statement that describes in very general terms an intended course of action.
The authors' states that after the fundamentals of an activity are established, policies are developed to serve as a general guideline in making operating decisions that channel actions toward achievement of the objectives.

### 3.4.1. Risk

Persson (2006) defines risk as:
"The probability that something unwanted should happen multiplied with the severity of the consequences of such an event."

Persson (2006) divide risks in purchasing into two categories, internal and external risks.

Internal risks are risks that has its origin within the own company such as

- Inadequate knowledge of actual need
- Imprecise RFQ:s
- Losing key personnel
- And many other

External risks, or commercial risks are risks that has its origin within the suppliers such as:

- Rising prices or other costs
- Shortages
- Cancellation of production of desired products
- Exchange rates

Van Weele (2005) divides risks in purchasing into four categories:

- Technical risk
- Commercial risk
- Contractual risk
- Performance risk

Technical risk is related to whether the supplier can deliver the functionality and performance agreed upon. Technical risk are also concerned with whether the supplier has the required skills to provide what was ordered.(van Weele, 2005)

Commercial risks are related to the costs a company has due to a purchase. This might be prices as well as other costs that result from the purchase such as shipping, production cost, customs or other. (Van Weele, 2005)

Contractual risks are concerned with whether the contract is precise enough so that no mistakes are made and that the consequences of mistakes are clearly stated. Attaching penalties for inadequate performance can minimize contractual risks. (Van Weele, 2005)

Performance risks are simply the risk that the supplier is incapable of doing what the contract requires from them. (Van Weele, 2005)

### 3.4.2. Ethics

Dobler and Burt (1996) state that a company has two main windows to the outside world, the sales department and the purchasing department. Because of this they mean that the actions of these two departments are extremely visible and therefore important for the perception of the firm externally.

According to Dobler and Burt (1996), studies have shown that the behavior of the purchasing department in ethical issues has a major effect on the behavior of the rest of the company in similar situations. It is therefore essential to ensure ethical behavior from the purchasing department. The authors state that the best way to insure this is through the development and enforcement of a relevant ethics policy and through continuous training and education.

## 3. Theoretical framework

BOLIDEN

Dobler and Burt (1996) present a standard of conduct created by The National Association of Purchasing Management.

1. Ethical Perceptions. Avoid the intent and appearance of unethical or compromising practice in relationships, actions and communications.
2. Responsibilities to the employer. Demonstrate loyalty to the employer by diligently following the lawful instructions of the employer, using reasonable care and only the authority granted.
3. Conflict of interest. Refrain from any private business or professional activity that would create a conflict between personal interests and the interest of the employer.
4. Gratuities. Refrain from soliciting or accepting money loans, credits, or prejudicial discounts, and the acceptance of gifts, entertainment, favors or services from present or potential suppliers that influence, or appear to influence, purchasing decision.
5. Confidential information. Handle confidential or proprietary information belonging to employers or suppliers with due care and proper consideration of ethical and legal ramifications and governmental regulations.
6. Treatment of suppliers. Promote positive supplier relationships through courtesy and impartiality in all phases of the purchasing cycle.
7. Reciprocity. Refrain from reciprocal agreements that restrain competition.
8. Law. Know and obey the letter and spirit of laws governing the purchasing function, and remain to legal ramifications of purchasing decisions.
9. Small, disadvantaged and minority owned business. Encourage all segments of society to participate by demonstrating support for small, disadvantaged, and minority owned business.
10. Personal purchase for employees. Discourage purchasing's involvement in employee-sponsored programs of personal purchases that are not business related.
11. Responsibility to the profession. Enhance the proficiency and stature of the purchasing profession by acquiring and maintaining current technical knowledge and the highest standards of ethical behavior.
12. International Business. Conduct international business in accordance with the laws, customs, and practices of foreign countries consistent with homeland laws, your organizations policies, and these ethical standards and guidelines.

### 3.5. Authority

According to Heinritz et al (1991), a purchaser is an agent for his/her company who has been given the authority by owner or management to commit company funds. There are often monetary limits to the amount that may be spent by any single buyer without securing specific approval of the expenditure by general management. The authors' states further that the authority should be comparable with responsibility and the ability to meet that responsibility.

Heinritz et al (1991) state that managers gives purchasers authority, they usually control costs by restricting the amounts that a purchaser has the authority to sign for. There might be several steps of authority, for instance a single buyer has the authority
to sign deals up to a certain amount, over that amount the deal has to be signed by a senior purchaser up to a certain amount and over that by the chief procurement officer and above that by the CEO.

## 4. Situational description

In this chapter the situation that led up to the decision to create a procurement manual is described. This chapter also describes the present situation in the company and which ongoing changes that occurs. Since most of the empirical data gathered in this project is gathered through interacting with respondents in interviews and workshops, it is hard to separate the empirical data from the result hence both empirical data and the results are presented in chapter 5.

### 4.1. Company description

Boliden is a mining and smelting company that produces zinc, copper, lead, gold and silver. The company's principal products are copper and zinc. The operations concentrate on the early stages of activity in the base metals industry, i.e. on exploration, milling and mining, and on smelting and refining. Metal recycling an area in which Boliden is the European leader also comprises a growing part of the business. The operations are conducted through three Business Areas: Mines, Copper Smelters, and Zinc Smelters. Financial results are reported for the Product Segments Copper and Zinc. Boliden has mines at Aitik, the Boliden Area and Garpenberg in Sweden, and at Tara in Ireland. The company has two zinc smelters, one at Kokkola in Finland and one at Odda in Norway. Boliden also has two copper smelters, one at Rönnskär in Sweden and one at Harjavalta in Finland, together with a lead smelter at Bergsöe in Sweden. The head office is located in Stockholm. The company has just over 4,500 employees and an annual turnover of about 20000 MSEK. (Boliden annual report, 2005)

### 4.1.1. Organization

Boliden is organized according to figure 4.1.


Figure 4:1. Organizational chart of the entire corporation
The purchasing and logistics department is subordinate to Deputy CEO, and organized according to figure 4:2.
4. Situational description


Figure 4:2. Organizational chart of the procurement department

### 4.2. The situation at the procurement and logistics department

In 2003 the procurement department of Boliden were assigned to realize a saving potential of a certain percentage of the total procurement volume. In the summer of 2004 the realization of these targets were far from accomplished. Some crucial components were missing to be able to realize the savings potential:

- Commodity groups and structure
- Spend data / Spend map
- Spend analysis and development of strategies
- Organization, processes and governance

A decision was made to accelerate the procurement project and the main purpose was to realize the savings potential and build a solid foundation for strategic purchasing in the future.

Boliden identified the following organizational challenges and improvement areas in November 2004:

- Procurement was not organized to maximize purchasing leverage on a group level
- Low use of consolidated purchasing between respective site with few exceptions
- Local procurement organizations have focus on performing tactical and operational procurement on behalf of the local operations
- Short term requirements more important than long term strategic sourcing
- Procurement is not recognized as core to business operation - low or no status of procurement in the organization
- For some sites, roles and responsibilities are defined but on local basis limited job descriptions are in place
- Most procurement organizations have resources with long experience from the mining and smelting business - but limited experience of strategic sourcing
- With a few exceptions no purchasing performance targets are set.
- No personal and/or departmental measures are set, no monitoring from senior level is being carried out and no commitments from the procurement organizations on achieving savings

The procurement project was divided into phases and in the first phase the following was to be achieved:

- Commodity structure
- The foundation for goals, strategies and organizational design
- Spend map
- Clarifying how the total spending is distributed in the organization, among suppliers and in the commodity groups
- Spend analysis
- Identified and prioritized potentials, and plan for realization
- Design of organization and high level processes
- A suitable corporate organization, ensuring a speedy initial progress and being a foundation for continuous long term development
- The cross functional impact and collaboration required for a short and long term success requires an "over empowered" structure, especially initially

The information from this work would than be used to further develop the procurement organization. This development was to be done through four main activities, see figure $4: 3$. The Second of these four activities, implement a common procurement process is done in this master thesis.
4. Situational description

The transformation of the total sourcing \& procurement operation was based on 4 main activities


Commodity strategies will identify the best way of realizing the potential by commodity, enabled by implementation of new processes, new organisation and improved basic data quality

Figure 4:3. Improvement actions in the procurement department.
Once commodity groups were established all strategic work was centered on these groups. The first step was to assign a commodity manager who would be responsible for the development of a commodity strategy for the group and all contracting within the group. This commodity strategy was to the guideline for all purchasing within that commodity group. This was done in stages and up to the present date six groups has been rolled out. This means that the new organization based on commodity managers and commodity groups exists parallel to the old organization based on countries and sites.

## 5. Results

In this chapter the result of the research is presented as well as the model created. In this chapter only the high-level processes are described and commented. To see the entire manual with all activity descriptions see Appendix 1. In that appendix the entire manual are presented, however only the names of the attached tools and templates are presented due to confidentiality.

### 5.1. Purpose, target group and layout

The first stage in the development of the procurement manual was to decide the purpose of the manual, the target group, the layout and presentation medium.

The purpose and target group of the procurement manual was decide in a focus group based on a suggestion prepared by myself, the procurement support officer and the CPO. The focus group decided to formulate the purpose as follows:

The primary purpose of the Manual is to provide an overview of Boliden's procurement function, procurement processes and procurement information systems. As such, this Manual provides an awareness of mandatory requirements, policy considerations, guidelines, procedures and best practices

It was also decided that the procurement manual was to be addressed to:
All Boliden employees that are involved in any sourcing and procurement related activities.

However some documents that contain strategically critical information, for instance negotiation instructions will be available only to those who need it.

There was a strong link between the presentation medium and the layout since certain layouts were better suited for certain mediums. The two presentation mediums that were possible were, on paper for printing and online on the company intranet. It was decided in an early stage of the discussions that presentation on the company intranet was preferred for a number of reasons. It was easier to upgrade the document and avoid old versions, this was an important issue because a document of this kind is constantly changing and it is important that it is easy to upgrade. Another important reason for choosing the intranet was that it is more accessible and it is likely that more people would use it if it were presented there. The final reason for choosing the intranet was that some technical features would be available such as links between documents.

Once the medium was chosen the layout were to be decided. Three options for layout were presented to the focus group for decision. These alternatives were prepared based on the inputs of the Procurement support officer. The alternatives were to present the manual in text format, see figure 5:1, as tables, see figure 5:2, or as flowcharts, see figure 5:3.


Figure 5:1. The text model
The text model was more suited for the paper medium and was eliminated by the focus group rather quickly after deciding on the intranet medium.


## BOLIDEN

3 30
Figure 5:2. The table model
The table model had the advantage of being able to present a lot of information rather high up in the structure but it did not have the possibility to describe decisions and parallel flows as well as the flow-chart model.
5. Results

Flow-chart model


Figure 5:3. The flow-chart model.
The flow-chart model was the most visible way to present the processes, however this model is incapable of presenting single activities that does not constitute a sequential flow or a process.

The valuable discussions in the focus group led to the decision to use the flow-chart as main layout for the manual and where it was inadequate due to its limitations to describe non sequential activities it was to be substituted by the table model. The flow-chart model was chosen because it is a well-known format for presenting processes and it is graphic model that is easy to understand and interpret. So in the final layout all activities that can be presented as a process with sequential or parallel activities as well as decision points will be presented in flow-charts and other activities will be presented in tables.

### 5.2. Main processes

The main processes were identified through interviews with the Procurement support officer and the CPO. Five main processes were identified.

- Governance and administration
- Strategic sourcing
- Contracting
- Operative procurement
- Supplier management


### 5.2.1. Governance and administration

The governance and administration process contains all activities concerned with controlling and measuring the performance of the procurement department. This process also contains all the administration of support systems, such as contract databases, supplier databases and other important tools for measuring performance.

### 5.2.2. Strategic sourcing

The strategic sourcing process contains all activities necessary to create commodity strategies. The commodity strategies are purchasing strategies for different commodities. Each strategy is adapted to the commodity rather than broken down from an overall purchasing strategy. This means that each strategy becomes more efficient then if it was constrained by an overall strategy. There are for instance no overall strategy for the number of suppliers, so if it is beneficiary to increase the number of suppliers in one commodity and decrease the numbers in another that is possible.

### 5.2.3. Contracting

The contracting process contains all activities concerned with contracting suppliers and creating agreements. This process take in all different types of contracting for running spend as well as investment projects. However all follow up of contract compliance and supplier performance are placed in the supplier management process

### 5.2.4. Operative procurement

The operative procurement process contains all operative tasks in the procurement process such as placing orders and receiving gods. This process is usually the bridge between production units and procurement department and many of the activities are actually conducted by production or maintenance units.

### 5.2.5. Supplier management

This process is concerned with all activities that are connected to supplier relations. These could be such activities as contract compliance, supplier evaluation and surveillance.

### 5.2.6. Layout of main activities

Three activities were identified as core activities these were:

- Strategic sourcing
- Contracting
- Operative procurement

Two activities were identified as support activities:

- Governance and administration
- Supplier management

5. Results

To illustrate the difference between core and support activities the core activities were positioned as a continual flow in the center and the two support processes were placed at the side, see figure 5:4.


Figure 5:4. The layout of the five main processes.

### 5.3. Sub-processes and activities

The five main processes contain a number of sub-processes or activities. The number of activities in each main process varies and so does the interrelation between the activities. Some activities constitute a sequential flow of activities and other are separate activities without sequential order. The sub-processes were identified through interviews with the procurement support officer, country procurement managers and lead-buyers.
5. Results

### 5.3.1. Governance and administration

The five main processes are presented in detail with a number of variables, which are required by the quality system. These variables for the governance process can be seen in figure 5:5.

| 1.Governance and administration |  |
| :---: | :---: |
| Input: | - Strategic targets for the group procurement and logistics |
| Output: | -Control over the activities and performance of the group procurement and logistics |
|  | - Well maintained and fully functional support tools |
| Process owner: | -Procurement Support |
| Process customer: | -All personnel within procurement and logistics. |
|  | -Production representatives with requirements of service from group procurement and logistics |
| Main recourses: | -CPO |
|  | -PS |
|  | - System support, e.g. ProDiver, contract databases, supplier databases |
| Purpose: | The purpose of the governance and administration process is to create follow up targets to keep all activities within the department in line with corporate goals. The purpose of the administration processes is to secure accurate decision support in all decision made within the department at all levels. |
| Back | rocesses |

Figure 5:5. Details of the governance and administration process
5. Results

BOLIDEN

The governance and administration process consists of seven sub-processes:

- Target setting and follow up
- Meetings
- Procurement policy
- Budget process
- Administration of databases and systems
- Procurement organization
- Individual development plan

These processes are not interdependent and do not constitute a sequential flow. Because of this these activities are presented in a table format, see figure 5:6.

## 1. Governance and administration



| Sub section | Description |
| :--- | :--- |
| 1.1 Target setting and follow up | This process is concerned with the systematic process of assigning targets <br> and follow up the progress towards these targets |
| 1.2 Meetings | This section describe which meetings are to be held, who is involved in <br> each meeting and what the purpose of each meeting is. |
| 1.3 Procurement Policy | This is the policy document for the group procurement logistics department |
| 1.4 Budget process | This process describes how the creation of the budget should take place <br> and who is responsible for what |
| $\underline{\text { and systems }} \boldsymbol{1 . 6}$ Procurement organization | This section describes how the maintenance and administration of the <br> different databases and support systems are to be conducted as well as <br> who is responsible for what. |
| 1.7 Individual development plan | This section describes the present procurement organization and provides <br> role descriptions for each role within the organization. | | This section describes how the individual development of employees |
| :--- |
| should be handled |

Figure 5:6. Sub-processes to the governance and administration process.

### 5.3.1.1. Target setting and follow up

The target setting and follow up process is a process that has eight sequential steps. The purpose of this process is to control and follow up activities within the department. Since this is a process with a clear sequential order it is presented in a flowchart, see figure 5:7.

