Lappeenranta University of Technology

Department of Industrial Engineering and Management

Industrial Marketing and Marketing Research

MASTER THESIS

Creating and implementing a financial management process to an international company

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TIIVISTELMÄ

Tekijä: Mikko Syrjänen	
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Työn tavoitteena on tunnistaa parhaat elementit ITIL taloushallinnosta kansainväliselle yritykselle. Elementit tulee soveltaa jo olemassa oleville komponenteille ja lopputyön tulee tarjota implementointi ehdotus. Uuden taloushallintoprosessin tulee lisätä kulujen näkyvyyttä ja tuoda hyötyä yritykselle.

Jotta parhaat elementit voi löytää, tulee tutkia yrityksen tarpeita. ITIL kirjastoa käytetään, jotta löydettäisiin ratkaisuja yrityksen tarpeisiin, Muita IT viitekehyksiä voidaan ja tulee käyttää jos niiden hyödyt voidaan osoittaa ja ne voivat työskennellä yhdessä ITIL mallin kanssa.

ITIL taloushallinto koostuu budjetoinnista, tiliöinnistä ja laskutuksesta, jotka vaativat kaikki erillisen tarkastelun lopputyössä. Lisäksi muita ITIL elementtejä, kuten sopimusten ja toimittajien hallintaa, voidaan käyttää paremman taloushallinnon saavuttamiseksi.

ABSTRACT

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Master`s Thesis. Lappeenranta University of Technology 65 pages, 6 pictures and 3 tables Supervisor: Professor Seppo Pitkänen
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The objectives of this thesis are to identify the best elements from Information Technology Infrastructure Library financial management for an international company. The elements need to be customized to fit existing elements and the thesis needs to provide implementation proposal. The new IT financial management needs to improve cost visibility and bring benefits to the company. In order to find the best elements for IT financial management, there needs to be a research to discover the companys business needs. The ITIL library is used to find answers and solutions to the companys issues in IT financial management. Other IT frameworks can and will be used as well, if they are able to work with ITIL model. ITIL consists from budgeting, accounting and charging in IT financial management, which all needs to be investigated. In addition more ITIL elements such as contract management and supplier management can be used, in order to make IT financial management work better.

ACKNOWLEDGEMENTS

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ABBREVIATIONS

BRM	Business relationship managers
CMMI	Capability Maturity Model Integration
CIO	Chief Information Officer
CMDB	Configuration Management Database
COBIT	Controlled Objectives for Information and related Technology
ERP	Enterprise Resource Planning
HQ	Headquarters
IS	Information Service
ISG	IT Steering Group
IT	Information Technology
ITIL	Information Technology Infrastructure Library
OGC	Office of Government Commerce
PMO	Project Management Office
ROI	Return of Investment
SAT	Spend analysis tool
SLA	Service Level Agreement
SPM	Service Portfolio Management
SRM	Supplier Relationship Manager
TCO	Total Cost of Ownership

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1. Introduction

Konecranes is facing many challenges because of fast and strong growth in the past years. The company has become global and successful, but in many levels the processes are still as simple as they were in the small metal shop. The Konecranes is going through many internal and some external changes. These changes also affect the Information Technology (IT) department and its processes. The recently launched global harmonization process, called OneKonecranes, is aiming to cut down the number of suppliers and the IT also feels a pressure to find cost savings through supplier reduction. The goal for financial management, to reduce suppliers as well, is set from the top managers of the company.

The IT itself needs to improve and evolve. Due the rapid growth the visibility on what IT is doing and how the IT costs are divided has been challenging. In the near future the IT needs to be able to tell how much money is spent, and where the money has gone. Also it will be important to know what we received for that amount of money. The new governance model will be implemented in the 2009, and it will bring the whole Konecranes IT under the same governance and control structure. The Chief Information Officer (CIO) will be responsible for the whole IT budget and actions. During the transition to the new model it will easier to take IT financial management in use. The transition phase will allow unifying of many processes with regard to accounting and budgeting practices. (Koskelin 2009)

The IT has many possible (Best Practices) frameworks that are able to provide financial management and control. These frameworks are used in many companies, but the widest one recommended as a guideline for the IT financial management is the Information Technology Infrastructure Library, which is the framework for all the existing IT processes. The use of similar process needs to be investigated through the needs of corporation and new IT governance model. The Information Technology Infrastructure Library (ITIL) is well known to Konecranes IT employees in Finland, and in some Europe countries, since there

have been arranged certification courses to all IT employees. The ITIL is also supported by most of the big IT suppliers, so the process principles are common and easy to adapt.

The approach to the master thesis work, based on the requirements set by the Konecranes, is to find the best parts from ITIL IT financial management. These parts need to be useful in Konecranes environment and bring visibility of the IT to business side. In order to take the process in use there needs to be an implementation plan, schedule and all the necessary process descriptions. There also needs to be a communication plan and the understanding of roles and responsibilities. The first steps towards the IT financial management can be taken, and should be taken, during the master thesis work, so that vital parts of the process are already in use during the year 2009. If possible the whole process can be taken in use right away, or at least the possibility needs to be investigated. (Tuominen, 2009)

In order to find all the best practices for Konecranes IT all the ITIL related material and sources need to be investigated. Since the IT financial management of ITIL is missing as a single book it needs to be done compiled from various ITIL sources. The preference to use ITIL sets restrictions to the use of different sources, since ITIL material is mostly published through ITIL organization. ITIL also includes lots of opinions as best practices, so approaches from articles needs to be investigated and evaluated, if used outside ITIL organization.

The implementation of the process should have clear benefits and they should be found from the ITIL theory and experiences. The suitable processes do not need to be all from the ITIL library, since the goal is to form the best possible IT financial management process for Konecranes IT. All the other IT frameworks can be used, but there needs to be a clear reason to step outside the ITIL framework; witch has been the best practice for all the other IT processes in use.

As part of the thesis work there needs to be investigation of the current situation of financial management in Konecranes and the problem points in current

working methods. After finding out the current situation a plan needs to be drawn up of where the Konecranes IT needs to go with financial management and what benefits the company gets from the future model. Also the risks need to be investigated, so that they can be minimized and described.

2. Company presentation

Konecranes history dates back to 1910, when KONE Corporation was founded. Kone repaired electrical motors. In 1933 Kone started to build large overhead cranes for industrial needs. In harbour cranes the first step was in 1936, when the building of first harbour cranes was added to the product list. In the crane service business KCI Konecranes entered in 1962 with its first maintain agreement with customer. (Konecranes.com)

In 1973 the company starts to expand internationally. The first international acquisition is Wisbech-Refsum from Norway. The first steps in to the United States the company took in 1983. Officially the KCI Konecranes was formed on April 15th 1994, when Kone made some internal structural changes. The crane business was held in its one division. In 1996 the KCI Konecranes was listed to the Helsinki stock exchange as an international broadly held company. The first acquisition under the name KCI Konecranes was made in 1997, when KCI bought MAN SWF Krantechnik from Germany. In 2002 KCI Konecranes was the first foreign crane company in China that received complete range of business licenses including import and export. After stock listing in 1996 Konecranes Company has made several acquisitions around the globe, which has made it one of the market leaders in crane business. (Konecranes.com)

The large acquisitions in the 21st century have been the purchase of the SMV Lifttrucks AB of Markaryd, R.STAHL AG's material handling division and MMH Holdings. The major acquisition increased the number of employees on a fast phase and enabled a large market share on the scattered crane markets. In 2008 Konecranes made small acquisitions and the biggest one was the acquisition of Meiden Hoist System Company Ltd from Japan. Also three acquisitions in Spain

made an impact in Europe markets. Latest acquisition was in 2009 when Konecranes announced that it will purchase Jiangsu Three Horses Crane Manufacture Co. Ltd. from China. The acquired company had over 500 employees and a large market share on domestic market. (Konecranes.com)

In the end of year 2008 Konecranes had over 9 900 employees all over the globe. Konecranes operates in 43 countries and has more than 470 service locations. There are three business lines inside Konecranes that are Service, Heavy lifting and Standard lifting. The recent years have been very good for Konecranes. In the year 2008 the sales were all time high, showing sales total of 2 100 million euro's and an operating profit of 249 millions. Company has increased rapidly in past few years and it has managed to stay financially in good shape. (Financial statement 2008)

2.2 IT Infrastructure

Konecranes has a very complex company structure since the rapid growth and acquisitions. IT has always been adjusted to the business need as we go and there has not been enough IT involvement in new sites. IT is spread all over the globe, which enables better coverage for business support. In 2008 was a large project started in order to open global service desk that offers support all over the globe at all time. Still the IT has many locations with own personnel that is providing assistance and technical help at site. Datacenters are located in many countries and they each held an own responsibility area. Finland has global support responsibility and many of the application support teams work in Hyvinkää. Finland also has global IT managers able to make decisions for the whole company.

Konecranes has had three tier one datacenters in the year 2008. They are located in Hyvinkää (Finland), Shanghai (China) and Springfield (Ohio United States). There are also 18 tier two datacenters, which are located near the main manufacturing and service locations. The ITIL process implementation was

started from Hyvinkää site and later on spread to all the IT sites in Konecranes IT. The original process roll out was done following ITIL version two. (Mattila 2008, p.32)

Since the last roll out of ITIL processes there has been some changes in the datacenter structures and locations. There is no consolidated information yet available, but there are only Tier one datacenters in United States and Finland. The tier two data centres are located in China, France, United Kingdom and Germany. There are also presented 19 Local data centres in recent materials, but the information will be updated more specific in the year 2009. The changing of large IT locations, does not effect on the implementation since the most important first step locations seem to be the same. The current situation will be used to evaluate the need of IT financial management in the future. (Deloitte online room 2009)

3. ITIL

ITIL is a short term from Information Technology Infrastructure Library. ITIL is a collection of best practices found across the Information technology service providers. The history of ITIL started in the 1980s when the Office of Government Commerce (OGC) started to develop a standard approach for an efficient and effective delivery of information technology services. (Berkhout et al 2007, p.1)

3.1 Introduction to ITIL

By the mid-1990s, ITIL was widely recognized as *de facto* standard for IT service management. Most commonly accepted method guaranteed a common vocabulary among the IT people. ITIL has also brought a business view in every day IT work. Business has a wide variation of requirements that IT needs to provide, so it is very important to have a common understanding what has been agreed between these two sides. ITIL focuses on providing high quality services with a concentration to relationships between customer and business. (Dawson et al 2004, p.4)

For maintaining the balance between requirements and what IT has to offer there are two large pieces. The first large piece is the service support that provides the support that the business needs to work in proper manner. Another large piece is service delivery that takes care of the agreements between business and IT, and gives a guideline how service support should work. (Dawson et al 2004, p.5)

Service support functions are described in ITIL books. There are five core support processes in service support, which are related to every day work in service desk. Service desk is a single point of contact that drives all these core processes. The processes under service support are Incident management, problem management, change management, configuration management and release management. Service delivery does also contain five core processes, which are concerned about the future planning and improving the information system service provision. These five processes are service level management, financial management for it services, capacity management, availability management and IT service continuity management. (Dawson et al 2004, p.6-7)

