Being dynamic in a dynamic world

Christian Lillebo & Anders Hilsen

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Ås, Akershus, Norway

By

Christian Lillebo & Anders Hilsen

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I Preface

This Master thesis is written as the last mandatory part of the Master's study in Business Administration at the UMB School of Economics and Business. This thesis was performed throughout the spring semester of 2013 and we have been localized both at our school in Ås and at FMC Technologies' site in Kongsberg. The group has consisted of students Christian Lillebo and Anders Hilsen.

Our work is now finished. It has been an exciting, demanding, stressful (at times) and learning experience that we have appreciated and will still appreciate for a long time. We sincerely hope this thesis will give its readers value for the time spent browsing through its pages. We want all readers to understand the field of Beyond Budgeting better and to be inspired to see alternatives to everyday processes.

First and foremost we would like to thank FMC Technologies and all its employees for being part of our interviews and giving part of their time to ensure this thesis consists of only the most accurate information possible to obtain. We would also like to thank Joakim Langkaas for seeing the potential of a thesis and helping us on the way to creating a mandate. Hanne Korssjøen and Iain Wishart have both been open-minded about our thesis and helped us through some discussions. Our supervisor at UMB, Kjell Gunnar Hoff, has been an indispensable resource for discussions and quality reviews of our writing. Last, but not least, we would like to thank our fellow students for making our education an overall good experience and UMB's administration for any support with our thesis.

Thank you all for your support!

Ås 15.05.2013

Christian Lillebo **Anders Hilsen**

II Abstract

During the last decades, the traditional annual budget has been criticized by researchers and practitioners for being too static as a management tool. Both global and domestic corporations operate in an increasingly dynamic business environment and the annual budget is accused for setting barriers for change and value creation. In our Master thesis we have studied the budget process in FMC Technologies Eastern Region (FMC ER) and we have examined the three following problems:

1. **What is the value of the traditional budget process perceived/actual?**
2. **Could FMC ER benefit from moving from the traditional budget process to a Beyond Budgeting approach - what would be gained/lost?**
3. **How could FMC ER with their business model and volatile planning benefit in a Beyond Budgeting model and how could it be implemented?**

Before we discussed these problems we have described FMC ER's current budget process to give the reader an insight to what we write about.

We found that the budget process has value for FMC ER because it is a break from daily operations and it provides the organization with a reflection over its business. One downside with the budget process is that people in FMC ER thinks that it is too time-consuming and this is related to a relatively high level of detailing. The annual budget as a management tool adds less value for FMC ER than the process of creating it, argued with; 1. It is updated too infrequently with respect to FMC ER's fast changing business environment and 2. It is not used as a follow-up tool as intended because the budget assumptions rarely holds during the fiscal year. The argument stating that the annual budget is too static, thus seem to be applicable to FMC ER, though they are relatively dynamic in terms of managing deviations through their forecasting method.

Briefly explained, Beyond Budgeting is about removing the budget and replacing it with more dynamic management tools and to decentralize decision-making authority. We found that FMC ER is not ready to implement a Beyond Budgeting approach now. This is due to the current situation where FMC has hired many new employees over the last few years that still need more training and experience before they are provided with decision-making authority. Since we have

concluded that FMC ER is not ready to implement Beyond Budgeting, we have suggested solutions to erase the disadvantages with the annual budget. We suggest having a 12 month rolling budget updated quarterly and an 18 month rolling forecast updated monthly. We further suggest removing the annual budget, but still having an annual process where the whole organization takes a closer view at its business, looking for improvements.

We have concluded that FMC can benefit from implementing a Beyond Budgeting approach when they are ready. Therefore, we have given a proposal on how they can implement this approach at the end of this thesis. This is based on the six principles of Beyond Budgeting with the experiences of implementing it to the fullest by other companies.

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1. Introduction

1.1. Background

"FMC Technologies, Inc. (NYSE:FTI) is a leading global provider of technology solutions for the energy industry. Named by FORTUNE® Magazine as the World's Most Admired Oil and Gas Equipment, Service Company in 2012, the Company has approximately 16,800 employees and operates 30 production facilities in 16 countries. FMC Technologies designs, manufactures and services technologically sophisticated systems and products such as subsea production and processing systems, surface wellhead systems, high pressure fluid control equipment, measurement solutions, and marine loading systems for the oil and gas industry". (fmctechnologies.com)

This Master thesis is about the budget process in FMC Technologies. We chose to write our Master thesis for FMC because they had an interesting and challenging problem that was presented to us. FMC is currently budgeting in the traditional manner spending a lot of time in the period from 1st of June through 1st of November preparing;

- Early view – which is the early look at the coming 1st year
- Then preparing the Basis for planning (BfP) which depict the outlook for the coming year
- The final section is to put together sales and gross margin budget for the coming year.
- In parallel; resource planning, cost center planning, hourly rate assessment, capital investments, strategic initiatives, improvement initiatives etc.

We have written about FMC Eastern Region (hereby referred to as FMC ER) that is responsible for FMC Technologies' operations east for America (not including Asia). FMC ER has operations in Europe, Russia, Africa and The Caspian Sea. The headquarters are located in Kongsberg and the organizational chart is shown in figure 1.1 below. In FMC ER as a total, approximately 5100 employees are working and roughly 2500 is located in Kongsberg. Figure 1.1 shows how FMC ER is organized at the top level. There are numerous organizational charts at different levels of the organization. The complete organizational chart is larger and more complex, but this chart is enough to show how hierarchical top units are organized in FMC ER. The chart shows that FMC ER is a line organization with a formal hierarchy (Jacobsen &

Thorsvik, 2007). The different units are organized based on functions (e.g. marketing) and also geographically (Africa and Caspian), this is also true for lower levels of organized units. In lower units they can also be based on customers (e.g. Statoil and Total).

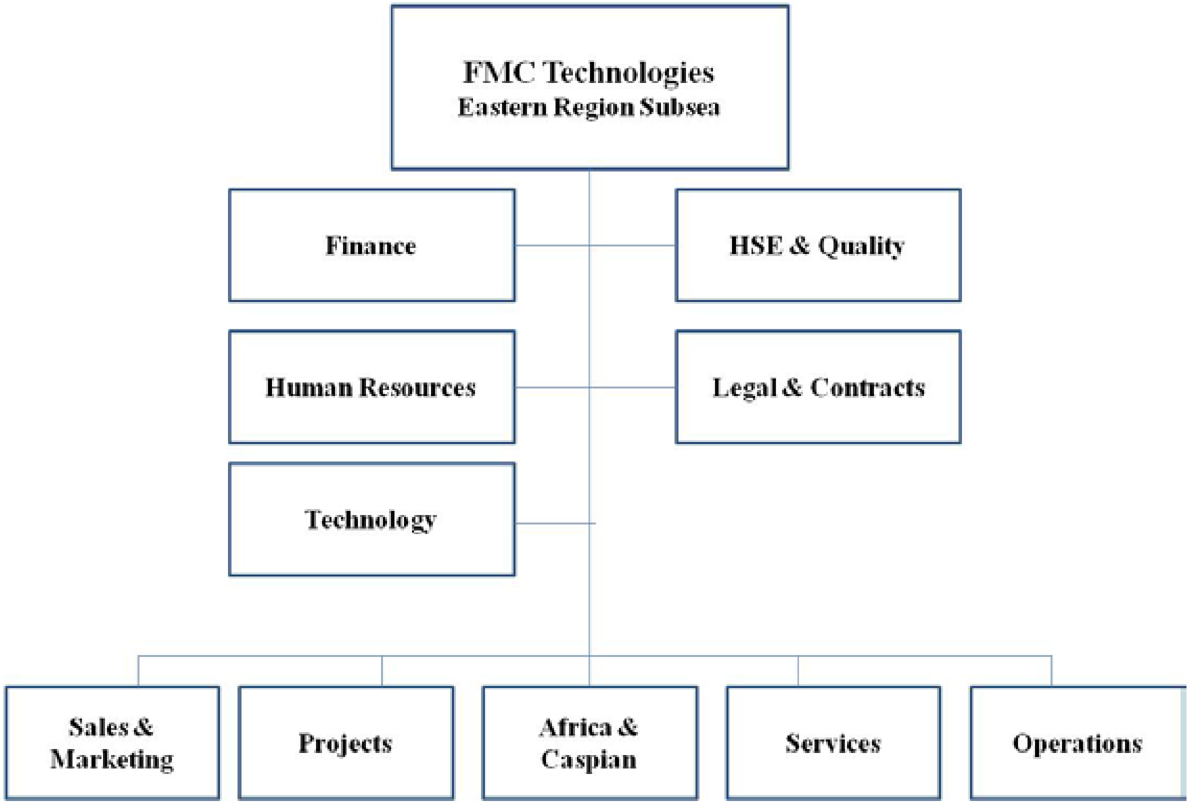

Figure 1.1. Top organizational chart for FMC Technologies Eastern Region

FMC ER is a project-driven organization and it is the projects that mainly generate income for their business. The different projects vary in size, complexity and life span. The projects are managed in different portfolios, e.g. the projects linked with Statoil have its own project portfolio. In figure 1.2 we have made an illustration of how different projects are carried out and what responsibilities different units in FMC ER have. We have illustrated the work around projects as a three dimensional process with; projects, work packages/product lines, project administration and support functions/service centers. The different cost centers are department that do project administration. They lend out their workforce as consultants to the projects with a specific dedication of hours, e.g. department 1605, delivery planning, lends out employee A with a 10% workload to the project X. As internal accounting, the project "pays" the cost centers for the hours it lend. In the illustration we have shown a selection of different cost centers related to project work. The work packages are product lines that deliver products and/or services to the projects, e.g. when work package 35 delivers a manifold to project X. The work packages also deliver components to each other, as the circular arrow indicates. The support activities (e.g. IT) have been placed outside the box. It is important to stress that people who are part of the support activities also appear in the projects when needed, e.g. the IT department supports a project on IT related issues. The costs in the support activities are allocated as a set overhead. In our illustration we have mentioned a selection of support activities in FMC ER. The support functions are pure cost centers, whilst the departments that do project administration and the different work packages should break even.

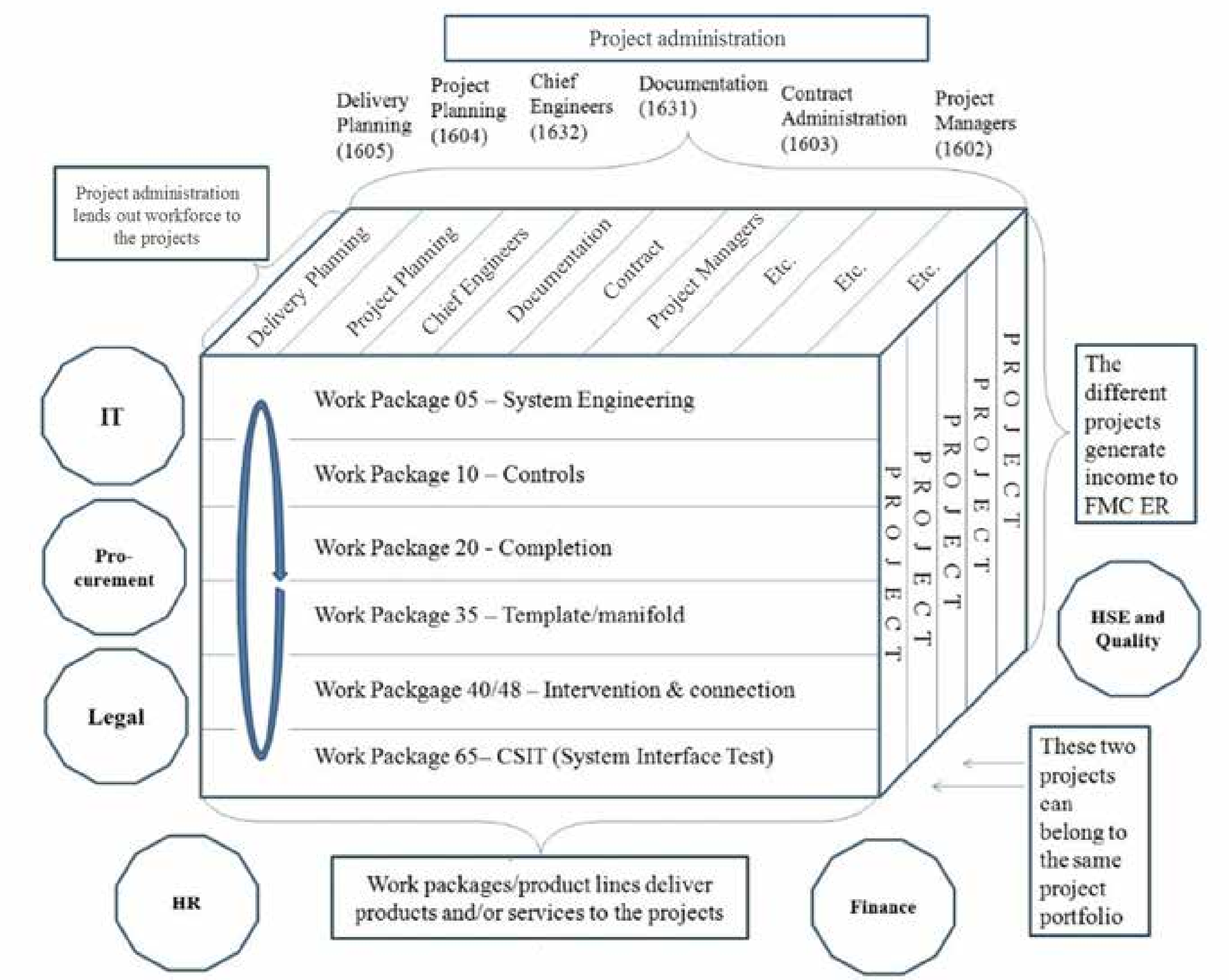

Figure 1.2. How FMC ER is managed

When reading this thesis it could be nice to have FMC ER's top level strategy and vision in mind. FMC ER has a vision of being the market leader in their industry through innovation and creating customer satisfaction. To get there, they have a set of core values that everyone employed in FMC ER should use as a platform when decisions are to be taken. These are: quality, safety & sustainability, collaboration, innovation, valuing people, integrity and customer-centered. See figure 1.3 for an illustration.

Figure 1.3. FMC Technologies' vision and core values

1.2. Purpose

We contacted FMC ER in Kongsberg to ask if they were interested in having a Master thesis written for them. It was decided that the Master thesis should examine the budget process in the organization and explore any changes that could be implemented. Our focus was directed towards the budget process for the fiscal year. Since FMC ER is a complex organization, one major task was to map the whole process and consider all aspects around it that might affect and/or be affected by the annual budget. The results of this analysis are supposed to be followed by a proposal to how they can implement and change their processes if necessary.

1.3. Problems

The problems were decided by FMC ER through the mandate (see appendix 2) and the following problems are analyzed and discussed in this thesis:

4. What is the value of the traditional budget process perceived/actual?
5. Could FMC ER benefit from moving from the traditional budget process to a Beyond Budgeting approach - what would be gained/lost?
6. How could FMC ER with their business model and volatile planning benefit in a Beyond Budgeting model and how could it be implemented?

1.4. Limitations

This thesis have included the three divisions of FMC ER; Sales & Marketing, Projects and Operations. We did not include Subsea Services or the Africa & Caspian division because of the extent and relevance of this thesis. This means that we have only interviewed people connected with Sales & Marketing, Projects and Operations.

1.5. Structure

This is an illustration of how we have structured our thesis:

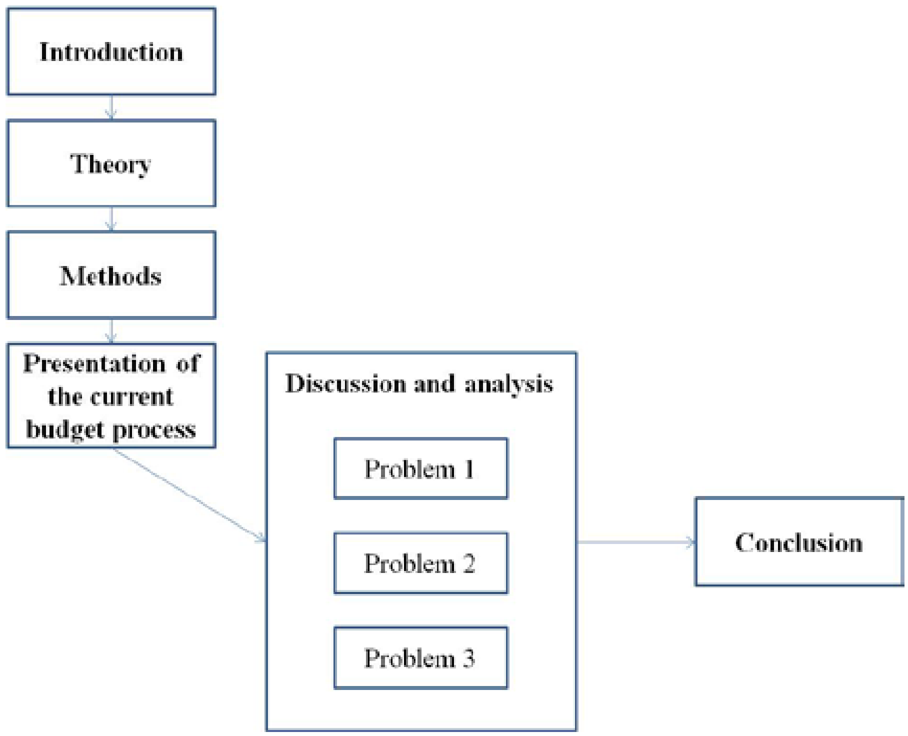

Figure 1.4. Illustration of how the thesis is built up

In chapter 2 we have presented relevant theory for this thesis. The theory chapter examines traditional budgeting and the criticism against it, Beyond Budgeting and the criticism to this concept, tools used to implement Beyond Budgeting and a presentation of Statoil's implementation of Beyond Budgeting. We have used the theory chapter as a reference throughout the thesis. Chapter 3 gives insight to what methodology we have decided to use to analyze and give answers to the three problems mentioned in chapter 1.3. In chapter 4 we have explained how the budget process in FMC ER is today. The analysis part of this thesis is in chapter 5. We have presented the results from our analysis and discussed them in that chapter and we have written our conclusion in chapter 6.

2. Theory

In this chapter we have given theoretical insight needed to answer the problems chosen for this thesis. We have referred to the theory chapter in the discussion and analysis chapter.

We have chosen to start explaining traditional budgeting, clarify why companies' have budgets and then explain the criticism to this approach. After these sub chapters we have explained the Beyond Budgeting concept, focused on how to implement Beyond Budgeting and presented three tools: balanced scorecard, benchmarking and rolling forecasts. We also have a sub-chapter that criticize the Beyond Budgeting approach. In the end, we have written about Statoil that has implemented Beyond Budgeting and refer to their experiences with this approach.

2.1. Traditional budgeting

Typically, budgets represent an assembly of a company's planned income and expenses for the upcoming fiscal year. It contains both expectations and targets numerically and is often supplemented with a plan on how to achieve the goals. This plan contains specific actions with causal relation to achievements. From a general perspective we can describe the budget as a numerical presentation of the company's action plan and a strategic milestone plan (Hoff, 2009b). Hoff explains that the purpose is to ensure coordination and rational execution of the planned actions, which shall lead to goal achievement. When entries of expectations are made, assumptions are needed and these are made from estimates of variable and fixed inputs. Traditionally, the budget has been agreed upon annual through discussions between line managers and the senior management. The budget provides the departments and its managers with a framework for the amount of resources they can spend in their department to meet the budget and what expectations they will be measured against. Senior management uses the budget as a link between the corporate strategy and the operations, called strategic implementation. Senior management will be able to measure departments' and managers' results against the approved budget and based on this evaluation; give rewards. The budget also secures the use of resources in the organization.

2.2. Criticism of traditional budgeting

The traditional budget process has been criticized by different researchers and practitioners over the past decades. "*Budgeting is the cornerstone of the management control process in nearly all* *organizations, but despite its widespread use, it is far from perfect*" (Hansen et al., 2003:95). Budgets can be followed and they can be ignored, but the criticism applies to both cases. Hope and Fraser (2003a) argue that the traditional budgeting process is too much time-consuming, adds little value for the company and it is not dynamic enough relative to today's business environment. Assumptions that are non-controllable for the manager introduces a problem especially when the results are to be compared with the budget (Sending, 2009). If the bottom line has relatively high dependence on such factors (e.g. foreign exchange and procurement of commodities) it would, in a best case scenario, be difficult to use the budget as a management tool. They also argue that the budget, which is often related to incentive contracts, can lead to dysfunctional behavior, i.e. budgets can prevent managers to refuse profitable choices if they oppose their own rewards and/or deviations from the budgets would lead to adverse consequences for the manager. "If the whole flock of sheep is running in one direction it is very trying to be the single sheep that runs in quite another direction" (Wallander, 1999).

Jan Wallander calls the budget "an unnecessary evil" in his book published in 1994 and explains this with the unpredictability of the future. An assumption made during the budget process is often unsecure and difficult to estimate. If the budget is made on wrong assumptions, then the advocates against the traditional budgets states that the line managers are constrained to stay within the framework the budgets sets. This could not only prevent innovation and profit, but also harm the business if corrective actions are needed. Another aspect of this is that a significant change in assumptions makes the budget worthless as a management tool (Hoff, 2009). Further, Wallander criticizes the time spent on the budget process and that the benefits seem to be less than the efforts.

In many cases, especially in relatively volatile business environments, the budget can have little practical significance on the line manager. If the budget is set aside, all the resources put into the process could represent a waste of resources. The company can have an annual budgets, but "*there is no point in making a budget if you do not believe in it*" (Wallander, 1999).

Fast decisions based on the current information are what organizations need (Hope & Fraser, 2000). The decision making would be reinforced by shifting the decision authority down to front-line managers. By this, the result would be a more dynamic organization that is well adapted to its environment. The opinion of Beyond Budgeting-advocates (this philosophy is explained in detail in the next sub-chapter) is that an annual budget doesn't contribute to a dynamic business, given that the budgets are actually followed.

As an overview of the critics, we have included an article that lists up twelve common critical claims about the traditional budget. The language is taken directly from Neely et al. (2001:2-3) who made a research report on strategic planning and budgeting in a cooperation between Accenture and Cranfield School of Management:

1. Budgets are time-consuming to put together;
2. Budgets constrain responsiveness and are often a barrier to change;
3. Budgets are rarely strategically focused and often contradictory;
4. Budgets add little value, especially given the time required to prepare them;
5. Budgets concentrate on cost reduction and not value creation;
6. Budgets strengthen vertical command-and-control;
7. Budgets do not reflect the emerging network structures that organizations are adopting;
8. Budgets encourage gaming and perverse behaviors;
9. Budgets are developed and updated too infrequently, usually annually;
10. Budgets are based on unsupported assumptions and guesswork;
11. Budgets reinforce departmental barriers rather than encourage knowledge sharing; and
12. Budgets make people feel undervalued.

They found these twelve points by looking through existing theory (from both researchers and practitioners) and by gathering a data set of information from 40 organizations. We have used this as a check list in our analysis. Based on this criticism new management models have arisen.