### 1.1 Target setting and follow up



Figure 5:7. The target setting and follow up process
All activities in the flow-chart can be clicked to view a more detailed description of the activity. This description contains information about:

Input: Describes what material, information or documents that is to be used in this activity.

Output: Describes what is expected to be the result of this activity
Accountable: Describes who is responsible that this activity gets done and that it gets done correctly. This does not necessarily mean that this person is the one doing the activity. Clicking on a role accesses a role description for each role.

Roles involved: Describes which roles are involved in this activity. The one doing the activity should be listed under roles involved, but other roles that are only consulted for advice or informed or otherwise involved should also be listed under roles involved. Clicking on a role accesses a role description for each role.

System support and tools: Describes what supporting tools and documents that exist to support this activity. This could be templates, examples, descriptions, policies or
other tools and documents. The tools and templates are accessible by clicking on the name.

Comments: Describes the purpose of the process and can contain any other relevant comment in regard to the process.

An example of such an activity descriptions is shown in figure 5:8. This one is presented as an example of the design, to see all activity descriptions see appendix 1 .

| 1.1.4 Decide role specific target values for KPl:s |  |
| :---: | :---: |
| Input: | -Role specific KPI:s |
|  | - Savings potential chart |
| Output: | - Performance measures by role |
| Accountable: | - Procurement Support |
| Roles involved: | - Procurement Support |
|  | - Country Procurement Manager <br> -Lead-Buyer <br> - CPO (approving when necessary) |
| System support and tools: | - Performance measures by role |
| Comments: | The purpose of this activity is to assign a target value to each KPI for each role. The target values may vary from role to role but also from person to person. Depending on circumstances, such as savings potential, planed activities and many other factors. |
| Back |  |

Figure 5:8. An example of an activity description.
5. Results BOLIDEN

### 5.3.1.2. Meetings

The meetings section of the procurement manual does not consist of any subprocesses but describes all different kinds of meetings that are required to monitor and develop the procurement activities. All meetings are presented in figure 5:9.

| 1.2 Meetings |  |  | Process owner | Date | Version |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | TBD |  | 0.1 |
| Meetings and members | Purpose | Source | Invitation | Frequency |  |
| Procurement strategic team: <br> CPO + Country procurement managers + Selection of Commodity managers + Procurement support | - Develop stategy <br> - Progress against objectives <br> - Savings outlook <br> - Contracting status (planned and in progress) <br> - Resolve issues | - Physical team meeting <br> - Conference call | - Set schedule for full year at last meeting previous year <br> - Invitation/Reminder by Procurement support | -Monthly |  |
| Commodity manager team: <br> $\mathrm{CPO}+$ Cormmodity managers + Procurement support | - Progress against activity plan <br> - Savings outlook <br> - Contracting status (planned and in progress) <br> - Individual requirementsheeds <br> - Present findings from PST meeting | - Team telephone conference call | - Set schedule for full year at last meeting previous year <br> - Invitation/Reminder by Procurement support | -Bi-Monthly (Friday's at 10.00 CET) |  |
| Commodity manager (Individual) CPO + Commodity manager + Procurement support | - Progress against activity plan <br> - Savings outlook <br> - Contracting status (planned and in progress) <br> - Individual requirementsheeds | - In person physical meeting | - Set schedule for full year at last meeting previous year <br> - Invitation/Reminder by Procurement support | - Bi-Morthly |  |
| Group procurement and logistics: <br> $\mathrm{CPO}+$ Commodity managers + Country procurement managers <br> + Buyers + Procuement support team | - Progress updates <br> - Training <br> - Success story presentation / knowledge sharing <br> - guidelines/policies + procedures update | - Physical team meeting |  | - Annually |  |
| Procurement board: <br> CPO + <br> Procurement support + Procurement board | - Check that procurement activities are aligned with business needs <br> - Resolve compliance issues <br> - Agree anchoring of savings/budget | - Team physical meeting |  | -Bi-monthly (Mar 28th, May 30th, Jun 27th, Aug 28th, Oct 24th, Dec 12th) |  |
| Corporate management team: <br> CPO +managementteam | - Progress against objectives | - In person physical meeting |  | - Quarterly |  |
| Country procurement organisations: <br> Buyers + Country procurement managers | - Check status of procurement activities <br> - Resolve issues <br> - Present findings from PST meeting | - In person physical meeting | - County procurement manager set schedule | -Monthly |  |
| Up one level |  |  |  |  |  |

Figure 5:9. Meetings in the procurement department.

### 5.3.1.3. Procurement Policy

The procurement policy does not contain any sub-processes but are a document that governs all procurement activities. The new procurement policy are developed in cooperation with a commodity Manager and approved by the Procurement Strategy Team (PST) and the company CPO. The procurement policy can be found in appendix 2.

### 5.3.1.4. Budget process

The budget contains two processes one for the creation of the budget of the procurement department and one for the procurement departments' contribution to the production budget. These two processes are shown in figure 5:10.


Figure 5:10. The two sub-processes under the budget process

### 5.3.1.4.1. Department budget

The department budget process is the process of creating the budget for the group procurement and logistics department. The first step is to receive the instructions from the CFO. Then each CPM has to create their own budget according to the instructions and finally all budgets are put together to form the budget for the entire department. The department budget process is shown in figure 5:11.


Figure 5:11. The department budget process.

### 5.3.1.4.2. Production budget

The procurement department contributes to the production budget by putting prices on purchased commodities while production units only budget their volumes. The purpose of this budget process is to be able to differentiate between volumes and prices so that when a budget is broken it is possible to see where the difference comes from. The budget is created on a rather specific level so that it is possible to trace budget mismatches to specific commodities. An example from the budget template is presented in figure 5:12. The budget process is conducted according to the process map in figure 5:13.

| Commodity Family | Commodity Class | Commodity Group | Commodity Description | Budget level | Unit | Responsible Sweden | Volume Aitik | Price Aitik |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PRODUCTION RELATED SUPPLIES | Direct weat parts | Bricks and Crusibles with accessories | Bricks. Crucuibles for sample smelting | Group | Tons |  |  |  |
| PRODUCTION RELATED SUPPLIES | Direct wear parts | Cembolt | Cembolt | Group | Pieces |  |  |  |
| PRODUCTION RELATED SUPPLIES | Direct wear parts | Cement, clay, mortar, plaster | Cement, clay. mortar, plaster | Group | Tons |  |  |  |
| PRODUCTION RELATED SUPPLIES | Direct wear parts | Concrete | Concrete | Group | Tons |  |  |  |
| PRODUCTION RELATED SUPPLIES | Direct wear parts | Gravel, macadam, sand, soil | Gravel, macadam, sand, soil | Group | Tons |  |  |  |
| PRODUCTION RELATED SUPPLIES | Direct wear parts | Grinding media | Grinding media | Group | Tons |  |  |  |
| PRODUCTION RELATED SUPPLIES | Direct wear parts | Mould materials of plastic | Mould materials of plastic | Group | Euro |  |  | 1 |
| PRODUCTION RELATED SUPPLIES | Direct wear parts | Other | Other | Group | Euro |  |  | 1 |

Figure 5:12. A subsection of the budget template.


Figure 5:13. The production budget process.

### 5.3.1.5. Administration of procurement databases and systems

This process contains all responsibilities for the different support systems for the procurement department as well as routines for maintenance.

This process is divided into five subsections:

- Management and maintenance of Pro Diver
- Management and maintenance of supplier register
- Management and maintenance of contract database
- Update of the procurement manual

These subsections are presented in figure 5:14.


Figure 5:14. The subsections of the administration of procurement databases and systems.

The Pro Diver is an analyzing tool used to analyze the companies spend, and are used as a decision support tool and to monitor company spending behavior.

The supplier register and contract databases are databases containing suppliers and contracts.

The updating of the procurement manual is a responsibility for everyone in the procurement department since everyone owns a subsection of the manual and is responsible for upgrading it.
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### 5.3.1.6. Procurement organization

The procurement organization section describes the current procurement organization. Every role in the organizational chart are linked to a role description. The procurement organization section is shown in figure 5:15. This organizational chart clearly shows the two different types of organization that are present in Boliden today. The country procurement organizations for the different countries represents the old organization while the lead-buyer organization represents the new way. The basic idea is that resources should be moved from the country procurement organization to the lead-buyer organization as new commodities are launched.


Figure 5:15. The organizational chart as presented in the procurement manual.

### 5.3.1.7. Individual development

The individual development plan is a tool for making sure that the competence of the procurement personnel is adequate and constantly improving. The individual development is divided into three steps, the creation of an individual development plan (IDP), an optional half-year appraisal and a mandatory full year appraisal. The individual development section of the procurement manual is shown in figure 5:16.


Figure 5:16. The Individual development section of the procurement manual.

### 5.3.2. Strategic sourcing

The purpose of the strategic sourcing process is to create commodity or project specific strategies, which will serve as a guideline for all purchasing within that commodity or project. The main goal of the strategy should be cost savings in all aspects e.g. price, process, inventory or quality costs. The strategic sourcing process is usually initiated when a new Lead-Buyer is appointed and a new commodity is rolled out. Then the strategy is reviewed bi-annually. The main information about the strategic sourcing process is presented in figure 5:17.

|  |  | Process owner | Date | Version |
| :---: | :---: | :---: | :---: | :---: |
|  |  | тво | x.cxax | 0.1 |
| 2. Strategic sourcing |  |  |  |  |
| Input: | - Commodity structure |  |  |  |
|  | -Savings targets per commodity group |  |  |  |
| Output: | -Commodity strategy |  |  |  |
| Process owner: | - Procurement Support |  |  |  |
| Process customer: | - Commodity manager |  |  |  |
|  | - Country Procurement Manager |  |  |  |
| Main recourses: | -Procurement Support |  |  |  |
|  | -Commodity manager |  |  |  |
| Purpose: | The purpose of the strategic sourcing process is to create commodity or project specific strategies, that will serve as a guideline for all purchasing within that commodity. The main goal of the strategy should be cost savings in all aspects e.g. price, process, inventory or quality costs. |  |  |  |
| Up one level | Sub processes |  |  | E |

Figure 5:17. The main information about the strategic sourcing process.

The strategic sourcing process contains three sub processes

- Develop commodity strategy
- Review commodity strategy
- Create project strategy

These processes are presented in figure 5:18.

|  |  | Process ouner | Date | Version |
| :---: | :---: | :---: | :---: | :---: |
|  |  | т80 | x-x.x.x | 0.1 |
| 2. Strategic Sourcing |  |  |  |  |
| 2.1 Develop commodity strategy |  |  |  |  |
| 2.3 Develop project strategy |  |  |  |  |
| Sub section |  |  |  |  |
| 2.1 Develop commodity strategy | This process describes the creation of the first process to be undertaken by a | strategy from no manager | This is |  |
| 2.2 Review commodity strategy | This process describes the annual revie | lodity strategy |  |  |
| 2.3 Develop proiect strategy | This process describes the creation of commodity strategies will ensure strate | cific strategy that in investment pro | sed on pre |  |

Figure 5:18. The sub-processes of the strategic sourcing process
5. Results

### 5.3.2.1. Develop commodity strategy

The purpose of the develop commodity strategy process is to develop a strategy for how commodities belonging to a certain commodity class should be sourced. This process is an advanced sourcing process that starts with the creation of a commodity team. The commodity team is a cross functional team that contains different types of competences to ensure that all aspects are taken into consideration. When the commodity team is in place, the analyzing follows. In this process three main areas are analyzed, the product, the spend and the suppliers and supply market. When all information is gathered it is used to build a total cost model, so that the origin of costs can be determined. Once all this has been done a commodity strategy can be developed. The commodity strategy has to be approved by the CPO before it is launched. The develop commodity strategy process is shown in figure 5:19.


Figure 5:19. The develop commodity strategy process.

### 5.3.2.2. Review commodity strategy

When a commodity strategy has been developed it must be reviewed every other year. This is done in the review commodity strategy process, shown in figure 5:20.


Figure 5:20. Shows the review commodity strategy process.

### 5.3.2.3. Strategic sourcing for investment projects

There are some procurement activities that do not sort under a certain lead-buyer or commodity, the investment projects. In the investment projects procurement are involved to a large extent and therefore has a special process been developed to ensure strategic purchasing in the investment projects as well, this process is shown in figure 5:21. The basic idea of this process is to use already developed commodity strategies for the commodities involved in the project. It is also important that the sourcing for the investment projects is done in cooperation between the commodity managers and the project coordinator.


Figure 5:21. The strategic sourcing process for investment projects.

### 5.3.3. Contracting

The contracting process describes the process of actually contracting a supplier; the overall description of the contracting process is shown in figure 5:22.


Figure 5:22. The description of the contracting process

The contracting process consists of five sequential steps, which are shown in figure 5:23.


Figure 5:23. The five main processes in the contracting process.
The five processes within contracting are presented in chapter 5.3.3.1-5.3.3.5.

### 5.3.3.1. Identify needs

This is the starting point for all contracting and this means that the internal customer specifies what they need, and if no contract is present for the scope of supply, the contracting process is initiated. If there is a present contract for the scope of supply, the operative procurement process is initiated instead of the contracting process. The identify needs process is shown in figure 5:24.


Figure 5:24 The identify needs process.

### 5.3.3.2. Identify suppliers and request proposal

In this process the most suitable suppliers are selected and an RFP is sent to these suppliers. The process of identifying suppliers and send RFP is shown in figure 5:25. In this stage a rather open mind is kept to make sure that no potential suppliers are missed in the process.


Figure 5:25. The process of identifying suppliers and request proposals.

### 5.3.3.3. Evaluate proposals

This process concerns the evaluation of incoming proposals and how they are ranked. The evaluation of proposals process is described in figure 5:26. The first and most important part of this process is to make sure that there are at least on proposal that meets the minimum requirements. If that is not the case either the requirements or the proposals has to be changed. This is done by reworking the requirements or simply send the RFP to more suppliers.


Figure 5:26 The process for evaluation of proposals

### 5.3.3.4. Contract negotiations

This process describes the negotiations from preparations to the final signing of the contract. The contract negotiations process is shown in figure 5:27. The contract negotiations involve some preparations before the actual negotiations. In this stage it is important to involve technical experts from the production line, if it is necessary those experts are also present at the negotiation. It is also important to set targets for the negotiation, so that one will know when the targets are reached and an agreement is possible.


Figure 5:27. The negotiation process.

### 5.3.3.5. Implement contract

This process describes how to implement a new contract and register it properly. The implement contract process is shown in figure 5:28. The implement contract process has to ensure contract compliance and making sure that the contract is filed and registered correctly. The first is the responsibility of the commercial handler and the second is a task for the administrators.


Figure 5:28. The process of contract implementation.

### 5.3.4. Operative procurement

The operative procurement process is the process of actually ordering and receiving goods or services. The basic facts about the operative procurement process is presented in figure 5:29


Figure 5:29. The basic facts about the operative procurement process.

The operative procurement process is a rather complex process with many alternative paths depending on different factors. The entire operative procurement process is shown in figure 5:30. For instance if there are significant risk of production loss, injuries or environmental damage the process is shortened significantly.


Figure 5:30. The operative procurement process.

### 5.3.5. Supplier management

The supplier management process describes the process of handling supplier relations and how to improve supplier performance. The overall information about the supplier management process is described in figure 5:31. The reason for developing a supplier management process is to make sure that Boliden can have more involved relations with the most strategic suppliers.


Figure 5:31. Basic information about the supplier management process.

The supplier management process is divided into basic and advanced supplier management. The advanced supplier management is only used with the most important suppliers, since the process involves a lot of work, including meetings with suppliers and evaluation of certain KPI:s. The Supplier management process is shown in figure 5:32. Which suppliers that are to be evaluated trough the advanced process is decided by the responsible commodity manager. The criteria's for this involves spend, strategic importance Boliden's share of the suppliers spend and other factors.