ITIL also consist other important elements that are shown in the picture 1. The chart shows that all key elements are having business needs and they are carried out with a technology available. The goal of Service management is to handle the Service management, security management, information communications technology (ICT) infrastructure management and take care that the business perspective is taken under consideration when the services are designed. Another big element that needs to be carried out is the application management. Application management takes care that there are the right tool for every process and they are used available. (Dawson et al 2004, s.7)
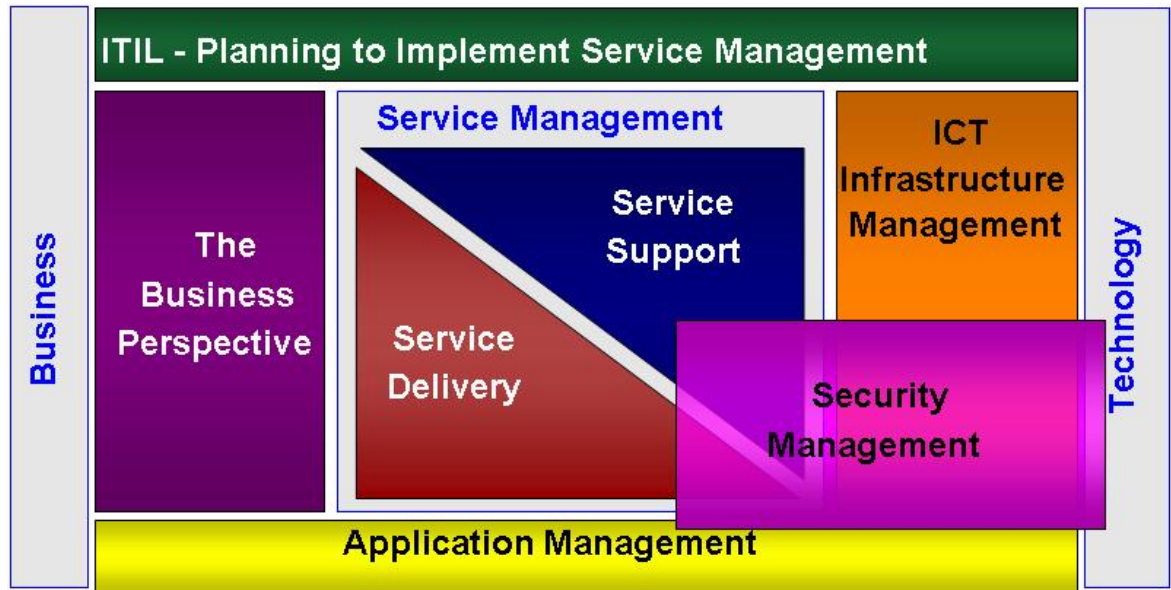
Picture 1. Elements of ITIL v2 (Dawson et al 2004, p.6)

3.2 Versions of ITIL

Konecranes has implemented selected elements from ITIL version 2 since year 2003, when the first attempt to take incident management was made. In the year 2006 incident management, change management, configuration management and service level management were implemented once again. All the elements still have a strong influence from ITIL theory. Also Problem management and release management are under development, but they are still not implemented. ITIL version 3 was published in 2007, so it has not had any influence in Konecranes IT environment yet. (Van Bon et al 2007b, p.13)

Basic idea of the financial management has not changed between the version changes. There are some additions, for example supplier management, that have been added to the process to give better picture of financial aspects and influences in IT. In the new version of ITIL there is also a cyclical form in processes that is surrounded with continuous improvement as show on the picture 2. The continuous improvement means that the processes are reviewed and monitored and the corrective actions are made based on the results. (Taylor 2007, p.5-10)
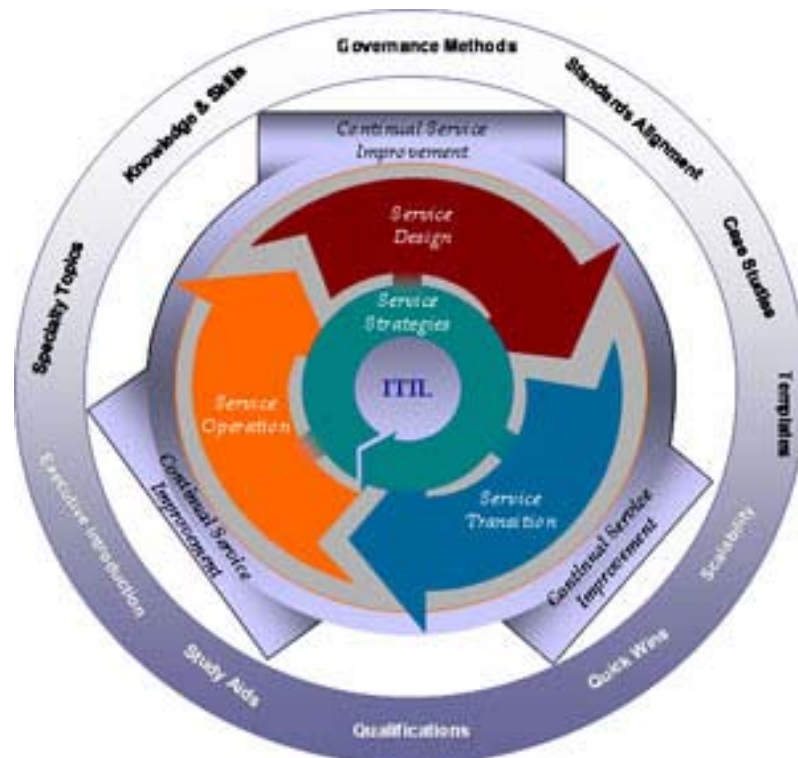
Picture 2. ITIL version 3 (Taylor 2007, p.8)

Other important additions in ITIL version 3 are service measurement, request fulfilment, technology architecture and design management, event management and outsourcing models. New version also stresses out the importance of design in IT world. In addition to the technology architecture and design management, ITIL version 3 provides guidelines to the service design aspects and to the application design. In the strategy section there are different methods to create appropriate service strategy and its role has been highlighted in version 3. (Taylor 2007, p.10)

For creating and implementing the financial management process it will be necessary to use components from both versions of ITIL. The basic idea of financial management will be used from the ITIL version two since; there has not been any major change between versions. From ITIL version three needs to be taken supplier and contract management. These components are introduces as tools first time in this version, so they will be integrated to old versions financial management. Even though the supplier and contract management are not part of

the financial management, they are needed elements for Konecranes in order to take control of financial situation in IT.

From the new ITIL version will also be brought components to make it easier to measure the usability of processes and progress. These aspects will be researched and taken in use from service measurement. Using ITIL standards in measurement helps to compare own figures to other companies in the business. Event management will be introduced to Projects, so that Project management office will be able to monitor the project calendar together with allocated resources used.

3.3 ITIL and Financial management

IT services are often recognizes as an important part of the business, but in the other hand they are handled like extra costs in the company. This problem is often caused by the complexity of the structure of costs in IT services. Financial management process tries to bring hidden costs visible and add them to visible costs. As a result IT organisation should be able to get exact information how the money is spend and could it be used more efficiently. There are three main components in financial management, which are Budgeting, IT accounting and Charging. (Barlett et al 2007, p. 59)

There are some differences between process components and those used in business world. Budgeting is predicting and controlling the spending of money within the corporation. Budgeting consists periodic negotiation cycle that is normally annual and the day-to-day monitoring of the current budgets. IT account consists from different kind of processes that are enabling the IT to fully account how the money is spent. Accounting is a role normally given to a person with experience or training in accountancy. Charging is the set of processes that enable billing from customers. To be able to have a working charging process the corporation needs to have an insight over its costs. (Barlett et al 2007, p. 60)

All financial management components produce information to other processes, but they also need an input from other elements of the IT services. The first input comes from the service level management; witch should give information about the service level agreements used between IT and business. Service level agreement can be one of the key elements when calculating the cost structure of the service, since availability has a huge influence to the costs. Service level management also makes sure that business and IT are fulfilling the agreed standards. Also through service level management customers can agree to use different elements that are specified in normal SLA and get a price tag for the service. (Barlett et al p 2007,. 62)

Other important elements influencing to the financial management are capacity management and configuration management. Capacity management provides information about the costs of desired capacity for the service. It also indicates, if the service is possible to execute with the current system and disk space and if not what should be increased and where. Capacity management should be able to calculate cost estimation to the usage needed by the service. Configuration manages the IT assets that the corporation has. Configuration management is used to see the relations between different assets. Configuration management database is the place where configuration management stores the all necessary data. CMDB can be expanded to include all the supplier relations and warranty data. (Barlett et al 2007, p. 62)

3.4 ITIL process integration

ITIL processes are working together to help IT provide better service. ITIL also provides an opportunity to measure performance of IT. There are numerous benefits from using a best practise model, but the most important ones are scalability, cost reduction, quality improvement, alignment of standards, qualifications, Return of Investment (ROI) and partnership sourcing or outsourcing. (Taylor 2007, p.12)

Scalability of ITIL processes means that they can be adapted to any size of an organization. Processes are same for large and small sized organizations, but they are even valid during the transition. ITIL has been documented to have cost reduction on various different areas, following the processes should bring time and material savings and make organizing the service management easier. ITIL provides also measurement points for quality and models how to improve quality in every day operations. Also the ITIL processes work alongside with internationally recognized standards such as ISO/IEC 20000. Using the best practise also gives a clear message to employees to get knowledge on process. Employees can get certifications from courses and conferences. There are also wide forums where experts publish new information on other companies and their IT strategies. On the financial view ROI is valuable tool for measuring the value of new services provided. ROI is calculated as a part of a business case that sets the ground work for new services or tells the benefits of existing ones to the business. ITIL also helps on outsourcing, since the services are provided according to an existing standard that is widely known in the area of IT. (Taylor 2007, p.12)

ITIL can also be integrated to other frameworks, which might even have almost the same area to control. The most known IT frameworks are ITIL, Controlled Objectives for Information and related Technology (COBIT), ISO 20 000/17 799 or Capability Maturity Model Integration (CMMI). The most used ones are COBIT and ITIL, since they have most positive experiences. The common mistake is that only one is chosen and all others are disregarded. The truth is that COBIT and ITIL are easy to integrate, since they have different impacts to the IT organization. (ISACA material 2007)

The COBIT focuses on controlling the IT environment as the ITIL focuses on controlling processes. In order to construct an IT, which is able to understand the business needs and is able to provide best possible service at the low cost, we need to understand the roles of the different processes. In high level definition can be said the ITIL provided the processes that convert the business needs to activities in IT and the COBIT provides metrics to make sure the needs and

requirements are met. The fully organized and working IT is also including projects management, which is often handles as separate process and by project Management Office. The process integration is defined on high level in picture 3. (ISACA material 2007)
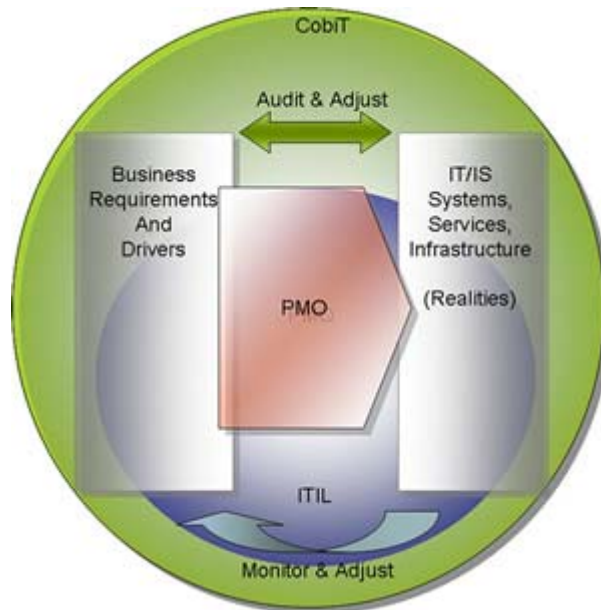
Picture 3. COBIT and ITIL integration (ISACA material 2007)

4. IT financial management

IT financial management is very hard to handle and implement. Still it needs to be part of everyday life even in IT department. Financial management gives exact figures to the business what they got with their investment. IT financial management also clarifies the roles of every person working in information services as well as their responsibilities. Through the financial management IT department, customer and the supplier are having a common understanding what is happening in the IT and how is the cost cumulated.

4.1 Roles and responsibilities in IT financial management

When the roles and responsibilities are fully adopted, they are clear to every person related to IT and business. The roles are also documented and documentation and responsibilities are agreed with business. The Business perspective of ITIL gives roles that are necessary in order to run the process. The roles can be given to one or two persons or to a whole team depending on the size of the company. (Dawson et al 2004, p. 133)

Normally the IT related business perspective team is located in the IT unit, in some companies the team works in business. It is also possible to have the team working partially in business and in IT. It really does not matter where the team is located, if the responsibilities and roles are divided correctly. It is also important to make sure there are no gaps between the agreed responsibilities. Wherever the roles are located, their scope and objectives should be set by the business within which they operate. Often this are or team inside the IT is referred as business relationship or customer relationship unit. Together all the named roles provide a business focus to all other IT and service management processes and personnel. (Dawson et al 2004, p. 133)

The IT Management function, which is accountable for the progression of the business perspective approach, has a responsibility to:

- Be an active member of the IT Steering Group (ISG)
- Create an environment within which all the supporting processes and units can achieve their objectives and satisfy the needs of the business, customers and users.
- Play a key role in business change programme and in crisis management.
- Ensure that all areas from the IT are marketed, so that business knows the potential and benefits of IT and are able to maximize the benefits.
- Co-ordinating, managing and controlling all the aspects of the business perspective approach, including other ITIL based processes.