2.3. Beyond Budgeting

Beyond Budgeting Round Table (hereby referred to as BBRT) is a "*research consortium open to organizations interested in advancing their planning and control processes*" (Player, 2003). They are advocates for the Beyond Budgeting approach and the explanation of Beyond Budgeting in this chapter are mainly based on contributions in articles and books from three members of BBRT: Jeremy Hope, Robin Fraser and Steve Player.

Hope and Fraser published a book about Beyond Budgeting in 2003, and here is their definition:

Beyond Budgeting is *"a set of guiding principles that, if followed, will enable an organization to manage its performance and decentralize its decision-making process without the need for traditional budgets. Its purpose is to enable the organization to meet the success factors of the information economy (e.g., being adaptive in unpredictable conditions)"*. (Hope & Fraser, 2003a:212)

In their book the company is recommended to adopt the Beyond Budgeting approach and as a final result of this abandon the traditional budget. If the organizations follow their guided principles, as presented in figure 2.1, Hope and Fraser claim it would be unnecessary to make a budget because line managers will be capable enough to make decisions concerning the tactical and operative perspective themselves. They are closer to customers, suppliers and their operations, so a budget could be redundant or in worst case hold back good decisions. The traditional budget process is often seen as a top-down approach. There are those who argue against this statement; that the budget is made through discussions between senior management and line management and that the budgetary decisions may as well be a bottom-up process. Another argument is that the traditional budgets disable organizations to be adaptive to fast changing business environments and that given resources constrains departments and managers. We can argue against Hope and Fraser on this view because they lack empirical research that confirms this. The reader must keep this in mind when learning in detail what the Beyond Budgeting approach is about.

"*Why some organizations go Beyond Budgeting*" is the title of an article published by Steve Player (2003). He explains that many organizations have tried to improve their budget process and gives some examples of this. Organizations have tried zero-based budgeting (in the 1970's and 1980's), where they started the process from scratch and decided what the budget would be, based on the future, not looking on previous years. Some companies have changed the frequency of when budgets are made, e.g. 12 months budgets made quarterly. This will give the organization planning based on more current information. This is an advantage as Player sees it, but he also stress that these two approaches could lead to higher costs due to an increased workload. Other organizations have invested in their databases to reinforce the input to the budget process with real time data. Player (2003) says that well known organizations like Ford and Electrolux has focused on this.

In Beyond Budgeting the decision making is decentralized to line management and they are given autonomy, i.e. "*the freedom to act*" (Hope & Fraser, 2000). This can be within certain boundaries, e.g. company policies. Instead of traditional budgets; rolling forecasts, ambitious medium-term targets and measuring performance relatively based on internal and/or external benchmarking is recommended (Hoff, 2009). The Beyond Budgeting model has six principles that the authors recommend to be followed, the result is a continuous adaptive process (Hope & Fraser, 2003a).

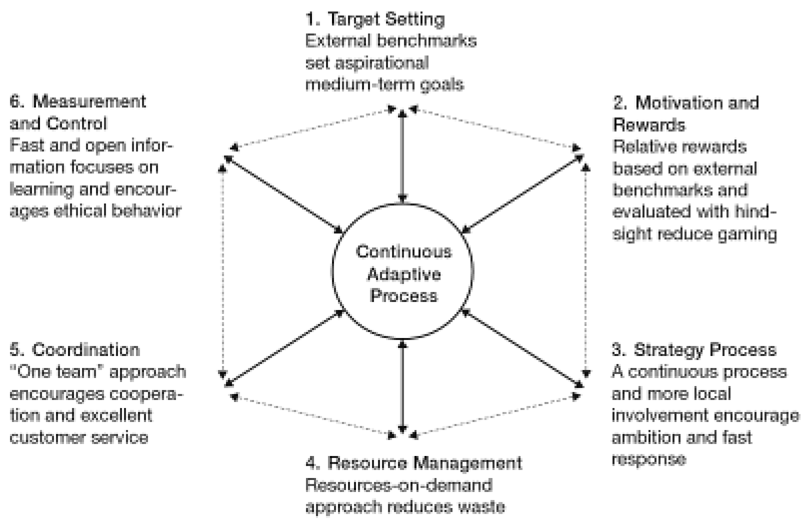

Figure 2.1. The illustration is copied from Hope and Fraser (2003a:70)

Target setting: Ambitious goals based on external benchmarks are set to inspire the departments to achieve. These goals are set by the departments based on what they think is possible to achieve. The departments are responsible for working towards the goals (output) and decide what resources (input) that should be spent, but the goals and resources are not fixed.

Motivation and rewards: The goals are set to show how the department is performing based on internal and external benchmarks. Rewards are set in evaluation of goal achievement.

Strategy process: The strategy process in the organization must be continuous and the planning is done by the whole organization, including every level.

Resource management: Resources are only spent when needed (i.e. continuously) and this reduces the waste. The decision to use resources is decentralized, but is evaluated by senior management.

Coordination: Every part of the organization is responsible for customer service. This is done in a non-hierarchy where everyone can be seen as working in a team to achieve customer satisfaction.

Measurement and control: Key Performance Indicators (KPI's), rolling forecasts, benchmarking and other performance indicators are used as measurement tools. These should be fast and open so that different parts of the organization extend towards achieving the goals and learn from each other.

When these principles are implemented in the organization it should be continuously adaptive, the next step is then radical decentralization. It could prove to be difficult advocating for decentralization in an organization rather than the opposite (Hope and Fraser, 2000).

This can be illustrated as peaks on mountains:

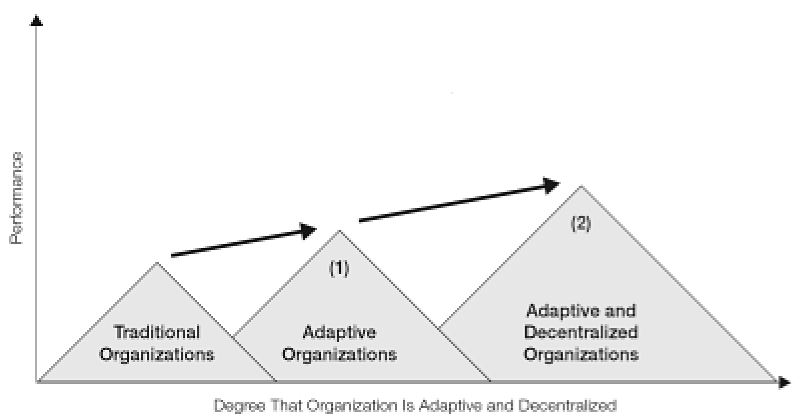

Figure 2.2. The illustration is copied from Hope and Fraser (2003a:36)

An adaptive and decentralized organization performs better than traditional organizations do Hope and Fraser (2003a) states. They have made a list of twelve advantages of being adaptive and decentralized and thus being able to remove the budget:

1. Cost savings
2. Less gaming

3. Faster response
4. Better strategic alignment
5. More value from finance people
6. More value from tools
7. Higher profits
8. More capable people
9. More innovation
10. Permanent lower costs
11. More loyal customers
12. More ethical reporting

This list of advantages is an assertion from the two authors and needs to be proved empirically (see chapter 2.2.1 for discussion) before any conclusions can be made. We present some of their arguments here. The departments don't need to argue with top management over allocation of resources and targets, so therefore less gaming. The organization will save resources allocated to the budget process and control. Less use of resources will make the company more productive and lower costs. Beyond Budgeting will enable line managers to concentrate their attention to operations. In turn, the finance department can spend more time on supporting front line managers making good decisions. The decentralization of decision making could make response time faster. Faster response time in combination with autonomy can increase the degree of innovation. The customers will benefit from all this making them more loyal to the company.

2.4. Criticism to Beyond Budgeting

If the criticism against the traditional budget process proves to be eligible, we could expect that many companies would move away from the budget. Johansen (2010) found out that a selection of Norwegian banks in general use traditional budgets, they do not intend to move away from it and that they do not agree with the criticism of traditional budgets. Traditional budgets are strongly anchored in the business economics field and are a common tool for managing the organization. Based on our own experiences in organizations, even people without any education in business economics seem to understand well why we have budgets and how they are to be used. How can newly hired employees cope with a Beyond Budgeting approach? Will they have the ability to handle decentralization and more responsibility? This question makes us wonder if some types of organizations are more ready for Beyond Budgeting than others, and this issue requires more research. Hammer (2010) suggests that Beyond Budgeting is more applicable to Scandinavian organizations than North American organizations explained by cultural differences. He found that approaches to Beyond Budgeting varied and that Beyond Budgeting in North American organizations had the most changes to the model. This makes us question if Beyond Budgeting is possible within major multinational organizations considering the major span of different cultures. Navekvien and Johnsen (2011) found out that organizations that are critical to the traditional budget make use of dynamic tools (see chapter 2.4), without dropping the budget. This could be seen as an answer to our thoughts of the budget as an anchor in most organizations. Hoff (2009) has directed a critical view to BBRT and their claims about the traditional budget in his book:

- BBRT seems to be concentrated at the income budget, while the liquidity budget has been important to keep. It would be difficult to update the liquidity budget without extensive details of sales and costs. Keeping track of the organization’s financial status in many industries is a necessity and therefore detailed budgets are needed.

- BBRT seems to base their criticism on the theory X, i.e. that employees are lazy and that they will use their effort on getting low set targets. Douglas McGregor referred by Hoff (2009) states that leaders with this view will make a self-fulfilling prophecy, i.e. that this will lead to theory X-employees and low ambitions. If leaders viewed their employees as theory Y-employees, set ambitious targets and enabled initiatives, this would be opposite to what BBRT criticizes.

- BBRT seems to underestimate the value of culture in organizations when they use examples from companies’ that have gone Beyond Budgeting. Hoff points out that the culture in Svenska Handelsbanken (which is often used as an example of a company that has successfully implemented a Beyond Budgeting approach) was highly focused on costs throughout its organization. This could be the reason why they could remove the budget, because cost control was already well established in the mindset of all employees. Not all organizations could easily fit their organizational culture with the Beyond Budgeting approach. It would probably vary with the industry the business operates in.

- BBRT seems to overestimate organizations' capacity and size to benchmark both internally and externally. In small to medium size organizations the traditional budget could the "best way" to implement strategy and having control if we compare cost against the benefit.

- BBRT seems to underestimate the value of a good planning process. Hoff (2009) quotes Dwight D. Eisenhower's that famously stated: "Plans are nothing. Planning is everything". Planning makes people more prepared to deal with deviations from assumptions, because planning provides insight and an overlook on the organization. The annual budget process can actually provide the ability to response more quickly to changes and not the opposite.

2.5. Other tools/supplements to Beyond Budgeting

Next, we have presented some tools/supplements that can be used to implement Beyond Budgeting and replace the traditional budget. We realize that there are other tools and concepts that exist and could be explained in detail, but we have decided to exclude them because of the scope of our thesis.

2.5.1. Balanced scorecard

The balanced scorecard is a tool management of an organization can use to link strategy with operations (Kaplan & Norton, 1992). It was introduced as an answer to organizations' strong focus on financial numbers. The translation of an organization's vision and strategy can be done from four perspectives; financial, customer, learning and growth and internal business processes. The three latter are supplements to the financial perspective (Kaplan & Norton, 1996). The model will make it easier to communicate the strategy to those that are at lower levels in hierarchy of the organization, because balanced scorecard aims to translate the organzation's vision and strategy into operational terms.

The balanced scorecard modell aims to look at the; past, present and future (Hoff & Holving, 2002). Hoff & Holving recommend that the organization sets up a strategic map that will show "the way" to strategic achievement (see example in figure 2.3). Here we have presented DuPont's strategy map (Kaplan & Norton, 2006). The strategy map contains strategic targets (e.g. optimize asset utilization) that are crucial within strategic themes (e.g. operational excellence) vertically and within the perspectives (e.g. process perspective) horisontally. This map is a good visual tool to show cause-effects between the strategic targets. Next, it's important to make a scorecard for every strategic target, where the status of achievement can be reported. Critical success factors are identified within the scorecard and Key Performance Indicators (KPI's) are allocated to each of them to show the status. The KPI's can both be financial and non-financial. Within each of the KPI's, leading indicators are identified to show what the organizations should focus on and measure. In addition, strategic initiatives decide what spesific actions should be taken to secure that the organization reaches the strategic targets and who is responsible for the initiatives.

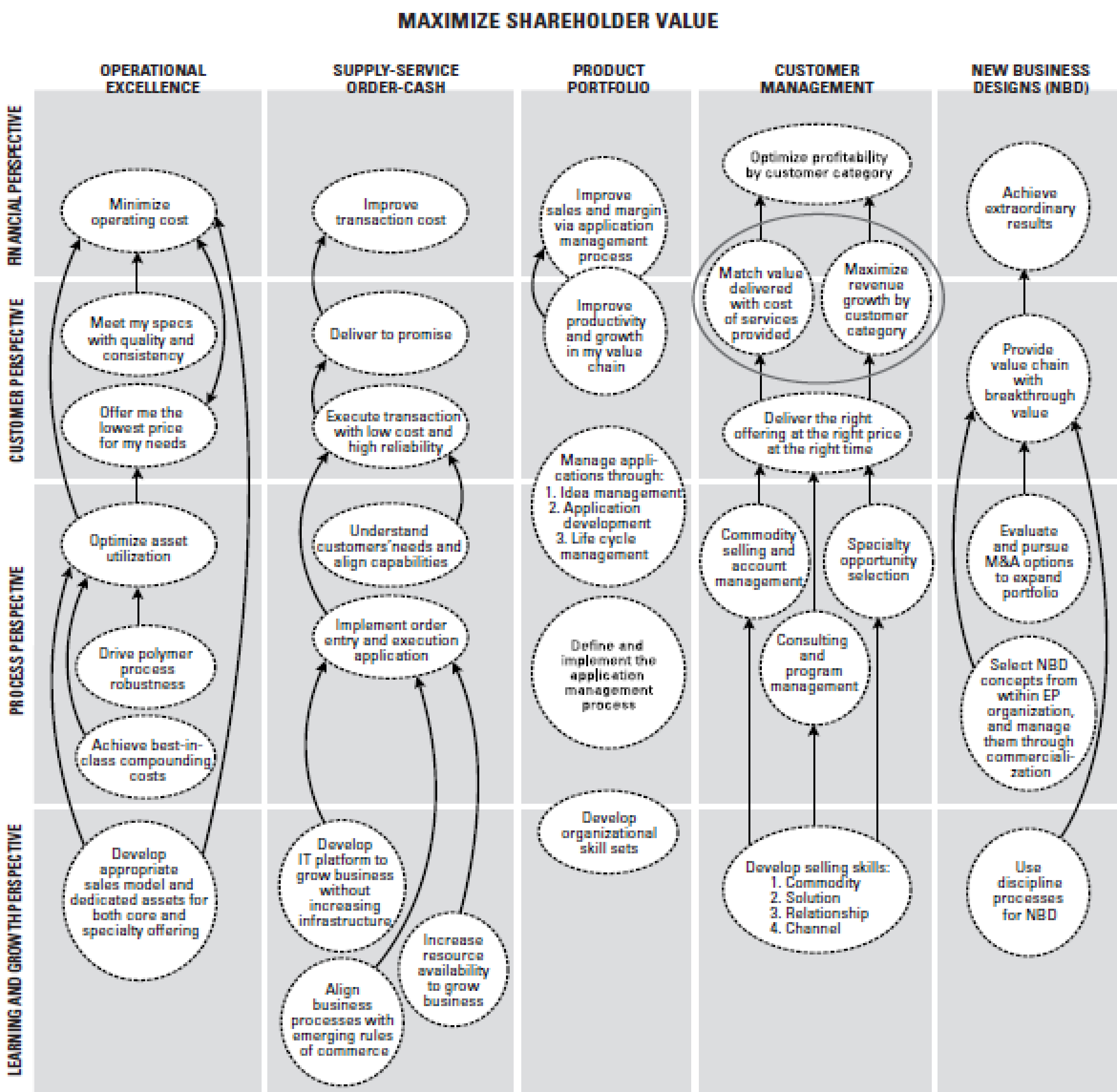

Figure 2.3. DuPont's strategy map. The illustration is copied from Kaplan & Norton (2006).

2.5.2. Benchmarking

One of the six principles of Hope and Fraser (2003a) is to use relative performance to evaluate the business. Benchmarking could be the answer to this. This sub chapter is based on Hoff (2009). Here is how he starts explaining the concept:

"Benchmarking is a method that compares our own performance against the best on the field. Put in system, benchmarking is a process where nearly all of the organization's internal and external processes, products, and services are measured and compared with their toughest competitors, or with organizations in completely other industries that executes the same working processes in an outstanding way ("best practice")" (Hoff, 2009:266).

Further; *"Benchmarking seeks to answer four different questions: 1. How good are we today? 2. How good can we be?, 3 Who can we learn from? and 4. How can we improve?"* (Hoff, 2009:267).

"*There are commonly four types of benchmarking that we separate from each other: 1. Internal benchmarking where units within the organization is compared with each other, 2. External benchmarking which is a comparison with similar organizations including customers and suppliers, 3. Competitors-benchmarking which is a comparison with the competitors functions and 4. Generic benchmarking, which compares similar functions and processes with organizations in completely other industries*" (Hoff, 2009:266).

2.5.3. Rolling forecasts

A forecast is an estimate of how the future will look like at a given time. It tells the organization what "they know" about future events, with some uncertain estimates added. It differs from a budget because a budget is a desired outcome and tells numerically what actions that should be taken to achieve it. Hoff (2009:464) states that the difference between the use of a rolling budget and a rolling forecast is trivial and one can see this argument as important. Regardless of this, the use of a rolling forecast is more "up to date" than rolling budgets are. Rolling forecasts as mentioned in chapter 2.1 can be a valuable tool to implement Beyond Budgeting and make it easier to remove the annual budget. The use of rolling forecasts does differ in frequency and length. The forecast can be updated monthly, quarterly, annually and so on. The length can also vary, e.g. 12 months, 18 months and 3 years.

2.6. Statoil's implementation of Beyond Budgeting

This section that introduces Beyond Budgeting in Statoil is based on Bjarte Bogsnes (2006) referred to in a Master thesis by Kjersti Grostad (2007). The purpose is to give a short introduction. In 2005, Statoil chose to abandon the traditional budget. Instead, they implemented more flexible tools that were supposed to fit Statoil's rapidly changing business environment. The traditional budget process aims to achieve three targets at the same time; set goals, plan and allocate resources. As a result of much criticism, Statoil chose to divide these into three separate processes "to achieve better link between strategy and action and thereby increased degree of goal achievement" (Grostad, 2007:16). This is directly derived from the criticism of the three mentioned aims done at the same time, making planning less dynamic as the critics' states. Strategy and ambitions are set for a 3-5 year horizon first, and then goals and plans respectively are set in two sequential processes. First, goals are set and consist of KPI's and KPI targets. Second, the action plan is set. These two processes ends up in a document called "ambition to action" (directly translated from Norwegian) which is made for the different levels in the organization, over 500 in total. Personal is evaluated based on their delivery and their behavior. Instead of approving the budget, the board only approves the top level "ambition to action". One of Hope and Fraser's (2003a) six principles; continuously allocation of resources, i.e. resources are allocated when needed, was implemented directly into Statoil's business.

Grostad (2007) studied three business units in Statoil; Global Exploration, Global Business Services and Energy & Retail. Her findings showed that those units were ready for the change. Controllers acted as promoters for the implementation and played a key role in the fulfillment. The organization was skeptical and afraid at first of losing control by replacing the budget with another form of governing, but the controllers managed to convince both the top management and the rest of the organization. An important conclusion is the importance of changing the way of thinking, so that people easily can shake of the budget-mentality. Since the implementation every unit at Statoil has seen a change in behavior and processes. The separate processes have led more realistic plans and people have become more aware of what it takes to succeed in the market. When it comes to the dynamic resource allocation, the practice of this has been different and depends on the size of the business units. In a unit that makes bigger decisions, the senior management is relatively more involved, whilst in case of smaller decisions the resource allocation is made on the individual level.

3. Method

3.1. Introduction

This method chapter was originally written to prepare us for the interviews. It was written before the interview process took place and then rewritten to be completely accurate to the actual events that unfolded.

FMC is a large and complex firm when it comes to Management Information Systems (MIS) and processes. The best way for us to understand these processes was by interviewing the people that take part in them. It also helped us to get familiar with "SAP", "Resplan", "PrimaVera" and other MIS's used for planning and budgeting purposes. It is generally believed in FMC that to learn ones job to the extent of being independent, takes approximately six months. Hence we needed to be careful with regards to how thorough we were with learning the different software's used as MIS. We did not want to spend all our time on learning detailed aspects of day-to-day business if it would not give any value to our thesis. The budgeting process includes so many different people and positions that we needed to limit the extent of our detailing. We discussed this issue with our supervisors who agreed it would be best to build upon the knowledge and expertise of employees through interviews. By doing so, we gained knowledge of the complete budgeting process and how it interacts with FMC ER's business. The interview subjects were main informants for pinpointing possible changes in this process. Our interview guide is attached as appendix # 1. Further on we have presented our method in detail.

3.2. Formulation and comments to the Problems

A quantitative approach to a research problem is deductive and structured. The problems in such an approach are usually an extension of a theory and are expressed through a hypothesis seeking to answer yes or no. In our context, the approach we needed to use was the qualitative, which is more inductive and less structured. This approach is considered the best when one not necessarily wants a yes or no answer, but need to understand the problem better. Understanding the problems better applied to us as the performers of the qualitative research and also the readers of this thesis. A problem in qualitative research usually starts with "how", "what" or "why". The process of qualitative research is circular and this means that we should be open to changing our problems as the thesis evolve and as information is revealed to us. (Askheim & Grennes, 2008)

Our problems were (as also expressed in chapter 1 and Appendix # 2):

- What is the value of the traditional budgeting process perceived/actual?

- Could FMC benefit from moving from the traditional budgeting process to a Beyond Budgeting approach – what would be gained and lost?

- How could FMC with their business model and volatile planning benefit in a Beyond Budgeting model and how could they get there?

To be able to answer these problems we needed to understand the process.