Figure 5:32. The supplier management process.

## 6. Analysis

In this chapter an analysis of the situation in Boliden will be conducted in comparison with the theoretical models presented in chapter 3. To make this analysis easier to navigate in, the basic headlines in this chapter are the same as in chapter 3.

### 6.1. The strategic role of purchasing

Boliden is currently restructuring the entire procurement department in order to undertake a more strategic role in the company. This confirms what van Weele (2005) and other authors state about the development of a more strategic role for purchasing. When analyzing the areas were van Weele states that purchasing can contribute strategically to the competitive position of the company, a few stands out in the case of Boliden.

The most obvious one is the fostering of synergies. Since Boliden had a country based procurement organization before restructuring it is obvious that there are greater possibility to foster synergies when a commodity manager takes the overall responsibility for a commodity worldwide. When a commodity manager controls all purchasing of a commodity in the entire company, he/she has larger volume to negotiate with suppliers over and can therefore get a better price.

Another important area were procurement can contribute is in the area of product standardization. When a commodity manager controls all purchasing of a certain commodity it is a lot more likely that the same standards are used at the different sites than when independent country procurement organizations made the purchase in each country.

One area that is not applicable in Boliden is the area of product innovation. Since Boliden produces metals and very few purchased items are added to the final product it is highly unlikely that procurement can contribute to product design and innovation.

### 6.2. Purchasing organization

Boliden has had a country based organizational structure, but are now changing to a commodity-based organization. The purpose of this is to make sure that the entire purchasing strength of the company can be used when sourcing. Making sure that a commodity manager has the overall view of all purchasing within his/her commodity does this.

Van Weele (2005) presents three different levels of responsibility; Strategic, tactical and operational. In the case of Boliden one could say that in the new organization the commodity managers have obligations on all these levels whereas in the old organization the buyers were mainly involved in operational tasks.

The basic idea of the restructuring seems to be to lift the responsibility of the commodity managers so that they will focus mainly on strategically and tactical tasks while the production line will take over more of the operational tasks. In my opinion

## 6. Analysis

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this would secure a more efficient sourcing process. However to make sure that the operational tasks are conducted correctly it is imperative that good guidelines and routines for this can be presented.

It is also clear that Boliden has found the positive effects of a centralized procurement organization outweigh the negative sides. However are there certain commodities were a local representative is needed to be able to do purchasing, due to language difficulties especially in Finland.

### 6.3. The procurement process

The basic steps of van Weeles (2005) process fits rather well onto the procurement activities in Boliden. However this model is restricted to be found in the sub processes contracting and operative procurement, so basically van Weeles (2005), model is to basic to be fully applicable in the case of Boliden.

### 6.3.1. The governance process

In the governance process Boliden uses KPI:s to measure results just as LaageHellman (1991) suggests. There are presently focus on cost reductions in Boliden so they only measure what Laage-Hellman (1991) calls savings related KPI:s. Some other KPI:s have been decided in the Strategic team meetings but due to measuring difficulties they have not yet bin implemented.

Another interesting observation is that only the commodity managers are measured, none of the remaining country procurement organizations are measured against KPI:s, not even the country procurement managers. This means that a significant portion of the total spend is not followed up.

### 6.3.2. The strategic sourcing process

In Boliden the strategic sourcing process is one of the major changes in the new way of working. When a new commodity manager is appointed his/her first task is to develop a commodity strategy. The strategic work in Boliden lies in line with most theoretical models. One of the most important tools used in Bolidens strategic work is Kraljics matrix. This matrix is used to categorize both products and supplier, and this categorization is then used when the strategy is developed. Basically the strategies in Boliden are based on three analyses; Spend analysis, product characteristics analysis and supplier and supply market analysis.

### 6.3.3. The contracting process

In the contracting process most of the work within Boliden is in line with present research. It seems however as if this area of procurement is rather similar in most companies and research cases. One observation that has been made is that Boliden tend to favor the use of RFP-purchasing and framework agreements. Compared with the model presented by Dobler and Burt (1996), the RFP-process has a much more prominent place in Boliden than in their model. It seems that the model presented by Dobler and Burt (1996) is mainly applicable in the case of single purchases, which in Boliden is a very limited part of the total spend.

## 6. Analysis

The description of what should be included in a specification according to Dobler and Burt (1996) on the other hand matches the requirements in Boliden exactly. In Boliden the specification is constructed in the production line and should be the bases for a new contract or an order. If a specification contains all variables presented by Dobler and Burt (1996) it is considered as a good specification in Boliden.

Negotiations are more art than science (Cronin-Harris, 2004), so when it comes to actual negotiations it is up to each buyer to determine how they want to act. Because of this it is hard to analyze the negotiations and compare them with theoretical models. However the documents I have seen concerning negotiation and the information that I have gotten from interviews point to negotiation process close to the one presented by Cronin-Harris (2004).

### 6.3.4. The supplier management process

Supplier management is important in Boliden and a process for this has been developed. One thing sets Boliden aside from most of the models found in theory. That is the fact that they are a mining company, which means that very little of the total spend represents commodities that shall be part of the final product. This is important since a lot of the theoretical models presents a strive towards a situation were the supplier are part of the design process of the companies final product. This is not the case in Boliden. So supplier management is a process of building close relations in order to get better service or price rather than a strive towards joint design operations. Compared to van Weeles (2004) model presented in chapter3.3.4.1 Boliden has suppliers and preferred suppliers and a few supply partners but no design partners.

### 6.4. Purchasing policy

The purchasing policy in Boliden were out of date and needed to be refreshed. Boliden is a rather large international group and this means that a lot of different policies apply to most of the personnel. In the present situation there are no place were all these policies can be found. When the new policy were developed it was important to make sure that it didn't contradict any other company policies. So to do this I search for all other policies and read them through. Since policies can be changed a table was added to the policy to describe which version of other policies that had been taken into consideration during creation. This makes it easier for a reader that finds a contradiction to know which policy is out of date. The entire new policy is presented in appendix 2.

## 7. Conclusions

The focus of this thesis has been the creation of a complete procurement manual for the entire Boliden group so the room for concrete conclusions is rather limited, but I will present the conclusions I have reached in this chapter.

Boliden is a typical international corporation with the classic balance between centralized versus decentralized operations. In the case of procurement it has become obvious that the decentralized solution does not work. The company can reach substantial synergies if a more centralized and more strategic organization is implemented. The general idea is that the Lead buyers should create major contracts for the entire group centrally and then should the operative personnel in the production line do call-offs against these agreements. I believe that this gives a good mix of centralized and decentralized purchasing. The operative call-offs are done close to the production line and the general agreements are done with a broad perspective.

One other conclusion that can be drawn is that changes in a large corporation involves a large portion of politics, and everyone has a different view on what needs to be done and how it is best done. However this creates an interesting atmosphere and you get an understanding that everything is not black or white and there are many ways to view a problem.

It has also become clear to me that structures and order in everything from documents to procedures and routines makes it easier to understand and control, but this has to be balanced against the creativity and skills of the people in the organization. The more structure and controlled procedures, the lesser is the room for creativity and free thinking. The best situation would be a good structure that leaves room for creativity and when someone comes up with a new and creative way to do something, the structure is changed so that other people can benefit from it.

That is the reason why I have created this manual so that it leaves room for creativity and more importantly it will be a dynamic document. To ensure commitment from the organization, the ownership of the manual will be divided throughout the organization. This will also make it more likely that the document is kept up to date.

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## Appendix 1

This appendix contains the entire procurement manual including all process descriptions and activity descriptions. However no tools and templates are included due to confidentiality. The procurement manual is created to be presented in digital form at the company intranet so it is not optimized to be read in this form. In the digital format clicking on links does all navigation in the manual.

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

## Overall sourcing and procurement processes

## 1.Governance \& Administration

How to provide, targets and ensure global control of the processes and creating and maintaining system support tools and documents
2.Strategic sourcing

3.Contracting

4.Operative procurement


## 5.Supplier management

How to continuously and systematically manage, evaluate and develop business relationship with suppliers

## 1.Governance and administration

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | -Strategic targets for the group procurement and logistics |
| :---: | :---: |
| Output: | -Control over the activities and performance of the group procurement and logistics |
|  | -Well maintained and fully functional support tools |
| Process owner: | - Procurement Support |
| Process customer: | -All personnel within procurement and logistics. |
|  | -Production representatives with requirements of service from group procurement and logistics |
| Main recourses: | -CPO <br> - Procurement Support <br> -System support, e.g. ProDiver, contract databases, supplier databases |
| Purpose: | The purpose of the governance and administration process is to create and follow up targets to keep all activities within the department in line with corporate goals. The purpose of the administration processes is to secure accurate decision support in all decision made within the department at all levels. |

Sub processes

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

## 1. Governance and administration



| Sub section |  |
| :--- | :--- |
| 1.1 Target setting and follow up | This process is concerned with the systematic process of assigning targets <br> and follow up the progress towards these targets |
| 1.2 Meetings | This section describe which meetings are to be held, who is involved in <br> each meeting and what the purpose of each meeting is. |
| 1.3 Procurement Policy | This is the policy document for the group procurement logistics department |
| 1.4 Budget processes | This process describes how the creation of the budget should take place <br> and who is responsible for what, both in the department budget and the <br> production budget. |
| 1.5 Administration of procurement databases <br> and systems | This section describes how the maintenance and administration of the <br> different databases and support systems are to be conducted as well as <br> who is responsible for what. |
| 1.6 Procurement organization | This section describes the present procurement organization and provides <br> role descriptions for each role within the organization. |
| $1.7 \underline{\text { Individual development }}$ | This section describes how the individual development of employees <br> should be handled |

Up one level

### 1.1 Target setting and follow up

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |



| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 1.1.1 Decide overall Targets for Group Procurement and Logistics

| Input: | •Overall Targets for Boliden |
| :--- | :--- |
| Output: | •Procurement savings target |
|  | •Procurement objectives |

### 1.1.2 Decide overall KPI:s for procurement activities

| Input: | $\bullet$ Procurement savings target <br>  <br> •Procurement objectives |
| :--- | :--- |
| Output: | $\bullet$ Overall Group Procurement \& Logistics KPI:s |
| Roles involved: | $\bullet$ CPO |
| System support and tools: | •PST |
| Commentable: | The purpose of this activity is to decide what KPI:s are to be measured in <br> order to ensure top performance in each activity. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 1.1.3 Decide role specific KPI:s for procurement activities

| Input: | •Overall Group Procurement \& Logistics KPI:s |
| :--- | :--- |
| Output: | •Role specific KPI:s |
| Accountable: | •Procurement Support |
| Roles involved: | •PST |
| System support and tools: | •CPO-Dashboard |
| Comments: | The purpose of this activity is to decide what KPI:s are to be measured for <br> each role in the organisation to ensure top performance. |

### 1.1.4 Decide role specific target values for KPI:s

| Input: | •Role specific KPI:s <br>  <br> •Savings potential chart |
| :--- | :--- |
| Output: | •Performance measures by role |
| Accountable: | •Procurement Support |
| Roles involved: | •Procurement Support |
|  | •Country Procurement Manager |
|  | •Commodity manager (approving when necessary) |
| System support and tools: | •Performance measures by role |
| Comments: | The purpose of this activity is to assign a target value to each KPI for each <br> role. The target values may vary from role to role but also from person to <br> person. Depending on circumstances, such as savings potential, planed <br> activities and many other factors. |

## Up one level



### 1.1.5 Develop annual activity plan

| Input: | •Strategy document |
| :--- | :--- |
| Output: | •Annual activity plan |
| Accountable: | •Commodity manager |
| Roles involved: | •Commodity manager |
|  | - Procurement Support |
| System support and tools: | •Commodity team |
| - New annual activity plan or |  |
|  | -Your annual activity plan that you created in an other process |
|  | - Example of how the plan can be used |



### 1.1.6 Create monthly reports

| Input: | •Working results from current period |
| :--- | :--- |
| Output: | •Monthly reports |
| Accountable: | •Country Procurement Manager (Accountable for his/her report) |
|  | •Commodity manager (Accountable for his/her report) |



| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 1.1.7 Summarize Monthly reports into overall monthly report

| Input: | •Monthly reports |
| :--- | :--- |
| Output: | •Overall monthly report |
| Accountable: | •Procurement Support |
| Roles involved: | •Procurement Support |
| System support and tools: | •Monthly report savings summary template |
| Comments: | The purpose of this activity are to summarize all progress reports from the <br> Commodity managers and prepare theme for presentation for the PST. It is <br> important that the reports are summarized in an orderly fashion so that the <br> progress are clearly visible and easy to compare both between commodities <br> and time periods. |

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### 1.1.8 Present monthly report at PST meeting

| Input: | •Overall monthly report |
| :--- | :--- |
| Output: | •Procurement Support |
| Accountable: | •Procurement Support |
| Roles involved: | •Overall monthly report presentation template |
| System support and tools: | The purpose of this activity is to communicate the progress within the <br> different commodities to the PST and the CPO. The presentations should be <br> well prepared and clearly visible. It should provide a solid foundation for <br> discussion based on facts rather than opinion, and the presentation should <br> reflect the present situation as accurately and objectively as possible. |
| Comments: |  |

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| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 1.1.9 Communicate results to your stakeholders

| Input: | •Overall monthly report |
| :--- | :--- |
| Output: |  |
| Accountable: | $\bullet$ •CPO |
|  | •Country Procurement Manager |
| Roles involved: | •Procurement Support |
|  | •CPO |
| •Country Procurement Manager |  |
| Comstem support and tools: | The purpose of this activity is to communicate the progress within the <br> different commodities to all stakeholders concerned. The stakeholders may <br> vary between roles but CPO should report to Procurement board, Commodity <br> managers to the commodity team and CPM to the country procurement <br> organization. Besides this the results can be presented to personnel within <br> the company who might have an interest in the progress, for instance site <br> managers. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 1.2 Meetings

| Meetings and members | Purpose | Source | Invitation | Frequency |
| :---: | :---: | :---: | :---: | :---: |
| Procurement strategic team: <br> CPO + Country procurement managers + Selection of Commodity managers + Procurement support | - Develop strategy <br> - Progress against objectives <br> - Savings outlook <br> - Contracting status (planned and in progress) <br> - Resolve issues | - Physical team meeting <br> - Conference call | - Set schedule for full year at last meeting previous year <br> - Invitation/Reminder by Procurement support | - Monthly |
| Commodity manager team: <br> CPO + Commodity managers + Procurement support | - Progress against activity plan <br> - Savings outlook <br> - Contracting status (planned and in progress) <br> - Individual requirements/needs <br> - Present findings from PST meeting | - Team telephone conference call | - Set schedule for full year at last meeting previous year <br> - Invitation/Reminder by Procurement support | - Bi-Monthly (Friday's at 10.00 CET) |
| Commodity manager (Individual) CPO + Commodity manager + Procurement support | - Progress against activity plan <br> - Savings outlook <br> - Contracting status (planned and in progress) <br> - Individual requirements/needs | - In person physical meeting | - Set schedule for full year at last meeting previous year <br> - Invitation/Reminder by Procurement support | - Bi-Monthly |
| Group procurement and logistics: <br> CPO + Commodity managers + Country procurement managers <br> + Buyers + Procurement support team | - Progress updates <br> - Training <br> - Success story presentation / knowledge sharing <br> - guidelines/policies + procedures update | - Physical team meeting |  | - Annually |
| Procurement board: CPO + <br> Procurement support + Procurement board | - Check that procurement activities are aligned with business needs <br> - Resolve compliance issues <br> - Agree anchoring of savings/budget | - Team physical meeting |  | - Bi-monthly (Mar 28th, May 30th, Jun 27th, Aug 28th, Oct 24th, Dec 12th) |
| Corporate management team: <br> CPO + management team | - Progress against objectives | - In person physical meeting |  | - Quarterly |
| Country procurement organisations: <br> Buyers + Country procurement managers | - Check status of procurement activities <br> - Resolve issues <br> - Present findings from PST meeting | - In person physical meeting | - County procurement manager set schedule | - Monthly |

Up one level

### 1.4 Budget processes

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

Group procurement and logistics department budget
Production budget

| Sub section | Description |
| :--- | :--- |
| 1.4.1 Group procurement and logistics <br> department budget | This process describes the creation of the procurement and logistics <br> departments budget |
| $1.4 .2 \underline{\text { Production budget }}$ | This process describes the procurement departments contribution to the <br> production budget. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 1.4.1 Group procurement and logistics department budget



Up one level

### 1.4.1.1 Create and send out budget instruction

| Input: | $\bullet$ Budget requirements |
| :--- | :--- |
| Output: | $\bullet$ Budget instruction |
| Accountable: | $\bullet$ CFO |
| Roles involved: | $\bullet$ CFO |
| System support and tools: | •CFO |
|  | •Treasury |
| Comments: | The purpose of this process is to create budget instructions and send them to <br> those responsible for creating budgets. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 1.4.1.2 Break down budget instructions and send them to CPM:s

| Input: | $\bullet$ Budget instruction |
| :--- | :--- |
| Output: | •Country specific budget instructions |
|  | $\cdot$ Country specific budget templates |
| Accountable: | •CPO |
| Roles involved: | $\cdot$ CPO |
|  | $\cdot$ Procurement Support |
| System support and tools: |  |


| Comments: | The purpose of this process is to break down the overall budget instructions <br> to instructions for the different countries. This instructions are then to be sent <br> to the responsible CPM:s so that they can create their budget. |
| :--- | :--- | to the responsible CPM:s so that they can create their budget.