- Maintain and improve the quality of services provided by IT, if possible.

- Provide a single point of contact regarding business, customers, users and suppliers in financial and management matters.

- Ensure that all the plans and strategies are produced regularly regarding the financial management to the business and IT managers.

- Ensure that all the projects are assessed and made clear to participants regarding the risks, benefits and full impact on IT and business.

- Ensure that there are enough training and information regarding the business perspective of IT.

- Ensure long-term and effective relationships with suppliers and partners.

- Ensure that regular previews of all processes are conducted.

The roles responsible for all these tasks are IS/IT Steering Group, Communication Manager, Business Relationship Manager, Supplier Relationship Manager, Service Delivery Manager and Account Manager. (Dawson et al 2004, p. 133-138)

In order to make sure that the business and IT strategies and plans remain synchronised, many organisations form a joint co-ordinating body called IS Steering Group. This body consists of senior management representatives from various business areas and IT. The purpose of the Steering group is to check regularly that business and IT strategies and plans are aligned together. The steering group also considers the time scales of projects, in order to determine that they are not unrealistic. (Dawson et al 2004, p. 134)

The Communications Manager has a key responsibility for the development of effective and efficient communication processes. Other responsibilities of the role are to:

- Liaise with business, customers and user groups, ensuring that all areas of the business are aware of IT capabilities and are aware of their own responsibilities.
- Develop, produce and implement the IT communications plan.
- Co-ordinate and control all the communications between the IT and business.
- Maintain relationships with communication managers or officers and contact points within the business.
- Continually raise the awareness of the business within the IT.
- Assist all areas of the IT to market their services to the business units.
- Ensure that all the IT business and marketing plans are produced and maintained.

The communication manager role does not need to exist in IT, but business and IT need to have contacting and support point in communication. The good communication helps the process work and gives all the best tools to all participants. Communication manager works also closely with the account manager. The Account Manager is using the service catalogue and all existing information in order to find new opportunities for IT and business. Account Manager also makes sure that the investments in IT are done beneficially and they create new opportunities in the future. (Dawson et al 2004, p. 135-138)

The main responsibility of the Business Relationship Manager is to develop an efficient and effective relationship with the business. All the responsibilities of the Business Relationship Manager are to:

- Manage the perception and expectation of the business, customers and users.
- Ensure that the correct processes are in place and they are improved continuously.
- Understand current and planned new business processes and their requirements for the IT service.
- Provide regularly feedback from the customers to the IT

- Conduct and complete customer surveys. Assist in making of analyzes based on the customer survey.

- Act as an IS representative on user group.

- Provide a single point of contact to business.

- Develop a full understanding of customer strategies and plans.

- Maintain the IT service portfolio and market it to the business.

- Work with business and users in order to make sure that the SLA levels are good enough.

- Ensure that IT is developing long-term relationships with business and users.

- Promote service awareness and understanding.

- Raise the awareness about business benefits from IT services.

- Act as adviser or negotiator in SLA agreement meetings between IT and business.

- Negotiate fair and equitable service fees for charging with the business.

- Provide help in all the project matters.

- Participate in the management and director meetings in IT.

- Assist in creation of service continuity plan.

- Ensure that customers and business understand their roles and responsibilities.

- Assist with the maintenance of a register of all outstanding improvements and enhancements.

In larger companies there might be a need for few Business relationship managers (BRM), but in smaller organisations the BRM role can be handled alongside with other responsibilities. (Dawson et al 2004, p. 135)

The Supplier Relationship Manager (SRM) has the prime responsibility on developing an efficient and effective relationship with the suppliers, outsourcers and partners. The responsibilities of the SRM role are:

- Manage all suppliers to ensure that they continue to meet the contractual targets both currently and in the future.

- Manage supplier and contractual risks and measure the aspects of supplier performance.

- Conduct service and contractual reviews with all the major suppliers on regular basis.

- Manage all the aspects of the contract life cycle.

- Maintain a catalogue of suppliers, services and contracts.

- Ensure that are necessary processes are in place for the supplier management.

- For a single point of contact in IT contractual and supplier related matters.

- Develop a full understanding of supplier strategies and plans.

- Work with suppliers, in order to make sure the IT is getting the best possible service.

- Negotiate and assist on IT related contracts.

- Ensure whenever possible that the suppliers also use ITIL processes.

In large companies there might be a SRM for every supplier segment, but in smaller companies the Business relationship and supplier relationship management can be carried out with a single person. The two roles are quite similar, but just towards different segments. The Service management role is also specified in ITIL, but it has already established in Konecranes IT fully. (Dawson et al 2004, p. 136-137)

4.2 Overview of processes

The key role of IT financial management is to support the organisation in planning and executing its business objectives. Financial management forces to use maximum efficiency and minimize the conflicts. All this happens in IT department within three sub processes. First sub process is budgeting, that is responsible of predicting and controlling the spending of money within the

organisation. Budgeting consists of a periodic negotiation cycles to set budgets and day to day monitoring of the current budgets. (Barlett et al 2007, p. 59)

The second sub process is the IT accounting. IT accounting is the set of processes which enables the IT organisation to account for the way its money is spent. It accounting might be challenging and it should be handled by someone with accounting skills. The company accounting standards might also set some restrictions to IT accounting. Charging is tightly together with accounting and is the final sub process of IT financial management. Charging should give information how the customer should be billed for the IT services. Charging figures are based on the accounting figures and to the levels agreed in service level management. (Barlett et al 2007, p. 59)

4.2 Budgeting

Budgeting has important role in financial management. Budgeting is the process that ensures that the correct finance is available for the provision of IT services and that during the budget period funds are not over-spent. The budgeting is a key element in strategic and tactical plans and it is also the means to delegate monitoring and control of pre-defined targets. In order to get benefits from budgeting it needs to be correctly done and it needs to have IT managements support to function. (Barlett et al 2007, p. 66)

In budgeting there should be various rounds of negotiations between the business and IT, so that the common understanding has been formed. Negotiations between business and IT set the tolerated expenditure rates, diversion of costs and agree the investments needed in the next budgeting season. Budgeting also agrees the service levels and current projects and reviews the last twelve months. There should be also made up a plan for the next one to three years in the budget. (Barlett et al 2007, p. 66)

One important thing in a good budgeting is categorisation. Overall performance of categorisation can evaluated from identification of budget items. Categorisation of the budget needs to have a follow up in annual basis. The first main reason for continuous categorisation is the possibility to have a true comparison between budget figures year on year. Another reason is to provide groups with similar kind of cost structure. Cost groups can also be useful if the budget items have different depreciation ratios. Some of the costs cannot be given as exact number when drawing the budget. These costs like overtime will be estimated based on previous years accounting report. (Barlett et al 2007, p.67)

4.3.1 Establishing a value culture

In order to create a value culture, there needs to be an understanding about common cost classes. The simple categorization for costs is Implementation, Operation and Maintenance. The implementation costs are often controlled in projects. The operation costs are the level of costs associated with the operation of the measured frameworks, such as IT. The Maintenance costs are costs that are needed to working in changing environment and implementing the changes. (Taylor et al 2007b, p.95)

If the operation, maintenance and implementation measurement of costs does not make a difference, can the other approach be tested. The ITIL provides continual service level improvement tips, which help to understand the cost structure and adjust the metrics to fit to the framework best. The monitoring of cost structure should be done frequently and the results should be reflected to the metrics. (Taylor et al 2007b, p.95)

The second possibility provided in continual service development is diverting the costs to labour costs, tooling costs, training costs and expertise costs. The labour costs includes the salaries spend to personnel maintaining and managing the IT. Also if IT is outsourced completely or partially, the outsourcing costs from

external provider are added to labour costs. The tooling costs include purchase, license, installation and configuration of hardware or software. Training costs are all the costs of training and coaching of staff in use of systems. Expertise costs are cost of hired experts and consulting firms. (Taylor et al 2007b, p.95)

4.3 Accounting

IT accounting is the key element when deciding if the business drives in a cost efficient way. Cost effectiveness is defined in IT accounting as ensuring that there is a proper balance between the quality of service and expenditure. All the investments that increase the costs of providing IT services should result from enhancements that improve the quantity of service. IT accounting has some very important roles in helping the business. IT accounting is basing the decisions about the services provided to cost efficiency. IT accounting drives the investments to business like way, so that IT makes more business decisions. Through IT accounting budgeting and planning should be more accurate and efficient and there should be enough information to justify IT expenditure. Consumption is supervised and culture to understand over- and under consumption is demonstrated in financial terms to the IT. In short term the IT accounting makes sure that all the costs of the service are know and acknowledged since, there is no other way of maximising the value for money. IT accounting should provide cost basis for cost-benefit analyses. (Barlett et al 2007, p. 63-64)

IT accounting has basic principles that are similar throughout the whole organization, but detail of what to cost and how to cost it can vary based on the service provided. In order to implement the IT accounting successfully, might the organization need to improve the staff time and activity recording, supplier contracts, software licensing, resource metering or accommodation costs. It is also important to notice that other things might also effect on the shape of the IT accounting. These things are budgeting guideline, charging policy and investment guidelines. (Barlett et al 2007, p. 68-69)

IT accounting can be very complex and if implemented on too high level might lose the benefits to the company. It is important to do a follow up and monitoring to accounting systems on regular basis. When implemented properly IT accounting should give information to the company on many various aspects. The most important ones are tracking of the actual costs against the budget, providing cost targets for performance and service delivery, prioritising of the facility and resource usage. IT accounting also needs to support the investment strategy and the IT charging model. IT accounting also should guide the day-to-day operations to cost efficient way. (Barlett et al 2007, p. 69)

4.3.1 Accounting standards and process

In international business there are many regulations that guide the financial accounting and budgeting. Some of the regulations are set by the law and others by good book keeping standards. As the company has business all over the globe, theres a large number of regulations effecting on the budgeting and accounting. For example taxes are calculated different way in different areas. Some countries such as United Kingdom relies on the corporate and income taxes for federal revenue. Other countries may depend more on a value added tax (VAT) or excise taxes. In IT taxes might bring difficulties when the subsidiaries buy service, which is used in other location. In the business done by the subsidiary needs to be used pricing and show the transactions in accounting. This might cause problems in large projects done globally. (Madura 2007 p. 516-517)

In Konecranes the accounting regulations are financial departements responsibility. The actual tax and other regulations are not in scope of IT financial management. The accounting and budgeting needs regulations on currency and depriciation in IT. All the subsidiaries use their home currency in ERP, which is transformed using average currency of quartal. When dealing with subsidiaries accounting figures, there needs to be currency marked in the document. Internal

controllers manual states that investments less tahn 50 000 euros can be handled through IT organization with the permission of the CIO. The depriciation is calculated in Financial organization and it is calculated for every subsidiary in IT figures. The monitoring is also done by the financial department. (Toivonen 2009) (Odelma 2009) (Controllers manual 2008, p.129)

4.4.2 Variable Cost Dynamics

Variable Cost Dynamics (VCD) analyzes and searched for insight into the many variables that have an impact on the service costs. The VCD analysis is able to determine expected impact of events like acquisitions and changes in the Service Portfolio or service alternatives. ITIL provides examples of variable service components which are number and type of users, number of software licenses, number and type of resources and cost of adding an end user license. (Van Bon et al 2007a, p.184)

Service valuation activities require certain desicions. First decision needs to be done after investigating costs. In first decision IT needs to investiga if the costs can be attributed directly to a specific service or are they shared by several services. Once the depth and width of the cost components have been identified, rules or policy plans may be required to indicate how the costs must be spread across the services. In second decision IT needs to find a way to calculate the wage costs for a certain service. In third decision the IT needs to find the variable costs that depend on the number of users or the number of occurring events. In order to find the variable cost cvan be used average costs, maxium costs or tiers. Tiers mean that the IT identifies the price breaks, which encourage customers to buy a spesific volume that is efficient to the customer and provider. The maximum costs describe the costs of a service based on maximun variation. The average costs sets the costs at an average calculated over defined period of time. The fourth decision can be done if the costs are linked to services. The fourth decision is transition of cost account data to service value. (Van Bon et al 2007a, p.184