3.3. Design

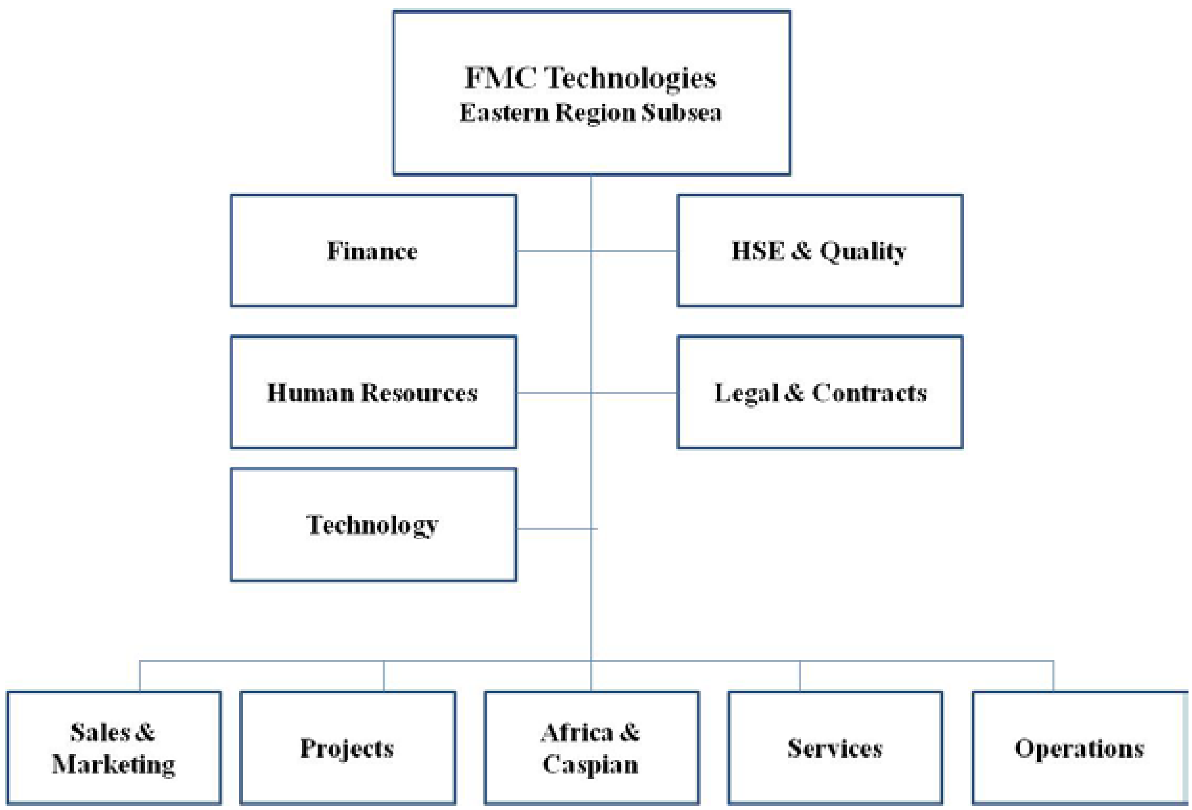

Figure 3.1. Organizational chart for FMC Eastern Region

Above you can see the organizational chart for FMC ER on the top most level. Further on we needed to select the parts of FMC ER most crucial to look at. There are four main questions to answer in a design chapter; who, what, where and how.

Who: We worked our way through FMC's organizational charts and chose interview subjects who report to the budget. We chose from all Eastern Region departments with the exception of "Subsea services" and "Africa & Caspian" as agreed with our supervisor in FMC. This was due to the size of the thesis and what we could manage within the time frame. Out of these departments we originally chose sixty possible subjects, ending up with interviewing a total of twelve. We chose these subjects based on their position in the FMC hierarchical structure, to give us a complete overview of the different aspects of the budgeting process. We received input from various FMC employees as well with suggestions to who we should talk to based on their experience.

What: The questions we asked were designed to give us an understanding of the current budgeting process and its flaws and potentials. As explained previously, we built our understanding on the knowledge and expertise of those that are involved in the process.

Where: The interviews were all conducted in Kongsberg. We were open to conduct some interviews in Asker or over the phone, but this proved unnecessary.

How: Since we were two, one made notes while the other drew and explained on a whiteboard. Both asked questions. The interview type was depth-interview and each subject was questioned separately. Some were also called back to clarify issues. At the end we performed a focus-group interview where we got a discussion going between employees with different responsibilities in the process. This gave us important feedback on issues that were unclear about our analysis and we were able to increase the quality of our thesis.

Our design approach was a so-called "case-design". This means that we sought to obtain a lot of information from a small amount of individuals in the organization. We considered interviewing two empirical limited units. An empirical unit can be a group of individuals or an organization. These two units should have been the group that has knowledge of the Beyond Budgeting approach (Statoil) and the people that has knowledge of FMC's budgeting process. Lack of time led us to rethink this strategy and we agreed with our supervisors to use existing material on the

Beyond Budgeting part instead. We wanted to know more about FMC as a company and our case was hence an intrinsic case study. This means that FMC was of primary interest and our thesis was written as an attempt to improve FMC's process, not to improve the field of Beyond Budgeting. Were we to look at the field of Beyond Budgeting as our primary interest, we would have had an instrumental case study. (Askheim & Grennes, 2008)

3.4. Method

We chose depth-interview as our main method. This is a semi-structured interview that evolves all the time and is not limited to the interview guide. It was expected that the interviews would be between thirty minutes to an hour and this assumption was correct. All interview subjects were informed about recording and that they would be anonymous. All recordings were deleted on the delivery date of this thesis. The interview transcripts however will be kept for any future reference but are not possible to link to any individuals.

Pro's	**Con's**
- No group pressure, individual opinion is expressed. - The subject is more concentrated. - More information is gained from each subject. - More possibilities of "probing", getting to the depth of what the subject means. - May reveal deeper opinions. - Easier to improvise or adapt the interview to each subject. - May reveal more sensitive information. - No requirements for a high number of subjects.	- Often costly and time consuming. - Less involvement from the contractor's side. - Demanding for the interviewer. - No group dynamics. - Complicated analysis and interpretation.

Table 3.1. Pro's and Con's of the qualitative research method (Askheim & Grennes, 2008)

The table above shows the general positive and negative aspects of the qualitative research method. The qualitative research method was important for us as we needed people to speak their mind. This would be difficult to get in a quantitative method with small spaces to write and scales to cross of opinions. It was good to be able to ask follow-up questions and restructure our interview guide to every individual. We would however like to perform the interviews again if we could as we now have a greater talent with making the conversation flow. This was very demanding at first and the interviews tended to be somewhat stuttering. We also found the transcriptions to be time-consuming and often difficult to interpret, especially when we didn't have the opportunity to transcribe straight away. A 30 minute conversation took approximately 6 hours to transcribe word for word and 1,5 hours when only written as a summary. (Askheim & Grennes,2008).

3.5. Reliability and Validity

Reliability means to what extent we have verifiability. This means that someone should be able to use our sources, methods and conclusions to do a retest in the future. We have ensured our reliability by writing an extensive and thorough methods chapter, hence giving us transparency. Also, we have transcribed all our interviews and saved them for future reference. We also went back to our subjects, after transcribing their interview, and verified that we understood them correctly where misinterpretation was possible.

Validity means to what extent we examine what we want to examine. Are we really asking the right questions? This refers to whether or not our interview guide reflected our problems. We believe that it did as we extensively ensured its quality through discussions within our group and with our supervisors.

As a final argument for reliability and validity, we emphasize the use of method triangulation. This means that we strengthened our method by choosing several ways of gathering data. As mentioned we used interviews and a focus group and searched through the existing BPMS (Business Process Management System) established by FMC. Had we only relied on the interviews, we could not have claimed to have used method triangulation. (Askheim & Grennes, 2008)

3.6. Ethical considerations

We did, to our best effort, act with integrity and respect towards all our interview subjects. We did not cheat with our results and we have presented the readers of this thesis with the truth, not what they want to hear. We transcribed the interviews in a way that reflects this, without making it possible for any third party to identify the interview subjects.

3.7. Time-span

We were situated in FMC Kongsberg approximately three days a week and we were able to interview and transcribe all twelve interviews within a four week period plus three days for the focus group. The reason for it to take that long was an over-ambitious assumption from our side as to the availability of employees.

3.8. Risk assessment

Our intent was to use experienced personnel to get the most accurate information. On the other hand, people that have been part of a system for a long time might lose the ability to see areas of improvement. When you have been part of a system long enough you can get “corrupted” by it and hence adapt to the system’s insufficiencies.

Some of the respondents might have been in a hurry and did not see the value of the interview, hence not putting an effort into answering any questions correctly.

Anders Hilsen has worked for FMC for approximately 10 months and his subjectivity might have interfered with the interviews and the review of any information.

3.9. Interpreting the data

This is difficult in qualitative case studies as the one we have just performed. There is no standard statistical way of analyzing our data so to our best effort we needed to find a way to leap from observation to science. Figure 3.2. shows an interactive model for data analysis as first envisioned by Miles and Huberman. Data reduction, data presentation and conclusion are the three tools to interpret what has been gathered in the interview process.

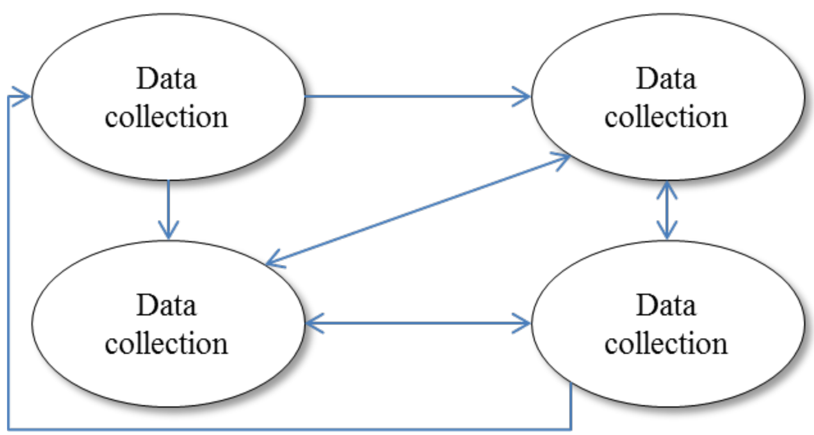

Figure 3.2. An interactive model for data analysis (Ringdal, 2007:223)

- Data reduction: This is a way of getting an overview over vast amounts of information. This is usually done by writing summaries or picking out the most relevant information from the interview transcripts. Our interview transcripts have themselves been written as small summaries and have hence given us the data reduction we needed. In recent years, word searching computer programs have been used in the analysis but that is not something we have used. Since we had as many as 12 interviews, we did not have time to transcribe these interviews word by word.
- Data presentation: Our way of presenting data is our tables as introduced in our analysis. We have gathered the most important parts of our interviews in tables explaining the various opinions and how we have grouped those opinions according to our themes of discussion.
- Conclusion: According to figure 3.3. one should seek to gather more data after the initial conclusion(s). Our conclusions on the other hand, based on time and scale of our assignment, were tested by a focus group consisting of several interview subjects. These subjects gave us vital feedback on misinterpretations and gave us the possibility to enhance the quality of our thesis. In hindsight, we see that it could have been good for our thesis to include some interviews toward the customers as well. (Ringdal, 2007:221-225).

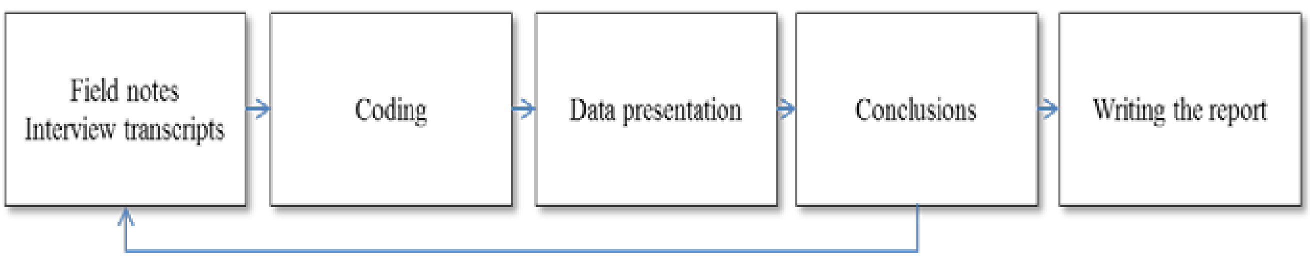

Figure 3.3. A traditional analysis process (Ringdal, 2007:224)

4. Introduction of FMC ER and their current budgeting process

In this chapter, we have presented today's budget process as an introduction to chapter 5, the analysis. FMC's main income derives from its projects, though the company in addition also has intercompany deliveries and standard deliveries that do not go through projects. We have differentiated between project budget and annual budget.

It all starts with the Tender Team. The Tender team can consist of over 100 employees and they are responsible for supplying accurate information within all fields of operation so that a budget can be established for a new project and a contract can be signed by the customer. The information they supply derives from the existing projects and operations. Whenever a project contract has been signed, the project becomes part of "backlog". This simply means that the project is owned by FMC ER and is ready to be started. Unsigned project contracts are called inbound. When a project contract has been signed, the next step is to submit the budget for control, approve it and maintain it.

The budget for a project is established for the whole lifespan of that given project, whereas the budget for FMC ER as a whole is worked out for one year at a time. Both the project budget and the annual budget will be highly affected by changes. These changes can be the price of raw materials, new variation orders (new additions to the contract or changes to product specifications) or simply when "Murphy strikes" during the project execution and delivery (murphys-laws.com). Figure 4.1. shows how a project budget is established. This forms the basis for reporting the status of the project, which is done by the following parameters:

- **EAC (forecast) –** This is what is expected of cost in the project when it's delivered. This number is based on what the Work Package Project Managers (WPPM) report to the Project Controllers and the Project Manager each month. **EAC = Actual cost + Commitment + Remaining**

- **Budget/Current Budget –** This is the original project budget + the variation orders (VO's) that are approved (signed) by customer.

- **Actual Cost –** This is the current cost of the project to date.

- **Commitment** – This is what the project has committed themselves to with regards to the suppliers, meaning that a purchase order (PO) has been sent out but an invoice has not yet been received from the supplier.

- **Remaining** – This is the expected remaining cost of the project (remaining PO's not issued and remaining working hours).

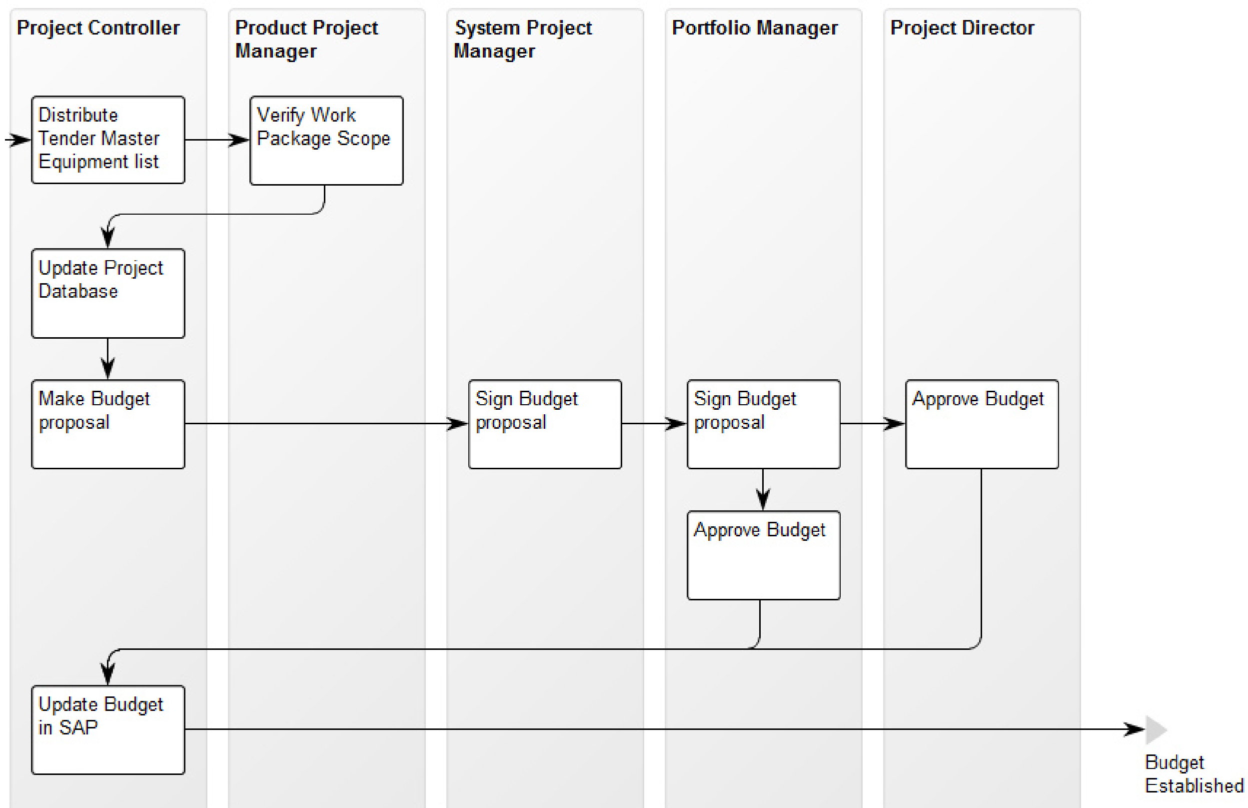

Figure 4.1. Project Budget (obtained from FMC's intranet)

Project life (Revenue centers): FMC's projects are executed as projects generally are, with the specific S-curved completion vs. time graph. The project controllers are responsible for reporting status of the project and the project managers/directors are responsible for why this reporting represents a positive or negative state. Usually, projects are set up so that they get paid based on the percentage completed, which means that any delays have a direct influence on FMC's cash flow and hence also if the annual budget is met. The delay of a project startup or deliveries within a project can have a huge impact on the budgeted targets. The project managers/directors have a high degree of responsibility and are generally given a lot of room to make their own decisions. These decisions can include investments in material, more resources and change of transportation means, though the size of the investment depicts the degree of approval it needs. Any delay in this approval process is generally not because of FMC's own processes of approval. The customers that FMC work towards also have their own approval processes and all changes have to go through them. Many projects also have reimbursable costs. A reimbursable part of a contract means that the customer is paying for it. Any necessary changes which increase costs, will then have to be approved by the customer. FMC ER is generally considered as being much more decentralized when it comes to decision making, than any of the other FMC regions and also most of their customers.

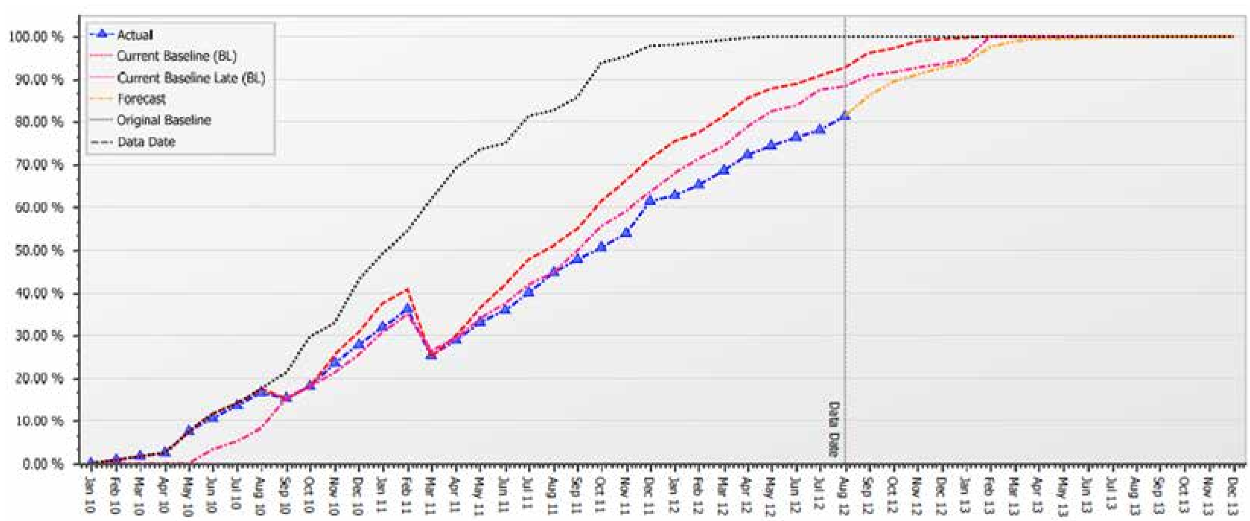

Figure 4.2. Project Life Span (obtained from FMC's intranet)

It is vital that projects run smoothly and people know who are responsible for the different tasks. Communication is the key to be able to not only establish an accurate and reliable budget, but also to make sure that it is a budget that fulfills its task of being a management tool. The delivery process within FMC ER is approximately as figure 4.3. depicts (though this can vary between projects for different customers and different countries). The below process is what the controllers need to be a part of and follow up with the project planners so that commercial invoices can be created and sent out to the customer. The numbers in the middle represents the time span of a delivery where the minus represents days prior to production and prior to delivery. Each part of the process is briefly explained with whom is responsible for that particular task.

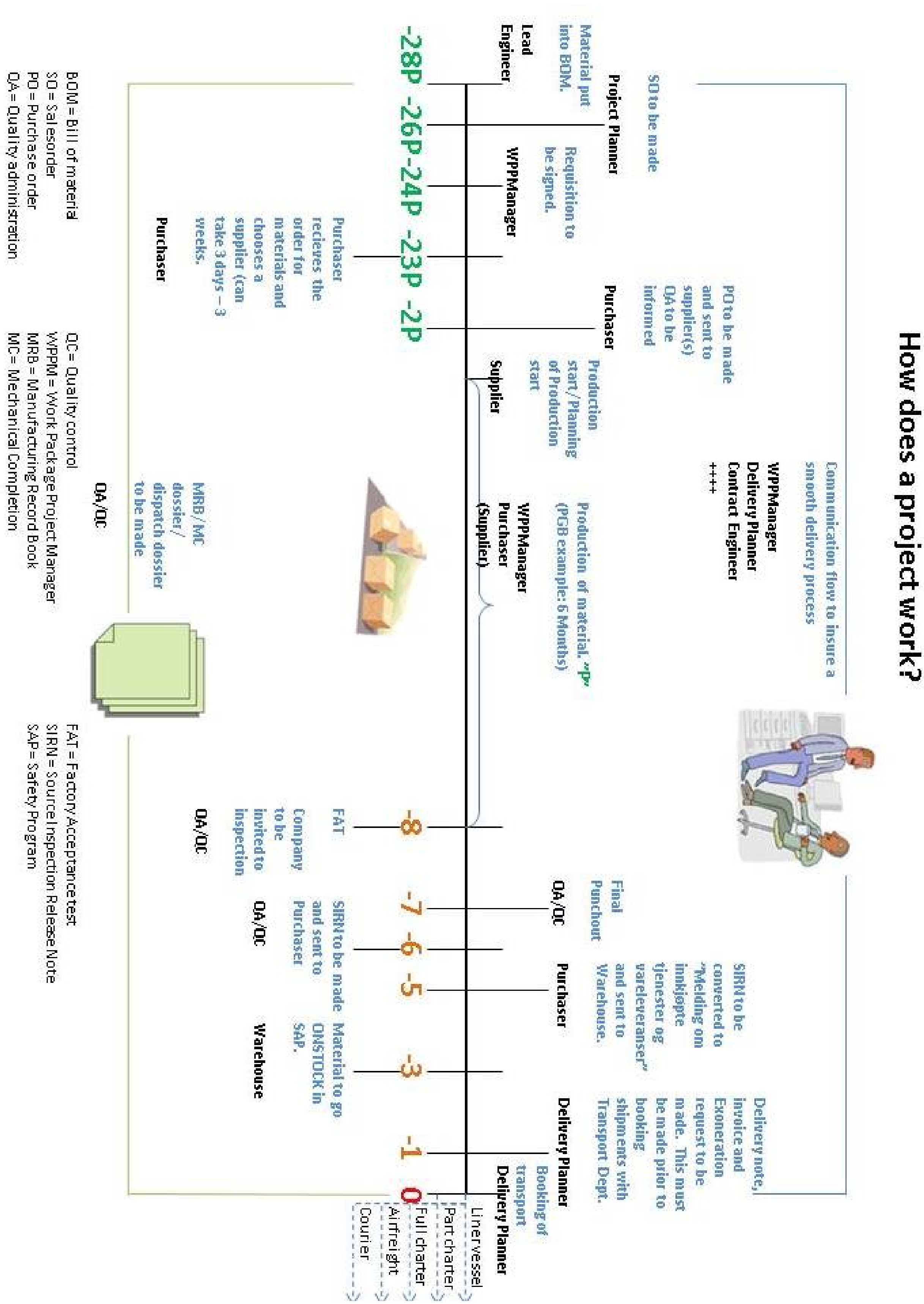

Figure 4.3. Project Delivery Process (Critical chain)

In June, the finance department creates “Early view” which is an early outlook on the coming year. In August/September, the sales department then creates the “Basis for Planning”, BfP, which is the main document stating how each cost center and service center should calculate their resource demands for the coming two years. The finance department then needs to communicate with each of these departments and the projects in terms of resources, general costs, sales and gross margins, investments, procurements and such to establish the next year’s annual budget by the 1st of November. This is a process where all numbers are reported bottom-up. Headquarters will cut down on resource demands in some places and report back as a top-down process. Somewhere in the middle the budget is “locked” and everyone tries to make do with the resources they have got. It is important to highlight that a one month delay of a project startup will have substantial impact on the budgets for the cost centers. Justifying overspending ones budget might be difficult when it is caused by factors beyond a leader’s area of influence.