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| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

1.4.1.3A Create country specific budget according to instruction

| Input: | •Country specific budget instruction |
| :--- | :--- |
| Output: | $\cdot$ Country specific budget |
| Accountable: | $\cdot$ CPM |
| Roles involved: | $\cdot$ CPM |
|  | $\cdot$ Buyer |
| System support and tools: |  |

Comments: The purpose of this process is to create a budget for each country.
$\qquad$

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 1.4.1.3B Create budget for international part of the department

| Input: | -Prerequisites for the international part of the procurement and Logistics <br> department |
| :--- | :--- |
| Output: | $\bullet$ Budget for international part of the department |
| Accountable: | $\cdot$ CPO |
| Roles involved: | $\bullet$ CPO |
|  | $\bullet$ Procurement Support |

System support and tools:

Comments:
The purpose of this process is to create a budget for the international part of the procurement and logistics department. This includes, logistics, administrators and Commodity Managers.

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### 1.4.1.4 Approve country specific budgets

| Input: | $\cdot$ Country specific budget |
| :--- | :--- |
| Output: | $\cdot$ Country specific budgets approved |
| Accountable: | $\cdot$ CPO |
| Roles involved: | $\cdot$ CPO |
|  | $\cdot$ Procurement Support |
| System support and tools: |  |

Comments: The purpose of this process is to approve all country specific budgets so that the entire budget can be put together.

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

1.4.1.5 Aggregate country budgets to total department budget

| Input: | •Country specific budget |
| :--- | :--- |
| Output: | $\cdot$ Total department budget |
| Accountable: | •Procurement Support |
| Roles involved: | $\cdot$ Procurement support |
|  | $\cdot$ CPO |
| System support and tools: |  |


| Comments: | The purpose of this process is to put together all country specific budget with <br> the budget for the international budget and create a budget for the entire <br> group procurement and logistics department. |
| :--- | :--- |

BRLIDEN

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

1.4.1.6 Submit total department budget for approval

| Input: | $\bullet$ Total department budget |
| :--- | :--- |
| Output: | •Total department budget sent for approval |
| Accountable: | $\cdot$ CPO |
| Roles involved: | $\bullet$ CPO |
|  | $\bullet$ Procurement support |
| System support and tools: |  |

Comments: The purpose of this process is to submit the total department budget for approval.

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 1.4.2 Production budget process



### 1.4.2.1 Anchor overall budget process with CFO

| Input: |  |
| :--- | :--- |
| Output: | •Overall budget process approved by CFO |
| Accountable: | •Procurement Support |
| Roles involved: | •Procurement Support |
|  | •CFO |
| System support and tools: |  |


| Comments: | The purpose of this process is to ensure the that the overall method of <br> creating the budget is OK. For Instance that production budget volumes and <br> that procurement budget prices. |
| :--- | :--- | that procurement budget prices.


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 1.4.2.2 Decide upon level in commodity structure to budget

Input:

| Output: | •Decided level to budget |
| :--- | :--- |
| Accountable: | •Procurement Support |
| Roles involved: | •Procurement Strategic Team |
| System support and tools: | •Budget per commodity template |
| Comments: | The purpose of this process is to determine on what level in the commodity <br> structure a commodity should be budgeted. Some commodities should be <br> budgeted in groups other in families or classes. After this process is finished <br> it should be clear on what level all commodities should be budgeted. |



### 1.4.2.3 Decide upon units per commodity group

| Input: | •Information about what level commodities are to be budgeted on |
| :--- | :--- |
| Output: | •Budget unit decided for all commodities |
| Accountable: | •Procurement Support |
| Roles involved: | •Procurement Strategic Team |
| System support and tools: | •Budget per commodity template |
| Comments: | The purpose of this process is to determine in what unit every commodity are <br> to be budgeted. Some commodities is appropriate to be budgeted in meters <br> others in tons or euro or something else. |

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| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 1.4.2.4 Decide who is to be responsible to price different commodities

| Input: |  |
| :--- | :--- |
| Output: | •Responsible person for pricing each commodity |
| Accountable: | •Procurement Support |
| Roles involved: | •Country Procurement Manager |
| System support and tools: | •吕 |
| Commemenget per commodity template manager |  |



| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 1.4.2.5 Summarize responsibilities and units from different countries

| Input: | •Responsible person for pricing each commodity <br>  <br> •Budget unit per commodity |
| :--- | :--- |
| Output: | •Summarized list of budget responsibilities and units |
| Accountable: | •Procurement Support |
| Roles involved: | •Procurement Support |
| System support and tools: | •CPOdget per commodity template |
| Comments: | The purpose of this process is to summarize all information about budget <br> units and responsible persons for prizing from all countries and create a list <br> of this information. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 1.4.2.6 Anchor detailed budget process and instructions with CFO

| Input: | •Suggested detailed budget process |
| :--- | :--- |
| Output: | •Detailed budget process and instructions approved |
| Accountable: | •Procurement Support |
| Roles involved: | •CProcurement Support |
| System support and tools: | The purpose of this process is to make sure that the method of budgeting will <br> work in the overall perspective of the company and get clearance to use this <br> budget method and these budget instructions |
| Comments: |  |



### 1.4.2.7 Decide upon detailed budget instructions

| Input: | •Prerequisites for budget |
| :--- | :--- |
| Output: | $\bullet$ Detailed budget instructions |
| Accountable: | $\bullet$ CFO |
| Roles involved: | •CFO |
| System support and tools: | The purpose of this process is to create budget instructions for the entire <br> corporation |
| Comments: |  |

### 1.4.2.8 Budget volumes according to instruction

| Input: | $\bullet$ Budget instruction |
| :--- | :--- |
| Output: | $\bullet$ Budgeted Volumes |
| Accountable: | •Site controller |
| Roles involved: | •Site controller |
| System support and tools: | The purpose of this process is to estimate the volumes of different <br> commodities that is expected to be used during the upcoming year. |
| Comments: |  |

### 1.4.2.9 Validate volumes

| Input: | -Budgeted volumes |
| :---: | :---: |
|  | -Old budgets |
|  | -Experience |
| Output: | - Validated Volumes |
| Accountable: | -Procurement Support |
| Roles involved: | -PST |
| System support and tools: |  |
| Comments: | The purpose of this process is to make sure that the budgeted volumes seem reasonable. |

## Up one level

### 1.4.2.10 Budget prices according to instruction

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | •Price information from different sources such as suppliers, price tables, <br> inflation, experience etc. |
| :--- | :--- |
| Output: | •Finished Budget |
| Accountable: | •Procurement Support |
| Roles involved: | •Country Procurement Manager <br> •Commodity manager |
| System support and tools: | The purpose of this process is to put prices on the commodities that <br> production representatives have predicted that they will need. The volumes <br> and the prices of each commodity will then constitute the budget. |
| Comments: |  |



### 1.4.2.11 Resend prices and volumes to sites

| Input: | •Prices |
| :--- | :--- |
|  | $\bullet$ Volumes |
| Output: | $\bullet$ Prognosis of spend for upcoming year at sites |
| Accountable: | •Procurement Support |
| Roles involved: |  |
| System support and tools: |  |
| Comments: | The purpose of this process is to Support <br> sites so that they can finish their budgets. |

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### 1.4.2.12 Follow up on budget

| Input: | •Budget <br> •Real values from operations |
| :--- | :--- |
| Output: | •Information to improve the budget process |
| Accountable: | •Procurement Support |
| Roles involved: | •Procurement Strategic Team |
| System support and tools: | The purpose of this process is to evaluate how well the budget coincides with <br> the real figures. If there are deviations from the budget it should be possible <br> to trace the difference to price or volume, and based on this improve the <br> budget process to the next year. |
| Comments: | l |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 1.5 Administration of procurement databases and systems



| Sub section |  |
| :--- | :--- |
| 1.5.1 Management and maintenance of Pro Diver | This process is concerned with maintaining and upgrading Pro <br> Diver |
| 1.5.2 Management and maintenance of Supplier <br> register | This process is concerned with maintaining and upgrading all <br> supplier registers |
| 1.5.3 Management and maintenance of Contract <br> database | This process is concerned with maintaining and upgrading all <br> contract databases |
| 1.5.4 Management and maintenance of other <br> procurement systems | This process is concerned with maintaining and upgrading other <br> relevant procurement systems. For instance Calle, Maximo, <br> SAP, Hummingbird |
| $1.5 .5 \underline{\text { Update of procurement manual }}$ | This process is concerned with updating the parts of the <br> procurement manual that you are responsible for. |

### 1.5.1 Management and maintenance of Pro Diver

| Input: |  |
| :--- | :--- |
| Output: | •Smooth function and correct information from Pro Diver |
| Accountable: | •Procurement Support |
| Roles involved: | •System owner Pro Diver |
| System support and tools: |  •畐 <br>  Thescription of Pro Diver <br> good condition and up to date. <br> Comments:  |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 1.5.2 Management and maintenance of Supplier Register

| Input: |  |
| :---: | :---: |
| Output: | -Updated and relevant supplier register |
| Accountable: | - Procurement Support |
| Roles involved: | -Administrator of common supplier register |
|  | -Administrator of local supplier register |
| System support and tools: | - Description of common supplier register |
|  | - Instruction Hummingbird |
|  | -Common supplier register |
| Comments: | The purpose of this process is to make sure that the common supplier register is always in good condition and up to date. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 1.5.3 Management and maintenance of contract database

| Input: |  |
| :---: | :---: |
| Output: | -Updated and relevant contract database |
| Accountable: | - Procurement Support |
| Roles involved: | -Administrator of common contract database |
| System support and tools: | - Description of contract database |
|  | - Instruction Hummingbird |
|  | -Contract database |
| Comments: | The purpose of this process is to make sure that the all contract databases are always in good condition and up to date. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 1.5.4 Management and maintenance of other procurement systems

| Input: | •Updated and correct information in all procurement systems |
| :--- | :--- |
| Output: | •CPO |
| Accountable: | •Administrators |
| Roles involved: | The purpose of this process is to make sure that all operative procurement <br> systems are always in good condition and up to date. These systems involve: <br> -MAXIMO <br> -Kalle <br> -SAP |
| Comments: |  |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 1.5.5 Update of the procurement manual and approve change

| Input: | •Procurement manual <br>  <br> •New inputs and suggestions |
| :--- | :--- |
| Output: | •Updated and more efficient procurement manual |
| Accountable: | •Process owner |
| Roles involved: | •Process owner |
| System support and tools: | •Procurement manual |
| Comments: | The purpose of this process is to update the sections of the procurement <br> manual you are responsible for. This should be done whenever the manual <br> does not coincides with the actual processes. When a change to the manual <br> has been done it has to be approved by the person owning the process <br> which your process or activity belongs to. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 1.6 Procurement organization



Click on a role to get a role description!

### 1.7 Individual Development



Up one level

### 1.7.1 Create Individual development plan

| Input: | -Performance measures by role |
| :---: | :---: |
| Output: | -Individual development plan |
| Accountable: | -Chief Procurement Officer |
|  | -Country Procurement Manager <br> -Logistics Manager |
|  | Each manager is responsible for the IDP of his/her employees |
| Roles involved: | -All personnel in Group Procurement \& Logistics |
| System support and tools: | -IDP January template \& example |
|  | - IDP Process description |
| Comments: | The purpose of this process is to create an individual development plan for each employee in group procurement \& Logistics. This plan is to be a base for the evaluation and personal development of each employee. |

### 1.7.2 Half year appraisal

| Input: | -Performance measures by role <br> -Individual Development Plan |
| :---: | :---: |
| Output: | -Half year appraisal |
|  | - Possible changes to the IDP |
| Accountable: | -Chief Procurement Officer |
|  | - Country Procurement Manager <br> -Logistics Manager |
|  | Each manager is responsible for the IDP of his/her employees |
| Roles involved: | -All personnel in Group Procurement \& Logistics |
| System support and tools: | -IDP January template \& example |
|  | - IDP Process description |
| Comments: | The purpose of this process is to follow up the plan verbally and make alterations to the plan if necessary. It is up to each Manager to decide if half year appraisals are necessary or if full year appraisal is sufficient. |

### 1.7.3 Full year appraisal

| Input: | - Performance measures by role <br> -Individual Development Plan |
| :---: | :---: |
| Output: | -Half year appraisal |
|  | - Possible changes to the IDP |
| Accountable: | -Chief Procurement Officer |
|  | -Country Procurement Manager <br> -Logistics Manager |
|  | Each manager is responsible for the IDP of his/her employees |
| Roles involved: | -All personnel in Group Procurement \& Logistics |
| System support and tools: | -IDP January template \& example |
|  | -IDP December template and example |
|  | - IDP Process description |
| Comments: | The purpose of this process is to review the past years performance and goals on an individual basis. In this process the manager gives feedback and appraises the tasks done according to performance. |

## 2. Strategic sourcing

| Input: | •Commodity structure |
| :--- | :--- |
|  | •Savings targets per commodity group |
| Output: | •Commodity strategy |
| Process owner: | •Procurement Support |
| Process customer: | •Commodity manager |
|  | •Country Procurement Manager |
| Main recourses: | •Procurement Support |
| Purpose: | -System support, e.g. ProDiver, contract databases, supplier databases |

## Up one level

Sub processes

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

## 2. Strategic Sourcing

2.1 Develop commodity strategy
2.2 Review commodity strategy
2.3 Develop project strategy

| Sub section | Description |
| :--- | :--- |
| 2.1 Develop commodity strategy | This process describes the creation of a commodity strategy from nothing. This is usually <br> the first process to be undertaken by a Commodity manager |
| 2.2 Review commodity strategy | This process describes the annual review of a commodity strategy |
| 2.3 Develop project strategy | This process describes the creation of a project specific strategy that, based on present <br> commodity strategies will ensure strategic sourcing in investment project. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

2.1 Strategic Sourcing: Develop commodity strategy


### 2.1.1 Create strategy development plan

 Input:| Output: | -Strategy development plan |
| :---: | :---: |
| Accountable: | -Commodity manager |
| Roles involved: | -Commodity manager <br> -Procurement Support |
| System support and tools: | - New annual activity plan or |
|  | -Your annual activity plan that you created in an other process |
|  | - Example of how the plan can be used |
| Comments: | The purpose of this activity is to create a plan that will span over all activities leading up to the complete commodity strategy. The plan should include a time-frame for all activities, need of resources and targets along the way. |