4.4 Charging

Charging can be a useful tool to get the costs visible to the users. Still charging is often seen as too bureaucratic or too difficult to implement fairly. The charging system has many important roles in financial management. Charging should be able to recover the costs fairly and accurately. For this reason the charging model needs to be chosen correctly. Charging is efficient way to shape user and customer behaviour to more cost efficient way. Before implementing the charging system the organization needs to decide what they want to achieve through the process. After careful consideration the charging system is implemented to change the behaviour of supplier and customer to more efficient way. (Barlett et al 2007, p. 88)

Traditional centrally funded IT services face many challenges in every day work. IT services need to reduce overall costs while maintaining or even improving services in an increasingly complex environment. Often business divisions may make demands, which are unrealistic, competing and unjustified for the fixed resources available. All these demands might make the IT personnel to feel as a slave for the business and it sets new demands to the IT management. As an answer to the situation charging is used to make the business divisions to control their own user's demands. As return for the business the charging model will reduce costs and highlight areas of service provision which are not cost effective. Charging also offers an opportunity to match service to justifiable business need through direct funding. In other words the customers will value the services that they need to pay for and in the other hand the customers will demand value for their money from IT services. (Barlett et al 2007, p. 88)

4.4.1 Cost estimation

Cost estimation can be done via cost model. Cost model helps to calculate the costs of IT service provision and is also necessary for building a framework, in which all known costs can be recorded and allocated. Cost models can measure

many different things; it can be designed to calculate costs for service, customer or one certain location. Customer based cost model is one of the key elements of charging system and it needs to taken in use before implementing charging system. Cost model includes many different cost types, which are already nominated in the budgeting and accounting. In order to manage cost types easily, they should be categorized in understandable way. (Barlett et al 2007, p. 70)

Cost types are usually categorized in hardware costs, software costs, people costs, accommodation costs, external service costs and transfer costs. A transfer cost is a way to announce costs that are going to be transferred to other department or unit. Transfer costs are used in the budget to prepare for costs to the next year, if the costs are divided later. It is very important to keep transfer costs in the categorization, since without it the cost might be left outside budgeting. Cost categorization needs to be divided in indirect and direct cost. Direct costs can be something that only one division uses and is responsible for cost. Indirect cost might be a common service that is divided in fair manner to all divisions. Creating a cost model is very simple if all the costs are direct, but if they are indirect there needs to be enough expertise on the structure of the costs. Also the costs can be categorized in more detail, if needed. For example Software cost can be divided into operating systems, application, databases and monitoring tools. (Barlett et al 2007, p. 70-73)

4.5 Service Portfolio Management

A Service Portfolio describes the provided services in terms of business value. Service Portfolio corresponds to marketing term, so that competiveness of the service provider is measurable with regards to the competitors. Through service portfolio management, IT managers are able to assess the quality requirements and costs. IT managers will be provided with a tool that makes it possible to look for cost cutting action points at the same time maintaining the service quality. The goal of service portfolio management is to realize and create maximum value,

while at the same time keeping a lid on the risks and costs. (Van Bon et al 2007a, p.187)
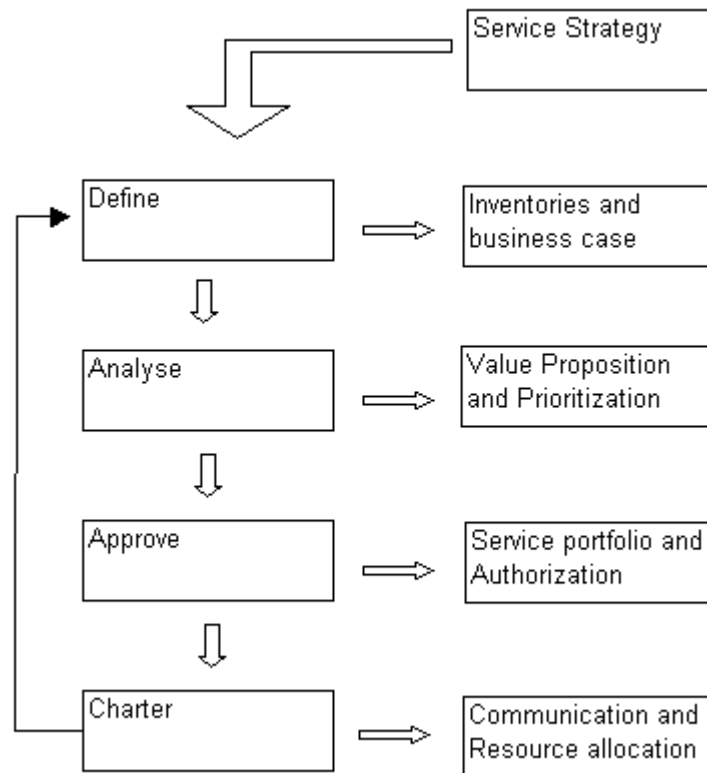
Service Portfolio management starts with documenting of all the standardized services of the organization and then all services that are already in the service catalogue. In order to get the financial management feasible, Service portfolio needs to have a good mix of a service catalogue and the services in pipeline. Product managers, that are not necessarily IT managers, play an important role in the service portfolio management. Product manager is responsible for managing services as a product during its entire lifecycle. Product managers work closely with Business relationship managers, who co-ordinate the client portfolio. (Van Bon et al 2007a, p.187)

Service portfolio management brings value to the business and works as a basis of the decision- making framework. SPM should bring answers to many different questions, such as why should client buy these services or why they should be bought from us? SPM should also make visible the price and charge back models of the service, as well as the strong and weak points of the service. In the long run SPM gives to the organization information how should the resources and capabilities be allocated and how should the future changes affect on the strategy and planning. (Van Bon et al 2007a, p.187)

4.5.1 Service Portfolio management methods

If the Service portfolio management is considered as a dynamic and ongoing process set, it should include the following work methods: Define, Analyse, Approve and Charter. The Define method includes inventory of services, ensuring the business cases and validating the portfolio data. The Analyse method includes maximizing the portfolio value and prioritizing and balancing the supply and demand. The Approve method includes finalizing of the proposed portfolio and authorizing services and resources. The Charter method includes communication

decisions, allocating resources and charter services. The process steps are described in the picture 4. (Taylor 2007c, p.123-129)

Picture 4. Service portfolio management methods. (Taylor 2007c, p.124)

4.6 Supplier Management

The supplier management aims to manage the suppliers and the services they supply, so that the price and the received quality are consistent. The supplier management has three objectives that are important. First supplier management makes sure that the customer gets what is paid for. Second objective is to adjust the underlying contracts with suppliers to the demands of the business. The third objective is to manage relations with suppliers and manage their performance. (Van Bon et al 2007a, p.223)

Implementation of supplier management might be challenging. There are four common challenges mentioned in implementation of supplier management, which needs to be taken in consideration. First challenge is the constantly changing business and IT requirements. The next challenge comes from imperfect contracts, which might cause problems. The third challenge is the insufficient experience in the organisation regarding the supplier management and the last challenge is that the company is tied in long-term contracts. (Van Bon et al 2007a, p.226)

In order to meet those challenges the company needs to pay attention in few important elements in the IT. The key to success comes from clear roles in the organization and between the customer and supplier. Working supplier management also requires good communication and mutually advantageous relations. Also other ITIL processes needs to be working, but the most important one is the service level management, which needs to be working in both sides. The success tackling these challenges can be measured through clarity on suppliers and contracts, services and goals adjusted to the requirements of business and protection against poor suppliers. (Van Bon et al 2007a, p.226)

There are many risks that might cause failure in the implementation phase and they needs to be identified before the beginning of implementation. The risks come from lack of involvement by the business or senior management, which causes discipline in the process. There is also risk that the future goals and information about policies are unclear, so that the beneficial contracts can be made regarding the future. There are also risks that there are no budget for implementation or resources to implement the process. (Van Bon et al 2007a, p.226)

The supplier management needs inputs and gives outputs as all the other processes. If there is an input or output missing, it might be that the process is not running on full capacity. The Inputs that Supplier management needs are the business information from the organisations business strategy, plans, financial plans and information on business future requirements. Supplier management also needs strategies from the business. The strategy needs to indicate the future

direction of supplier management and offer information about sourcing strategy and future growth strategy. (Taylor et al 2007a, p162)

It is important to have all available important from current supplier relationships, so that they can be improved and unified in the future. For this the contracts, agreements and the targets are needed from IT and business in order to make the Contract management database and supplier management database. The supplier management gets input also from other ITIL processes as incident and problem management provide performance figures from suppliers as well. The financial management gives guidelines and direction to the supplier management in budget and costs of contracting. Supplier management also gets information from the Service catalogue and service portfolio, which indicates the services provided or outsourced. (Taylor et al 2007a, p163)

The outputs from the supplier management are used widely all over the organisation. The reports are often distributed through intranet or online reports, in order to get up to date information. The most important information from supplier management is inserted in the Supplier and contract database; which provides information to all other processes in IT financial management and in some cases to the business. The meetings and contract review meetings are done in report, which can be reviewed from the contract management database in order to use the data in future negotiations. Supplier management also provides performance management reports to the Service level management and supplier service improvement plans to the business and IT management. (Taylor et al 2007a, p163)

### 4.6.1 Supplier Relationship Management

The goal of supplier relationship management process is to deal with different kind of suppliers, vendors and partners ranging from common suppliers to co-

sourcing partnerships. Through supplier relationship management IT is trying to work as normal business unit works with its partners. The goal of the supplier relationship management is to develop and maintain effective and efficient relationships with all suppliers and partners in the all the levels needed. (Dawson et al, p.143)

4.6.1.1 Supplier categorization

The Supplier management process should be adaptive and spend more time and effort managing key suppliers than less important suppliers. This means that some kind of categorization process should exist within the supplier management. The purpose of categorization is to categorize all the suppliers and their importance to the service provider and to the services provided to the business. (Taylor et al 2007a, p.156)

Suppliers can be categorized in many ones, but the one good way to access suppliers is based on assessing the risk and impact of the suppliers. The Supplier Categorization matrix is presented in picture 5. The Strategic suppliers segment is for the significant partner relationships involving senior managers, who share strategic information in order to create long term relationships. The management of tactical relationships is often done by the middle management. The tactical partners involve significant commercial activity and business interaction. The Operational supplier management is done for operational service or operational suppliers. The relationships are managed by the junior operational management. The commodity suppliers provide low-value and readily available products, which could easily be alternatively sourced. (Taylor et al 2007a, p.156)
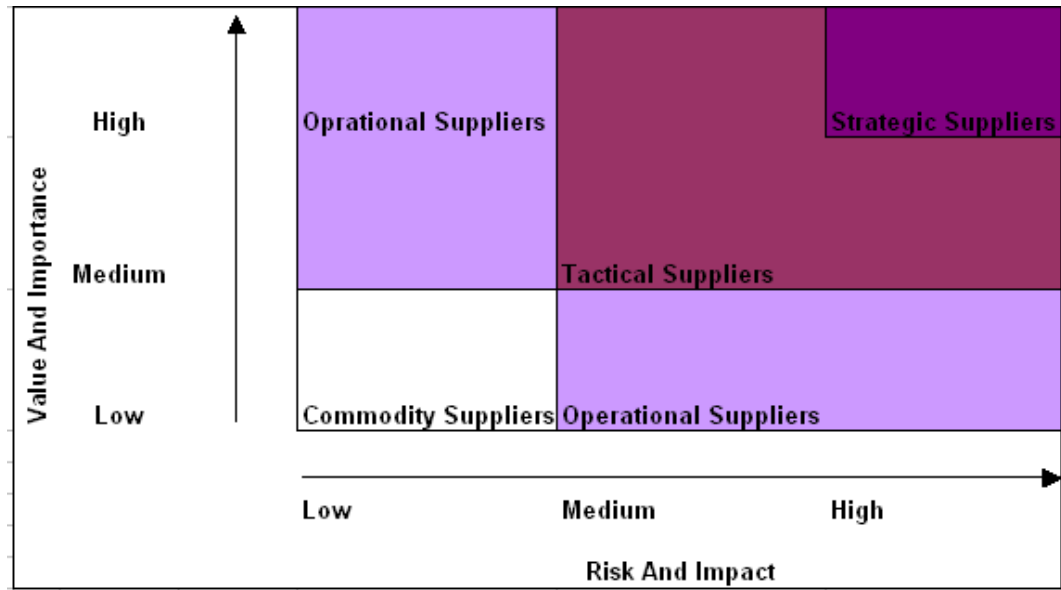
Picture 5. Supplier Categorization (Taylor et al 2007a, p156)