The creation of the annual budget comes as a once-a-year process. People tend to forget what is not done on a regular basis and hence the budget process takes time to adjust to. It is therefore time consuming for the finance department to receive accurate information for the budget. Usually, changes in the budget is made just prior to deadlines by various department leaders and often this is not communicated to the finance department, causing them to spend much of their time hunting down information to explain the sudden changes to the budget. One of the problems in this respect is that all cost center leaders create their budget in Excel, while the finance department has to transfer 209 of these budgets to SAP.

The finance department also creates a 12 month rolling forecast which is reevaluated each month and is used as a measurement tool towards the budget. The basis for this forecast is the updated BfP which the sales department also updates on a monthly basis. The forecast consists of the same numbers as the annual budget but is not based on the same detailed reporting from the various cost centers. The cost centers have recently been included in the process, making the forecasting more similar to the budget process. It is also based on the progress within the projects reported by the project controllers and the changes in BfP.

Project administration: are supposed to break even as they get paid by the projects for the resources they rent out to projects. As mentioned, all of these departments use the BfP to establish how much resources they may need to hire, lay off or relocate to ensure that they break even with their budget at the end of the year.

Regular resources for a project: People who deliver resources to the projects in the form of planners, controllers, logistics personnel, procurement and such.

Product Lines/Work packages: The product lines deliver not only Work Package Project Managers (WPPM's) to all the projects, but also products specific to each product line such as intervention and connection, manifolds, well jumpers, X-mas trees etc. Each of the WPPM's are responsible for their package and are usually situated within the project to better ease the communication. A product line is a department delivering specific types of products to a project. When situated in a project, any product line is referred to as a work package. The product lines are also supposed to break even for the resources they rent out and the products they procure for projects.

Service centers/support functions: These are departments that deliver services to a project as needed, such as HR and IT. These departments' service costs are allocated based on an overhead on all projects.

Project administration, product lines/work packages and service centers/support functions are effectively all cost centers.

The various departments and projects explained above are all interlinked and create our overall budgeting process which is visualized below:

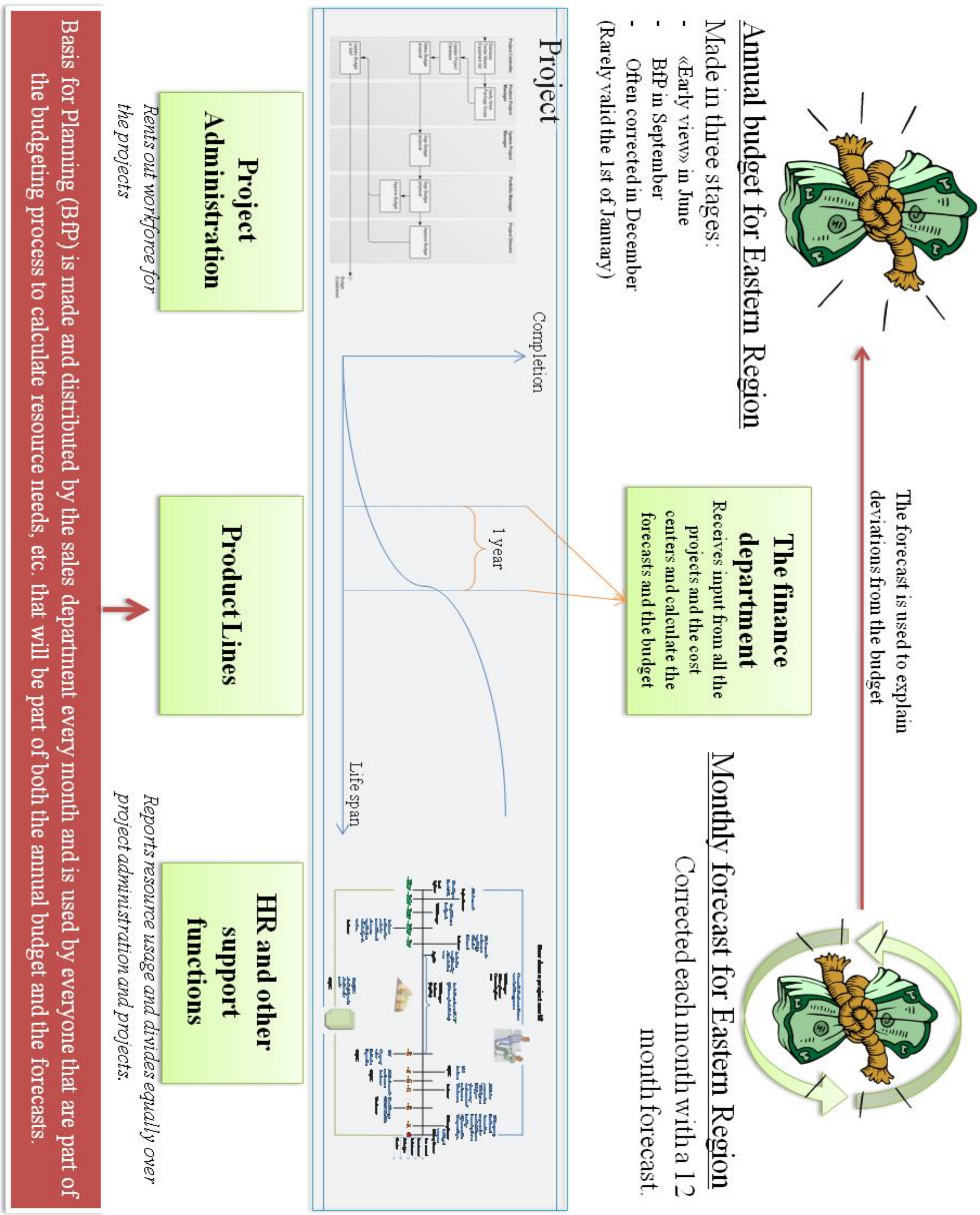

Figure 4.4. FMC ER's current budgeting process

Even though all managers and employees have their own goals to meet (regular job tasks), they are all measured and get bonus based on the same set of KPI's. This is called All Employee Incentive Plan (AEIP). These KPI's are:

- On Time Delivery (OTD): This is a percentage of a yes or no requirement. Either the delivery date specified in the contract is met or it is not.
- Retention: People that stay hired, meaning that they do not quit or get laid off.
- Earnings Before Interest and Tax (EBIT): Calculated as a percentage of the EBIT.
- Red Incidents: This is all incidents where people are injured, especially in cases where the processes has not been followed. Even falling on the ice and hitting your head on the way to the parking lot will be registered as a red incident.

The AEIP is divided as follows: 15 % safety, 15 % Quality, 15 % Delivery and 55 % Cost.

In addition to the AEIP, FMC also operate with another system called the Business Unit Incentive Plan (BUIP). This system is only for some select managers where they are measured individually on accomplished results. Little information was available for this incentive plan.

5. Analysis

In the previous chapter, we gave a general introduction to the current budgeting process for FMC ER. In this chapter we have answered the three problems of our thesis.

- Problem # 1 mainly looks at the value of the process given in the previous chapter. No references to Beyond Budgeting are given here.
- Problem # 2 establishes where FMC ER is situated between traditional budgeting and Beyond Budgeting.
- Problem # 3 further elaborates on problem # 2 and looks at how FMC ER can approach Beyond Budgeting even further and how it can be fully implemented.

When we made the interview guide, we had to allocate the different questions to each of the three problems to secure that we had enough information to analyze them. The feedback from the interviews is the basis of our analysis, so we constructed tables to make it easier to see what we got out from these interviews. Table 5.1 shows the categorical differentiation of interview subjects.

As stated in our methods chapter, we created a list of possible interview subjects based on FMC's hierarchical structure and feedback from our supervisor. According to our supervisor in FMC ER, the interview subjects we selected were a good representation of who we needed input from to discuss our problems and create the overview of the current budgeting process. These subjects were two senior top managers, two project controllers, three analysts within different fields of business administration, one product line manager, one employee working towards improvements and one portfolio controller.

Interview subjects	Quantity
Senior top management	2 off
Project controllers	2 off
Analysts	3 off
Product line manager	1 off
Improvement	1 off
Portfolio controller	1 off

Table 5.1. Categorization of the interview subjects

In the introduction to each of chapter 5.1 and 5.2 we have made a table that shows to what extent the different interview subjects agreed with each other on the different questions. Chapter 5.3 that deals with problem # 3 is more theoretical so we have not provided any table here.

5.1. Problem # 1

The problem in this first sub chapter, as given in our mandate, is as follows:

"What is the value of the traditional budgeting process perceived/actual?"

When we created the mandate, FMC ER wrote that they are currently budgeting in the traditional manner, even though they have elements of Beyond Budgeting in them as the reader will see in this analysis (problem # 2 and # 3). We have interpreted problem # 1 to revolve around the traditional budget process as perceived by FMC ER, which is the process explained in chapter 4.

We have two processes we need to discuss the value of; the process of creating the budget and the process of reporting to the budget and using it as a management tool. Then there is the difference between the perceived and actual value created by these two processes. The difference between perceived and actual can be explained through an analogy: If I perceive that you are hungry, I could choose to give you an apple. I would then perceive that you are not hungry anymore. Reality could be that you wanted a pear instead. The actual value of my action would be that you are dissatisfied and still hungry.

	Problem 1
Q3	How much of your time is spent on working towards the budget and report to it? - *A couple of managers gave us an estimate of one month each year but we know that this is rather different from employee to employee. The other interview subjects could not give a better answer than "too much" or "a lot".*
Q4	What do you use the annual budget for? - *This was intended to split between those that report to the budget creation process and those that are part of the following-up process as well. All interview subjects are part of both to some extent.*
Q5	What are your experiences with the budgeting process (positive/negative)? - *This question formed the chapter of the employees' view where we have selected the most interesting and repeating opinions.*

Q6	Do you feel ownership towards the goals you are measured on?	
	- *Most found this difficult to answer. In general it seemed that they felt that they were part of a big team which gave them ownership to the goals, but on the other hand they did not feel that they had any impact on the goals.*	
Q7	How much/what do you feel FMC gains from the current budgeting process?	
	- *This question became rather irrelevant after Q5 as most referred back to their answer given there.*	
Q8	What effect do you think a more decentralized decision process would have for FMC?	
	- *This led us to a discussion around the bureaucracy of the current budget process. An interview subject with extensive experience with investments gave us vital feedback on this. This formed the basis for our "authority" chapter.*	
Q11	What changes do you see as necessary in today's system?	
	- *This question led to discussions around how people communicate and every interview subject felt that sharing of information through correct communication (conformance to the BPMS) was something absolutely necessary. This led to the information chapter.*	
Q12	Are there any differences between numbers/KPI's that come from forecast and budget? What?	
	- *This was mostly used to get an overall understanding of the current process as presented in chapter 4. This again led to the "operations and project life, risks that affect the budget" chapter.*	
Q13	What is your opinion on how the resources are being used in FMC?	
	- *This question was intended to reveal how people saw the effectiveness of their coworkers to see if «opportunistic behavior or inexperience could be factors influencing any faults in the system. Most employees gave us the impression that opportunistic behavior was not a case in FMC ER, which led us to a discussion around training and mentoring. This has been brought up in the information chapter.*	

Table 5.2. Justification of the setup based on our interview guide

First, we needed to explain what we actually meant by the word; "value". As explained in most value chain models, all activities that add value to the product, is an important part of the manufacturing process (Anthony & Govindarajan, 2007:339). This means that any input to the product refines it and takes it one step further towards completion. By completion is meant the state in which the customer wants to buy it. The budget is in itself also a product. Any action in the creation of the budget that actually enhances the quality of it also adds value to it. If the budget is a product, the question is whether or not top management gets what they want or need and if the employees on all levels of the organization add their own little piece to the big budget puzzle. But what do we mean by enhancing the quality? What can be seen as a quality feature of the budget? Well, if the budget is to be a plan from which we base our actions, then it needs input from all the employees and departments that should execute these actions. If the budget is to be the basis for correct actions, it needs to represent the reality. These actions again should create monetary value for the shareholders (looking away from the environmental and social stakeholders as that is a Master thesis in itself). Actions that create customer value will again create future monetary value for the shareholders. The budget should ensure coordination and rational execution of these planned actions. Having the employees as a part of the budget process, with their own input, gives them ownership to it and hence a genuine wish to coordinate with other employees so the goals can be met. The goals are set to please the customers and top management as well as the employees as they create the foundation for bonuses. These goals, in FMC ER are; On Time Delivery, Retention, Red Incidents and EBIT. Overall, these four key numbers should be what points FMC ER and FMC towards a future state. A senior manager (interview subject) stated that *"how we steer towards them must be adapted to the big aircraft carrier that FMC is, not a 10 foot With"* This statement was to illustrate that it is much more difficult to be dynamic as a big company than as a smaller one.

Each individual manager, employee and department has their own input to the budget which, if done correctly, provides for budget quality. The sum of all their input to the budget is the perceived value of the budget when it's finished (meaning the value of what the top management wants to use the budget for).

According to the interviews, the key aspects of a quality budget, both in its creation and follow-up phase, is to facilitate delegation of responsibility, having an eye for details, reflect on yourself, commitment to your targets, having ambition to strive for something more and being able to perform a "reality check" every once in a while. Then you have to weigh the time spent on these aspects against the time you should spend on executing deliveries and ensuring quality of those deliveries. Further on we've divided this problem into areas that we want to discuss one by one. These areas have been identified through the interviews and through the theory and are: the risk of sub-optimization, detailing of the budget, information, the main aspects of project life that can set the budget off balance, authority in the budget process and the employees' view of the budget. But first, we have tried to explain the value, the cost and the link between these two in the budget and the budget process through some assumptions and graphs.

5.1.1. The value and the cost in the budget process

The figure below shows a flowchart representing the sequential steps of the current budget process, simplified off course. There will be communication between the departments along the way and they are all responsible for reporting different input to the budget, but it shows a good overview over the idea behind the budget process. We had to take this idea a bit further in this chapter, trying to explain with basis in our problem the difference between perceived and actual value.

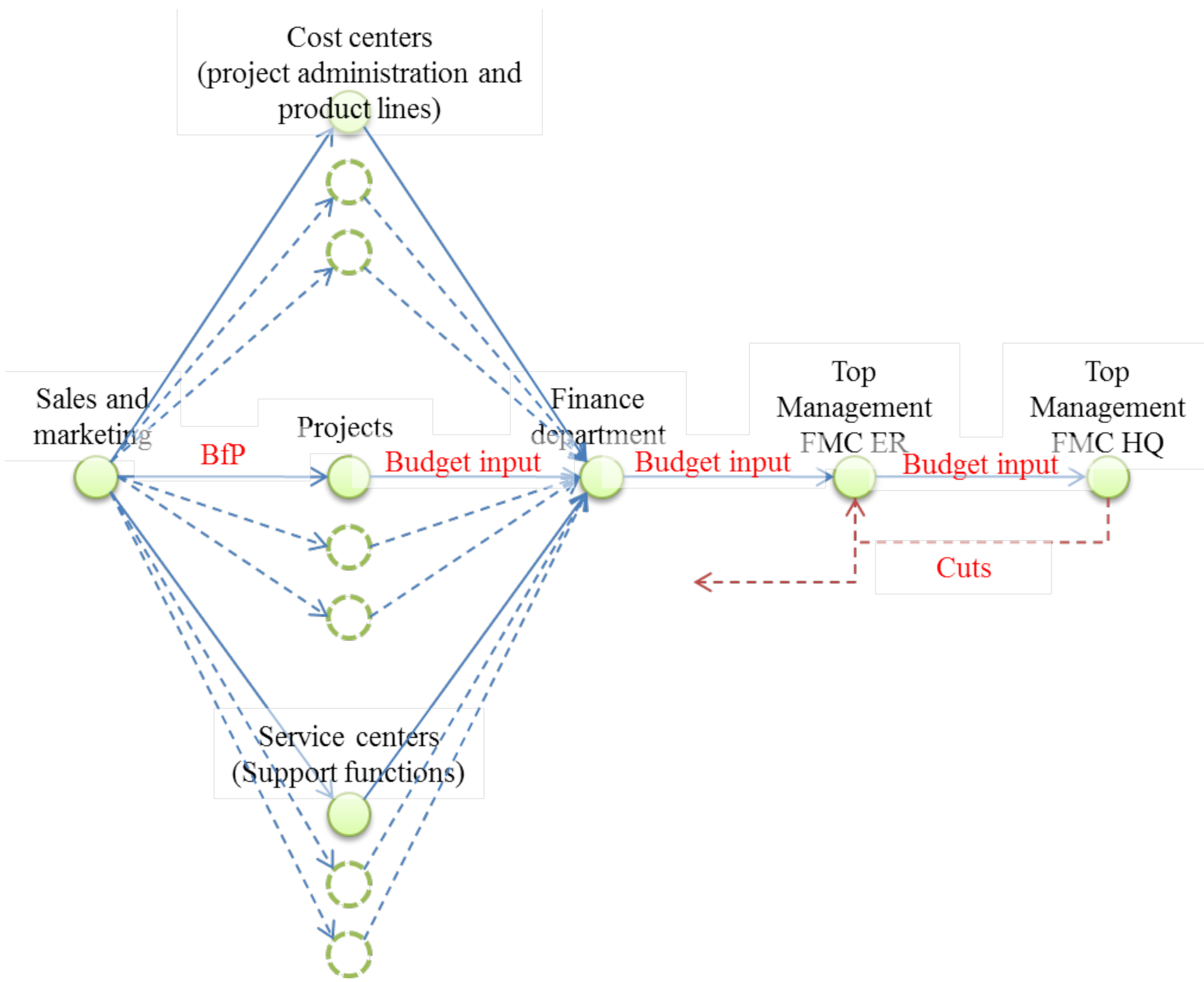

Figure 5.1. Flowchart of the budget process

As part of our explanation we have made some assumptions. After we have explained these we present the two main aspects of the budget; value and cost.

- Sales and marketing support the other departments with accurate information through the Basis for Planning (BfP). We therefore assume that the BfP is accurate to the current outlook on the market when the budget is created. This means that if the budget was created at the exact same time as the BfP is released, then the budget would be completely accurate as a forecast on the current market with corresponding action plans.

Good communication in a company can be seen as a process where you give the information that the next person in the chain of command needs and you receive what you need to do your job. This means that when you receive information, you process it, add value to it and send it on to someone that will do the same. If the supply and demand in this process is clearly known and justified in a cost-effective way, supply plus value adding activity should equal demand. If all value adding activities where conforming with requirements and automatically added in each link in the chain of command, supply would equal demand. In reality, people are people, and people make mistakes. Maybe they don’t understand all aspects of the process and what is needed of them and therefore neglect to share the information demanded from those at the end of the chain of command. Hence supply must be less than or equal to demand. If the top management gets information they don’t need, it is not part of the demand and can be seen as waste, hence supply can never be greater than demand. What information the top managers need is part of how they perceive the value of that information. Some parts might be need-to-know, others only nice-to-know. Information that enhances the KPI’s that FMC ER operate with are creating “actual” value for the company. Nice-to-know information that is demanded but does not enhance the value of the KPI’s will only have a perceived value. The actual value of the latter will actually only be a cost of gathering that information. (Some of the actual value can also be perceived, meaning that there is coherence between what is asked for and what is needed. Some of the perceived value will have an actual impact on the company, for instance as pure cost.)

If the above assumption holds, the value added to this chain of command would be to have accurate information to act on. This means that the value in the process is equal to the quality of information. Quality of information can be seen as being higher the more recent it is. Information that reflects the current is more valued than information that reflects the past. Since the budget is static and the market is dynamic, it is natural to assume that over time the "state" of the market as given in the budget, will increasingly be inaccurate with the actual "state" of the market. The value of the information received then decreases over time. The slope of this curve is difficult to estimate, but to illustrate this figuratively, we assume linearity as shown in the below figure.

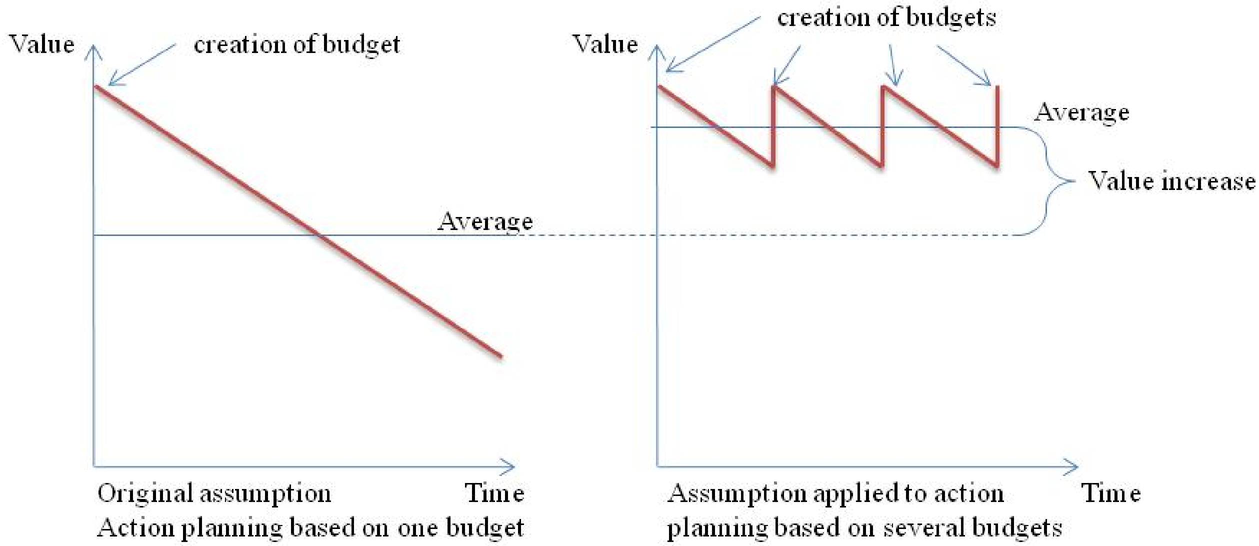

Figure 5.2. Value of the budget over time and with different intervals

A process will take more time the lesser intervals it's performed. "*Experience can be a key source of cost efficiency. The experience curve implies that the cumulative experience gained by an organization with each unit of output leads to reductions in unit costs"* (Johnson et al., 2011:200). The higher the rate of performing a process, the lower the cost of performing it. Costs associated with reporting deviations to the budget, increases as the deviations get bigger.