### 2.1.2 Establish commodity team

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | $\bullet$ Strategy development plan |
| :--- | :--- |
| Output: | $\bullet$ Commodity team |
| Accountable: | $\bullet$ CPO |
| Roles involved: | •Commodity manager <br>  <br> Site Management <br> •Country Procurement Support |
| Comment Manager |  |

## Up one level

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| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 2.1.3 Collect and analyze spend

| Input: | •Spend data |
| :--- | :--- |
| Output: | •Spend analysis |
| Accountable: | •Commodity manager |
| Roles involved: | •Commodity manager <br>  <br>  <br> •Commodity team |
| System support and tools: | •Spend analysis instruction <br> - Commodity specific Spend data template |
| Comments: | The purpose of this activity is to get an accurate picture of the spend within <br> the commodity class. This analysis will then be used in the development of <br> the commodity strategy. The instruction contains some practical tips but you <br> should always base your analysis on what you want to know about your <br> commodity group. |

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| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 2.1.4 Prioritize commodities and create roll-out plan

| Input: | - Spend analysis <br> - Experience from commodity team |
| :---: | :---: |
| Output: | -Roll-out plan |
| Accountable: | -Commodity manager |
| Roles involved: | -Commodity manager <br> -Commodity team |
|  | - Procurement Support |
| System support and tools: | -Identify saving opportunities (ppt) <br> - dentify savings opportunities and savings level template (x\|s) <br> - Roll-out plan template |
| Comments: | The purpose of this activity is to decide which commodities are to be prioritized and first in line for strategy development. This decision should be based on the spend analysis and contain the two factors savings potential and ease of implementation. The commodities with the largest savings potential that are easy to implement are to be prioritized. |

## Up one level



| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 2.1.5 Review commodity team according to roll-out plan

| Input: | -Roll-out plan <br> -Commodity team |
| :---: | :---: |
| Output: | -Commodity team adapted for the prioritized commodities |
| Accountable: | -Commodity manager |
| Roles involved: | -Commodity manager <br> -Commodity team <br> -Procurement Support <br> - Site management <br> -Country Procurement Manager |
| System support and tools: |  |
| Comments: | The purpose of this activity is to make sure that the commodity team is adapted for the prioritized commodities. If for instance the prioritized commodity is used in only one, or a few, sites production representatives from other sites might not be needed in the commodity team in this roll-out wave. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

2.1.6A Analyze suppliers and the supply market

| Input: | -Information about supplier and supply market |
| :---: | :---: |
| Output: | -Supplier and supply market analysis |
| Accountable: | -Commodity manager |
| Roles involved: | -Commodity manager <br> -Procurement Support <br> -Commodity Team |
| System support and tools: | -Supply market analysis instruction, <br> -Supplier and Supply market analysis template <br> - Analyze supplier and supply market Example <br> -Crajilics matrix template <br> -SCB branchnyckeltal (SWE) <br> -RFI-template |
| Comments: | The purpose of this activity is to get an accurate picture of the present situation in the supply market. How strong are our suppliers? How strong are we? How big as the supply compared to the demand? and a lot of other factors are to be investigated. |
| Up one level | Previous activity <br> Next activity <br> $\sqrt{ }$ <br> Nextactivity <br> MBOLI |

### 2.1.6B Analyze product characteristics

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | •Information about products |
| :--- | :--- |
| Output: | •Analysis of product characteristics |
|  | •Specification to the RFP process |
| Accountable: | •Commodity manager |
| Roles involved: | •Commodity manager |
|  | •Procurement Support |
| System support and tools: | •Prod. reps |
| Commodity Team |  |
|  | •Business requirements template |



| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 2.1.7 Identify cost drivers and savings opportunities

| Input: | •Internal cost <br>  <br>  <br>  <br>  <br>  <br> •Supplier cost <br>  <br> •Etc |
| :--- | :--- |
| •Cost drivers |  |
| Accountable: | •Commodity manager |
| Roles involved: |   <br> •Commodity team  |
| Comstem support and tools: | The purpose of this activity is to get an understanding of the cost drivers for <br> the commodity and to prioritize them according to impact. |

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| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 2.1.8 Build total cost model

| Input: | - Internal costs (production process, OH costs etc) <br> -Supplier costs <br> -Cost drivers |
| :--- | :--- |
| Output: | -Total cost model |
| Accountable: | •Commodity manager |
| Roles involved: | -Commodity manager <br> •Commodity team |
| System support and tools: | -Total cost model Example <br> -Total cost model instruction |
| Comments: | The purpose of this activity is to get an understanding of the cost elements <br> included in the total cost of the commodity.This can include supplier cost <br> break down, internal cost identification, internal cost drivers and finally a high <br> level cost model. Total cost models can be developed for different cost <br> reduction opportunities. |

### 2.1.9 Develop commodity strategy

| Input: | -Spend analysis |
| :--- | :--- |
|  | -Supply market analysis |
|  | -Product characteristics analysis |
|  | -Cost drivers |
|  | -Savings opportunity |
|  | -Total Cost Model |

### 2.1.10 Get input from CPM:s and other CM:s

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | $\bullet$ Commodity strategy <br>  <br> Output: <br> Accountegy document |
| :--- | :--- |
| Roles involved: | •Commodity manager |
| System support and tools: | •Commodity manager <br>  <br> •CPmmodity team |
| Comments: | The purpose of this activity is to get input from CPM:s and other CM:s to <br> improve the strategy further. This may also be conducted as a continuous <br> processes |

## Up one level

### 2.1.11 Decide saving targets

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | - Spend analysis <br> -Supply market analysis <br> -Product characteristics analysis <br> -Cost drivers <br> -Saving opportunities <br> -Strategy document <br> -Total Cost Model |
| :---: | :---: |
| Output: | - Saving targets |
| Accountable: | -Commodity manager |
| Roles involved: | -Commodity manager <br> -Procurement Support <br> -Commodity Team |
| System support and tools: | - Savings potential chart |
| Comments: | The purpose of this activity is to decide saving targets for the commodity. These saving targets are to be included into the strategy document. |

### 2.1.12 Develop annual activity plan

| Input: | •Strategy document |
| :--- | :--- |
| Output: | •Annual activity plan |
| Accountable: | •Commodity manager |
| Roles involved: | •Commodity manager |
|  | •Commodity team |
| System support and tools: | •Your annual activity plan |
| •Example of how the plan can be used |  |



| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| 2.1 .13 Prepare presentation and present strategy to CPO |  |
| :--- | :--- |
| Input: | •Spend analysis |
|  |  -Supply market analysis <br>  •Product characteristics analysis <br>  •Cost drivers <br>  •TCM <br>  •Savings opportunities <br>  -Strategy document |
| -Savings targets |  |

## Up one level

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 2.1.14 Approve strategy

| Input: | •Strategy presentation  <br>  •Strategy document |
| :--- | :--- |
| Output: | •Approved strategy <br>  <br> •Approved strategy document |
| Roles involved: | •CPO |
| System support and tools: | •CPO <br>  <br> •Commodity manager |
| Comments: | The purpose of this activity is to check the developed strategy for flaws and if <br> necessary suggest corrective action. This process is not a symbolic approval <br> but rather a second opinion on strategic decisions with the intent to make the <br> strategy better and more effective. To be able to get any value from this <br> process it is important that all facts that decisions are based on can be <br> viewed and all decisions are well motivated. |

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### 2.1.15B Rework strategy

| Input: | •Strategy presentation <br>  <br>  <br> •Strategy document <br> •Feedback from CPO |
| :--- | :--- |
| Accountable: | •Reworked strategy |
| Roles involved: | •Commodity manager |
| System support and tools: | Depending on which section that is to be reworked. <br> Comments:The purpose of this activity is to rework the strategy according to the Support <br> comments received from CPO. This might mean that previously completed <br> steps has to be repeated, which steps depends on the comments received <br> from CPO at the presentation. This activity is only conducted if the strategy <br> are not approved by CPO, or if it is approved with adjustments. The CPO will <br> decide whether a new presentation is required after adjustments. |



| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 2.1.15A Communicate strategy within the organization

| Input: | -Approved strategy <br> - Approved strategy document |
| :---: | :---: |
| Output: | -Awareness of and compliance to the new strategy |
| Accountable: | -Commodity manager |
| Roles involved: | -Commodity manager |
|  | -Commodity team |
|  | - Country Procurement Manager |
|  | - CPO |
| System support and tools: |  |
| Comments: | The purpose of this activity is to make sure that all stakeholders affected by the strategy are aware of it existence, and what actions the new strategy requires from theme. This is an important step to make sure that the strategy becomes fully implemented. The material for communication should be simple and easy to understand. |

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### 2.1.16 Implement strategy

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | $\bullet$ Approved strategy <br>  <br> •Approved strategy document |
| :--- | :--- |
| Output: | •Implemented strategy |
| Accountable: | $\bullet$ Commodity manager |
| Roles involved: | •Commodity manager <br>  <br> •Internal stakeholders |
| System support and tools: | The purpose of this activity is simply to start acting accordingly to the new <br> strategy. |
| Comments: |  |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 2.1.17 Restart the process with commodities of lower priority

| Input: | •Roll-out plan |
| :--- | :--- |
| Output: | •Commodity manager |
| Accountable: |  $\bullet$ Commodity manager <br> Roles involved: •Roll-out plan <br> System support and tools: When the strategy for the first wave of prioritized commodities are <br> implemented it is time to start developing strategies for commodities with <br> lower priority. This will be repeated until all commodities within the <br> commodity group has a developed strategy. <br> Comments:  |

### 2.2 Strategic Sourcing: Review commodity strategy



| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 2.2.1 Evaluate and re-establish commodity team

| Input: | •Experience of commodity team performance from last year |
| :--- | :--- |
| Output: | $\bullet$ New Commodity team or re-established commodity team |
| Accountable: | •CPO |
| Roles involved: | •㗐 |
| Systemmodity manager |  |
| Comment Support |  |

### 2.2.2 Review and update spend analysis

| Input: | -New spend data <br> - Old spend analysis |
| :---: | :---: |
| Output: | - New or adjusted spend analysis |
| Accountable: | -Commodity manager |
| Roles involved: | -Commodity manager <br> -Commodity Team |
|  | - Procurement Support |
| System support and tools: | -Spend analysis instruction <br> -Commodity specific Spend data template <br> -Commodity specific spend forecast template |
| Comments: | The purpose of this activity is to go through the old spend analysis and se if there has been any changes in the spend that might affect the strategy. If there has been major changes to the spend a new spend analysis should be drafted. |



### 2.2.3 Review prioritization and update roll-out plan

| Input: | -New spend analysis <br> -Old roll-out plan and prioritization |
| :---: | :---: |
| Output: | -New or adjusted roll-out plan (lf needed) |
| Accountable: | -Commodity manager |
| Roles involved: | -Commodity manager <br> -Commodity Team <br> - Procurement Support |
| System support and tools: | - \|dentify saving opportunities (ppt) <br> - dentify savings opportunities and savings level template (x\|s) <br> - Roll-out plan template |
| Comments: | The purpose of this activity is to check whether the old roll-out plan and prioritization are still accurate. If major changes has occurred since the last prioritization maybe it is time do re-prioritize, for instance major savings opportunities may have revealed it self in a commodity with a low priority, then it might be necessary to give that commodity a higher priority. |



| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 2.2.4 Review supplier- and supply market analysis

| Input: | -New information about supplier and supply market <br> - Old supplier analysis <br> -Old supply market analysis |
| :---: | :---: |
| Output: | -New or reviewed supplier and supply market analysis |
| Accountable: | -Commodity manager |
| Roles involved: | -Commodity manager <br> - Procurement Support <br> -Commodity Team |
| System support and tools: | -Supply market analysis instruction <br> -Supplier and Supply market analysis template <br> - Analyze supplier and supply market Example <br> -Crajilics matrix template <br> -SCB branchnyckeltal (SWE) |
| Comments: | The purpose of this activity is to check if the supplier and supply market analysis that were conducted a year ago is still accurate. If major changes has occurred in the supply market a new analysis might be needed. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 2.2.5 Review product characteristics and make updates if needed

| Input: | - New information about products <br> - Old product characteristics <br> - Information about new technology and possible substitutes |
| :---: | :---: |
| Output: | -New or reviewed analysis of product characteristics <br> - New or reviewed specification for the RFP process |
| Accountable: | -Commodity manager |
| Roles involved: | -Commodity manager <br> - Procurement Support <br> -Commodity Team |
| System support and tools: | -Product characteristics analysis instruction <br> -Business requirements template |
| Comments: | The purpose of this activity is to investigate whether new technology, research, change in processes or other things has affected the purchased product. This might be changes in the product such as an entirely new product or changes in internal processes such as a new demand internally or from external customers. |



### 2.2.6 Review cost drivers and savings opportunity

| Input: | •New information about internal cost <br>  <br>  <br> •New information about supplier cost <br>  <br> Output: <br> Accountable: <br>  <br> •New or reviewed cost drivers <br> Roles involved: <br>  <br> •Commodity manager <br> Cystem support and tools: <br>  <br> •Commodity manager team |
| :--- | :--- |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 2.2.7 Re-evaluate total cost model and recalculate if needed

| Input: | $\bullet$ New information about internal costs (production process, OH costs etc) <br> $\bullet$ <br>  <br> $\bullet$ New information about supplier costs |
| :--- | :--- |
| Output: | $\bullet$ New or reviewed total cost model |
| Accountable: | $\bullet$ Commodity manager |
| Roles involved: | •Commodity manager |
| System support and tools: | •Total cost model Example |
| Comments: | The purpose of this activity is to check if the Total cost model is up to date. If <br> that is not the case a new analysis of the total cost is to be performed. |

### 2.2.8 Review commodity strategy

| Input: | - New or adjusted spend analysis <br> - New or adjusted supply market analysis <br> - New or adjusted product characteristics analysis <br> - New or adjusted cost drivers <br> - New or adjusted savings opportunities |
| :---: | :---: |
| Output: | -New or reviewed commodity strategy <br> -New or adjusted Strategy document |
| Accountable: | -Commodity manager |
| Roles involved: | -Commodity manager <br> -Commodity team <br> -Procurement Support |
| System support and tools: | - Commodity Strategy template |
| Comments: | The purpose of this activity is to investigate whether any changes in externally or internally makes it necessary to make adjustments to the strategy or make an entirely new strategy. |



### 2.2.9 Review savings targets

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | - New or adjusted spend analysis <br> - New or adjusted supply market analysis <br> - New or adjusted product characteristics analysis <br> - New or adjusted cost drivers <br> - New or adjusted savings opportunities <br> - New or adjusted strategy document |
| :---: | :---: |
| Output: | -New or adjusted savings targets |
| Accountable: | -Commodity manager |
| Roles involved: | -Commodity manager <br> -Commodity team <br> -Procurement Support |
| System support and tools: |  |
| Comments: | The purpose of this activity is to check whether the savings targets from last year are still applicable. If changes has been made to the strategy it is likely that the savings targets has to be adjusted. Even if the strategy remains unchanged it might be necessary to change the targets based on new information. Note however that it is not correct to simply change the targets so that they fit the performance of the last year, changes to the savings targets has to be well motivated with objective facts. |



### 2.2.10 Develop annual activity plan

| Input: | -New or adjusted strategy document <br> -Last years activity plan |
| :---: | :---: |
| Output: | -Annual activity plan |
| Accountable: | -Commodity manager |
| Roles involved: | -Commodity manager <br> - Procurement Support |
| System support and tools: | -Your annual activity plan <br> - Example of how the plan can be used |
| Comments: | The purpose of this activity is to plan the activities required to carry out the strategy. The annual activity plan will also be used by procurement support to monitor progress in the strategic work. This activity is conducted in the same manner as during the first development of the strategy, the only difference is that it might be activities from last year that has to be included for this year as well. Since the plan only spans one year it has to be developed all over again every year. |
| p one level |  |