4.6.1.2 Key Performance Indicators

There are many Key Performance indicators; which can be used to assess the effectiveness and efficiency of the supplier management process and activities. These metrics needs to be developed from many different views. From business side it will be important to see is the business protected from the poor supplier performance. This can be seen in the number of suppliers meeting the targets within the contract and reduction in the number of breaches of contractual targets. (Taylor et al 2007a, p163)

In supporting service needs to have all needs and targets align with suppliers' goals and targets. This can be seen in the increase in the number of service and contractual meetings held by the supplier and increase in contractual targets aligned with SLA. The availability of services provided by the supplier needs to be monitored through the reduction or increase in the number of service breaches caused by the supplier and through reduction of threatened service breaches. In company's internal key performance indicator can be kept an increase in the

number of contracts in nominated contract manager or increase in the number of suppliers in nominated supplier manager. These metrics describe that the process is working and will be usable until all supplier and contract actions are done through the process. (Taylor et al 2007a, p163)

4.6.2 Contract Management

Contract is a recommended formal agreement, when dealing with external suppliers. In a contract lifecycle management there are predetermined ways to manage and monitor the contracts. The most important element is the establishment of new contracts. The ITIL model is shown in the picture 6, which is often used to measure performance and upkeep the contract management database along with the supplier database. The contract management has three main elements that are monitoring, reviewing and improving. The review includes also the extending of services with new or already existing partners. Contract management has the purpose of managing the contracts and delivering services. The outcome of ITIL contract management is delivery of service, monitoring of costs and services, management, review against business need and plan of closure and renewal or extension of the service. (Dawson et al 2004, p. 115-116)
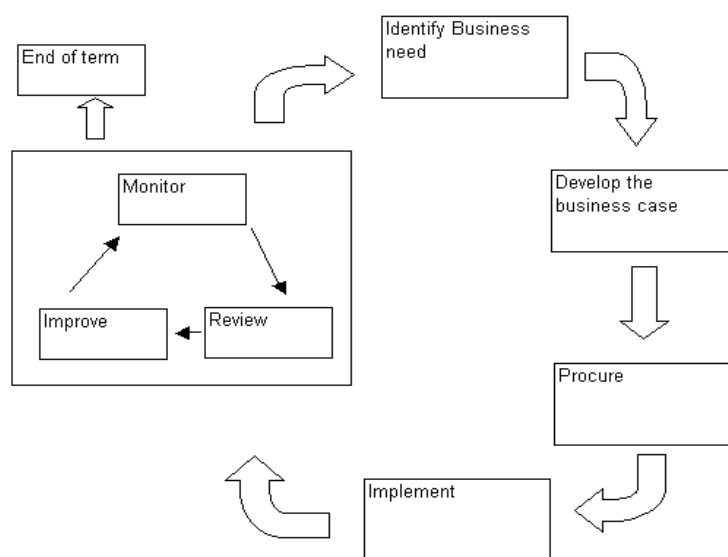
Picture 6. Contract Lifecycle. (Dawson et al 2004, p.115)

The contract cycle is build inside the review part of managing the contracts. The contract cycle has four key processes that are guidelines for efficient contract handling. The first process is identifying the business need; it consists from statement of requirements, initial business case and conformance to strategy or policy. The second process is developing the business case. The proper business case should have the information about costs, timescales, benefits, risks and different options. In third process that is Procure, needs to identify the method of procurement and select the best contract. Procure also includes establishing evaluation criteria, evaluation and awarding, that are all needed for making the correct selection of contract and supplier. The last process is implementing, which includes setting up the service and transition of service. (Dawson et al 2004, p.115)

In order to work, the contract life cycle requires input from three areas within the organisation. Those three areas are business, information services and procurement. Even though the areas have their own responsibilities, they need to communicate over the area boundaries to achieve a working life cycle. Business area needs to give input when identifying the initial and ongoing business needs, developing the Statement of requirements (SOR), selecting the solutions and ensuring the conformance of the solution with the overall business direction and strategy. Information services have to provide input in technical advices and options that are suitable for the need. Information services also provide input in selecting the solution and managing integrations and ongoing technical performance of the chosen solution. Procurement gives input when selecting the solution, leading the procurement of the chosen solution, in legal terms and conditions, providing information about contracts lifecycle and value for money. All three areas play important role in selecting the correct solution and managing the suppliers overall performance. (Dawson et al 2004, p.116)

4.7 Follow up and forecasting

ITIL provides also metrics to evaluate the different aspects of IT financial management process. Naturally the use of metrics depends on the components chosen from ITIL IT financial management. The metrics give constant evaluation about the status of the process. Also metrics might reveal some improvement points to the IT management. (Brooks 2006, p. 143)

There are many qualitative metrics for IT financial management described in ITIL. Most of them are focusing on the forecasts and reports and their accuracy. In early stages of IT financial management the maturity of the process is measured with the delay in production of the financial management and delay in production of the monthly forecast. When the IT financial management process is mature, there is no need to keep these measures existing. Both ones of the metrics have target value of 1 and danger value of 2. Measures also tell to IT financial management team that the process is developing when the slipping in delivering the figures is decreasing. (Brooks 2006, p. 144)

The accuracy of last forecast is simply metric, which indicates that how well the financial management is doing. The accuracy can be calculated with formulae: (financial actuals-financial forecast)/ financial actuals * 100 over the last period. The Danger value for the accuracy is 80 and the target value over 85. The comparison between actual and budget figures should always be done and recorded for the future use. Also there needs to be a possibility to make accuracy analyzes for the longer periods, so the older figures will be needed. (Brooks 2006, p. 144-145)

Traditional measurement in financial management is Total Cost of Ownership (TCO), which is also included in IT financial management metrics. TCO indicates how much the IT costs to the business, including all financial costs such as wages, depreciation, equipment and infrastructure. In time financial management should be able to reduce TCO for business. Naturally the calculation of TCO is important

part of the charging system and commonly used metric to be used as basis for charging model. (Brooks 2006, p. 145)

ITIL also recommends that all the complaints and questions about the IT financial management should be recorded and calculated. Most of the complaints should be discussed in the SLA meetings. Complaints are considered to be raised from IT costs and are common feedback resulted from charging model. Mostly the complaints originate from poor communication over costs and cost structure. Danger value is considered to be ten and the target value is less than five complaints. Questions are handled same way as the complaints, but all questions needs to have evaluation if they are questions or complaints, since the differences are not always clear. The most common way to reduce questions is also better communication and more training. The danger rate for questions is 40 and target rate less than 30. (Brooks 2006, p. 145-146)

ITIL also suggests that the IT financial management should have its own user survey to all the stakeholders. The survey is recommended to do together with test regarding all ITIL processes in use. The target rate is 4 and danger rate less than 3 in scale zero to five. ITIL also provides guidelines to measure the IT costs that are accounted for in comparison between actual costs and CMDB, but this needs advanced CMDB structure and good cost counting in asset database. Also there are metrics for the made changes in the charging algorithm since in mature stage the charging algorithm should be a stable and there should not be many changes. (Brooks 2006, p. 143-146)

The COBIT also provides some useful metrics for evaluation of the process. The evaluation of the process maturity is missing from the ITIL metrics, since it is part of the IT governance. The COBIT offers a metrics and guidelines to measure process maturity also from the ITIL processes. The COBIT gives maturity levels from zero to five. The Zero level is called nonexistent, where the management processes are not applied at all. The first level is Initial level, where the processes are ad hoc and disorganized. The second level is repeatable, where the processes follow a regular pattern. The third level is Defined, where the processes are

documented and communicated. The fourth level is monitored, where the processes are monitored and measured. And the last and the highest level is Optimized, where the good practices are followed and automated. (IT Governance Institution 2007, p.175)

The maturity models provide a scale to benchmark company's practices against the other companies in the industry. The COBIT states that the goal is normally maturity level four, since quite often the costs exceed the benefits when upgrading from level four to level five. The easiest way to use maturity level is to set a target and make an audit when the time has passed. The maturity goals can be set annually or for longer times. It is important to follow up the progress and make an audit based on facts and not for guesses. (IT Governance Institution 2007, p.175) Benchmarking is a part of developing the metrics system in many modern companies. Before benchmarking the company needs to agree what benefits they are looking for and what are the actual costs of the benchmarking process. The benchmarking costs are often divided in visit costs, time costs and benchmarking database costs. The visit cost are travel, accommodation related costs that have originated from benchmarking process. The time costs are coming from the spent time of members of benchmarking process. The benchmarking database costs are originating from database that is created for the benchmarking process. (Taylor et al 2007b, p.102-103)

Of course successful benchmarking brings also value to the company and not just costs. The Value comes after the company has grown and needs a clear view of its qualities and performance. Benchmarking can help to find weakness areas that the metrics and self-assessment does not reveal. The benchmarking can also help to boost the self- confidence and pride of the employees, which will later transform to better motivation of workers. Benchmarking results can also be shown to a customer in order to gain trust that the organization is a good service provider. (Taylor et al 2007b, p.103-104)

The software tool used for monitoring and tracking the data is very important in the financial management. ITIL provides instructions for tool-evaluation. There

are few criterias which needs to be considered to assess the software tools used for ITIL processes. The sofware tool needs to at least 80% fit to operational requirements set. Tool also needs to meet all mandatory requirements and need little if any product customisation. Tool should have ITIL complience and sound data structure and handling. The tool should be chosen by business driven case and not by technology driven case. Also the administration and maintenance costs needs to be within the budget. (Berkhout et al 2007, p.246)

ITIL also provides some prime areas to consider in tool selection. The prime areas are:

- Functional requirements support, and the level of integration with, for example, Service Delivery processes and tools.
- Data structure, data handling and integration, including the capability to support the required functionality.
- Integration of multi.vendor infrastructure components and the need to absorb new components in the future. These demands are particullary needed often for the demands of data-handling and modelling capabilities of the tool.
- Conformity to international open standars.
- Flexibility in implementation, usage and data sharing.
- Service levels: performance and availability.
- Distributed clients with a centralized shared data base.
- Back-up, control and security provisions
- The quality of information provided by the supplier and its validation by contact with other users.

The prime areas should be used helping to find the best solution for the need and also bring more perspective to the decision making. (Berkhout et al 2007, p.246)

4.7.1 Supplier follow up

Key elements in supplier follow up are reviews. Reviews are part of contract life cycle management and take place in every stage of the management cycle. The main reason for the reviews is to minimise the risks and make sure that the company gets maximized performance and value from the contract. The key benefits of holding reviews in the contract life cycle are insurance that the project is correctly resourced in terms of experience and skills, feasibility, enhanced communication and monitoring of cost and timescales. The final revision is mostly held to capture the results and write down the lessons learnt. This information can be used as an input in the future contract negotiations. (Dawson et al, p.116-117)

5   IT financial management in Konecranes

There is a clear need to investigate possibilities to use a financial management process for IT. When IT department started to use ITIL processes the financial management was investigated, but was dismissed as too difficult to implement. Now when the economical pressure is on cost savings and cost visibility is required, the financial management process is wanted to take in use as soon as possible. In order to take such a huge process in use globally would take several years, so it will be much easier to take one major IT region at the time. Finland is the headquarters of most of the IT processes and all the process development is done there. For that reason it will be the most logical place to start implementation. Also Finland handles most of the global operations and offers support all over the globe.

Financial management is a large combination of small processes and components. All the components give input that is important for financial management in order to work properly and give wanted results to IT management. In order to succeed the governance support will play a vital role in the implementation. Communication needs to be open and the goals and steps needs to be explained to all stakeholders. Commitment from IT and business will be vital for the success.

In accounting and budgeting help will be needed outside the IT department. Konecranes uses several Enterprise Resource Planning (ERP) systems and cost consolidation and reporting system simultaneously to insert budget and actual figures, so that the follow up and forecasting is not an easy task. Financial reports about the spending of Konecranes IT is provided in every month, so that the follow up can be created. Financial reports are sent forward to IT managers who check their own expenditure. In order to make specific follow up and forecast we need actual figures about budget and accounting. First important task is to create discipline to insert IT cost figures to ERP and cost consolidation and reporting system. Currently this has been a problem, since there has been no regular control for the figures.