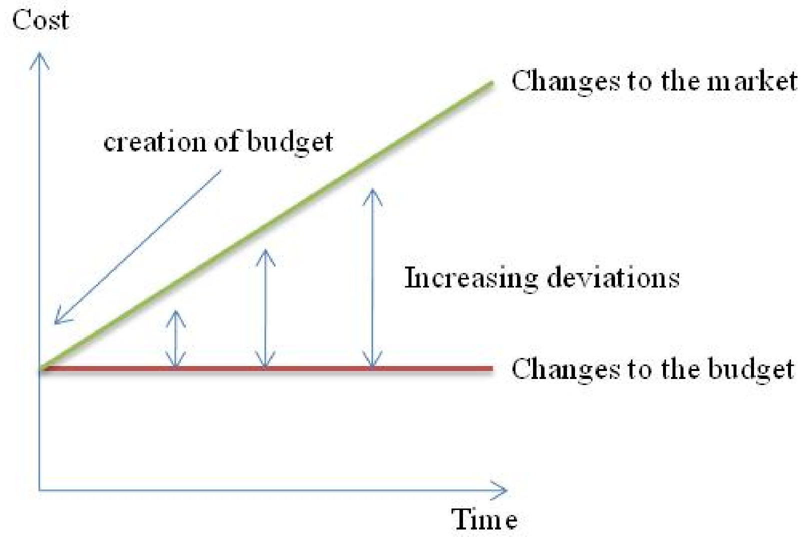

Figure 5.3. Cost of following up deviations to the budget increases as the deviations increase

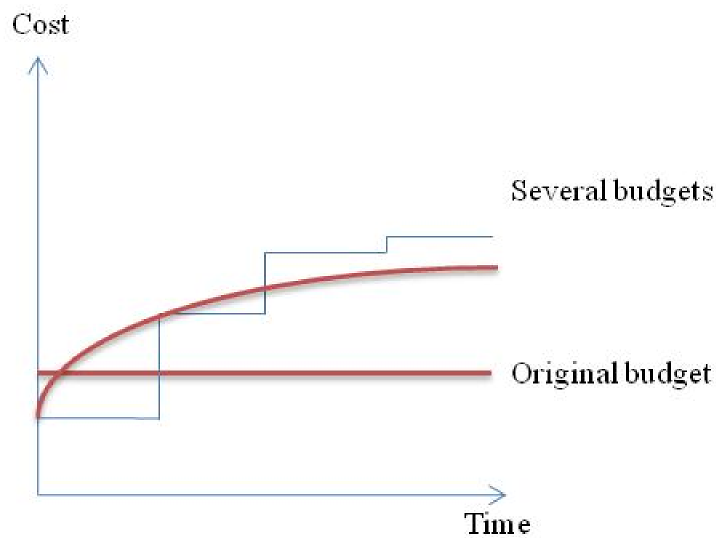

Figure 5.4. The higher the rate of performing a process, the lower the cost of performing it

If we look at the budget process as something that generates value and cost, the ratio between these two can be considered as cost-effective when value increases relative to cost. As we have now explained, the value and cost increases with increased intervals of creating the budget. The important thing to highlight is that value and cost, based on our assumptions, does not increase at the same rate.

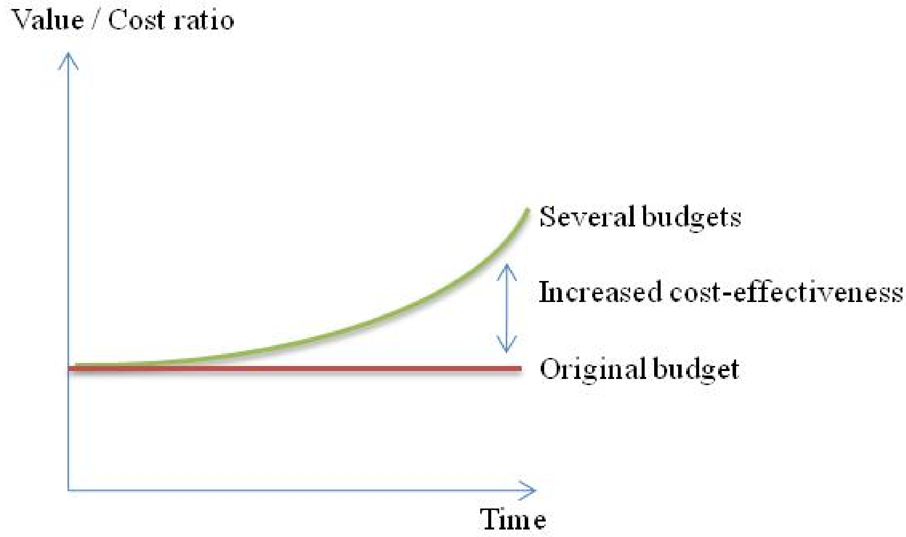

Figure 5.5. Cost-effectiveness with increased intervals of performing the budget process

What is important to understand is that the reality of one's business changes rapidly and that the basis for measurement and action plans need to represent these changes.

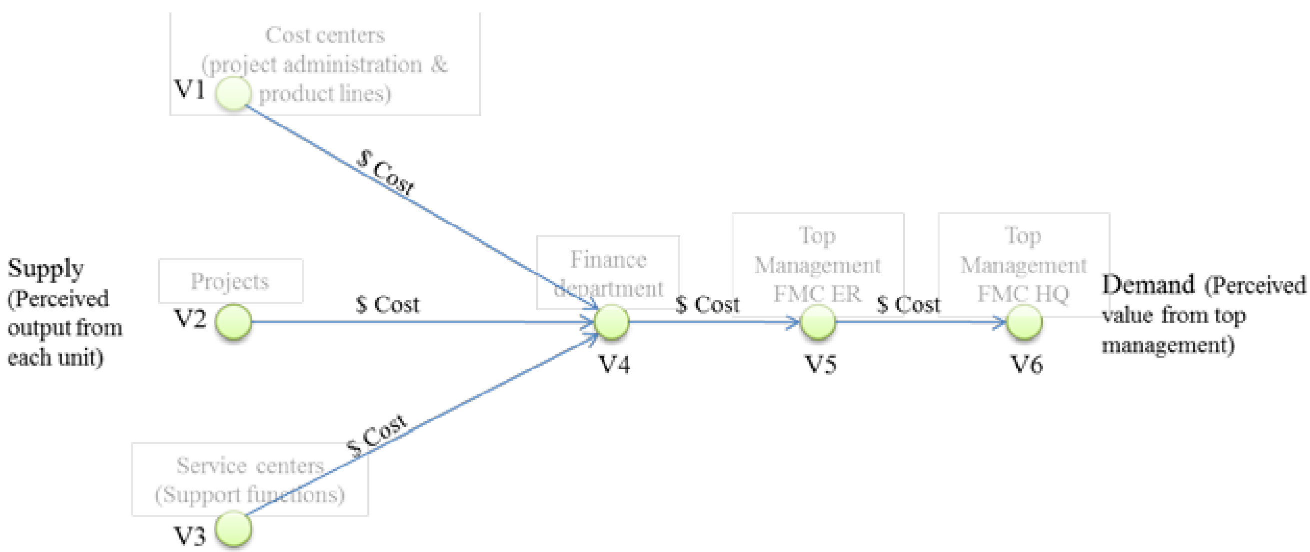

Figure 5.6. Value and cost creation in the budget process

If V1 is executed to the best of the cost centers ability, then V1 will equal 100%. Meaning conformance to the requirements set by FMC HQ. The more accurate the information supplied by the cost center is, the more likely it is to assume that it takes more time and costs more to supply it. V equals the value generated by each unit in the process and the total value for the entire process is what we have called total perceived value. All value asked for by FMC HQ is perceived. They ask to get what they think they need. When we discuss actual value, we discuss this as the actual impacts of the budget on FMC.

What we can determine by our assumptions and the above model, is that performing the process with higher intervals, will increase the total perceived value but also the costs. The next question here is then to what extent do FMC need more accurate information to act on and to what cost are they willing to get this? That is a decision that needs to be made by the top managers and comes down to what is adequate. It is important to understand where the world is headed before a decision is made. Over time, the environment of businesses has never been more dynamic. This is due to many things; faster and more efficient information systems that make people in any business able to act faster to changes, rapid communication through telephones, internet, video conferences, cheaper and easier ways of traveling, etc. If we were to we make a prognosis of the future based on the past, then we are likely to assume that any industry should be even more dynamic in the future.

5.1.2. The risk of sub-optimization

In a traditional annual budget, there is an agreed upon target for each employee/manager that should be met at the end of the year. In FMC ER, project administration will have to meet (in addition to the responsibility of their area, for instance deliveries, planning etc.) the target for expenditures on employees with the training, traveling, food, materials and other requirements for them to complete their job. This would be okay as long as the company's surroundings does not change and the budget is a good representation of the environment when the year is over. The challenge with the budget is that it is not as dynamic as the environment and will most likely not represent reality during its lifetime. Say that a manager has 20 heads to fulfill his departments tasks within the year end and all these should have spent x amount on training, traveling etc.. Traveling is usually needed to be present at the sub suppliers' sites to ensure correct task completions of all kind. This is a qualitative decision where each individual employee/manager need to ask the question of whether or not every single travel is needed and will enhance the quality of the given task. In a budget where these costs have been agreed upon beforehand, such a decision can easily be taken with self-interest at heart. Managers might think that not spending what they are allowed to, will decrease their budget the next year. A traditional budget increases the risk of poor decisions that decrease the overall result for FMC ER. Sub optimization is when someone makes a decision without thinking of the greater good of one's context. What should be the interest of all FMC employees? (again looking away from environmental and social stakeholders interests) It should be to ensure that FMC's bottom line is as good as possible. That is why they have been hired, that is why they go to work every day, to ensure that their job tasks reflect a value adding activity for the company. When someone decides to make decisions that cause sub optimization, other employees will suffer as there will be fewer resources. The other managers may need the "excess" resources but are bound by the budget as well. As the environment has changed, they can struggle with getting the resources they need, especially when it's been wasted on tasks that were not needed. Project administration is organized so that they should break even and this would suggest that sub-optimization would be difficult. The fact is that practically all employees within project administration sit in the projects. If there are delays in a project, the employees will not be told to stop allocating hours to the project they are on. The same scenario applies to the product lines as well. The highest chance of sub-optimization however is within the support functions. Their budgets do not break even and that makes it tempting to spending ones limit to the fullest.

The nature of the business, off course, makes this scenario worse for companies where the cash and other resources are scarcer then at companies where the cash and other resources are in abundance.

The risk of sub optimization in the traditional budget is just as valid a thought within each business unit as it is between different business units and regions. Further on it can be discussed whether or not this is due to human weaknesses or weaknesses within the system. That discussion is based on your own management philosophy. As we write a thesis around the budget, it is natural to think that the insufficiencies of the traditional budget are what cause people to act in such a way. It is natural for many individuals to act, in different degrees, in ways that increase their own benefits, especially when the system supports such actions and even encourages such behavior. A manager that spend resources he does not need at the moment, but makes sure that he is within his own budget, gets appraisal and a pat on the back for a job well done. Whilst a manager that need more resources but doesn't have any in his or her budget, might have to fight and plead to get more resources, even though the reason for the need is beyond that manager's control. The traditional budget doesn't do much to reduce the risk of such scenarios.

Another risk of sub optimization is the opposite, namely neglecting to invest in new ventures, activities, materials and such, simply because it is not worth the effort that has to go into fighting for the extra resources. To neglect necessary investments simply because the system is rigid, is not a good thing. In FMC's case, this is not as big a problem as we feared at first, as the investment budgets are open for change during the year and is not locked or restrained by the annual budget. However, even though something is taken account for in the investment budget, it still needs approval from top management for the wheels to be set in motion. This is time consuming and one needs to ask the question of whether or not this is cost effective. Giving people more freedom to do investments, with the additional responsibility for making that decision, could be a good way to improve the rate of necessary investments. On the other hand, poor manager decisions can cause extreme consequences for the company as a whole and lead to lack of control over what is actually happening in the business. To some extent, investments have to be subject to an active regime of decisions. The discussion needs to be whether or not the size of the investment is within the individual managers' authority.

5.1.3. Detailing of the budget

How much detailing in the budget is necessary to create the value needed? If the budget is out of date within 1 month, it will be out of date no matter how many details you have. The details will only add to the cost of creating the budget and follow it up.

Cost center leaders budget everything from baguettes and flowers to training per employee. According to our interviews, approximately one month is spent by a cost center leader to give input to the creation of the budget. This translates to approximately 17 FTE's (Full time equivalent for all the 209 cost centers). In addition you have all the time spent in Tender team to create the budgets for the projects and the time spent in the finance department to process all the budget input from the organization, getting the budget approved by FMC ER and HQ and communicate back all the cuts. For us as students, it is difficult to translate this into a swift conclusion around the scale of the budget based on FMC ER being around 5100 FTE's in total. But according to our interviews, this process is very time-consuming and slow for those that are part of it. The problem with the budget creation process is that it comes as an addition to the follow-up process of the budget from the previous year. You might go as far as saying that it's a speed bump in the otherwise smoother and established follow-up process and any other daily processes. Some employees wished for the process to be less detailed and performed more often so that it would not interfere with the day to day business, rather become part of it. FMC ER is already performing forecasts which are a good addition to the budget and gives vital feedback with regards to whether or not the budget will hold.

So why does the top managers need these details. What is the value of having these details in the budget and having the budget process as a once-a-year activity? To answer this, we need to ask the question of what actually happens when we go through the process? According to top managers in FMC ER, it is acknowledged that the budget process is an extreme amount of work compared to the value of the budget as a tool, however, it is also acknowledged that if you want to have a bottom-up approach you need to do it properly. Having it as detailed and time-consuming as it is now, it gives whoever is part of it time for self-reflection around what that person has achieved so far and what ambitions that employee has for the future. It is important in the budget process that you have time to stop and do a reality check. What have we actually accomplished? What were our achievements and non-achievements? How do we make an action program to get a grip on what is not on track? The important thing is not the plan, but the planning (Hoff, 2009:460). On the other hand, being detail oriented for the sake of the details can be a waste of time. It is important that the employees are detail oriented and at the same time analytical. It is important to spend time on the things that matter.

Last is the argument that FMC is registered on the New York Stock Exchange. Investors need to see a positive bottom line in the budget to ensure they can harvest the fruits of their labor (investments) at the year-end. When FMC ER's budget is presented to the HQ in Houston, it is important that the budget has some weight to it. It is important to feel that one can stand by the numbers presented, knowing that your employees have done a detailed and analytical process which in turn has generated a budget that reveals the real time state of the market as accurate as possible.

The key word that is important to emphasize as a strong and positive part of the budget process is that it creates commitment. When people have spent a great amount of time digging into their own numbers, they feel committed to following up and meeting those numbers. When the employees are committed to the budget, the top managers can commit to it as well, after all it is their signature on the annual budget contract and also their head that sticks out to take the risk.

In the follow up phase, the more details you have can make it easier to explain why you have deviations. Especially when the deviations aren't caused by changes in the market that in turn has created a necessity to change the work force needed. Deviations caused by changes in the market will usually affect the entire organization or at least similar departments. Take Operations as an example. If the raw material of iron increases with 50 %, it is expected that all product lines that buy equipment from suppliers will see a similar increase in the cost of that material. This can be explained by comparing their budgets, however, should one of the product lines not meet their budget and the market has been relatively stable, the details can be used as a good way of explaining why.

5.1.4. Information

Previously we argued that "Sales and marketing" support the other departments with accurate information through the Basis for Planning (BfP). In this sub chapter we have explored what the understanding of the processes and information demand will have of significance to this statement and what the impact is if the BfP is not correct.

As explained previously, it is important that the information supplied is the same as the information demanded. It is important that people are able to see the big picture and understand the impacts of their decisions. Shortcuts to make a process easier usually have a negative impact on someone further down the line. That is the nature of complex problems, that any impact of a decision made today can be far away in both space and time. One way to mitigate this problem is through experienced mentoring and training of the new employees, especially as FMC ER has hired 1649 new employees after the cut-downs when the financial crisis hit around 2008. This also applies to the more experienced employees that has been part of the system for so long that they have learned where and how they can make these shortcuts. If people report information that is not detailed enough to ensure it being accurate, that information can be difficult to act on in the future. Take "Tender Team" as an example. All the time they spend on creating the budget of a new project is based on information input from all the projects and operations of FMC ER. Details around procurement, hourly rates on work force, prices of raw materials, transportation costs, new laws and regulations, etc. all contain small errors that accumulated has a huge impact on the annual budget.

The BfP supplies everyone with information regarding the inbound forecast of new projects and how big these projects are (contract value). The actual amount of work force needed per dollars' worth of a project is up to each cost center leader and product line leader. The problem here occurs when the market changes and the BfP is no longer correct. As also mentioned previously, the delay of a project that is inbound or even losing a contract believed to be won, has a great deal of impact when it comes to the work force needed in the coming period. All people in the budget creation process and follow-up process act on information from other departments and all this information is losing its value quickly. It is therefore important that the information flow and communication between all employees and departments are smooth and quick. Having several different MIS systems which do not communicate and where information has to be manually translated between the systems can cause delays and errors. On the other hand, forcing everyone to work through the same MIS when that system does not cooperate as well with all departments can be just as risky. All employees need to ask themselves if what they are doing today creates any value or if it is done because that is how it has always been done. Only then can an attempt to implement a joined MIS for FMC ER and HQ as a whole be done. One of the big difficulties here, and cost drivers, is the amount of modifications that need to be made to the MIS. In this instance we are talking about the main system in FMC which is SAP. SAP is, as the budget, a rigid system that does not open for changes in the day to day business. Other MIS's are also used as tools, to the compromise of safety (because of the lack of communication between the MIS's). When an Excel document disappears, it is much more difficult to regain that information than if that information had been processed through a system like SAP. In SAP one can backtrack the slightest change and who did it. As with the value of the budget against the cost of performing the budget process, also here we need to weigh between information safety and information swiftness. The entire budget is uploaded into SAP, but the cost centers deliver their budget in Excel. Then Finance has to upload everything into SAP, 209 cost center budgets.

When information is lost in the system, it has an impact on the Tender Team which will now have less to act on when creating the budget for a project, which in turn affects the annual budget. You can clearly see that it's a complex system of information flow which is almost impossible to grasp for a normal employee. Hence the importance of teaching everyone not to make any shortcuts. FMC has a saying; “Right the first time”. A good employee does his or her job, a great employee does the same when pressure is added. Some might find it easy to cheat in the system in order to get pressure from managers off their shoulders. During the training part of new employees it is vital to teach them to tackle pressure the right way and know how to put “good” pressure on other employees in a diplomatic way. No matter how much pressure they are under, they should still seek to perform their job as the process states it. Conformance to requirements (BPMS requirements) is the key to having good communication and communication is key for a successful business.

5.1.5. Operations and Project life – risks which affect the budget

Let us look at this through a delivery process. During a projects life, there are numerous deliveries and all are different from each other. There are different types of equipment, suppliers, means of transportation, demands for documentation, local laws and regulations, customers and destinations. First off, the equipment needs to be designed according to specifications. If something agreed upon in the contract makes the feasibility of a design difficult, this adds up as an extra cost for the budget instantly. Then the equipment needs to be procured through a tender towards the suppliers. When a supplier has been chosen, the production process starts. It is important that the WPPM’s inform everyone in the project so that they can start their job early enough to not cause delays. This is done through delivery planning meetings. This is important as some equipment needs to go through special approval cycles before it is actually allowed to be shipped. For certain projects in Africa, one has to apply for licenses to be allowed to ship the equipment. When the license has been approved (a process that takes 2-4 weeks), the equipment have to be picked up from the key side within one month. So production, packing, labeling, transportation to the key side, quality inspection approval, quality documents that follow the equipment, SAP processes and license application approval all have to fit within a fairly narrow window of opportunity. In addition, the boat or the airplane has to be ready at that point as well. When batches of equipment that are worth several millions of dollars are shipped, one can clearly see how little a mistake it takes before you miss a delivery and hence also get any payment from the customers postponed. Some projects also get daily fines for late deliveries which add to the budget getting off track. Imagine all these risks accumulated through all deliveries and all projects. No wonder the budget is usually off track at the beginning of the year.

It is important to understand that this is project life. It is a risk which will always be there and that can only be mitigated through training and expertise. Deviations are not a problem if you can foresee them and make corrective actions. The question is whether or not the budget sets the framework for foresight? Not in itself, no, but luckily FMC ER has the forecasting method which relieves some of the risk of the static budget.

The way a project works now is that the project planner, as part of the delivery planning meetings, reports the status of deliveries to the project controller. The project controller in turn gives his or her input to the main forecast which is used to measure against the budget. The actual corrective actions to be made during a delayed delivery is an internal work process for that specific project. The problem seems to be solved by overtime in most cases. Little of these corrective actions seem to be “held back” by the static nature of the budget (as projects live their own lives besides the managements look on the fiscal year), but overtime is costly and can cause people to work more than what is healthy. Another drawback we can see is that the top managers could benefit from getting the information sooner. On the other hand, standard procedure is to flag important incidents immediately so top managers should get that information at an early stage.

The budget fails to delegate responsibility with regards to investment decisions. Should a delay require an instant investment in changing the means of transport for instance, it could be beneficial for a project manager to make this decision. On the other hand, the process of getting this approved should take less time than what remains of time before the planned delivery date and for many projects the decision needs to be made by the customer since the contract may be reimbursable.

As mentioned, project budgets are actually highly dynamic and fulfill their task of being a management tool. The problem is that the annual budget does not change according to changes in the project budgets. Luckily the forecast does.

5.1.6. Authority

Authority refers to the effects of having authority to make your own decisions. This was briefly touched in the “sub optimization” chapter on investments but is further elaborated here.

"My positive experiences with the budget are that people feel responsible for their costs. Commitment in the first part of the budget process is important, the downside is that some of that commitment disappears when the budget comes back from Houston". (senior top manager)

FMC is a publically traded company and therefore the "old-fashioned" traditional budget thinking is important to its managers and investors. The budget process, as it stands today, is so complex and time consuming that when FMC HQ finally have had the time to review it and come back with their thoughts on financial cuts, there is almost no more time to renegotiate a new bottom-up approach. People are left with what they have got. Spending an enormous amount of time on something that is sent back with corrections, as if ones hard work was ignored, is naturally seen as frustrating. It does not necessarily mean that the process has been without value. It still has the value of being a "reality check" in an otherwise established day to day routine for most. You still have to commit to your part of the budget as best you can. For some employees, the cuts sent back from HQ might even be felt as a relief. If HQ makes it harder to meet a goal, one can always make the excuse of not getting the resources asked for and needed.

"FMC EA already has a relatively decentralized decision process. A lot of power is delegated to the project and the project manager/director. Any decision faults in the departments (project administration and support functions) have not been focused on as the big bucks are in the projects and that is where the focus is. Cost focus is slowly getting tougher for the departments as well, mainly because the margins are getting poorer. The customers have a tendency to demand more and more…" (senior top manager).

This statement is supported by the rest of the interview subjects as well and leads us to thinking that FMC ER is not as static as believed at first. After all, FMC is one of the most admired companies in the world and the global market leader within its field. To be able to achieve that, they must be doing something better than their competitors.