### 2.2.11A Get input from CPM:s and other CM:s

| Input: | •Commodity strategy |
| :--- | :--- |
|  | $\bullet$ Strategy document |
| Output: | •Commodity manager |
| Accountable: | $\bullet$ Commodity manager  <br> Roles involved: The purpose of this activity is to get input from CPM:s and other CM:s to <br> improve the strategy further. This may also be conducted as a continuous <br> processes <br> System support and tools:  |
| Comments: |  |

### 2.2.11B Continue working according to strategy

| Input: | •Strategy document |
| :--- | :--- |
| Output: | •Continual work |
| Accountable: | •Commodity manager |
| Roles involved: | •Commodity manager |
| System support and tools: |  |
| Comments: | If no major changes has been made to the strategy the work can continue as <br> usual and no further presentations or approval needs to be done. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 2.2.12 Prepare presentation and present strategy changes to CPO

| Input: | - New or adjusted spend analysis <br> -New or adjusted supply market analysis <br> - New or adjusted product characteristics analysis <br> - New or adjusted cost drivers <br> - New or adjusted savings opportunities <br> - New or adjusted strategy document <br> -New or adjusted savings targets |
| :---: | :---: |
| Output: | -Presentation of strategy |
| Accountable: | -Commodity manager |
| Roles involved: | -Commodity manager <br> - Procurement Support |
| System support and tools: | -Presentation examples |
| Comments: | If any major changes has been made to the strategy or the savings targets the changes has to be approved by the CPO. If that is the case a presentation should be prepared as in the original development of the strategy. This presentation does not have to be as extensive as the original presentation, but the changes made should be presented as well as the motives for making these changes. |

### 2.2.13 Approve strategy

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | •Strategy presentation <br>  <br> •New or adjusted strategy document |
| :--- | :--- |
| Output: | •Approved strategy <br>  <br> •Approved strategy document |
| Roles involved: | •CPO |
| System support and tools: | •CPO <br>  <br> •Commodity manager |
| Comments: | If the CPO finds the changes made to the strategy well motivated and he <br> agrees with the conclusions drawn, he will approve the strategy. If he finds <br> changes necessary the strategy has to be reworked, and maybe presented <br> again. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 2.2.14 Communicate new strategy within the organization

| Input: |  •Approved strategy <br> Output: •Awareness and compliance to the new strategy <br> Accountable: •Commodity manager <br> Roles involved: •Commodity manager <br>  <br>  <br>  <br>  <br> •Commodity team <br> -Country Procurement Manager <br> Comments: If changes has been made to the strategy it is imperative that these changes <br> are communicated into the organization so that everyone knows what the <br> changes will mean to them and what actions they need to take. |
| :--- | :--- |

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### 2.2.15 Implement new strategy

| Input: | $\bullet$ Approved strategy <br>  <br> •Approved strategy document |
| :--- | :--- |
| Output: | $\bullet$ Implemented strategy |
| Accountable: | $\bullet$ Commodity manager |
| Roles involved: | $\bullet$ Commodity manager <br>  <br> •Commodity team |
| •Site management |  |
| Comstem support and tools: |  |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

2.3 Strategic Sourcing: investment projects


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 2.3.1 Read through investment plan for upcoming year

| Input: | •Investment plan |
| :--- | :--- |
| Output: | $\bullet$ Knowledge about upcoming investments |
| Accountable: | $\bullet$ Country Procurement Manager |
| Roles involved: |  |
| •Country Procurement Manager |  |
| Comments: | The purpose of this activity is to get a picture of the investment situation in <br> the future. |

### 2.3.2 Plan and prioritize investment projects

| Input: | •Investment plan |
| :--- | :--- |
| Output: | •Prioritisation of investment projects |
| Accountable: | •Country Procurement Manager |
| Roles involved: |  |
| •Country Procurement Manager |  |
| Comments: | The purpose of this activity is to investigate which of the investment projects <br> has greatest savings potential so that later on the correct purchaser can be <br> assigned to those projects. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

2.3.3 Assign commercial project coordinator to investment projects

| Input: | •Investment plan <br>  <br> •Prioritisation of investment projects |
| :--- | :--- |
| Output: | •Resource plan |
| Accountable: | •Country Procurement Manager |
| Roles involved: | •Country Procurement Manager |
| System support and tools: | The purpose of this process is to assign the most suitable buyer to the <br> different projects and make sure that the department has the right amount of <br> resources for the projects. |
| Comments: |  |

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### 2.3.4 Identify involved commodities

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | •Commodity structure <br>  <br> -Information from project |
| :--- | :--- |
| Autput: | •Identified commodities |
| Rccountable: | •Commercial project coordinator |
| Roles involved: | •Commercial project coordinator <br> System support and tools: <br> Commodity manager |
| •Commodity structure |  |

### 2.3.5 Establish pre-project team

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | •Identified commodities |
| :--- | :--- |
| Output: | •Pre-project team |
| Accountable: | •Commercial project coordinator |
| Roles involved: | •Commercial project coordinator <br> System support and tools: <br> Comments: <br> When all involved commodities has been identified a pre-project team has to <br> be established. This team should be compounded of the relevant persons <br> with the right competences and experiences. An estimate of how much time <br> each member needs to spend on this during the pre-project should also be <br> presented. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

2.3.6 Ask for required resources for pre-project from CPO

| Input: | $\bullet$ Proposed pre-project team <br>  <br> •Estimated needed time per resource |
| :--- | :--- |
| Output: | $\bullet$ Approved pre-project team |
| Accountable: | $\bullet$ CPM |
| Roles involved: |   <br> System support and tools: Before the pre-project team is launched the CPO has to approve the team <br> and the time needed from each resource. <br> Comments:  |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

2.3.7 Contribute with commercial point of view in the design phase

| Input: | •Market knowledge |
| :--- | :--- |
| Output: | •Well adjusted designs from a commercial perspective |
| Accountable: | •Commercial project coordinator |
| Roles involved: | •Pre-project team |
| System support and tools: | The commercial representative should always beware during the design <br> phase so that the specifications don't limit the commercial options more than <br> necessary. |
| Comments: |  |

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| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 2.3.8 Analyze present commodity strategies and contracts

| Input: | $\bullet$ Commodity structure <br>  <br> OCommodity strategies |
| :--- | :--- |
| Accountable: | •Understanding of present contracts and strategies |
| Roles involved: | •Commercial project coordinator |
| System support and tools: | •Commercial project coordinator <br> Comments:The purpose of this activity is to investigate what resources and information <br> that already exist in the company. Maybe the markets have been thoroughly <br> investigated and mapped by the Commodity manager and there are present <br> strategies or contracts that can be used in the project. Another possibility is <br> that it is possible to create better contracts for the Commodity manager if the <br> project is incorporated in the negotiations as well. |



| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 2.3.9 Decide upon general sourcing strategy for the project

| Input: | $\bullet$ Market knowledge <br>  <br> •Specifications |
| :--- | :--- |
| Output: | •Chosen general strategy |
| Accountable: | •Commercial project coordinator |
| Roles involved: | Commercial project coordinator |
| System support and tools: | At this stage in the pre-project phase it is necessary to decide an overall <br> sourcing strategy such as if the project should be sourced as a turn-key <br> project were one supplier are the main supplier and hire its own sub- <br> contractors, or if we want to divide the project into smaller contracts and <br> manage all coordination our selves. |
| Comments: |  |



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### 2.3.10 Approve project strategy

| Input: | •Chosen general strategy |
| :--- | :--- |
| Output: |  |
| Accountable: |  |
| Roles involved: | •CPM |
| System support and tools: | When a project strategy is decided it should be presented coordinator to the responsible <br> CPM for approval, so that improvements can be made if necessary. This <br> might be done as an ongoing process during the development. |
| Comments: |  |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 2.3.11 Ask for required resources for project from CPO

| Input: | •Proposed project team <br>  <br> Output: <br> •Estimated needed time per resource |
| :--- | :--- |
| Accountable: | $\bullet$ CPM |
| Roles involved: |   <br> •CPM  <br> System supporoject team  <br> Comments: When the pre-project is completed and a clear picture of what resources will <br> be needed to complete the actual project. An estimate of the required time <br> per resources should also be presented |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 2.3.12 Approve project and assign budget

| Input: | $\bullet$ Project budget <br>  <br> •Information and calculations from the pre-project |
| :--- | :--- |
| Output: | $\bullet$ Approved project |
| Accountable: | $\bullet$ Management |

Roles involved: •Management

System support and tools:

Comments:
The final approval of the project is done by management, on what level depends on the amount of money involved in the investment.

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

2.3.13A Conduct project procurement according to strategy

| Input: | •Project strategy |
| :--- | :--- |
| Output: | •Cost efficient project |
| Accountable: | •Buyer |
|  |  |
| Roles involved: | •Buyer  <br>  •Country Procurement Manager |
| System support and tools: | When the project is realized and the strategy has been approved, then all <br> that is left is to conduct the project procurement accordingly. |
| Comments: |  |

### 2.3.13B Project terminated

| Input: | $\bullet$ Approval decision |
| :--- | :--- |
| Output: | $\bullet$ Terminated project |
| Accountable: | $\bullet$ Management |
| Roles involved: | $\bullet$ Management |
| System support and tools: |   <br> If the project is not approved it has to be terminated. This might be because it  <br> was to expensive or the need as diminished or disappeared.  |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

## 3. Contracting

| Input: | •Demands from internal customer |
| :--- | :--- |
| Output: | $\bullet$ Contracts and agreements |
| Process owner: | $\bullet$ TBD |
| Process customer: | •Internal customer <br> Main recourses: <br> Purposere:The purpose of the contracting process is to create new contracts and <br> agreements. |

3. Contracting


Up one level
MBCLIDEN
3.1 Identify needs

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |



Up one level
NBOLIDEN

### 3.1.1 Demand analysis and specification

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | •Demand |
| :--- | :--- |
| Output: | •Specification |
| Accountable: | •Internal Customer |
| Roles involved: | •Internal Customer |
| System support and tools: | -Specification template |
| Comments: | The purpose of this activity is to determine what needs to be purchased and <br> create a specification. |

### 3.1.2 Cost assessment

| Input: | •Demand <br> $\bullet$ •Experience |
| :--- | :--- |
| Output: | •Cost assessment |
| Accountable: | •Internal Customer |
| Roles involved: | •Internal Customer |
| System support and tools: | •Specification template |
| Comments: | The purpose of this activity is to assess the cost to get a picture of the extent <br> of the purchase. |

### 3.1.3 Fill out request for purchase

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | -Demand analysis and specification |
| :---: | :---: |
| Output: | -Request for purchase |
| Accountable: | -Internal Customer |
| Roles involved: | -Internal Customer |
| System support and tools: | -Kalle |
|  | -Maximo |
|  | -Paper-form |
|  | -SAP |
| Comments: | The purpose of this activity is to create a document that explains in detail what exactly is to be purchased. |

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### 3.1.4 Approval of purchase

| Input: | •Request for purchase |
| :--- | :--- |
| Output: | •Authorization |
| Accountable: | •Internal Customer |
| Roles involved: |   <br> •Internal Customer  <br> System support and tools:  <br> Comments: The purpose of this activity is that the responsible supervisor signs the <br> request for purchase and hereby approve the purchase. |

### 3.2 Identify suppliers and request proposal

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |



Up one level

### 3.2.1 Identify suppliers to send RFP to

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | •Available suppliers |
| :--- | :--- |
| Output: | •List of identified suppliers |
| Accountable: | •Responsible Commodity manager, Buyer or CPM |
| Roles involved: | •Responsible Commodity manager, Buyer or CPM <br> •Internal Customer |
| System support and tools: | The purpose of this activity is to find all possible suppliers available for this <br> purchase. |
| Comments: |  |

### 3.2.2 Inform identified suppliers that RFP is coming

| Input: | •List of identified suppliers |
| :--- | :--- |
| Output: | •Suppliers aware of RFP and ready |
| Accountable: | •Responsible Commodity manager, Buyer or CPM |
| Roles involved: | •Responsible Commodity manager, Buyer or CPM <br>  <br> System support and tools: |
| Comments: | The purpose of this activity is to make sure that suppliers who will receive <br> RFP is interested and prepared to handle it. |

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### 3.2.3 Prepare RFP-document

| Input: | •Request for purchase |
| :--- | :--- |
| Output: | •RFP-document |
| Accountable: | •Responsible Commodity manager, Buyer or CPM |
|  |  |
| Roles involved: | •Responsible Commodity manager, Buyer or CPM |
|  | •Internal Customer |
| System support and tools: | •RFP-template |
|  | •RFP-examples |
|  | •Supplier approval questionnaire |
|  | •ELS-instruction (swe) |
|  | •Terms and conditions |
| The purpose of this activity is to make sure that suppliers who will receive |  |
|  | RFP is interested and prepared to handle it. The supplier evaluation <br> questionnaire should be attached to all RFP:s |

### 3.2.4 Send RFP to Suppliers

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | •RFP-document |
| :--- | :--- |
| Output: | •RFP sent to suppliers |
| Accountable: | •Responsible Commodity manager, Buyer or CPM |
|  |  |
| Roles involved: | •Responsible Commodity manager, Buyer or CPM |
|  | •Supplier |
| System support and tools: |  |

Comments: The purpose of this activity is to get the RFP to the suppliers.

### 3.3 Evaluate proposal from suppliers

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |



### 3.3.1 Receive proposal from suppliers

| Input: | •Proposals |
| :--- | :--- |
| Output: | •Received proposals |
| Accountable: | •Responsible Commodity manager, Buyer or CPM |
| Roles involved: | •Responsible Commodity manager, Buyer or CPM |
| System support and tools: | The purpose of this activity is to receive the proposals so that they can be <br> evaluated. |
| Comments: |  |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 3.3.2 Match and compare proposals against RFP-requirements

| Input: | •Proposals <br>  <br> •RFP-requirements |
| :--- | :--- |
| Output: | •Received proposals |
| Accountable: | •Responsible Commodity manager, Buyer or CPM |
| Roles involved: | •Responsible Commodity manager, Buyer or CPM <br>  <br> •Internal customers |
| System support and tools: | The purpose of this activity is to make sure that the proposals match the <br> requirements. The proposals that does not meet the minimum requirements <br> should be sorted away. |

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| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 3.3.3 Create final list of evaluated and ranked proposals

| Input: | $\bullet$ •Proposals  <br>  RFP-requirements |
| :--- | :--- |
| Output: | •Final list of evaluated and ranked proposals |
| Accountable: | •Responsible Commodity manager, Buyer or CPM |
| Roles involved: | •Responsible Commodity manager, Buyer or CPM |
| System support and tools: | •Proposal evaluation form(Swe)(Example) |
| Comments: | The purpose of this activity is to rank all proposals so that a limited number of <br> suppliers can be chosen to continue the process with. |

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| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 3.3.3B Review requirements or send out a second round of RFP:s

| Input: | •Proposals <br>  <br> -RFP-requirements |
| :--- | :--- |
| Output: | •New specification, or RFP-round |
| Accountable: | •Responsible Commodity manager, Buyer or CPM |
| Roles involved: | •Responsible Commodity manager, Buyer or CPM |
| System support and tools: | If no proposal meets the minimum requirements, a change has to be made to <br> either the requirements or the proposals. So we can either take it back to the <br> internal customers and se if changes can be made to the specification or we <br> can send out the RFP to more suppliers or send it back to already asked <br> suppliers and ask if they can make changes to their proposals |
| Comments: |  |

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### 3.3.4 Proposal presentation by supplier

| Input: |  |
| :--- | :--- |
| Output: | •Final list of evaluated and ranked proposals |
| Accountable: | •Responsible Commodity manager, Buyer or CPM |
| Roles involved: | •Responsible Commodity manager, Buyer or CPM |
| System support and tools: | The purpose of this activity is to rank all proposals so that a limited number of <br> suppliers can be chosen to continue the process with. |
| Comments: |  |