First task given to financial management in IT was to create visibility to the IT costs and IT budget figures. The total of IT budget was given as estimation and Konecranes needed to know how the total amount is spent. The need comes from new line of governance, where the CIO will be in charge of the whole IT budget globally. In January 2009 started the collection of IT budgets from different business areas and Konecranes IT. The total sum was compared to cost consolidation and reporting system figures and ERP figures. The job requested a lot of manual work since the Konecranes IT's figures are inserted in ERP and other figures are inserted to the cost consolidation and reporting system. To ease the future tasks was agreed that financial department will insert the Konecranes IT figures from ERP to cost consolidation and reporting system, so that the comparison and summarization can be done from one report.

Another problem for the data collection came from the ownership of the figures. The figures were asked to deliver in beginning of 2009, when some of the global IT managers presented their budget figures. All the persons were not able to attend or deliver the required figures. All these figures were also checked from cost consolidation and reporting system reports. In the data collection came clear that the IT persons are not responsible for inserting the figures to reporting tool. Controller organisation has taken this task as part of the financial responsibilities. This causes a problem, since different persons are responsible over the costs than

the person announcing them forward. In some cases there where confusion about the figures, so that more detailed information was unavailable, but still overall the response to the queries was good. These collected figures are the basis for the financial management in the future. We are able to compare improvement of visibility to these figures.

Financial management needs to be adopted in everything that is done in IT. ITIL brings good practises and components to the financial management, but there are some areas, where the ITIL is not the best model for Konecranes environment. Since we want to handle a widely spread organization from Finland and be able to control and see the costs all around the globe, we need to strengthen the governance of Financial management. COBIT has proven to be the correct tool for governance and measurement of IT financial management process. As the Konecranes IT has approved and developed its own IT governance model in the spring 2009, will the COBIT in addition bring metrics to measure are the processes working correctly.

The COBIT will bring governance and maturity aspects to the management of process. The COBIT is chosen since it is known to integrate well to ITIL process, which include financial management. The Financial management process will show to the company how the everyday financial issues are dealt with and done, in order to gain benefits from the process. The COBIT will bring the knowledge how the process is guided and how it can be spread controlled all over the globe. It also gives maturity points to evaluate the maturity of the financial management process.

5.1 Implementation

The implementation of IT financial management should be carried out in small steps. Since the Konecranes has not used financial management tools in IT globally before, we need to create the basis of IT financial management to the Konecranes environment. First it will be important to create an understanding about the goals and benefits of this process. The steps will be presented to IT

managers so the commitment to common goals will be created. Governance model will be provided from the CIO and Konecranes IT governance model. Additional instructions and help will be received from OneKonecranes project that drives at the same time throughout the company.

5.1.1 Implementation of budgeting

IT budgeting is normally carried out between September and November, when the figures are inserted and consolidated to the cost consolidation and reporting system. Cost centre figures from IT are inserted to ERP. The global IT budget is combined from these two. Person responsible for the whole IT budget is the CIO, but he has not had a good visibility to the figures. It is very difficult or impossible to compare and understand the cost structure of the IT.

One of the problems from current budgeting comes from budgeting style of the IT. The figures in IT are marked on the cash flow principle, so that all the costs are marked to the budget for the year when the money leaves the company. On financial reporting side all the costs are divided to months, so that that the total sum is divided by the length of the costs. IT budgets are not comparable for the financial reports directly, since they have different budgeting styles.

The problem comes from the visibility. Since the IT management responsible of the figures does not state the actual period of the costs, but the total figure of the costs. The comparison between actual and budgeted figure is impossible. The comparison is currently done by dividing the figure to all months equally. This gives false information about the situation, since the major costs come from projects and contracts, which are often in short period.

The first action to implement the budgeting for IT is to ensure the scope and currently reported budget figures. This is necessary, since we are not building a brand new budgeting, but improving the old one to better one. In order to make better visibility the cost consolidation and reporting system report was inspected

with first quarterly figures. There were actual costs for few units that had not budgeted any for this year. All these units got an e-mail where they were asked to deliver their budget figures for this year. E-mail also contained instructions to budget format, so that they are comparable to the other figures. In addition all the units that had not inserted any budget figures for this year, but had actual costs last year received a similar email. With this simple procedure we managed to prove that there is a lack of discipline in budgeting, partially because the roles are not clear.

The sending of email had also other purpose. Now the financial managers and controllers know that IT is monitoring these figures and they should insert them to the system as well as the other figures. With the correction of budgets we had about 20% bigger budget as stated in the beginning of the year. With the budgeting discipline and communication to business lines, we are able to keep the current budgeting more accurate in the future and we have gained more visibility to IT costs.

Since the budgeting is done at the end of year, it cannot be changed dramatically during the year. All the enhancements can be taken in the use at the end of year 2009. For the next budget round needs to be implemented a new way of budgeting. The costs needs to be divided to the months based on the length of the contracts and costs. In addition the cash flow budget will still exist. In order to get both types to work and maximize the benefits from budgeting, they need to work together. IT managers will be able to tell the new contracts and the projects. It will be easiest to request budget for the full year, where all the large expenditures and contracts are marked in the monthly sheet. This procedure will make it possible to use the figures in comparing against the accounting figures.

The budgets will be inserted to cost consolidation and reporting system and ERP as has been done for many years. In addition manager and controllers will be requested to send the monthly expenditure sheets to IT financial management function before the end of year. The monthly expenditure sheet will be given in Excel format, which makes the comparing and compiling easy for the IT Financial

management function. The monthly expenditure sheet includes all the know costs divided to months or quarters. The cost classification follows the same model as does the new accounting model.

Inserting this information to the complied Excel including all budget costs monthly or quarterly, so that there will be a possibility to compare the figures to accounting is the IT financial management functions task. If the responsibility would be given to IT managers would be much resistance, since it would mean a lot more work. Also the control over the financial status would be given to IT financial management function, which will be able to do comparison and analyzes in larger scale. This procedure will also provide a contact point, where to request financial information about the IT, since all the information has been made available for IT financial management function.

Expenditure sheet has not been in use globally, so it will need instructions. The changes in budgeting will be also presented to controlling organization, so that all participants know how the budgeting of IT costs will be done. The expenditure sheets will be done in Excel, so that they will be easy to collect in one large Excel model. The Excel sheet is done and maintained in IT financial management function. IT financial management function is also responsible for creating a model of annual expenditure sheet and instructions. The Annual expenditure sheet and instructions needs to be done before next budgeting round together with financial organisation, so that they can be given forward to global IT managers and controlling organizations. Also some training might be necessary if needed.

5.1.2 Implementation of accounting

Accounting of IT costs has had many different ways. The IT costs of HQ IT are reported from ERP every month and delivered to IT managers` responsible of the figures. The figures are checked and marked on IT managers own monitoring tools. Global IT figures are inserted in cost consolidation and reporting system in

every quarter. The quarterly reports are not checked in global level and there has not been a good visibility to the figures or possibility for forecasting.

In order to get more detailed reports from IT costs will the accounting and budgeting need enhancements. The easiest way is to decide the necessary level in which the cost needs to be identified. The decided model needs to be used in accounting and budgeting. The globally units have different standards, so unified model might be hard to adapt. The adaptation and instructions will be received from accounting department. In February an accounting model for IT costs was created in order to get IT financial management in place.

The separation between costs has been done with different accounts and dimensions. The accounting model has been introduced to the financial department and to the CIO. The financial department has over one year project, in which the accounting standards will be unified globally throughout the company. The new IT accounting model has been introduced in the global project. The responsible for updating the model and analyzing the model is the IT financial management function. There needs to be an understanding about the IT costs, so that analyzes can be compiled.

The new accounting model gives more detailed insight to the IT costs and there will be a possibility to make analyzes from different aspects of IT. The categories have been chosen based on the ITIL model of cost centres and the need of Konecranes management. The new model enables separation of costs in Use, Development and Deploy. All the main categories such as network, telephone and etc. are divided to the categorization, by using the different dimensions. The proposed and approved new account matrix is presented in the Table 1.

Account	Account name	Cost Categories	Dimension 1	Dimension 2
1	Telephone:use costs (Desk Phones)			
2	Telephone; use costs (Mobile Phones)			
3	IT outsources services	Contract based and regular external service providers	Use/Create/deploy	C/P/S/F/W/I
4	Network	WAN,LAN, WPAN,VPN	Use/Create/deploy	C/P/S/F/W/I
5	Software maintenance&Support	Workstation and server	Use/Create/deploy	C/P/S/F/W/I
6	Hardware maintenance&Support	Contract based time&material costs	Use/Create/deploy	C/P/S/F/W/I
7	IT - Leasings	PC and other IT equipment		
8	Small IT purchases	Telephones, printers, copiers,PDAs,software and peripherals< 1500 euro		

Table 1. Account matrix.

The new accounting model also enables deeper analyzes in the future. The dimension two has the OneKonecranes categories, which are Customer engagement and services (C), Product lifecycle management (P), Supply chain management (S), Finance and Business intelligence (F), Workforce management (W) and IT architecture (I). The dimension two will not be in use when the new accounting model is taken in use, but it will be needed in the future. In order to make the accounting model useful also in new situation the dimension two will be implemented to all necessary systems forehand.

The IT financial management function will be in charge of making or delegating the making of reports as requested to the business and management. The accounting figures will be sent forward if necessary or clarifications are needed. The figures are compiled in every quarterly and HQ IT figures can be followed up in every month. All the reports are distributed and forwarded to the stakeholders according the governance model.

5.1.3 Implementation of charging

Charging is the most difficult part from the financial management to implement, because it requires already working IT accounting and budgeting. Since we are building up accounting and budgeting processes to Konecranes in the first step, the charging model will be implemented later. Charging can be implemented it is certain that the accounting and budgeting are implemented and working on needed level.

Besides the missing accounting and budget visibility, the Konecranes IT is missing consistent work hour reporting. There are no estimates, how the IT staffs allocate their time between projects, development and support. In order to get the charging process working there needs to be a visibility to work hours as well. The cost visibility can be increased with accounting and budgeting, but the visibility to work hours is not possible currently globally. The best information could be collected with IT managers as an estimation format, but that would not help in a long run.

The best approach to the problem would be through projects. This would require more accurate log on project resources, but would also bring visibility to project resources. The charging model could get price estimations to project work that is done by the IT to the business. The project follow up would also require an IT project calendar, where all projects are described. The project calendar would bring help to resource allocation and give warning signal from sufficient resources. The project calendar would be updated by the Project management organisation, but the project managers would have also responsibilities in updating the project costs and follow up.

The collection of projects to IT project calendar should be started from big global ones and be moved forward to smaller local ones. The visibility should be first got from Finland where most of the global resources are. The IT resources of Finland could be divided more efficiently to different projects based on the project calendar. If the project calendar is found useful tool in IT, it should be implemented to other locations. The Project management office should be able to support the roll out and on calculating the project costs the IT financial management function should be responsible for guiding. The project calendar would be easiest to update in the closing of the year, when the IT financial management function receives the next year's projects from the other units, as well as the estimated budgets for the projects.

The other important part or charging and project management is making of the business cases. Currently business case includes estimation about the costs and

sometimes benefits. The charging system and whole IT financial management requires that IT takes business impacts and benefits in consideration. Projects are the easiest way to start implementation of business cases. Project management office needs to make sure that all projects that are starting have valid business case. The project manager is responsible for updating the business case and give notification about changes. In larger projects the IT financial management function has to give consulting help to the making of business cases. IT staff or IT managers might have problems considering financial effects of the projects and the IT financial management function needs to have collected tools for analyzing the project in financial perspective.

5.1.4 Implementation of supplier and contract management

According to the interview of Antti Kivari, Konecranes has used in-house developed tool called Spend analysis tool (SAT) in order to report supplier spends from the year 2008. The Spend analysis tool has different categories for spend classes and in the future scope will be IT suppliers. Currently the IT suppliers are handpicked from the total supplier list by hand, which is difficult. There will also be situations where it is not possible to say if the supplier is an IT supplier only, in these cases it might come to errors in the reports. It is estimated that Konecranes has about 400 IT suppliers globally.

During the implementation of IT financial management, there needs to be actions also in supplier management and contract management. The goal of first phase in supplier management will be increased visibility to suppliers. In order to follow up the progress and improve the current situation, there needs to be a clear picture about current status. The visibility to current situation will be gained through the development of spend analysis tool scope. The spend analysis tool should cover IT suppliers as own category in the summer 2009, so the current situation can be recorded as history data for the future.