5.1.7. The employee's view (general thoughts on the budget)

"Experienced and relevant personnel should be included in the process earlier on" (Project controller).

One of the key aspects of ensuring quality of the already established budget process is to make sure that people are trained and educated by experienced employees. This is difficult as everyone has stressful days and training is the easiest task to put aside. It is important that employees also perform their tasks correctly without taking shortcuts as this may cause difficulties further down the line. It is also emphasized that the complexity of the equipment and all processes are so high that it "should" hurt a little bit to perform them. It would be too easy if it were a walk in the park.

"The budget cannot be removed as it's needed for follow-up and control so that FMC can use it as a lessons learned for new projects. The question is whether or not they actually use the lessons learned" (project controller)

This is based on the project budget and not the annual budget. We believe that it's a common misperception that the budget cannot be removed. It doesn't matter if it's a project budget or an annual budget for FMC as a whole. The important question is what actually replaces the budget in such a situation. As we mentioned in the previous chapter, a project budget is relatively dynamic and changes as the environment of the project changes. This is done through the parameters all projects use, such as the EAC, Current budget etc. In that respect we do see the value of the statement above and the question is whether or not the budget needs to be replaced with a more dynamic tool when it's already quite dynamic itself? We can't see any good arguments for removing the project budget, as you will also see in the discussions we have in the next chapter. The annual budget for FMC ER, however, could probably be replaced by something else. Especially since FMC ER already have established good routines for their current forecasting method.

5.1.8. Summary

What is the value of the budget? In this chapter we have looked at the budget as a product demanded by top management. The value of the budget is hence what the organization supply top management with. That does not mean that everything demanded from top management creates any actual value. We have differentiated between perceived and actual value and based our discussions mostly on feedback from the interviews. It has been important also to distinguish between the budget creation process and the budget follow-up process (i.e. the budget as a management tool).

To get a better understanding of the budget and its process, we have started this sub-chapter with an explanation of value in the budget process and how this relates to the costs. With some assumptions and discussions we believe having justified that performing the budget process more often will give it more value as a management tool as it will reflect the market more accurately. It will also, unfortunately, add cost as doing a process twice takes more time than doing it once. The important thing to take note of here is that the cost of performing a process the second time will, at least slightly, be lower than the first time. The managerial question is where the optimal number of performances should be set so that it can be justified in a cost-effective way. We also argued that the cost of following up the budget should be lower when the budget represents the reality. This is due to the deviations being smaller and hence also easier to explain.

Another aspect of the traditional budget, which have been mentioned in our interviews, is the risk of sub-optimization. The support functions (IT, HR, etc.) are service centers with a pure cost budget. This makes them able to spend their entire budget when they do not need to. This will have an influence on the bottom line and will affect FMC as a whole. Project administration are cost centers that get their costs "refunded" by the projects to break-even, this reduces their chance to sub-optimize to some extent. On the other hand, if the market changes, they may not be able to load out all of their work force to the projects and this can make them seem like poor resource planners even though they may have no influence on the aspects that changed the market in the first place.

More details increase the time and cost spent on the budget. From top managements point of view, these details do not add to the value of the budget as a management tool. In a cost-effective way, top management believe that the details generate commitment from the employees and is necessary to get a "reality check". On the other hand, more time spent on the budget increases frustration when FMC HQ sends the budget back with financial cuts anyway. In addition, the shareholders need to know that there is substance in the budget. Details are therefore believed to give that substance.

Communication is key. Correct sharing of information is essential for the budget to be as accurate as possible when created. This can be done through experienced mentoring and training of new employees, especially now with all the newly hired. Accumulation of small errors in the communication adds up to significant deviations in the annual budget. Having several

Management Information Systems (MIS's), that does not communicate, generate a risk of miscommunication. This also generate "waiting costs" when the information needs to be translated from one MIS to the next.

Operations and projects collaborate on executing deliveries. In this delivery process there are numerous things that can go wrong. *"That is the nature of project life"* some said. So it may be. Delays, changes in transportation cost and means, raw material prices, sick-leaves etc. all add risk to deliveries and payment not being on-time. The risk associated with executing deliveries is so high that an annual budget has no way of being accurate as a management tool.

Authority to make your own decisions and being accountable for them is something that could increase the dynamics of FMC. The annual budget is preventing such behavior as people have to seek approval for investments. On the other hand, a swift approval process eliminates the threat of an investment being done too late and also ensures financial control.

Problem # 1 does not have a specific conclusion. This problem is a way for us to "educate" those that want to see the bigger picture and reflect on their own managerial philosophy. Our discussions show both the positive and negative aspects of the traditional budget as it is perceived by FMC ER and the employees' own experiences. To what extent FMC ER really is a company with the traditional budgeting approach has been further discussed in problem # 2.

A question for you who read this thesis is; do my actions generate the value I think it is? Do I perceive if my actions are generating actual value?

5.2. Problem # 2

5.2 Analysis of problem 2

In this subchapter we have discussed and analyzed our second problem that was:

"Could FMC ER benefit from moving from the traditional budget process to a Beyond Budgeting approach - what would be gained/lost?"

This was an important part in our interview process to get an answer to and also a difficult one to analyze. The problem is to solve this problem quantitatively. To calculate monetary what possible savings (losses) FMC ER can make by going Beyond Budgeting, would in the best case be difficult, because of the complexity of the organization. With so many different types of units, positions, dedications toward the budget process and the use of it, we came to the conclusion that a qualitative approach to the problem was the best way to get a realistic answer and solution. To calculate the difference between gains and losses when removing the budget would make the scope of this Master thesis to comprehensive. If a quantitative approach is desirable, we do recommend that this could be the topic of a possible new Master thesis or have FMC ER itself make these calculations.

We have challenged the interview subjects to think in new ways and explained and suggested Beyond Budgeting, which is an extreme compared with today's management system. Through this, we have uncovered both weaknesses and strengths with both traditional budgeting and Beyond Budgeting and we have discovered possible improvements that FMC ER can implement.

Below we have presented which questions from the interview guide that are related to problem # 2 and what main findings that we have used in the discussion of this chapter:

	Problem 2
Q1:	Can you explain to us your job and your tasks? - *The purpose was to get a general impression of what type of knowledge the interview subject has about the organization and to what extent he/she can answer questions related to problem 2.*
Q2:	What do you report to the budget and who do you report to? - *The purpose was to get information of how much the interview subjects works with the*

budget and what knowledge he/her has about the budget process and the use of it. This was important when the interview subject answer questions related to problem 2.

Q5: What are your experiences with the budgeting process (positive and negative)?

- *The purpose was to establish what experiences the interview subject has with the budgeting process.*
- *Positive: The general opinion was that the budget process is necessary to establish an overlook over the business and plan what actions to take. If FMC decides to abandon the budget, they must have a similar process annually.*
- *Negative: The budget process is to time-consuming and too detailed.*

Q6: Do you feel ownership towards the goals you are measured on?

- *The purpose was to establish to what extent the budget is used in daily operations.*
- *The interview subjects felt ownership towards their goals. But they also did not feel that they could affect the results. Our first interview subject which was a controller said that the use of the budget as a follow-up tool could be better and this was confirmed by the rest of the interview subjects.*

Q7: How much/what do you feel FMC gains from the current budgeting process?

- *The purpose was to find whether FMC is ready for changes related to the budget process*
- *This question was overlapping with Q5.*

Q8: What effect do you think a more decentralized decision process would have for FMC?

- *The purpose was to find whether FMC is ready to implement a Beyond Budgeting approach.*
- *The interview subjects we asked this question to felt that many employees would not be ready for more control over resources and they were afraid that FMC would lose control over spending*

Q9 FMC has grown rapidly and has hired many new employees recently who are still undergoing training. To what extent do you think FMC is ready for a decentralized decision structure?

- *The purpose was to find whether FMC is ready to implement a Beyond Budgeting approach.*
- *The interview subjects said that FMC was not ready for a decentralized structure yet, and stressed that better training must be in place first.*

Q11: What changes do you see as necessary in today's system?

- *The purpose was to find any possible changes that we can recommend FMC to implement.*
- *Main findings related to the discussion in this chapter: 1. Better communication and learning across units are needed, 2. The budget process is to detailed and complex, 3.*

	Management tools which are more up to date in daily business , 4. Rolling budgets and forecasts can possibly replace the traditional budget to provide the organization with more updated and realistic assumptions

Table 5.3. Justification of the setup based on our interview guide

The different interview subjects were divided in their view of the budgeting process and they can be grouped into three different categories:

1. Arguments for removing the budget and implementing Beyond Budgeting

2. Arguments for changing the budget process and format

3. Arguments for keeping the budget and the present budget process.

In the two following sub chapters we have discussed the first and the third category. Arguments for the second category are covered in both of these two sub chapters. It is important to stress that most of the interview subjects ended up in two different categories. There were those who mainly wanted a change in the budget process, but thought of Beyond Budgeting as interesting and had interesting contributions to this alternative. And there were those that wanted to keep the budget, but wanted to implement some changes or adjustments to it. In mid-April we had a focus group consisting of three participants. The purpose was to discuss our findings and to make a qualitative weighting of our findings from the interview round. We would have liked to have more participants than we had, but we were not able to get more. We would also, if we had the time, have a second focus group to further assure the quality of our thesis. The group consisted of two analysts and one employee from Improvement (see also table 5.1)

In subchapter 5.2.3 we have discussed the list of twelve common critical characteristics by Neely et al. (2001), which we presented in the theory chapter and the different characteristics are explained more in detail. In chapter 5.2.4 we have summarized our discussion and we have suggested what type of management tools FMC ER can implement. We have used the reasoning from problem # 1 further in the different sections of this chapter.

When we have discussed and used the term “rolling forecasts” in this chapter, we mean a forecast without any components from the definition of what a budget is. A forecast is a prediction of a future outcome. And, as we wrote in the theory chapter, a budget is a numerical presentation of a company's action plan; it allocates resources and sets targets.

5.2.1 Remove the budget and implement Beyond Budgeting

The interview subjects that placed themselves in this category felt that the time for more modern management tools would be in place and that the use of the budget had become outdated and unfitted with the business environment. They could see a benefit of changing. These are specific arguments:

The extent of the budget process was criticized for being too time consuming as we mentioned in chapter 5.1. This fits well with the criticism we presented in the theory chapter. One analyst quoted: "*The cost center leaders are used to having a budget and they are used to having it very detailed. The cost and time-consuming part of the budget is that it is more detailed compared to forecasts and it is difficult for everyone to "jump" into a sudden 6 months calculation that start with early view in June each year*". The problem is that the budget process in FMC ER demands a time-consuming turnaround for people in different levels of the organization. When June arrives, employees are forced to break out from daily routines and forecast the amount of resources needed 18 months ahead. The question is whether the cost of planning exceeds its benefit. This was questioned and most of the twelve interview subjects described the actual use of the annual budget as a tool in the organization as relatively low.

During the interviews we learned that FMC ER already uses tools that the beyond budget theory recommends; rolling forecasts and KPI's for the whole organization and EAC as the most important KPI for projects. Both the use of rolling forecasts and budgets can be seen as work duplication since these tools have similarities in their use. FMC ER use these tools parallel in the organization and this can be seen as excess reporting. Duplication of work does in our opinion weaken the value of the budget relative to its costs. If rolling forecasts are used, more current and reliable information about the future can be included. Some of the interview subjects expressed that it is possible to remove the annual budget and use a rolling forecast instead. The cost centers, which mostly use the budget today, could benefit from moving to a forecast mindset or a more rolling type of budget. The department managers spend a significant amount of time on the annual budget process today.

Another perspective brought up about the budget process, which is completed and approved at the end of the year, is that the assumptions taken might no longer be valid when January comes. One senior manager stated that: *"The strange thing about budgets is that they are only relevant when the assumptions hold. The only thing we know is that this will not happen in practice"*. Half of the interview subjects said that FMC ER is a conservative organization when it comes to following the budget. If a package leader is stuck with a budget that is not up to date, this could harm operations considerably in that product line. Another problem is that people may be pushed to perform on numbers that are based on old assumptions. Managers might feel this as unfair, if they are measured on changed assumptions. Further, many of the interview subjects felt that the budget was too detailed. They said that the amount of resources spent on estimating details exceed its benefits.

One suggestion was to perform the budget process every quarter for the next 12 months ahead, i.e. a rolling budget. This could give the budget more strength in the sense that a cost center manager has better premises to predict the detail of the next quarter ahead rather than 18 months during the early review in June. Another suggestion with respect to a rolling budget was to have an 18 month forecast monthly, to replace the planning horizon and prediction in the early view. It is important to see the difference between the use of rolling budgets and rolling forecasts. It could be difficult to distinguish between them as we wrote in the theory chapter. A rolling forecast is not a budget because it does not include any plan. Rolling forecasts only shows where the organization is headed. Rolling budgets, as with all other types of budgets, is a numerical presentation of the organization's action plan. We recommend that these two management tools are used in parallel. FMC ER should use the rolling forecast to predict what they will achieve the next 18 months ahead. The rolling budget should be used with respect to the rolling forecast, to manage the organization towards their target. Put in other words: The rolling forecast shows where FMC ER is headed and the rolling budget manages them towards what they want to achieve. If the rolling forecast signals that FMC ER is "off track" compared with their targets, they can make action plans and incorporate them into the rolling budget. In an interview with a senior top manager we learned that FMC ER is using rolling forecasts today to initiate measures from action plans. In that sense we can say that FMC ER is using rolling budgets today in practice, but they are referring to it as rolling forecasts. It is a question of definition. If they already use the rolling forecast as a type of rolling budget, removing the annual budget would be an easier change to implement than we first thought when we started our work with this thesis. In some of the early interviews we did, we were probably not specific enough about what we meant when we talked about removing the budget and use rolling forecasts instead. We felt that the project controllers mixed Estimate at Completion (EAC) with forecasts intended to be used throughout the organization. Also, they seemed to mix project budgets with the annual budget. After we realized this, we focused on clarifying this difference in the rest of the interviews and in the focus group.

In the theory chapter we wrote that the beyond budget advocates did mostly focus on the income budget, i.e. neglecting the importance of the balance (especially working capital), cash and investment budgets. We therefore had an interview with a relevant person who works with these three budgets all year around. We specifically asked if removing the income budget and replacing it with rolling forecasts and rolling budgets would create problems with respect to the relationship between and consolidation of the three: income, balance and cash budget. First, the interview subject stressed the importance of having control of liquidity and that these budgets should be revised annually. Second, the interview subject was positive in that this would not cause any problem for FMC ER's top senior management and in other parts of the organization. The annual balance, cash and investment budget can be incorporated into the rolling budgets.

As mentioned in the methods chapter we had two training sessions and test interviews and we learned that FMC ER already have tools that organizations with Beyond Budgeting use. This was confirmed during the interviews where we explained the idea behind Beyond Budgeting and explained the different management tools mentioned in the theory chapter. FMC ER uses rolling forecasts and KPI's which is important supplements to the budget and those are used widely throughout the organization. The idea behind Beyond Budgeting is to replace the annual budget with a more dynamic management tool and it seems like FMC is already on their way to implementing such a tool.

Some were afraid that the gap between the top management and lower levels in FMC ER would increase with decentralization and that this could harm specifically strategy implementation (see also sub chapter 5.2.5). One analyst said that: "*the transition from strategy to action plans and further down to budgets should be clearer than it is today*". This interview subject was afraid that the gap could grow even bigger and harm strategy implementation even more if FMC ER should decide to implement a Beyond Budgeting approach. If you introduce modern tools for strategic implementation this could be solved. A good example is the balanced scorecard model that we introduced in the theory chapter. The problem with losing the annual status quo-check was brought up in several of the interviews (see also chapter 5.2.3). Those who favored a rolling forecast model did not see this as a large issue, since FMC ER would still have an annual process where they revise the prices of input. Some examples are input like standard cost of raw materials and other units of material, prices on different products and the headcount that is updated into FMC ER's accounting system. The reality check is today and could be an even more important topic integrated during these processes in the future. Also, this has not been a major issue in Statoil where in reality they kept the budget process. As we remember from the theory chapter, Statoil instead chose separately the three aims of an annual budget process, which were to; set goals, plan and allocate resources *"to achieve better link between strategy and action and thereby increased degree of goal achievement"* (Grostad, 2007:16). We think that keeping a process in some form would be important for FMC ER and would remove an important argument for not implementing Beyond Budgeting.

5.2.3 Keeping the budget and the present budget process

Those that were in favor of keeping the traditional budget were afraid of losing control of spending. This coincides with the Statoil case. Some of the interview subjects were satisfied with today's governance system in FMC ER. One interview subject said that his/her experience was that FMC ER is relatively more flexible as an organization regarding budget management compared to other organizations in the same industry. The strictness when it comes to keeping within the budget frames is not a large setback for the organization and changes are made if necessary on an operational level. This is in contradiction with the Beyond Budgeting theory, were the traditional budget is accused of being a choker on operations. The interview subjects who addressed the control issue felt that decentralization, especially in large projects, where resources spent can be "abnormally high", could do major damage. "*You must have a budget in the start of every project life and also an annual budget for the whole organization*". Prior to this statement the interview subject argued that people in such a large organization can differ in quality and that training of personnel is a different task that can vary a lot from department to department. We acknowledge this as a difficulty and we personally believe that training never can be sufficient enough to secure good decisions. It could be dangerous for FMC ER to decentralize more than they do today, since the organization has hired 1649 new employees over a period of the last two to three years. Training should be continued with experience. Through the interviews we got indications that the training of new staff can differ a lot in quality. We have not had the opportunity to go deeper into this issue, but at least it does not increase our enthusiasm about a decentralized decision-making authority.

As already mentioned in chapter 5.1., another important argument for keeping the budget in its current format is that FMC Technologies is a publicly traded company with focus on quarterly results and the expectations of the shareholders. It was said during an interview that removing the budget could make it difficult to communicate what expectations the company has to future earnings. The budget process makes sure that the information behind the numbers reported has quality and this follows from thorough and methodical reviews of FMC ER's next period. It is important for organizations that the public knows that they have well established routines for planning. Planning is commonly seen as an essential part of every people's life if they are to increase their chances of success. Planning in organizations is not an exception and it is seen as essential in the business world. The budget can be replaced by more modern tools, but how would FMC ER's shareholders react to this? Replacing the budget is a radical action to take and a decision to do so would probably leave a lot of anxiety between shareholders, customers, suppliers, employees and banks. This is a cost that FMC ER carefully must consider if they decide to implement a Beyond Budgeting approach. We have gone more into detail of this in chapter 5.3, but for now we question whether this cost can offset any advantages of replacing the traditional budget.

If the traditional budget is replaced with rolling forecasts, it was stressed by many that FMC ER could lose the important annual reflection on the status quo. This is an argument that we also do observe in the theory about the traditional budget. If FMC ER's employees lose such a pause from the daily operations, the risk of running the organization without any specific direction will increase. As mentioned in the theory chapter; "plans are nothing, planning is everything" (General D. Eisenhower quoted by Hoff, 2009). Criticism against the budget included lack of realism and that the plan is out of date when it is time to execute it. We can agree with much of this type of criticism, but the planning stage will enable people who work in the organization to respond faster to changes, since they have got a better understanding of their business strengths and weaknesses. In addition to this, we imagine that it could be difficult in many organizations to implement a strategy in the organization if the top management would have to go into the operations to communicate the "new strategy" continuously without any chance of setting guidelines for the departments which have gotten approved control over their own decisions. So, by removing the annual budget process, the top management can lose control over the strategy implementation process which is crucial in most organizations, including FMC ER. Our argument here is that the annual process is a good way for the top management to communicate what the strategy for the next three to five years would be. In this process they can present this for lower levels what actions that should be taken and why they should be taken.

5.2.4 Discussion of common critical claims against the traditional budget

In the theory chapter we introduced a listing of twelve common critical claims against the traditional budget, which were presented in a research report from Accenture and Cranfield School of Management (Neely et al. 2001). We have now discussed whether these claims can be seen as applicable to FMC ER. If they are applicable we are closer to conclude that FMC ER should consider implementing Beyond Budgeting. The opposite will be concluded if they are not applicable. We have presented a score on every claim that we have made with the help of the focus group we had in the middle of April. We need to emphasize that our conclusion is a qualitative weighting of the interviews and what we have learned from FMC ER. A qualitative approach like this might not be sufficient enough, but can give the reader a pinpoint to where FMC ER is today.

The following 12 critiques have been weighted between 1 to 10 where 1 means that the critique is not applicable to FMC's budget process and 10 means that it is completely accurate and hence applicable for FMC's budget process.

1. Budgets are time-consuming to put together (score 7)

From the interviews we have learned that the resources spent from the early view in June through October are time-consuming and thus resource intensive. One senior top manager stated: "*We have had an explosive increase in detailing the budget over the past years. I think it is more important to see the big picture instead*". The highly detailed level of the budget was mentioned in several of the interviews. As an example; instead of making a lump sum for "other expenditures" like flowers, travelling, baguettes, cakes, conferences, team-building and further, these are broken down at an individual level. Our impression of this is that the highly detailed level represents a use of resources that can be questioned. FMC ER could benefit in monetary terms by lowering the detail level in the budget as we discussed in chapter 5.1. This does not mean they have to get rid of the budget. In addition to time, we can question the quality behind the high set of details. We see that it is difficult for a manager to ensure quality behind the different posts in the early view. Will it not be a better idea to let the department managers get a fixed amount of cash, for less significant expenditures, and let them manage the use themselves? We have discussed this solution in consideration that this can lead to spending what's left of the pot at the end of the year unnecessary, which was confirmed in the focus group. We realize that this risk already exists today independently of whether FMC ER decides to use a fixed amount of cash or have different accounts for the different categories. On the positive side, people in the organization seem to feel ownership towards the budget and that the budget represents an important base for the organization. People feel commitment and responsibility towards their cost spending. Of course, putting a budget together is time-consuming, but if the value you get in return is positive, this might just weigh out the resource spending.

We conclude that the budget process is time consuming for FMC ER and that resources could be saved on less detailing and hence a score of 7, but the process itself does not necessarily represent a waste of resources.

2. Budgets constrain responsiveness and are often a barrier to change (score 1)

Responsiveness is an important subject in operations management. The five performance objectives are quality, speed, dependability, flexibility and cost (Slack et al., 2010:39-40) and they all affect responsiveness. If an organization like FMC ER is not sufficiently responsive, this would harm operations and give competitors a possible advantage. As mentioned earlier, the interview subjects were divided on this issue. Some stated that deviations were not a problem and that FMC ER is not necessarily good enough to set demands, i.e. it is too easy to deviate from the budget. On the opposite side, others stated that making adjustments takes too much time and is not straightforward. Further they meant that in principle, measures and adjustments that must be done in FMC ER are being done, but that time is an issue. In that sense, BBRT fails to see that many organizations can live with a fixed framework as long as they have the ability to move away from it when measures are required. This is definitely the case in FMC ER were necessary investments are approved.

We conclude that the budget in itself does not constrain responsiveness and change, and hence a score of 1. But, we suggest that FMC ER takes a closer look at the time and effort spent on making these changes, since this can be improved and will give them an advantage.