### 3.3.5 Create supplier shortlist for negotiations

| Input: | •Final list of evaluated and ranked proposals |
| :--- | :--- |
| Output: |  |
| Accountable: |  |
| Roles involved: | •Responsible Commodity manager, Buyer or CPM Commodity manager, Buyer or CPM |
| System support and tools: | The purpose of this activity is to narrow down the number of suppliers to a to <br> call to negotiations. The number of suppliers called to negotiations can vary <br> from time to time. |
| Comments: |  |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 3.3.6 Evaluate and approve suppliers (if not already approved)

| Input: | •Date of approval from central supplier register. |
| :--- | :--- |
| Output: |  |
| Accountable: | •Responsible Commodity manager, Buyer or CPM |
| Roles involved: | •Supplier approval points |
| System support and tools: | If the supplier is not already approved this has to be done before negotiations manager, Buyer or CPM <br> are initiated. The supplier approval questionnaire is attached to the RFP and <br> if the supplier are not approved this questionnaire has to be gone through <br> and if the supplier is approved a new date of approval has to be registered in <br> the central supplier register |
| Comments: |  |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 3.4 Contract negotiations



### 3.4.1 Prepare negotiations

| Input: | •Information about supplier and supply market |
| :--- | :--- |
| Output: | •Responsible Commodity manager, Buyer or CPM |
| Accountable: | •Responsible Commodity manager, Buyer or CPM |
| Roles involved: | The purpose of this activity is to collect the information needed to form the <br> correct negotiation strategy. This might involve information about the <br> supplier, prices, market, competitor or a number of other things that might aid <br> in the negotiations. |
| System support and tools: |  |

### 3.4.2 Create negotiation team

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | •Information about product, supplier and supply market |
| :--- | :--- |
| Output: | •Responsible Commodity manager, Buyer or CPM |
| Accountable: | •Responsible Commodity manager, Buyer or CPM <br> •Internal customer <br> •Other roles when applicable |
| Roles involved: | The purpose of this activity is to collect the information needed to form the <br> correct negotiation strategy. This might involve information about the <br> supplier, prices, market, competitor or a number of other things that might aid <br> in the negotiations. |
| System support and tools: |  |



### 3.4.3 Select negotiation strategy and set objectives

| Input: | •Information about supplier and supply market |
| :--- | :--- |
| Output: | •Responsible Commodity manager, Buyer or CPM |
| Accountable: | •Responsible Commodity manager, Buyer or CPM |
| Roles involved: | •Negotiation strategy tips <br> •Negotiation targets template |
| System support and tools: | The purpose of this activity is to decide how to handle the negotiations. This <br> might involve such things as deciding who should be present at the <br> negotiations, which strategy should be used or other relevant things that <br> should be decided before the negotiations. An other very important thing to <br> do before negotiating is to set the targets so that it is clear what we want to <br> achieve. |



### 3.4.4 Get mandate to negotiate and sign contracts

| Input: | $\bullet$ •Estimated cost <br>  <br> -Information about supplier |
| :--- | :--- |
| Accountput: | •Mandate to negotiate and sign contract |
| Roles involved: | •Responsible Commodity manager, Buyer or CPM |
| System support and tools: | •Responsible Commodity manager, Buyer or CPM <br>  <br> •CPO | | The purpose of this activity is to make sure that you have mandate to follow |
| :--- |
| through the negotiations and sign the contract. If the estimated spend of the |
| contract exceeds your authority you have to make sure that you have the |
| mandate to negotiate from your superior before you go into negotiations. |

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### 3.4.5 Negotiate with supplier(s)

| Input: | $\bullet$ Negotiation targets <br>  <br> •Negotiation strategy |
| :--- | :--- |
| Accountput: |  |
| Roles involved: | $\bullet$ Responsible Commodity manager, Buyer or CPM |
| System support and tools: | $\bullet$ •Responsible Commodity manager, Buyer or CPM |
|  | $\bullet$ Negotiation targets template |
| Comments: | The purpose of this activity is to perform the actual negotiations. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 3.4.6 Create supplier management framework (if applicable)

| Input: |  |
| :--- | :--- |
| Output: | •Responsible Commodity manager, Buyer or CPM |
| Accountable: | •Responsible Commodity manager, Buyer or CPM |
| Roles involved: | The purpose of this activity is to create the framework needed for supplier <br> management, such as KPl:s to include in the contract or other agreements <br> that you want to impose on the supplier. |
| System support and tools: |  |

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### 3.4.7 Select supplier to contract

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | $\cdot$ Negotiations |
| :--- | :--- |
| Output: |  |
| Accountable: | $\cdot$ Responsible Commodity manager, Buyer or CPM |
| Roles involved: |  |
| System support and tools: |  |
| Comments: |  |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 3.4.8 Review contract and search for embedded derivative

| Input: | - Negotiations |
| :---: | :---: |
| Output: | -Contract reviewed and free of embedded derivatives |
| Accountable: | -Responsible Commodity manager, Buyer or CPM |
| Roles involved: | -Responsible Commodity manager, Buyer or CPM |
| System support and tools: | -Information about embedded derivatives (Swe) |
|  | - ${ }^{\text {Identification of embedded derivatives (Swe) }}$ |
|  | - Information about embedded derivatives (Eng) |
|  | -Identification of embedded derivatives (Eng) |
| Comments: | The purpose of this activity is to review the contract before signing it so that it is satisfactory and so that it dies not contain any embedded derivatives. |

### 3.4.9 Sign contract

| Input: | •Contract |
| :--- | :--- |
| Output: | •Signed contract |
| Accountable: | •Responsible Commodity manager, Buyer or CPM |
|  |  |
| Roles involved: | •Responsible Commodity manager, Buyer or CPM |
|  | •CPO |
|  | •Supplier |
| System support and tools: |  |

Comments: The purpose of this activity is to sign the contract with the supplier. The contract should always be signed by a person who has mandate to sign for the amount in question.

## Up one level

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 3.4.10 Evaluate and calculate results from negotiations

| Input: | •Results from negotiations |
| :--- | :--- |
| Output: |  |
| Accountable: | •Responsible Commodity manager, Buyer or CPM |
| Roles involved: | •Responsible Commodity manager, Buyer or CPM |
| System support and tools: | The purpose of this activity is to calculate the results from the negotiations <br> and add them to the result matrix to follow up. Only Commodity Managers <br> put their results into the result matrix. |
| Comments: |  |

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### 3.4.11 Report results to Procurement Support

| Input: | •Results from negotiations |
| :--- | :--- |
| Output: | •Results reported |
| Accountable: | •Responsible Commodity manager, Buyer or CPM |
| Roles involved: | •Responsible Commodity manager, Buyer or CPM <br> Sprocurement Support |
| Comstem support and tools: | The purpose of this activity is to report the results to procurement support so <br> that they can be consolidated and followed up. |

### 3.5 Implement contract

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |



### 3.5.1 Rate supplier $A, B$ or $C$

| Input: | •Suppliers importance to New Boliden |
| :--- | :--- |
| Output: | •Rated suppliers |
| Accountable: | •Responsible Commodity manager, Buyer or CPM |
| Roles involved: | •Responsible Commodity manager, Buyer or CPM |
| System support and tools: | The purpose of this activity is to rate the suppliers so that the right amount of <br> effort can be put on the right suppliers. |
| Comments: |  |

### 3.5.2 Register surveillance with DnB

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | •Supplier risk |
| :--- | :--- |
| Output: | •Continuous surveillance of supplier |
| Accountable: | $\bullet$ Administrator |
| Roles involved: | •Administrator |
| System support and tools: |  |
| Comments: | The purpose of this activity is register a constant surveillance with Dun and <br> Bradstreet for the suppliers were might be needed. |

### 3.5.3 Update contract database

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | $\bullet$ Contract |
| :--- | :--- |
| Output: | $\bullet$ Contract in database |
| Accountable: | $\bullet$ Administrator |
| Roles involved: | $\cdot$ Administrator |
| System support and tools: |  |
| Comments: | The purpose of this activity is to ad the contract to the contract database so <br> that it can be viewed and used by involved parties. |

### 3.5.4 Update central supplier register

| Input: | •Supplier information |
| :--- | :--- |
| Output: | •Supplier in central register |
| Accountable: | $\cdot$ Administrator |
| Roles involved: | $\cdot$ Administrator |
| System support and tools: | The purpose of this activity is to ad the supplier to the central supplier <br> register so that it can be viewed and used by involved parties. |
| Comments: |  |

### 3.5.5 Update local supplier register

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | •Supplier information |
| :--- | :--- |
| Output: | •Supplier in local register |
| Accountable: | $\bullet$ Administrator |
| Roles involved: | $\bullet$ Administrator |
| System support and tools: |  |
| Comments: | The purpose of this activity is to ad the supplier to the local supplier register <br> so that it can be viewed and used by involved parties. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

3.5.6 Update procurement systems with assortment and prices (if needed)

| Input: |  |
| :--- | :--- |
| Output: | •Supplier in local register |
| Accountable: | $\bullet$ Administrator |
| Roles involved: | •Administrator |
| System support and tools: |  |
| Comments: | The purpose of this |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 3.5.7 Communicate contract and follow up compliance

| Input: | •Contract |
| :--- | :--- |
| Output: | $\cdot$ Contract implemented and followed |
| Accountable: | •Responsible Commodity manager, Buyer or CPM |
| Roles involved: | •Responsible Commodity manager, Buyer or CPM |
| System support and tools: | The purpose of this activity is to ad the supplier to the local supplier register <br> so that it can be viewed and used by involved parties. |
| Comments: |  |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

## 4. Operative procurement

Input: $\quad$ Needs within the organization

| Output: | •Delivery of goods or services |
| :--- | :--- |
| Process owner: | •TBD |
| Process customer: | •Internal customer |
|  |  |
| Main recourses: | •Buyer <br>  <br> •Internal customers |
| Purpose: | The purpose of the operative procurement process is to order and receive <br> goods and services. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | $X X-X X-X X$ | 0.1 |

## 4. Operative procurement



Up one level
MBCLIDEN

## Criteria for emergency purchase

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Criteria's | $\bullet$ Risk of substantial production loss or <br>  <br> $\bullet$ Risk of serious environmental damages or <br>  <br> $\bullet$ Risk for personal injuries or other safety related issues |
| :--- | :--- |
| If any of this criteria's are met an emergency purchase can be conducted. If <br> an emergency purchase is conducted it is to be reported to the procurement <br> department as soon as possible, and all necessary procurement documents <br> has do be constructed after the purchase. |  |

## Up one level

### 4.1 Demand analysis and specification

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | •Demand |
| :--- | :--- |
| Output: | •Specification |
| Accountable: | •Internal Customer |
| Roles involved: | •Internal Customer |
| System support and tools: | •Specification template |
| Comments: | The purpose of this activity is to determine what needs to be purchased and <br> create a specification. |

### 4.2 Cost assessment

| Input: | •Demand <br> •Specification |
| :--- | :--- |
| Output: |  |
| Accountable: | •Internal Customer |
| Roles involved: | •Internal Customer |
| System support and tools: | •Specification template |
| Comments: | The purpose of this activity is to make a cost assessment so that the person <br> attesting the request for purchase knows the expected amount. If there are <br> insufficient information to make a cost assessment the procurement <br> department may be contacted to help with the gathering of information. |

### 4.3 Fill out request for purchase

| Input: | -Demand analysis and specification |
| :---: | :---: |
| Output: | -Request for purchase |
| Accountable: | -Internal Customer |
| Roles involved: | -Internal Customer |
| System support and tools: | -Kalle |
|  | -Maximo |
|  | -Paper version |
|  | -SAP |
| Comments: | When all the required information is gathered it is time to create a request for purchase. The form of the request for purchase differs depending on country and procurement system. |

## Up one level

### 4.4 Approval of purchase (Attest)

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | •Request for purchase |
| :--- | :--- |
| Output: | •Authorization |
| Accountable: | •Internal Customer |
| Roles involved: |  •Internal Customer <br>   <br> System support and tools:  <br> Comments: When the request for purchase has been filled out, it has to be approved by <br> the responsible manager. |

## Do we need a framework agreement

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Criteria's | •Continues need for the product over a period of time |
| :--- | :--- |
|  | •Substantial technical impact on Boliden's productivity |
|  | •Substantial economical impact on Boliden's total cost |
|  | •Estimated annual spend above 50000 EUR |

## Up one level

### 4.5 Handle Business in Most efficient way

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | -Approved request for purchase |
| :---: | :---: |
| Output: | -Contract |
| Accountable: | -Buyer |
| Roles involved: | -Internal Customer -Buyer |
| System support and tools: | - Minimum criteria's for contracting and purchase involving small sums. <br> a. Use Boliden's general terms and conditions <br> b. Strive for lowest total cost <br> c. Always negotiate with supplier <br> d. Always make a written order/contract and file it. <br> e. Suppliers contracted this way is always category C and should be marked as such in the supplier register. |

Comments:

### 4.6 Put order into procurement system

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | •Attested request for purchase |
| :--- | :--- |
| Output: | •Order in procurement system |
| Accountable: | •Internal customer (if call-of on existing agreement) <br>  <br> •Buyer (If not a call-off on existing agreement) |
| System support and tools: | •Internal Customer <br>  <br> •Buyer |
| Comments: | When the request for purchase has been attested it has to be put into the <br> procurement system. This is done by the internal customer if there are an <br> existing framework agreement. If there are no framework agreement, and <br> there are no need for one, the purchase is handled by the commercially <br> responsible. |

### 4.7 Send order to supplier

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | •Order |
| :--- | :--- |
| Output: |  |
| Accountable: |   <br> Roles internal Customer (If they put the order into the system)  <br>  •Internal Customer <br>  <br> •Buyer <br> Commentem support and tools: When the order has been entered into the system it has to be sent to the <br> supplier. This can be done in a number of ways and the person entering the <br> order into the system is responsible for sending the order. |

## Up one level

### 4.8 Delivery handling

| Input: | $\bullet$ Order <br> $\bullet$ Goods received |
| :--- | :--- |
| Output: |  |
| Accountable: |  |
| Roles involvernal Customer |  |
| •Internal Customer |  |
| Comments: |   |

### 4.9 Invoice handling

| Input: | •Order |
| :--- | :--- |
| Output: |  |
| Accountable: |  |
| Roles involved: | •Admin |
| System support and tools: |  |
| Comments: | When the invoice arrives it has to be taken care of, this is done by the <br> administrator who sends the invoice to the appropriate person for approval. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 4.10 Set account code and commodity group

| Input: | •Invoice |
| :--- | :--- |
| Output: |  |
| Accountable: |  |
| Roles involvernal Customer |  |
| System support and tools: |  |
| Comments: | When the invoice arrives to the responsible person he/she has to assign the <br> appropriate account code and commodity group. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 4.11 Invoice approval

| Input: | •Invoice |
| :--- | :--- |
| Output: |  |
| Accountable: |  |
| Roles involvernal Customer |  |
| System support and tools: |  |
| Comments: | The person responsible has to approve the invoice before it is payed. |

$\qquad$

### 4.12 Payment

| Input: | •Invoice |
| :--- | :--- |
| Output: |  |
| Accountable: |  |
| Roles involved: |  |
| Sconomy and finance |  |
| Comments: | When all approvals finance are in position the invoice is paid by the economy and <br> finance department. |

### 4.13 File all purchase documents required.

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | $X X-X X-X X$ | 0.1 |


| Input: | $\bullet$ Purchase documents |
| :--- | :--- |
| Output: | $\bullet$ Admin |
| Accountable: | •Admin |
| Roles involved: | •Filing instruction (swe) |
| System support and tools: | During the entire process all documents that are required to be saved should <br> be filed according to the appropriate routine. |
| Comments: |  |

### 4.14 Evaluate follow up and develop

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |


| Input: | •Delivery <br>  <br> •Goods or services received. |
| :--- | :--- |
| Autput: |  |
| •Internal customer |  |
| Roles involved: | •Internal customer |
| System support and tools: | When a purchase is completed and the product or service is in use it is up to <br> the internal customer to evaluate the performance and other factors in order <br> to improve them in the future |
| Comments: |  |

## Up one level

### 4.15 Complaint handling

| Input: | -Purchase documents <br> -Delivery |
| :---: | :---: |
| Output: |  |
| Accountable: | -Buyer ( for hes/her contracts) |
|  | -Commodity Manager ( for hes/her contracts) |
|  | -Internal customer (where there are no disagreements) |
| Roles involved: | -Buyer |
|  | -Commodity Manager |
|  | -Internal customer |
|  | - Supplier |
| System support |  |

Comments:
If there are no disagreement between the internal customer and the supplier on what actions that are to be taken, they can handle the complaint between them. As soon as there are disagreements the Commodity Manager or buyer responsible for signing the contract should be contacted, so that appropriate actions can be taken.