The next step is to create a Supplier Management Data base witch, should be updated regularly. In order to have supplier data base all the suppliers' needs to be categorized based on the value and importance of the supplier and the risk and impact of the supplier. The categorization should be done along side with the projects estimating suppliers. The updating of Supplier Data base is done by the IT financial management function.

Supplier management can be started also in the Service Portfolio. In Konecranes, where earlier service catalogue does not exist, can be created a Service Portfolio to manage services and suppliers. The main function of Service Portfolio in Konecranes would be to describe all services provided, owners to the services, key users to the services and supplier information. The person responsible for the provided service is responsible for up keeping the information in service portfolio.

Since there are over 400 programs and systems in Konecranes, the Service Portfolio should be constructed from small pieces. The services provided by Finland Konecranes IT and infrastructural services should be in first phase. Currently there are many projects that have looked up for different services, so there should be quite much information available.

Service Portfolio should have the information about the service, key users, owners and suppliers in the first phase. After all the services are found, the scope must be increased in order to get more benefits from service portfolio management. In second phase the contract and negotiation cycle, warranty and support information should be inserted to the Service Portfolio. This will allow using Service Portfolio as database for all software's and services globally. It will also be a great provider for information, since there can be checked the information and contacts for services.

The Service Portfolio needs a platform, where all the data can be kept and handled. In IT is in use a support tool called Efecte, in which is a Software Asset Management (SAM) platform. The platform would make the software, supplier and contract management easier and more efficient. The concentrated database

would save time in negotiations and would provide large acceptability for users. In the first phase the data collection can be done without the SAM package, since there is already a possibility to up keep basic software and supplier information in Efecte. The software and service structure in Efecte needs to be configured for this purpose, so that there will be a possibility to use the database in the way described earlier. The Efecte templates do not currently have fields for all the information; witch has been one of the reasons for poor usage rate.

The advantages of Efecte are earlier experience, easy to use and possibility to link Configuration Items (CI) together. The downsides are the need of modification of current templates and working methods and the need for licenses to new Efecte users. Still Efecte is a global system, so it will be a good platform for suppliers and service management. The other processes are using the Efecte as well, so the monitoring of process maturity can be done in one system. Also the other processes give input for financial management, as configuration and change management keep up the Configuration Management Data Base (CMDB), which is also source for the service data. There will be ready templates and processes in SAM package for Efecte, but these benefits needs to be investigated through business case. There is a knowledge and capacity to adjust the current platform to the service portfolio needs in the Konecranes, so the SAM package needs to bring cost savings in licensing side or in usability. After the first step including basic data collection in Group IT, there needs to be a workshop where all the possibilities will be considered.

5.1.5 Implementation of Metrics

Processes need some metrics in order to be controlled. IT financial management is not an exception in this case. Common metrics needs to be established in order to find improvement points, monitor progress and monitor maturity rate. The metrics needs to evolve when the process develops. The maturity rate decides the use

metrics for the current phase. There are very usable metrics in the ITIL even for the early stages that needs to be established.

Since Konecranes does not have charging model in early stages there is no need for charging metrics in first maturity phase. Konecranes will have accounting and budgeting implemented in first phase, so there needs to be metrics to monitor those components. Good metrics for both of the components is the accuracy of the last financial forecast. The IT financial management function needs to start collect actual and forecast results and compare them whenever it is possible. The accuracy should be 85% or more, so that the process is described as working. However large variations should also be investigated, so that they can be prevented in the future.

Delays in actual and budgeting figures are also something that IT financial management function needs to follow up. As the time goes by and the maturity grows the delays should reduce and disappear. When the process works properly, the follow up of the report can be stopped. This metric tells that the process is adapted in controller organization and the figures are needed. When the delay does not exist anymore there is no need to give additional training, since the current instructions are enough.

The ITIL metrics regarding the complaints and questions do not need a separate database. IT financial management function needs to write the complaints and questions down and answer to them, or deliver the complaints forward. Since there is no charging model in first phase of IT financial management, there will not be complaints about the cost structure delegated to the business. Other complaints might come from controller or financial management organization regarding the new accounting and budgeting model. The IT financial management function needs to give report to the IT board meeting if there are complaints or enhancement request that requires further actions. If the number of questions regarding the IT financial management remains on high level, there will be a need to arrange some training or clarify the instructions given to stakeholders.

The Service desk will do the everyday end user support work of IT. The Service desk also represents the face of IT to the internal customers of IT. It is very important to measure the performance of Service desk and incident management process. The service level management is handling most of the metrics and they are not handled as part of financial management, even though they might have financial effects. The financial management will be responsible for global comparison of the service and budget figures.

Since the reports are delivered globally, it is possibly to compare actual and budget figures globally. It is important to find out the cost of service in each country and find reasons for the cost levels. There might be some underlying costs that cause IT support to be more expensive in some areas. Also there will be importance to understand the cost structure of the location. The easiest way is to split all the announced costs with the total of employees in the country. There is a risk of getting false figures that are not making the comparison possible since there are large datacenters. The datacenters have more expenses, since they offer services to a larger area.

The maturity levels described in the COBIT are useful tool for the process development, so they should also be used in IT financial management. The Maturity levels should be audited once a year in Konecranes, so that the IT financial management function has a workshop, which is focusing on maturity auditing. The actions for future development are described in COBIT based on the maturity level and target, so the audit meeting needs to go through lat years targets as well. When the maturity level reaches level four the audits are no longer needed.

The process related closely to metrics and financial management is the configuration management. Konecranes has a configuration management data base, which is not currently up to date, but there is a major effort to get it soon. The Configuration management maturity reflects to the financial management metrics, such as the number of servers, locations or printers. The configuration management control is not under the financial management and in Konecranes IT

the process development team is responsible for development and controlling the data base. Together with the process development team can be drawn together a maturity plan for the configuration management.

When Konecranes IT has a good maturity level and the process is approve to be working and offering correct figures, the company can start benchmarking the results with other companies. The ITIL provided metrics are commonly in use, so they are easily compared if agreed with other company from industry. Since the Kone and Konecranes have common history and connections still exist, it might be easy to evaluate the possibility to compare IT figures with Kone. Also the near location makes low cost benchmarking possible. The Kone and Konecranes are not competitors, but are both on metal business, so the compared company would belong to a same industry category. If the figures approve to be comparable the other companies in the industry probably use same kind of metrics. The CIO forum and COBIT home sites also provide benchmarking metrics for companies.

Outside benchmarking was offered during the beginning of implementation of the IT financial management, but in the early maturity level it did not approve to be useful for the company. Outsourcing part of the metrics was not a cost efficient or did not reduce the workload. Also there was an increase of key IT results time usage for maintaining the IT financial matters with outside partner. The outsourcing of metrics might cause a visibility loss in the future, so the option needs to be evaluated in more advanced maturity level carefully.

5.2 Communication

Konecranes has had problems in many projects and implementations due the lack of communication. In IT financial management there should be named roles for communication inside and outside the IT organisation. Most of the communication is handled by the IT financial management function that has a

large responsibility to keep all the stakeholders up to date. Also the single point of contact in financial communication would help the business to contact IT department in IT related financial matters. Also the IT financial management function will be responsible for training and documentation related to IT financial management to the IT managers and IT related staff. The training of controller organization should be carried out by the financial department, but IT financial management function can provide assistance if needed.

The accounting and budgeting gives a lots of different key performance indicators, analyzes and reports. The reports are compiled by the IT financial management function. IT related figures and reports need to be given forward, so there will be a need to have an IT board discussing about the results. The IT board should be organized in every quarter after the reports have been made. It will require participants from every IT region and from HQ IT. The regional IT managers can be called to a meeting via video conference if needed. The requests to join the meeting are sent if there are some abnormal figures or too big spend for the quarter based on the budget. Global IT managers and CIO should be regular participants and get the reports in every quarter beforehand. The IT financial management function delivers the reports one week before the meeting, so that the CIO can decide if regional IT managers are needed to the meeting. IT controller or CIO summits the invitations to the IT Board meeting.

All the information available and useful to others needs to be shared. The most logical and easiest way is to use the Intranet. The Intranet needs to have an own section with IT financial management, which includes the team, responsibilities, instructions and reports. The Instructions should be updated to the Intranet, this way there is always one place available where the up to date version is located. The reports could be indicators, such as IT budget and common comparison figures. All the other reports and figures needs to have consideration, if the information is public. The responsibility of the context is on the IT financial management function, but the update is done by the IT department as in normal processes.

5.3 Risks and Benefits

As should be done in every process implementation, there needs to be an assessment of possible risks and benefits. The risks and benefits needs to be compared and taken in consideration in decision making. If the benefits exceed the risks and the process will be taken in use, there are actions that can be done for the risks. The risks can be transferred, mitigated or accepted.

5.3.1 Risk analysis

There a few risks that might effect on IT financial management on deployment phase or in the actual process in the future. The risks can be minimized when the first steps are taken in Finland as a pilot process. This enables that the risks can be corrected or accepted forehand the process goes in global use. The too fast progress can cause loss of control in the process implementation. When to control is lost, the visibility has been lost to all figures. The risk can be minimized, when the most global implementations are done along side with the harmonisation project in the Konecranes. The risk of losing vital data can be minimized by inserting the data to common system. The system for budget and accounting figures is cost consolidation and reporting system, which is normally monitored by IT following the legal and corporation restrictions.

The hard part is to keep the control in strong and independent business units. If the control is compromised, the budgets, projects and accounting are still done internally without visibility to the figures. The control can be strengthened with the new governance and metrics, but also through training. If all business units understand and agree the benefits and goal, there should not be much resistance for the change. There is also risk that there are legal obligations for financial figures required in some location or globally. This risk can be minimized with the accounting staff by discussing the future projects forehand and making cooperation in financial matters regarding the IT. The contract and supplier data base can be corrupted or have false information, unless the data base is monitored and kept in proper way. To minimize the risk, the system needs to have restricted

access in order to be liable. The users need to have training and understanding for the system, before using it.

The users might feel that all their doing is changed to more controlled and bureaucratic. This is a risk that needs to be accepted, in order to get total visibility of the IT costs and be able to tell them forward. Changing to monitoring working hours in order to get statistical information, might cause unpleased comment from personnel, but they need to be explained what the information is used for. All the negative feedback might not be irrelevant and the IT management needs to be aware the in all cases the IT needs to be running.

5.3.2 Business Impact analysis

The Business Impact analysis is used to show benefits from the process to the business. The IT financial management will bring data visibility by controlled accounting and budgeting process. The IT financial management process will also bring cost efficiency, when the costs are more visible. The cost minimisation can be done in the future, when the charging model is implemented.

The Service portfolio, contract management database and supplier database enable a harmonized and controlled use of services and creation of new services. The data bases enable supplier prioritization and reduction. The contract management provides time savings, when the contracts can be managed in the cycle and in pre-determined way. The supplier data base provides valuable information about the IT suppliers and from the supplier classification, which enables analyzing of supplier structure and harmonization. The divided responsibility and account manager roles give more information available in decision making.

In addition service portfolio brings more cost infromation to the business, which can be later on used as a basis for charging. Business can also be provided with a service catalogue, which will cut down costs in finding new ones. The service catalogue also helps negotiations between business and IT. In addition the

communication will be improved through the consolidated communication through the IT financial management function.

5.4 Roll out of the financial management

The roll out of financial management needs to be controlled, so that there can be assistance and guidance provided in every step. The roll-out will be started from Finland, since it is most visible in cost and there can be done quick adjustments to the process as we go. Finland has a largest datacenter, but also most of the IT personnel work in Hyvinkää office. It is very important to monitor the beginning of the process and write down every problem in the process. The problems need to be solved before moving on with the roll out. The roll out is done in equally steps starting from Europe and heading to North America. The last one is Asia, since there are not established all the other ITIL processes. Also the alpha brands are excluded from the first roll out, if necessary. The alpha brands might have unique structure compared to Konecranes companies, so they need to be carefully considered.

5.4.1 Roles and responsibilities

The first important role is the owner of whole IT budget. In the new governance model the person responsible for the whole IT budget and accounting will be the CIO. CIO will need to have visibility to the budget and accounting figures and get exact information from the IT financial management function. The person responsible for the IT management team is the IT controller. IT controller is in charge of IT accounting and budgeting. IT controller communicates forward the enhancements, problems or instructions. IT controller also verifies the changes for accounting and budgeting on IT side. There will be an IT controller in Konecranes IT department in this year, so the responsibilities can be handed out. The Controller tasks can also be divided to other persons as a role, if the company prefers to distribute the responsibility differently.