3. Budgets are rarely strategically focused and often contradictory (score 1)

For this critique, we did not have a specific question in our interview process. However, two of the interview subjects missed clarity to some extent on what the strategy implementation in FMC ER is. They stated that the strategy is often not visible in the organization, especially at lower levels in the hierarchy. This does not necessarily support the statement above, but it says something about the understanding of the strategy linked with budgets. With a bottom-up approach to making the budget, one must realize that some elements must be forsaken. FMC ER has strategic KPI's which represent what the top management will have the organization and its departments, projects, product lines and support functions to focus on. Bonuses are directly linked with the goal achievement of the KPI's with the intension of reinforcing these strategic areas.

The budget is not contradictory with the strategy and the budgets are strategically focused. This was strongly argued for in the focus group and we reached a score of one. FMC ER has a strong focus on R&D and customer satisfaction. These two important areas combined gives a stronger position in the market, see the vision presented in the introduction chapter. The vision is also well communicated throughout the organization and it is reflected (and definitely not neglected) in their budget. Also, the budget process is important to get an understanding of the business and this helps the organization to achieve strategic targets. But on the other hand, since the assumption taken that the annual budget is outdated during the year, the use of it will not contribute to achieving strategic targets. This was given a score of 1.

4. Budgets add little value, especially given the time required to prepare them (score 5)

None of the interview subjects had this opinion. i.e. they said that the budget process adds value. We have already discussed this in problem # 1 and in this sub chapter that the budget process is important for FMC ER. The downside with the process today is the extensive time spent, and especially in terms of detail level. The use of the annual budget throughout the organization can be more questionable. It may push people to perform on numbers that is outdated. There are other tools which could perform better than the traditional budget as a management tool, e.g. balanced scorecard. If FMC ER decides to implement it, they can still choose to have an annual process where the different units of the organization set targets and plan the coming year, but they will not need to spend the same amount of time on calculating details.

We conclude that the budget process adds value, but the annual budget can be replaced with more modern management tools. The score we reached was 5.

5. Budgets concentrate on cost reduction and not value creation (score 4)

FMC ER has focus on controlling their costs, but cost reduction is not a primary target of their budget even though it is measured through the EBIT. They also have a strong focus on creating value. Through the interviews, we learned that this can vary between years depending on different variables, e.g. the; market, competition, state of the economy, financial situation of the organization etc.. We discussed this statement in the focus group and reached a conclusion that we should set a medium score of 4, meaning that they both focus on cost reduction and have strong focus on value creation.

6. Budgets strengthen vertical command-and-control (score 4)

The budget is a tool which helps the top management to have control over the spending in FMC ER. It provides guidelines for lower levels in the hierarchy on what resources they have available. The budget is strengthening vertical command and control in organizations. One advantage with vertical organization is that you have clear and defined areas of responsibilities. It is difficult to imagine that a relatively large and complex organization such as FMC ER would have any other choice than to organize itself as a hierarchical structure. The traditional budget is indeed a valuable tool to secure control in this type of organization. This is an argument against a Beyond Budgeting approach in FMC ER, because decentralization of decision-making authority would probably need another way of organizing the structure. The organization would probably need to be more horizontal than today. To convince FMC HQ about this could be a difficult task. It is well known that large American companies favor hierarchical structures. One interview subject said: *"Houston (i.e. FMC HQ) is traditional and they want to have a budget"*.

As mentioned previously, decentralization could also lead to problems with spending of resources, especially when we think of all the new employees. Extensive training complemented with follow-up would be needed to secure this type of issue. Another setback is the culture. It would probably take years to change the mindsets of all the staff and the question is how costly such an implementation of a Beyond Budgeting approach would be in the end. An important disadvantage, with respect to the budget process in hierarchical organizations, is communication. We got confirmation through the interviews that communication is often slow and cumbersome and this is typical for hierarchies, but this alone cannot be an argument to change organizational structure. The focus group argued that the budget did strengthen command and control, but also argued that the bottom-up approach in the budget process was a good way for FMC ER to offset any drawbacks with having a hierarchy. All in all we ended up with a score of 4 which we based on that the budget does strengthen vertical command and control in FMC ER, but we did not see that this is as a main argument against both the budget and the organization of the business.

7. Budgets do not reflect the emerging network structures that organizations are adopting (score 4)

"Increasingly, companies are decentralizing activities and taking advantage of alliances and partnerships to deliver customer service and create value. Budgets fail to reflect such approaches: instead they promote centralized control within the confines of the individual company" (Neely et al. 2001:7).

The top management controls the resources through the budget, but the value is created further down in the hierarchy. There are two opposite opinions we have discovered through the interviews; 1. The employees who have contact with FMC ER's customers are creating customer value, but they do not have authority to immediately deviate from the budget. Every project has a contract. If FMC ER has underestimated the need for resources over the budget (e.g. input may have changed), time to approve an "overspending decision" can delay a project and decrease customer satisfaction. 2. FMC ER is highly customer focused and they have established good communication with partners throughout their value chain. In most cases, the budget doesn't harm customer service and value creation. Based on these two opinions we reached a score of 4.

8. Budgets encourage gaming and perverse behaviors (score 5)

By this (Neely et al. 2001) is meant the conflict over allocation of resources between departments and that the different departments seek to minimize the commitment (i.e. lower goals). First, we have the risk of sub-optimization as discussed earlier. The problem with spending unnecessarily what's left of the budget because the manager has the opportunity is sub-optimization. This is to some extent encouraged by the budget in FMC ER. One interview subject said: *"A problem is that cost center leaders think they have to spend their budget each year instead of making them understand that they don't have to"*, meaning that the budget is spent to get the same amount of resources the following year. Referring to agent-principal theory (Johnson et. al. 2011:125), the agents want low targets that are easy to reach, i.e. lower sales budget and higher spending budgets. Departments and other units want as much resources as possible. The main reason for this is; that more resources than needed would make it easier to stay within the budget. For instance, the budget does encourage the department managers to report extra need for staff; so that they are secured that they have a sufficient number of staff the upcoming year. We cannot say that this happens in FMC ER, but the risk exists. As we have mentioned in problem # 1 and in this sub chapter, reluctance to overspending when necessary is not a barrier to operation in FMC ER, even though managers can feel unwell to do so. The reason why we give a score of 5 (and not 7) is that incentives, like bonuses, are not felt as dependent on whether the different units succeed in accordance with the budget since their impact is minor. FMC ER has Business Unit Incentive Program (BUIP), but it covers the whole organization and not units. If the latter was the case, this could increase the risk of gaming and sub-optimization.

So today, managers must explain any significant deviations, but as one interview subject quoted *"there is always an explanation"*. If bonuses were reliant on individual results, this could increase the risk of sub-optimal behavior.

9. Budgets are developed and updated too infrequently, usually annually (score 7)

The annual budget is made every 12 months and is not updated, even when the amounts of actual projects are changed. The assumptions taken in the budget process does rarely hold through the fiscal year and presents a boundary for the departments. The quantity of human resources allocated to the different departments is fixed in advance. E.g., one department has overcapacity and another department is short of capacity during a period, the budget has not been a good management tool if this is not communicated. With higher frequency of the budget, e.g. a rolling budget specified quarterly and detailed for 12 months ahead as mentioned in sub chapter 5.2.1, the allocation of resources can be improved and be more realistic. This was confirmed as a possible solution by the focus group and we reached a score of 7.

10. Budgets are based on unsupported assumptions and guesswork (score 1)

This statement did not appear to be valid for FMC ER after we had finished the interview round. Why? This is where we come back to the detail level issue. FMC ER spends a lot of time on getting as much information as possible into the budget and time is spent to get it as accurately as possible. Large parts of the BfP are confirmed. Some assumptions must however be taken about future projects, but those are not unsupported. They are based on customer contact and experience in the tender team. There will always be budgeted projects that are lost and unbudgeted projects that are won, but the budget is not based on unsupported assumptions and guesswork for that reason. One analyst said "*make the budget process easier. Cut the detailed parts of it as it doesn't give any more control in the big picture. What's a flower against 50 tons of high tech equipment?* We therefore conclude that the traditional budget in FMC ER is not a problem because it is based on unrealistic assumptions, but rather that they may spend too many resources on achieving the opposite. Therefore we reached a score of 1.

11. Budgets reinforce departmental barriers rather than encourage knowledge sharing (score 7)

"As everyone strives to achieve their own budgets and target, there is little incentive to co-operate with others to achieve synergies". (Neely et al. 2001:7).

One general impression we have is that FMC ER has a lack of knowledge sharing across departments. We do not think that the budget contributes to this alone, but the budget is a contributor to reinforcing department barriers rather than the opposite. If a department already has a tight budget it would be difficult to spend time on sharing knowledge with other departments.

12. Budgets make people feel undervalued (score 1)

"Traditional budgets prevent empowerment and the opportunity for employees to contribute to the achievement of strategic objectives. Often, they treat employees as costs to be minimized, rather than assets to be developed." (Neely et al., 2001:7).

We learned through the interviews that managers consider the budget as a contribution to the opposite of being undervalued. People in FMC ER like to have a budget around them. The budget provides the managers and their employees with certainty about their operations because they can operate within the frameworks. Giving existing managers and employees the freedom and autonomy to control resources, can cause an unsecure situation for them. We have learned that many will feel uncomfortable with this situation. In the interviews, we never got the impression that people feel undervalued because of the traditional budget in FMC ER. Employees cost money and they are seen as costs, so this is a true statement. But at the same time they are seen as valuable assets for the organization. Maybe some people felt undervalued when the financial crisis struck and many were laid off because the company chose to disinvest instead of the opposite, but this is certainly not an issue today where the situation has stabilized and they have hired many new employees. The opportunity for ordinary employees and department managers to influence corporate strategy is not a characteristic of hierarchical organizations, but we see this as a possibility in FMC ER since they follow a bottom-up approach in the budget process.

We conclude that employees and managers we have spoken to in FMC ER do not feel undervalued and if any of them are, this is not due to the budget.

5.2.5 Summary and conclusion

In this chapter we have discussed whether FMC ER can benefit from going Beyond Budgeting or not. We divided the discussion in two different categories; arguments for implementing Beyond Budgeting and arguments for keeping the budget. In these two sections we included any possible changes to the budget process and setup that emerged from the interviews. Then we had a section where we evaluated the annual budget in FMC ER up against the twelve claims against the budget presented by Neely et al (2001).

Our conclusion is that FMC ER is not ready yet for implementing a Beyond Budgeting approach. This is partly due to a situation where they have hired a significant number of new employees and that the need for control over spending is crucial for FMC ER. Also, we found out that FMC ER already is flexible in terms of investments and costs. So with regard to this, we doubt that by implementing a Beyond Budgeting approach they will gain back what they will use of resources and time spent in the start-up phase. They would have to take on a significant risk when implementing such a major change in their management system now. This does not mean that FMC ER never will gain from removing the annual budget from the organization, but we cannot see this extreme as a solution we want to recommend at the moment.

Even though we found out that FMC ER is a relatively flexible organization, weaknesses with the annual budget were revealed. The interview subjects felt that the extent of the annual budget process is too time-consuming and the annual budget is too detailed. This is something that should be taken up to consideration in FMC ER. As a follow-up tool, it is not used to the extent as the annual budget is intended to. This is probably related to the fact that assumptions in the annual budget rarely are valid from January. By having a more dynamic budget process we think this can be solved. We asked the different interview subjects how the management system could be more dynamic. The conclusion was to remove the annual budget and replace it with a rolling budget and a rolling forecast. This must not be misinterpreted as a Beyond Budgeting approach, because FMC ER would still have a rolling budget which sets targets and measures. The rolling budget is meant to be updated and reported every quarter and be valid for the next 12 months ahead so that the budget as a tool can be more dynamic and "up to date". This will hopefully also ensure better quality behind the figures. The other part of our suggestion is to implement an 18 months rolling forecast updated monthly to replace planning horizon of the early view of the budget process. Today FMC ER forecasts for 12 months ahead monthly. This will give FMC ER a monthly update about where the organization is headed. They can use the rolling budget to initiate actions that will stretch the organization towards their targets. Time and costs can be saved on removing the time-consuming annual budget process. If this suggestion would be approved in the future, it is important that FMC ER does not lose the opportunity for the organization to stop and review its business. We recommend having a larger process annually where the organization's actions and strategy are up for revision. This will ensure that FMC ER has enough substance behind their planning.

5.3. Problem # 3

The third and last problem of our thesis is as follows:

"How could FMC with their business model and volatile planning benefit in a Beyond Budgeting model and how could they get there?"

Just as problem # 1, this problem is not one with an ending conclusion. We have used this chapter to discuss our view of how FMC can go to the "extreme" of fully implementing Beyond Budgeting.

As presented in our theory chapter, Beyond Budgeting consists of six areas that if implemented fully should make a company as dynamic as possible. These six principles are based on experiences from companies that have gone to that very extreme. All of the principles need to be part of a continuous adaptive process so that they can "live" parallel to the dynamic market.

1. Set stretch goals aimed at relative improvement.
2. Base evaluation and rewards on relative improvement contracts with hindsight.
3. Make action planning a continuous and inclusive process.
4. Make resources available as required.
5. Coordinate cross-company actions according to prevailing customer demand.
6. Base controls on effective governance and on a range of relative performance indicators.

To give a better picture of where FMC is today, compared to the traditional budget and Beyond Budgeting, we have created a model showing our qualitative interpretation of this with much appreciated help from our focus group. As explained in problem # 2, the focus group was able to give us vital feedback on our interpretations of FMC ER. We used the weights given in problem # 2 to also create weights on the six principles explained in this sub chapter. The figure shows where FMC is compared to the traditional budget approach being the center and Beyond Budgeting being the outer wall with a scale of 1 to 7.

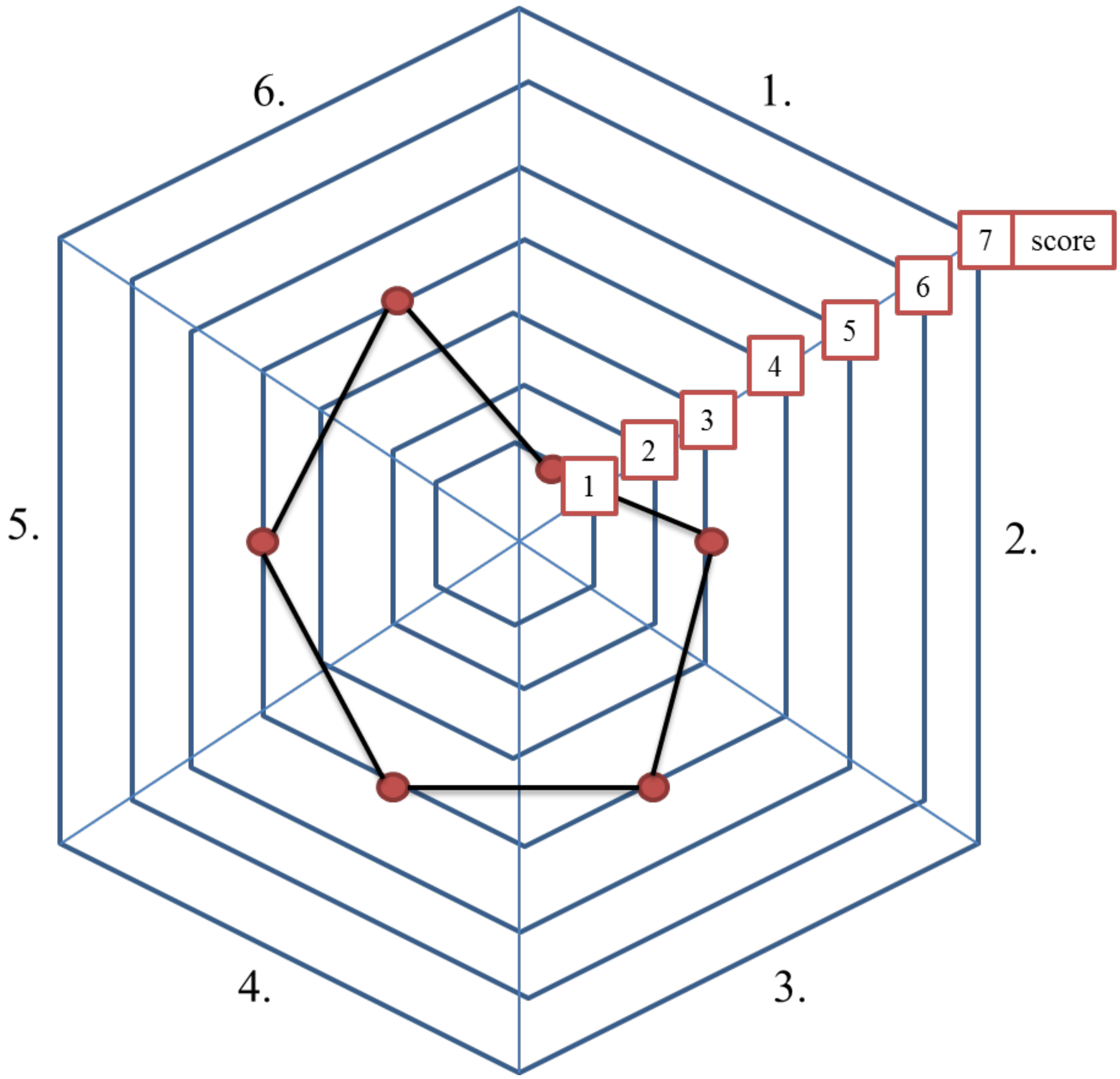

Figure 5.7. FMC's current stand between the traditional budget and Beyond Budgeting

5.3.1. Principle # 1

The idea of principle # 1 is that the employee should be part of setting his or her own goals. These goals should be so high that the employee really has to "stretch" to be able to reach them. The way this works is that the employee knows that the goals themselves won't be measured to the extent of achievement or non-achievement. The employee should rather be benchmarked against other employees with the same tasks within the company and or other companies. As mentioned, FMC measures On-Time-Delivery, Retention, EBIT and Red Incidents. All of these goals are something that all employees to some extent have an impact on, but are probably nothing they "stretch" to achieve. In addition, these goals brake with the idea of not actually being measured on the goal but the effort that has gone into working towards it. As far as we know, no FMC employee fulfills principle # 1 and we have therefore evaluated this to be a "classical" traditional budget approach to having goals. It is therefore valued as a 1. We cannot see how any of FMC's employees will see the goals that affect their bonus and "dream the impossible dream". That will only happen if the employees know they won't be measured on the goals. On the other hand, if the employees were to set their own goals AND be measured on them, we are back to the sub-optimization thinking. People would then seek to set easy-to-achieve goals to ensure their own bonuses are as high as possible rather than thinking of the final beneficiaries, the shareholders and the overall team thinking. The good thing about measuring relative improvement is that it creates internal competition between departments with similar tasks and between employees in the same departments. If one of the employees say that "it can't be done", that employee would have to justify this statement when apparently other departments or employees have been able to achieve the non-achievable.

So how can we see this principle incorporated in FMC's system? It does not necessarily mean that you have to get rid of the standard AEIP (All Employee Incentive Program), but you can add personalized goals for each employee and/or department and make sure that it is measured as a relative improvement. The bonus that the employees already receive can be adjusted either way based on an employee's effort of 100 % being the standard. Meetings would have to be scheduled by the department managers every month or quarter as a continuous process with updates to the current goals and input to any changes or new goals. It would be the responsibility of the employee and the department manager to make sure that the targets are helping to improve FMC's overall strategy plan as well.

5.3.2. Principle # 2

The idea behind principle # 2 is that evaluation and rewards related to achievements should be based on relative improvement. The actual evaluation of performance is based on an overall assessment and this is done after the period is over. Different indicators are used to evaluate results and they are not fixed. Further, the idea behind this principle is to make a reasonable overview and to increase the fairness of employees' evaluation and bonuses. By linking evaluation and rewards with relative improvement, the employees will hopefully be motivated to work more effectively. In their attempt to be more efficient they will try to find better ways to handle resources to save costs and they will continuously look for ways to improve quality, customer satisfaction, sales and so on.

It is important to do an overall evaluation of the results. If you only look at the numbers and not beyond them when making an evaluation, there is a risk of evaluating results on wrong assumptions. A result can appear to be excellent at first glance, but key input underlying the outcome may have changed during the period. It is therefore important to see the "whole picture", go beyond the numbers and use a more qualitative approach to evaluating. So, to strengthen the evaluation, more indicators are used than traditionally. This means that the employees can receive a bonus even if one of the indicators should develop negatively during the period. The relative improvement contract with the employees should be based on teams so that the system rewards and improves co-operation across the organization (Hoff, 2009:454). The teams should consist of employees operating together towards the ambitious targets.

On principle # 2, we have given a score of 3 since they do not base evaluation and rewards on relative improvement contracts after the period is over. Instead, the targets are fixed and they are made before the period starts. The reason why we gave the score 3 is because they have AEIP. This bonus program does reward good results, but this applies to the whole organization. The bonus program is perceived more as a gift than a reward for effort and achievement. It is difficult for an employee to see if it has any significant effect on AEIP to increase own efforts, because of the large size of the organization. In a team consisting of, say 20 employees, results of one's own efforts in relation to bonuses would be more visible and this is probably more motivating.

So how can we see this principle incorporated in FMC's system? We imagine that a good way to divide the organization in teams may be to use the already established departments. Senior management evaluates the department managers and the department managers evaluate their employees together with representatives from the senior management. They must use several indicators when evaluating performance. Statoil set their goals via the Balanced Scorecard process where each individual employee has his or her own targets to meet. The evaluation is based on these targets against other employees/departments/competitors and the employee's behavior (willingness to work towards the targets).

5.3.3. Principle # 3

The idea of principle # 3 is to not let the fiscal year be the time horizon we manage our company by. FMC ER is approximately 35-40 % of FMC in total. Most of their income is generated through projects and these projects have a time span far greater than the fiscal year. A project lasts for 24-36 months on average and during this time many changes can (and will) occur, rendering the budget based on a fiscal year inaccurate. Action plans need to represent the same time span. That being said, FMC ER do act on changes in the market and are not as locked to the budget as you might think. If there is a legitimate reason for the budget being inaccurate and that is something that the current forecasting method catches and explains as a deviation, FMC ER is dynamic enough to make actions accordingly. The reason why we still evaluated this principle as a 4 is that the fiscal budget is a big and important part of FMC ER's management tool and will to some extent hold the company back so they cannot be 100 % dynamic. Leaders, teams and individual employees should focus on what creates customer and shareholder value. Focusing on the final beneficiaries is after all the reason why they come to work every day. Pre-negotiated goals, like those in the fiscal budget, will divert the focus from the final beneficiaries even though those goals (On-time-delivery, EBIT, Red incidents and Retention) are meant to be for the customers and the shareholders. We believe those goals (from a Beyond Budgeting stands) might be too far away from the individual employees view to not have any actual meaning. Instead, the employees and their teams/departments should set their own action plans and KPI's based on a framework and strategic guidelines set by top management.

The process would be continuous and inclusive towards ell the employees and be performed monthly, quarterly and annually. The meaning of it being continuous is that we should seek to be better and better and always seek to adapt ourselves to the changes in the market as long as we are within the framework that is set based on our strategies. Each review would include GAP analysis explaining how far we are from our goals and then reevaluate if the goal is too high or low or even if a new ambitious goal is needed. Each department leader would have to have reviews across disciplines to ensure cross-company collaboration and understanding of what is important to focus on. FMC ER is currently quite good at this as they have just recently started to include all of their departments in the forecast. Having all departments report the action plans they have created themselves will give the forecast more substance and reality. The forecast would then be seen as a better and more accurate management tool then the budget. Off course the forecasts are far less detailed then the budget and is not focusing on how many baguettes and flowers each employee will consume during a year rather than just have a set overhead for all of these minor costs.