## 5. Supplier Management

| Input: | -Present suppliers and supplier performance |
| :---: | :---: |
| Output: | -More efficient range of supplier |
| Process owner: | -Procurement Support |
| Process customer: | -All personnel within procurement and logistics. |
|  | -Production representatives with requirements of service from group procurement and logistics |
| Main recourses: | -Commodity managers |
|  | -CPM |
|  | -Buyers |
|  | -Procurement Support |
| Purpose: | The purpose of the supplier management process is to optimize the supplier base so that the appropriate number of suppliers are used and making sure that the suppliers used are top of the line and constantly improving. |

Sub processes

## 5. Supplier Management

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |



Up one level

### 5.1 Rate Supplier A, B or C

| Input: | •Criticality to New Boliden |
| :--- | :--- |
| Output: | •Rated supplier |
| Accountable: | •CPM |
|  | •Commodity managers |
|  | Each role are responsible to approve their suppliers |
| Roles involved: | •CPM |
|  | •Commodity managers |
|  | •Buyers |
| System support and tools: |  |

Comments:
The purpose of this process is to rate the supplier on a three grade scale, so that the importance of the supplier is clear. The possible ratings are $\mathrm{A}, \mathrm{B}$ or C where:
A=Critical suppliers
$B=$ Supplier with whom a framework agreement exist
C= Supplier whit whom a framework agreement is not considered as a
requirement

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 5.2 Approve supplier every other year to keep them in register

| Input: | $\bullet$ •Suppliers not approved last year |
| :--- | :--- |
| Output: | $\bullet$ Suppliers approved for two more years |
| Accountable: | $\bullet$ CPM |
|  | $\bullet$ •Commodity managers |
|  | Each role are responsible to approve their suppliers |
| Roles involved: | $\bullet$ CPM |
|  | $\bullet$ •Commodity managers |
| •Buyers |  |



| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 5.3 Monitor supplier through reports from DnB (if necessary)

| Input: | •Reports from DnB |
| :--- | :--- |
| Output: | •Awareness of heightened financial risk |
| Accountable: | •CPM |
|  | •Commodity managers |
|  | Each role are responsible to approve their suppliers |
| Roles involved: | •CPM <br>  <br>  <br> •Commodity managers <br>  <br> •Buyers |

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## Criteria's for advanced supplier management

| Criteria's | •Supplier rated A |
| :--- | :--- |
|  | •Annual spend exceeding 1 MEUR |
|  | •Supplier should be strategically important to New Boliden |
|  | •Each Commodity Manager should conduct advanced supplier management |
| with a maximum of 10 suppliers |  |

## Up one level

| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 5.4 Review supplier KPI:s, contract and development plan

| Input: |  •Supplier KPI:s <br>  •Contract |
| :--- | :--- |
| Output: | 'Knowledge of supplier KPI:s and contract |
| Accountable: | •CPM |
|  | •Commodity managers |
|  | Each role are responsible for their suppliers |
| Roles involved: | •CPM |
|  | •Commodity managers |
|  | •Buyers |



### 5.5 Analyze spend

| Input: | •Spend data from Pro Diver |
| :--- | :--- |
| Output: | •Spend analysis |
| Accountable: | •CPM |
|  | •Commodity managers |
|  | Each role are responsible for their suppliers |
| Roles involved: | •CPM |
|  | •Commodity managers |
|  | •Buyers |



| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 5.6 Coordinate with other procurement personnel (if applicable)

| Input: | •Spend data from Pro Diver |
| :--- | :--- |
| Output: | •Coordinated supplier management |
| Accountable: | •CPM |
|  | •Commodity managers |
|  | Each role are responsible for their suppliers |
| Roles involved: | •CPM |
|  | -Commodity managers <br>  <br> -Buyers |
| Comments: | The purpose of this process is to coordinate supplier management efforts <br> with other personnel within the organization that handles this supplier. If a <br> supplier delivers in multiple commodity classes or both to Commodity <br> manager organization and country procurement organization it is likely that <br> supplier management meetings needs to be held with many procurement <br> officers. If this is the case the meetings should be coordinated so that an <br> efficient solution can be reached. |

### 5.7 Analyze internal spending patterns and behaviour

| Input: | -Spend data from Pro Diver -Experiences |
| :---: | :---: |
| Output: | -Understanding of spending patterns and behaviour |
| Accountable: | -CPM |
|  | -Commodity managers |
|  | Each role are responsible for their suppliers |
| Roles involved: | -CPM |
|  | -Commodity managers |
|  | -Buyers |
|  | -Production representatives or other internal customers |
| System support and tools: | -Pro Diver |
| Comments: | The purpose of this process is to investigate the buying behaviour of our own company and se if changes would be beneficiary. |

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| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 5.8 Evaluate supplier internally together with internal customers

| Input: | - Spend data from Pro Diver <br> -Experiences <br> -Supplier KPI:s <br> -Contract <br> -Development plan <br> -Complaints |
| :---: | :---: |
| Output: | - Uniform view of the suppliers performance to present at meeting |
| Accountable: | $\bullet$ - ${ }^{\text {PM }}$ |
|  | -Commodity managers |
|  | Each role are responsible for their suppliers |
| Roles involved: | -CPM |
|  | -Commodity managers |
|  | -Buyers |
|  | -Production representatives or other internal customers |
| System support and tools: | - SCB branchnyckeltal (SWE) |
|  | -Vendor rating template |
| Comments: | The purpose of this process is to evaluate the supplier together with internal stakeholders and reach an agreement on what is the suppliers strong sides and were improvement is required. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 5.9 Draft meeting agenda and send it to the supplier for confirmation

| Input: | -Spend data from Pro Diver <br> -Experiences <br> -Supplier KPI:s <br> -Contract <br> -Development plan <br> - Internal evaluation of supplier |
| :---: | :---: |
| Output: | - Supplier well informed about what will be discussed at meeting |
|  | -Supplier has the possibility to prepare for meeting and with numbers and other information |
| Accountable: | -CPM <br> -Commodity manager <br> Each role are responsible for their suppliers |
| Roles involved: | -CPM <br> -Commodity manager <br> -Buyer |
| System support and tools: | - Meeting agenda (Example) |
| Comments: | The purpose of this process is to make sure that the supplier knows what we want to discuss and this gives them the opportunity to prepare for the meeting. If the supplier is well prepared at the meeting it is more likely that the meeting will be productive. |


| Process owner | Date | Version |
| :--- | :--- | :--- |
| TBD | XX-XX-XX | 0.1 |

### 5.10 Meet the supplier to evaluate and develop the business relation

| Input: | •Different supplier analysis' <br>  <br>  <br> •Internal evaluation of supplier <br> •Meeting agenda |
| :--- | :--- |
| Output: | •Development plan |
| Accountable: | •CPM <br>  <br>  <br> •Commodity manager <br> Each role are responsible for their suppliers |
| Snvolved: | •CPM <br> •Commodity manager <br> •Buyer <br> •Internal customers <br> •Supplier |
| Comments: | The purpose of this process is to create a development plan in cooperation <br> with suppliers and internal customers. The purpose of this plan is to develop <br> the business relationship with the supplier and in the long run to realize <br> savings potential. |



### 5.11 Deploy and implement the development plan

| Input: | -Development plan |
| :---: | :---: |
| Output: | -Actions in line with the development plan |
| Accountable: | -CPM <br> -Commodity manager <br> Each role are responsible for their suppliers |
| Roles involved: | -CPM <br> -Commodity manager <br> -Buyer <br> -Internal customers <br> -Supplier |
| System support and tools: |  |
| Comments: | The purpose of this process is to make sure the actions agreed upon in the development plan are realized. This might require actions both from the suppliers and personnel within Boliden. |

## Appendix 2

This appendix contains the procurement policy that was created in this project.

Boliden AB

| Document name  <br> Group Procurement Policy Area <br> Group Procurement and <br> Logistics | Reg.nr | Page <br> $1(4)$ |  |
| :--- | :--- | :--- | :--- |
| Created by <br> Mattias Berggren <br> Magnus Blomberg | Approved by | Valid from | Created <br> $2006-08-01$ <br> Adjusted by |
|  | Conducted change | Version <br> 0.2 | Date of adjustment |

## Group Procurement Policy

This group procurement policy is valid for all personnel involved in, or influencing, the procurement process within New Boliden. This policy is based on the New Boliden way, code of conduct and other company policies. However it is to be considered as a complement to these policies and the purpose is to clarify issues concerning procurement, so you are still to be aware of the requirements in other company policies in your area and if there are inconsistencies they are to be reported to the company CPO.

## Purpose

The group procurement purpose is through passion, responsibility and commitment supply the company with products and services at lowest total cost of ownership, to contribute to the creation of a world-class, focused and cost efficient mining- and smelter company.

## Organizational responsibility

Group Procurement and Logistics are subject to the deputy Chief Executive Officer and led by the Chief Procurement Officer.

Group procurement is responsible for all supplier relations, and financial commitments regarding materials and services to suppliers in the name of New Boliden, although selection of suppliers and products should always be made in cooperation with internal customers. All personnel involved in purchasing must be aware their authority and don't conduct business outside of it.

## Group Procurement function

Personnel who are involved in the procurement process are suppose to fulfil their obligations by, according to the procurement manual and their role descriptions conduct:

- Governance and administration
- Strategic sourcing
- Contracting
- Operative procurement
- Supplier management

| Document name |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Group Procurement Policy | Area <br> Group Procurement and <br> Logistics | Reg.nr <br> XXXXX-XXX | Version <br> 0.2 | Page <br> $2(4)$ |

## Considerations to HMSQ

Personnel who are involved in the procurement process are suppose to:

- Actively work to ensure correct quality on purchased products.
- Actively work to ensure that purchased products has as little negative environmental effects as possible, both at the suppliers' sites as well as at New Bolidens sites.
- When selecting suppliers, actively work to ensure that they contribute to heightened safety and better work environment both at their facilities and at New Bolidens facilities.
- Make sure that business is conducted only with suppliers that meet the requirements concerning environmental-, safety- and work environment issues.


## Considerations to other company policies

All procurement activities should be undertaken in line with company policies, such as New Boliden Way, Environmental policy and other policies.

## Ethical considerations

The basic principle of all business is that all agreements entered should be respected at all times.

All personnel involved in the procurement process should always act with the companies best interest as first priority.

Personnel with the possibility to influences business conducted within New Boliden may not use the influence over suppliers that this gives for personal purposes such as personal purchasing or sponsoring.

If faced with a situation were you suspect that certain actions might be considered as unethical, consider them so until further notice, and contact your supervisor for more information.

All business travelling and participating in supplier activities should always be technically and/or economically well motivated. Larger travel expenses such as flights or hotels should always be paid by New Boliden and never by the supplier. All travelling should be conducted in line with the company policy for business trips.

## Bribery and corruption

We shall treat our suppliers fairly. We shall be open and truthful in our business relationships and shall refrain from making contributions or granting remuneration, expenses or gifts that may, directly or indirectly, inappropriately influence their recipients' decisions. We may never, under any circumstances, exploit our position for our own personal gain. Gifts, both given and received, shall be modest and must never exceed values equivalent to those prescribed by accepted business practice in the local market or by applicable legislation.

| Document name |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Group Procurement Policy | Area <br> Group Procurement and <br> Logistics | Reg.nr <br> XXXXX-XXX | Version <br> 0.2 | Page <br> $3(4)$ |

## Discrimination

Procurement activities shall not be discriminatory in terms of sexual preference, race or gender and shall not form part of any political or religious context. The Group
Procurement and Logistics department shall always strive to achieve a balance between genders when staffing.

## Child labour

We shall ensure that none of the operations controlled by the company lead to the exploitation of children.
We never, either directly or indirectly, collaborate with suppliers or customers where we have reason to believe that child labour is used.

## Protection of information (secrecy)

## Agreements and transactions

All written agreements entered into by the company shall be filed in the company archive. We shall also save other documents reflecting business transactions and shall be particularly careful with documents that may be significant to future legal proceedings, audits or other investigations. If you are in any doubt, please consult Legal Affairs.

Information should always be treated with care and be distributed correctly both internally and externally. All confidential information received should be treated as confidential. Such information or other information that contains information about agreements or prices may never be communicated to a third party.

## Views on suppliers

New Boliden should always treat its suppliers fairly and just. Potential suppliers should be given the same opportunity to present their products as present suppliers.

New Boliden shall always act according to good business practice and expects all suppliers to do the same.

New Boliden should always strive to lower its total costs and all suppliers are expected to contribute in this strive.

## Competition

We shall adhere to local legislation, statutes and industry regulations in each of the markets in which we operate.
We operate in a fiercely competitive global market. We always welcome strong competition as long as it is fair. We shall do our utmost always to outperform our competitors honestly and honourably without compromising our requirements in terms of responsible conduct.
We shall never agree to or be party to any form of unlawful collaboration that may restrict competition, such as price fixing, market division or decisions concerning production quotas, etc. We shall co-operate with all the relevant authorities on such matters.

| Document name |  |  |  |
| :--- | :--- | :--- | :--- |
| Group Procurement Policy | Area <br> Group Procurement and <br> Logistics | Reg.nr <br> XXXXX-XXX | Version <br> 0.2 | | Page |
| :--- |
| $4(4)$ |

## Other policies

This policy is constructed in line with other company policies. You are required to know these policies as well and follow does that affect your role in the company. This version of the Group Procurement Policy is updated according to the following documents.

| Document name | Dept. of <br> Issue | Date of <br> issue | Approved By |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  | Title |  |
| Boliden Code of Conduct | Company | $05-07-13$ | Jan Johansson | CEO |
| Operational Policy | Company | $05-05-17$ | Jan Johansson | CEO |
| New Boliden Corporate <br> management guidelines: <br> Environment | HMSQ | $05-06-20$ | - | - |
| New Boliden Corporate <br> management guidelines: <br>  <br> Safety | HMSQ | $05-06-20$ | - | - |
| Boliden Group Policy for <br> business trips | $?$ | $?$ | $?$ | $?$ |
| Authorization Policy and <br> Principles | Economy <br> \& Finance | Jan -06 | Jan Johansson | CEO |
| IT | 06-03-28 |  |  |  |
| Energy Policy | Energy | $05-10-27$ | Jan Johansson/ <br> Peter Pernlöf | CEO/ VP <br> Energy |

## Appendix 3

This appendix contains a list of abbreviations and acronyms that are used in the report and appendixes.

## Abbreviations and Acronyms

B = Buyer
CFO = Chief Financial Officer
CM = Commodity Manager
CPM = Country Procurement Manager
CPO = Chief Procurement Officer
LeB = Lead Buyer (This title was later changed to CM, Commodity Manager)
MRO = Maintenance Repair and Operating
PS = Procurement Support
RFP = Request For Proposal