The IT financial management function will be used as a term in Konecranes for the financial specialists within the IT department. All the roles ITIL recommends needs to be located or at least controlled by the IT management team. The current situation in IT department might need more resources in order to start increasing maturity of financial management of the IT. The Controller needs to have assistants that are able to do day-to-day work in managing suppliers' database, contract database and the service portfolio. There needs to be negotiation skills in IT financial management, so that the IT financial management function can help in IT related negotiation or handle them.

Depending on the workload in IT financial management function there needs to be accounting and reporting specialist, who will be in charge of developing and making the monthly and quarterly reports. The IT financial management function also needs analyzing staff to make cost estimations and cost reduction plans, based on the information available from budgets and accounting figures. The development and reporting needs to be done with knowledge about Konecranes accounting and procedures. Reports should be done during the summer, but further development will be needed as the accounting gets more accurate. The analyzing and accounting can be done in early phases with financial manager or with business process developer.

The business process developer also needs to have access to reporting systems, so that the IT department has own independent source. Currently the reports are run in reporting department in Konecranes headquarters, so that in busy quarter ends the reports seem to be taking some time. Also the access would give a better opportunity to monitor inserting the figures and updates. In order to use cost consolidation and reporting system and ERP there needs to be a skilled member in IT financial management function. The cost consolidation and reporting system and ERP reporting would also have a backup, if there are vacations and sick leaves. Often the business reports are needed on hurry, so there needs to be possibility to access the data from the IT.

Project management office will have a responsible over the project calendar together with the IT financial management function. The financial management team provides information about budgeting, accounting and next year's projects. The project management office is responsible for checking the schedule and resources to the projects. Project management office should make sure that every project has a project manager, which is responsible for communicating the project issues and allocating the resources. IT financial management function is responsible for communicating finance issues with project manager, for example changes in budget or business case.

The IT financial management function is also responsible for communicating with accounting and Financial teams in the company. All the changes recharging the accounting principles or budgeting styles need to be communicated to the controller organisation. The IT financial management function needs to act as communication gateway to the controller and accounting staff. Also the financial management function needs to communicate demands from accounting and controller organisation to the IT staff. For example changes in accounts have to come through IT financial management function, so there is a single point of contact that can give correct information and answer user questions if necessary.

The communication responsibility can be given for separate roles depending on the size of the company. In Konecranes the Supplier Relationship Manager and Business relationship manager can be one person. This person needs to work in IT financial management team. The Communication Manager role can be handled together with the communication office and in IT service related communication through the Service Delivery Manager. The supplier and customer relationships should be kept up to date in database. In early stages the supplier data is handled in the Excel and Efecte system. The customer data will be focused on the service portfolio and kept up to date there, since there is no real outside customer for provided IT services.

IT financial management function is responsible for monitoring the IT financial metrics. IT financial management function will look the suitable metrics and

notify stakeholder, if there are abnormalities in Financial or service metrics. The comparison of the service costs is done in every quarter, but it can be also done for analyzing purposes. The request for analyze can come from IT managers, that want more visibility from their area or from the CIO. The needed metrics are always agreed and the IT financial management makes the reports in reasonable time. IT financial management function also handles the communication if further communication is needed from different areas.

The responsibility of supplier management and account management is not only the IT financial management functions' task. The IT managers will be responsible about their suppliers individually. The IT financial management function will see the bigger picture of the supplier situation and give advices. For this reason it is important to keep the IT financial management function in the information loop, when there are contract negotiations regarding the IT. The persons responsible of suppliers in each small fragment are called Account Manager. There is no point appointing 200 Account Managers, as one for every supplier, so there needs to be an Account Manager for every major supplier. The categorisation of the suppliers will be done by the financial management function in first phases.

5.4.2 Schedule

The IT financial management is most easy to implement in small pieces. Commonly the pre-phase consist all the tasks that need to be done before the process can be taken in use. The Phase 1 is normally tasks that are first steps to the right direction and the go live phase. The other phases like two and three are improvement phases or enlargements in the scope. The three year implementation plan for larger sub-processes could be as shown in the table 2. All the phases need to be completed in that order and there are also relationships across the sub-processes.

IT Financial management implementation schedule												
	Q1/2009	Q2/2009	Q3/2009	Q4/2009	Q1/2010	Q2/2010	Q3/2010	Q4/2010	Q1/2011	Q2/2011	Q3/2011	Q4/2011
Budgeting	Pre-phase		Phase 1	Phase 1	Phase 2	Phase 2						
Accounting	Pre-phase		Phase 1		Phase 2				Phase 3			
Charging						Pre-Phase			Phase 1			
Contract management				Pre-phase	Phase 1							
Supplier management			Pre-phase		Phase 1							
Metrics		Pre-Phase	Phase 1		Phase 2				Phase 3			

Table 2. IT Financial management implementation schedule.

The sub- processes are divided to the phases on the table 2, which indicates all the high level tasks that needs to be done and in use, before the next phase. The tasks are often done by IT financial management function, but in some cases there is need for other teams help in the completion of the phase. The table 3 includes the related history actions that have effected or improved the situation.

Budgeting phases	
Pre-phase	Decision about future budgeting methods. Information collection from old budget figures. Budgeting roles defined and divided to the IT and controller organization.
Phase 1	Budgeting with old method, based on yearly costs. Budgeting with new method, based on cash flow. Delivering budget figures and inserting them to cost consolidation and reporting system.
Phase 2	Budgeting based on new accounts given in global use. Budget figures inserted to cost consolidation and reporting system.
Accounting phases	

Pre-phase	Monitoring of Q1 results and notifications if some of them are missing. Creation of Global accounting standards and accounts.
Phase 1	Monitoring of Q2 results. Meetings with persons responsible and forecasting. Information to Controllers and Account managers about goals.
Phase 2	Monitoring of all year results and more instructions given if needed. Meetings with IT managers and Controllers are held if needed.
Phase 3	New accounting standards implemented and reporting and metrics are in use.
Charging phases	
Pre-phase	Identification of cost centres is done. Work hour surveillance is in use and cost estimations through project management are in use.
Phase 1	Building of cost models based on new accounting models and implementation of metrics.
Contract management phases	
History	The contract management was tried to do with a limited pilot group in 2008, but the work is still in progress. The data can be used as a basis for the future development.
Pre-phase	Implementation of requirements for contracts that are IT related. Future contract models and instructions are planned
Phase 1	Creation of contract cycle and creation of contract management database
Supplier management phases	

History	The suppliers were earlier identified manually and inserted to an Excel, where monitoring was done. The collected data can be used a basis for the future supplier identification.
Pre-phase	Identification of all IT suppliers globally by using SAT tool.
Phase 1	Creation of Contract and supplier management database
Metrics phases	
Pre-phase	Maturity one metrics, such as visibility and discipline
Phase 1	Metrics for costs in local rates and cost analyzes
Phase 2	Full cost analyzes for cost structures, user satisfaction surveys, personnel and performance are in use and developed.

Table 3. Scheduling phases.

6 Future development of IT service delivery financial management

In the future IT needs to get closer to the business and business targets. IT strategy should be created so that, it will support the business strategy of the company. In the new governance model, the IT is there to help business to achieve common goals. As the Financial management has implemented to more mature level, the process needs to get more and more involved to business goals.

6.1 Future development of budgeting in IT

In short term the basics of budgeting can be taken in use at the end of the year 2009, when the next budgeting round starts. When the one year budgeting is handled and does not need annual improvement, the budgeting range should be expanded. The business IT and group IT should have longer visibility to cost structure of IT. The visibility should be gained through forecasting, which is based on the current cost structure and future IT projects cost estimation.

There should be a meeting with attendants from business and group IT managers in the end of each budgeting round. In the meeting managers and CIO should agree that the forecast seems to be correct and costs are divided correctly to future years. With this meeting IT infrastructural costs and business needs can be harmonized in longer period. The best time scale for budgeting should be three years, based on ITIL recommendations. Longer forecast might be inaccurate and difficult to make. If the three year period proves to be too long to predict, should two years period be tried.

6.2 Future development of accounting in IT

All the bills are accounted and approved in billing system called Basware. The Basware has a monitoring view for the bills in certain accounts. The system is only used in Finland, but in the beginning of new accounting methods there needs to be some monitoring that the costs are in correct accounts. The financial management function should be able to do an audit for the accounts in Konecranes IT once a quarter, so that more guidance can be given to the persons responsible of accounting.

6.3 Future development of charging in IT

Charging is the only large sub-process that cannot be implemented yet in Konecranes. The charging will be started in internal calculations in project management, which provides the basics of future charging model. The charging

also needs work hours follow up, so that the work efforts of IT can be recognised and managed.

In the future will be still challenging to implement charging model, but it is possible and beneficial to the company. The implementation can be done by following the work hours in larger categories and use them as cost centres. Also the accounting model could be used as a basic formation for cost estimation of different dimensions. The implementation and reorganization of cost centres needs to be done by the IT management and stakeholders. The cost centres should be chosen in a way, which the price of a single IT service can be calculated and divided on main categories.

The ITIL provides examples about cost specification. The main goal is to provide correct information about the costs, so that they can be analyzed and recognised correctly. The first effort could divide the costs in maintenance, implementation and support. The next levels could divide the costs in to the software and hardware. The cost centres can be adjusted easily annually, but not during the season. If the cost centre seems to have too large amount of money, but it cannot be identified easily or not at all, the cost centre should be adjusted to more specific one.

The spesification of costs can also be done in service portfolio management. The IT deparment is alreadt gathering information about all the services provided. The service portfolio management would add business cases to the services and persons responsible. After the charging of the projects, it would be important to find a way to continue the same work in whole IT. The service portfolio management will provide easiest next step to take. The use of service portfolio management will also bring more cost awarness and help to identify IT cost structure.

When all the costs are recognized can the IT write internal bills for the business? The purpose of the billing is to show the effects of requirements to the total price. Showing the costs the business can direct its decisions to more cost efficient way

and realize how the IT costs are constructed. The costs might make the business stakeholders think again the importance of the all time support to the services, which directs them to more cost efficient thinking regarding of IT decisions. Also the business will get an overall picture how much does certain services cost in the IT and compare them to outside providers. For this reason it is important to be able to separate IT infrastructure costs from the costs of the single service.

When the billing had been in use for one year to few years, could the company consider will the IT work as a business unit? This would mean that the IT had a budget, but it got most of the income from charging the costs and services from the business. The IT would also get relevant picture where the money comes from and would be more willing to provide high quality service. The whole charging system would bring visibility to IT costs, but on a down side it might make the working of the IT too bureaucratic.

7 Conclusions

Konecranes is a potential environment for IT financial management, but there needs to be done some adjustments. The whole IT financial management would not be possible to be implemented in one piece. The IT financial management would also need additional components from COBIT, contract management and supplier management. The additional components need to be taken, in order to meet Konecranes requirements for the process.

Accounting and budgeting where the easiest parts of ITIL financial management to implement and their implementation has already began in Konecranes. The implementation steps have been done following major projects and requirements in Konecranes. The charging model was unable to be implemented, but the implementation can be started soon. First steps in the implementation can be done through projects and service portfolio management. The data gathering for service portfolio management already started during the spring 2009.

Contract management has had some effort already, but Contract data base would solve the problems in the future and provide important information to negotiators. The supplier management has the same situation as the contract management and the implementation can be started during the year 2009 already. Some efforts to improve the supplier management have been done already in Konecranes IT.

Metrics were described for the implemented processes based on the ITIL, but also there were governance metrics proposed for the surveillance of the process. The building of metrics is already partly completed and reporting has been established. Also in new group structure the IT controller and responsibilities were given to the company in 2009.

With the given information from the financial and Konecranes IT departments was created a proposal for three year implementation plan. The plan has been done in detailed level for every process and the execution has already begun. The roles and responsibilities were pointed out, but not given in Konecranes IT level yet, since there are some changes in the organization in the future.

The implementation faces a new challenge in near future. Konecranes is renewing its IT governance model and processes. The renewal caused some problems in roles and responsibilities, since the ITIL tasks could not be directly pointed to current structure. The roles were still defined, so that they can be distributed based on the new governance model. The first plans of IT renewal were published in May 2009, so the information is still not available in the level the decisions would require.

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