5.3.4. Principle # 4

The idea behind principle # 4 is that those who work with operations should have full access to resources needed to perform maximum, i.e. full decentralized allocation of resources. Those that work closest to where value is created in the organization should be seen as the best to judge the amount of resources needed.

We know it sounds dangerous to let hundreds of teams loose and let them decide how to use resources. Therefore it is important that the teams have target contracts with the organization. With the target contract, the idea is that the employees will be motivated not to spend any more than needed, because bonuses and evaluation depends on their team's achievement. The advantage of continuously allocating the resources is that resources are only spent when needed and this can save costs. With a budget you have a framework for what you can spend and it is easier to justify if use the whole pot of resources given, e.g. use some extra at the end of the year so that you get the same degree of resources in next year's budget. The risk will go down when employees are striving to achieve an ambitious target. Their evaluation and rewards are dependent on achievement, so overspending will make harm to themselves. If the production department has an ambitious target to decrease production unit costs by 15 % over a three years period, they should decide for themselves what measures and investments to be taken to achieve their goal. Should they find better production technology, then they will have the authority to make this investment. The employees and managers working in the respective departments know best what areas they have to perform better on to achieve their goal.

So how can we see this principle incorporated in FMC? When implementing Beyond Budgeting we recommend doing this stepwise so that the transition will not be to extensive for the organization. The first step could be to make resources more available when needed and work towards being adaptive like figure 5.8 illustrates. The reason why we chose a score of 4 on this principle is because we found out that resources are available when needed in FMC. The reason why we didn't choose a higher score is that time is still spent on approvals. In our opinion FMC is close to having reached the first "peak" towards Beyond Budgeting already. They can be seen as adaptive, but the time spent on waiting from requesting additional resources until it's approved have an improvement potential. When the first "peak" towards Beyond Budgeting is reached, the next step would be to decentralize the resource authority. As we learned from the interview process, resistance to change might occur when this step is implemented. A number of the different interview objects doubted that FMC would be ready for decentralization. Therefore it's important that senior management is good at communicating on why this change is implemented and what advantages this entails.

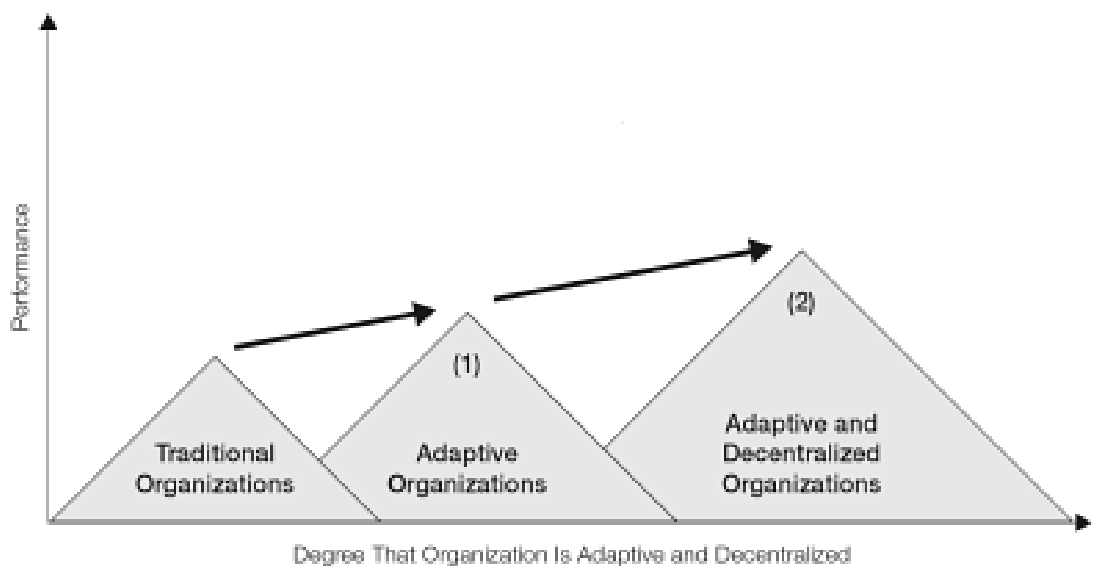

Figure 5.8. illustration is copied from Hope and Fraser (2003a:36)

5.3.5. Principle # 5

The idea of principle # 5 is communication between departments to ensure collaboration on the actions that meet the demands from customer. This is to ensure that resources are not wasted on doing things twice or even doing things that are not consistent with each other. The question is, what does our customer need rather than what do we as a department need? This is something we have discussed earlier as communication is seen as something that FMC can improve at through experience mentoring and training. This principle is based on the budget not existing anymore (at least in its traditional fiscal manner). Just like principle # 3, this is valued as a 4 on our scale in figure 5.7 This evaluation is based on the budget still existing and being a big part of FMC as a management tool and on the fact that almost all our interview subjects have highlighted communication to be an area of improvement.

The model of Beyond Budgeting argues that the customer is in the center and that processes and products should be tailored to these customers as long as that can be justified through a customer profitability analysis. Some customers can seem profitable when they actually are not. Is the analysis of this representing all the resources that go into pleasing the customer? In FMC ER, the tailoring of processes towards customer and the products they want is actually highly focused. FMC, being an international actor, has to be able to run their projects according to the management style of the customer. The customers can be from France, the UK, Norway, the US, Russia and so on. These countries are diverse in their approach to demanding details with regards to for instance quality documentation and inspections, not to mention leadership styles. We cannot see that the attempt to please their customers as much as possible can be pushed even further without communication internally being better. On the other hand, it might not even be wished from the customer, we have no way of knowing at this stage how satisfied FMC's customers really are, except the fact that FMC is the global leader for the energy industry providing oil service equipment.

5.3.6. Principle # 6

The idea behind principle # 6 is to base the controls on a range of relative performance indicators and to facilitate the organization with an effective governance system. The report system should be multilevel in that employees and managers should have full access to information about how they perform. These reports should show how the teams perform on the relative performance indicators (KPI's). The reporting system must be effective in the manner of speed and quality. By quality in the reports we mean that you have full control over how you are performing. They should show "development trends, accumulated averages, rolling forecasts and parameter that tells about relative changes measured against the last period, last year, and maybe also against earlier periods" (Hoff, 2009:457). One major advantage is that the manager can make adjustments if deviations are spotted early. "Managing by exception" is a key element in an effective reporting system.

In FMC ER today, the four KPI's are difficult for one employee or manager to affect. Employees do not have the effective governance system that is described above. We have given a score of two since FMC ER already performs "management by exception", though towards the budget.

So how can we see this principle incorporated in FMC? This principle is a key to successfully implement Beyond Budgeting. It's important to spend much time in the start to establish good and uniform setup of the reports. Other KPI's than those four they use today must be chosen to cover more of the operations. FMC ER must have KPI's at every level so that it is possible to evaluate at an individual level. Rolling forecasts should be used in all parts of the organization. We do not know how much focus FMC has on reporting development over time. But it is crucial to have good overview of development over time when evaluating the team.

5.3.7. How to implement these six principles?

According to Jeremy Hope and Robin Fraser (2003a: 95-116), the following steps are important if you are to start the implementation of a Beyond Budgeting model. As part of our interviews we thought that we needed to analyze whether or not FMC ER has a "resistance to change" mentality. Our interview subjects were unanimously agreeing that that is not the case. The major holdback for changes is due to the workload all employees already have and the impossibility of adding improvement work on top of that. For the Beyond Budgeting model to be fully implemented, a project manager has to be dedicated to the entire implementation process and needs to have access to resources that can analyze detailed changes to the processes. All our interview subjects have seen the possibilities of Beyond Budgeting and have been open for changing the procedures as they are today. Some expressed their concern with not having control if the budget is removed and we explained to them that it will be replaced by a more dynamic process.

- **Defining the case for change and an outline vision.**

Hope and Frasier (2003a: 96) states that *"the case for change should be both a clear statement of the current pain experienced with the budget based model, as well as the benefits to be gained by adopting the new vision"*. This is exactly what we have done with this thesis, taken the first step to gather information and look at the constraints and benefits of the current budgeting processes versus Beyond Budgeting. Generally, two aspects are seen as important to change to be able to implement Beyond Budgeting (and probably in any other improvement process). The first is to remove the budget and replace it with a more dynamic process and management tool. The second is to change the mindset of the people in the organization. If they think that this is another half-hearted attempt to improve, the implementation will fail. As we have already established through our interviews, the mindset of FMC ER is not the barrier to change. FMC ER's employees are generally very open to change and feel they are only limited by the time they have available. The mindset needed to change is that of FMC HQ and probably to some extent the shareholders. This is further elaborated in the next point. Though we have taken the first necessary step to implement Beyond Budgeting, this first point still lacks a crucial part that FMC ER needs to handle and decide for themselves. That crucial part is the implementation, meaning if FMC should have a trial implementation for a small business unit or a full-hearted turnaround for the entire organization at once.

- Convincing the board.

"Convincing members of the board that managing without budgets will bring significant benefits without too many downsides is a key role for the project team" (Hope & Fraser, 2003a:98). We are off course referring to the project team here as the team that will perform the Beyond Budgeting implementation. Usually it will be easier if the advocate(s) for the implementation process is already part of the board. Hope and Fraser address the same issue that was addressed by FMC ER's top senior management, the impact on internal control. Not that anyone was against the removal of the budget, but how to ensure financial control through another process and management tool. This is the same issue that the board will emphasize when trying to convince them to go Beyond Budgeting. The other issue was how analysts and bankers will view the company. As pointed out several times in this thesis already, FMC is a company registered on the New York stock exchange and this might be a barrier to implement Beyond Budgeting. The shareholders and the board will be concerned with how future earnings will be forecasted (which FMC ER already have control over through the forecasting process). The last thing the board wants to do is to inform the market and the shareholders with unpleasant surprises due to lack of correct forecasting or internal control. These concerns are natural but unreal. Previous experiences from companies that have gone Beyond Budgeting is that the company, with its new rolling forecasting process, have only been faster, more open and offers better control. This forecast has in most companies created an outlook on the next fiscal year end. For FMC and FMC ER, this could be done through the 18 month rolling forecast for instance. This would create an outlook on the coming fiscal year end already in June as part of the "early view".

- Getting started.

Beyond Budgeting*"…should be sold and implemented on the basis of what it isn't rather than what it is"* (Hope & Fraser, 2003a:100). Accordingly the work that is eliminated by removing the budget is the major attraction. As we have spent a lot of time on this thesis now and read numerous articles on Beyond Budgeting, we are both agreeing and disagreeing with this statement. The correct statement would be to say that it depends on how the new forecasting process will be. It is important to remember that Beyond Budgeting is about generating a "similar" real-time view of the market several times a year as the budget does when it is created. Doing so without eliminating details and bureaucracy (authority of decision making i.e. decentralization) may create a process that over the course of a year actually takes more time than the original budgeting process. That being said, you will still have a process that is more accurate according to the market and hence a better management tool. For FMC ER, who now have forecasting and the budget, eliminating the budget would certainly save everyone both time and money. It would be an easy selling point for those that already have too many administrative tasks already.

FMC ER and/or FMC as a whole could start out the same way as Rhodia did; the first step would be to create the new planning method as a Business Process Management System stating the framework and tasks of all managers at different levels. At the same time as this new BPMS is presented, the budget is removed completely, leaving the managers with no other choice than conforming to the new requirements.

- Designing the model and implementing new processes.

The main key word here is coherence. Coherence means that it is not just about eliminating the budget and implement rolling forecasts. The new processes of the above six principles need to be coherent with the underlying processes of the businesses. What used to be processes adapted to the budget must now be adapted to a Beyond Budgeting process.

An example of this is a large consumer products group, that Hope and Fraser present, that told their managers to set stretch goals that they would not be measured on. The sales people than inflated the sales forecasts with no coherence with the existing strategy and action planning process. In other words, they acted in self-interest, inflating the sales forecasts to increase their inventories with the intention of having enough on stock to not make the customers wait for a product. This turned out to be a decision not thinking of the company as a whole and sub-optimizing by the sales managers to ensure their own bonuses. In the end the company had to perform huge write-offs which damaged their reputation significantly. All underlying processes must hence be based on a well-grounded strategy and action planning process that is coherent with the new Beyond Budgeting model.

- Training and educating people.

As part of a new process, it is vital that a thorough training and education process follows. As we have already established previously, FMC ER needs to be better at communicating and this needs to be done through extensive training and experienced mentoring. At this stage, with all the new employees, adding training and education for a new forecasting process for FMC with the coherent changes to underlying processes, may be a huge risk to take. As concluded in Problem # 2, FMC ER may not be ready for Beyond Budgeting just yet as they have too many new employees. On the other hand, were they to turn around swiftly, they could use this opportunity to not train new personnel in the current processes, only to reeducate them when Beyond Budgeting is implemented. This might just be a golden opportunity to use Beyond Budgeting as the first education for the new employees.

A major benefit for FMC ER is that they already have established the FMC University where all employees can be educated in the Beyond Budgeting thinking before the process is implemented. This would ensure that all employees understand the overall way FMC ER works and have the understanding of the bigger picture, as presented in this thesis.

- Rethinking the role of finance.

Apparently, Finance people are not usually seen as those bringing good news to front-line-people. Beyond Budgeting experience at BULMERS and SKF has proven that Beyond Budgeting should free time-consuming activities from the finance department, giving them more time and opportunities to assist front-line people with necessary sparring on financial decisions. This opportunity to help front-line people may and should help on changing how the organization view finance in addition to reducing or eliminating the need for overtime. Overall the organization should be “healthier”.

- Changing behavior.

The idea here is that behavioral change will follow as the new Beyond Budgeting model is implemented. Employees will feel inspired by the new processes as they should be less time-consuming than the annual budget process. Instead of telling managers what to do through the budget, they are forced to take more responsibility for their actions to ensure good results. The new Beyond Budgeting process is hence pushing people to change for the better.

- Evaluating the benefits.

No matter how much we emphasize that all interview subjects believe FMC ER is not suffering under “resistance to change”, there will always be some people that just seem to wait for the first failure and who want to say “ I told you so”. The important part to emphasize her is to make sure the first short term gains of Beyond Budgeting is highlighted and communicated to the entire organization at an early stage. Hope and Fraser highlight three benefits of Beyond Budgeting that should appear early and should be communicated. These are the cost savings from not budgeting, the cost savings from reducing bureaucracy and changing behavior and faster response from more adaptive processes (2003a:112).

- Consolidating the gains.

“It’s about winning hearts and minds at the top” (Hope & Fraser, 2003a:113). If a merger, an acquiring or a new CEO becomes part of the company, it is important that the Beyond Budgeting approach is owned by everyone in the board and top senior managers. If not, there is a likelihood of traditional budgeting being pushed back into the company. It is vital to “stick together” and be consolidated on the benefits of Beyond Budgeting.

5.3.8. Summary

This chapter has taken more of a theoretical approach to Beyond Budgeting improvements as explained by Hope and Fraser (2003a). We used this chapter to create a visual overview of where FMC ER is situated between traditional budgeting and Beyond Budgeting. From 1-7 where 1 is traditional budgeting and 7 being Beyond Budgeting, FMC ER is situated (based on the six principles) as follows:

1. Set stretch goals aimed at relative improvement. (1)
2. Base evaluation and rewards on relative improvement contracts with hindsight. (3)
3. Make action planning a continuous and inclusive process. (4)
4. Make resources available as required. (4)
5. Coordinate cross-company actions according to prevailing customer demand. (4)
6. Base controls on effective governance and on a range of relative performance indicators. (4)

If FMC ER, or even FMC as a whole, wish to go to the extreme of implementing Beyond Budgeting to the fullest, it is important to be aware of common pitfalls based on other companies' experiences. The implementation phase should "foresee" these pitfalls and should be following certain steps:

- Defining the case for change and an outline vision.
As we have done through this thesis.

- Convincing the board.
Usually it will be easier if the advocate for the implementation process is already part of the board.

- Getting started.
Sell Beyond Budgeting as what it is not, rather than what it is.

- Designing the model and implementing new processes.
The new processes of the above six principles need to be coherent with the underlying processes of the businesses.

- Training and educating people.
FMC ER needs to be better at communicating and this needs to be done through extensive training and experienced mentoring.

- Rethinking the role of finance.

Beyond Budgeting experience at BULMERS and SKF has proven that Beyond Budgeting should free time-consuming activities from the Finance department, giving them more time and opportunities to assist front-line people with necessary sparring on financial decisions.

- Changing behavior.

Employees will feel inspired by the new processes as they should be less time-consuming than the annual budget process.

- Evaluating the benefits.

These are the cost savings from not budgeting, the cost savings from reducing bureaucracy and changing behavior and faster response from more adaptive processes.

- Consolidating the gains.

It's about winning hearts and minds at the top.

6. Conclusion

As explained in problem # 1 and # 3, these are not easy to conclude around and are used more as a way of educating the reader. The main conclusion derives from Problem # 2. Though mentioned numerous times in our thesis, here are our problems:

1. **What is the value of the traditional budget process perceived/actual?**
2. **Could FMC ER benefit from moving from the traditional budget process to a Beyond Budgeting approach - what would be gained/lost?**
3. **How could FMC ER with their business model and volatile planning benefit in a Beyond Budgeting model and how could it be implemented?**

We found that the budget process has value for FMC ER because it is a break from daily operations and it provides the organization with a reflection over its business. One downside with the budget process is that people in FMC ER thinks that it is too time-consuming and this is related to a relatively high level of detailing.

We found that FMC ER is not ready to implement a Beyond Budgeting approach now. This is due to the current situation where FMC has hired many new employees over the last few years that still need more training and experience before they are provided with decision-making authority.

We have concluded that FMC ER can benefit from implementing a Beyond Budgeting approach when they are ready. Therefore, we have given a proposal on how they can implement this approach at the end of this thesis.

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VII Appendix

Appendix # 1 The interview guide

1. Can you explain to us your job and your tasks?
2. What do you report to the budget and who do you report to?
   - 2.1. Resources
   - 2.2. Sales and margin
   - 2.3. Costs
3. How much of your time is spent on working towards the budget and report to it?
4. What do you use the annual budget for?
   - 4.1. Who sets the goals?
5. What are your experiences with the budgeting process (positive and negative)
6. Do you feel ownership towards the goals you are measured on?
   - 6.1. What are you measured on?
   - 6.2. How is this measured?
   - 6.3. Is there anything else you wish you could be measured on?
7. How much/what do you feel FMC gains from the current budgeting process?
8. What effect do you think a more decentralized decision process would have for FMC?
   - 8.1. Would you embrace more authority to make your own decisions
9. FMC has grown rapidly and has hired many new employees recently who are still undergoing training. To what extent do you think FMC is ready for a decentralized decision structure?
10. What are your experiences with trying to achieve changes in the budgeting process or generally in FMC?
    - 10.1. Do you get support for any such changes? (leaders/other employees)
11. What changes do you see as necessary in today's system? (How will this affect the below)
    - 11.1. Cost savings
    - 11.2. Customer value
    - 11.3. Values for the other employees
    - 11.4. Values for you
12. Are there any differences between numbers/KPI's that come from forecast and budget? What?
13. What is your opinion on how the resources are being used in FMC?

Appendix # 2 Original Mandate

(Ås), 20.11.2012

Class: M30-HH- Master thesis
Student: Anders Hilsen +47 9203 7551 & Christian Lillebo +47 4006 6035

Project mandate

Status: Approved

Title: Beyond Budgeting (FMC Technologies, Kongsberg)

Background

"FMC Technologies, Inc. (NYSE:FTI) is a leading global provider of technology solutions for the energy industry. Named by FORTUNE® Magazine as the World's Most Admired Oil and Gas Equipment, Service Company in 2012, the Company has approximately 16,800 employees and operates 30 production facilities in 16 countries. FMC Technologies designs, manufactures and services technologically sophisticated systems and products such as subsea production and processing systems, surface wellhead systems, high pressure fluid control equipment, measurement solutions, and marine loading systems for the oil and gas industry."

(fmctechnologies.com)

FMC is currently budgeting in the traditional manner spending a lot of time in the period from 1st of June through 1st of November preparing;

- Early view – which is the early look at the coming 1st year
- Then preparing the Basis for planning (BfP) which depict the outlook for the coming year
- The final section is to put together sales and gross margin budget for the coming year.
- In parallel; resource planning, cost center planning, hourly rate assessment, capital investments, strategic initiatives, improvement initiatives etc.

Problems

- What is the value of the traditional budget process perceived / actual?
- Could FMC benefit from moving from the traditional budget process to a beyond budgeting approach – what would be gained / lost?
- How could FMC with their business model and volatile planning benefit in a beyond budgeting model and how could they get there?

Execution

The student must get familiar with FMC's current financial systems by being present in the enterprise and perform tasks for the controllers, depth interviews regarding these systems will be needed. It is also wished, by the student, to use the present Statoil financial controllers as a reference point for beyond budgeting. The student should propose a future budgeting process and the advantages / disadvantages of this in comparison to the current system. It is wished by FMC that the thesis will be written in English.

Framework for execution

School supervisor: Kjell Gunnar Hoff, Professor,
P: +47 6496 5707 | M:

FMC supervisor (until 1st of February): Joakim Langkaas, Financial controller,
P: +47 3228 4377 | M: +47 9209 0854

FMC supervisor (from 1st of February): Hanne Korssjøen, Commercial Manager Projects,
P: +47 3228 8235 | M: +47 9305 7415

It is best if the student can have access to a simpel office space or a place to be within the business when needed, this is meant as a way to ease the communication and gathering of information. It is expected that the student prioritizes the thesis, but it's pointed out that the student has the position of assistant teacher at UMB and need 1-2 days each week for this job. Degree of confidentiality is to be determined.

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Milestones (subject to change)

Formal project start: 1st of December 2012).
Pre study report/Interviews: 15th of February
Middle way report: TBD
Submission of final report: 15th of May 2013
Presentation/ defense of thesis at UMB: May / June (Preferably May)
Presentation for FMC: by appointment

Finances: Possible expenses for gathering data, seeking out literature, copying etc. is usually covered by the student himself, but the business is welcome to contribute if needed.

This mandate is approved (signature): Date: 23.01.2013

Students: Anders C. Nilsen Christian Holde

FMC Technologies

Appendix # 3 Confidentiality agreement

CONFIDENTIAL THESIS

NORWEGIAN UNIVERSITY OF LIFE SCIENCES MDCCCLIX

The thesis is written by

Anders Hilsen

Christian Lillebo

for the ~~Department of~~ School of Economic and Business at the Norwegian University of Life Sciences (UMB)

The title of the thesis: Being dynamic in a dynamic world

Timeperiode:
The thesis is confidential for 5 year(s), until 2018 (maximum 5 years).

There are 3 date-stamped copies of the thesis.

The original form is handed to the responsible department. In addition, each date-stamped copy of the thesis should have a copy of this form.

Date / place: Ås 7.5.13

Institution / company

Christian Lillebo

Student(s)

Department

Advisor

You can find regulations for confidential thesis here:
http://www.umb.no/statisk/sit_english/regulations/regulations_studies.pdf

Department of Academic Affairs 15.10.2008

FMC Technologies