

Corporate social responsibility in hospitals focusing on sustainable procurement



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Preface

This report is part of the first year internship of the Master Management Policy Analysis and Entrepreneurship in Life Sciences and Health. This is a two year master program from the VU University in Amsterdam. The internship consisted of five months, from February till the end of June 2011. The internship placement was at ZonMw in The Hague, in this document the results of the study are described.

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Management samenvatting

Introductie

De zorg heeft te maken met grote veranderingen in de samenleving die direct de financiering en organisatie van de sector beïnvloeden. Er wordt een groot personeelstekort en een grotere zorgvraag verwacht door de vergrijzingen en epidemiologische ontwikkelingen. Daarnaast is de zorgsector in Nederland een grootverbruiker op het gebied van energie. De ziekenhuizen in de regio Rotterdam gebruiken evenveel energie als een stad van 32.000 inwoners. Ook de bekostiging van zorg staat onder druk. Door de technologische ontwikkelingen, het vergroten van het service volume en de vergrijzing in Nederland stijgen de kosten van de zorg, terwijl de economische groei in de komende jaren naar verwachting juist zal stagneren.

Er is op dit moment nog niet veel aandacht voor duurzaamheid in de zorg. In vergelijking met andere sectoren scoort de zorg slecht op het gebied van duurzaamheid. In slechts 6% van de organisaties in de gezondheidszorg is duurzaamheid opgenomen in de beleidsplannen. Ter vergelijking: 87% van de ministeries en 48% van de onderwijsinstellingen heeft duurzaamheid vastgelegd in het meerjarenbeleid. De triple bottom line wordt gebruikt als definitie van duurzaamheid. De triple bottom line definitie omvat drie kernwaarden: People, Planet en Profit. Deze aspecten dienen in balans met elkaar te zijn bij een organisatie met een duurzame bedrijfsvoering.

Duurzaamheid vraagt om een integrale benadering van sociale, ecologische en economische aspecten en omvat dus meerdere terreinen van de organisatie. In deze studie ligt de focus op duurzaam inkopen in ziekenhuizen. Duurzaamheid kan een denkkader scheppen en daarmee bijdragen aan de ontwikkeling van een visie om de complexe problemen waar de gezondheidszorg nu mee geconfronteerd wordt te begrijpen en aan te pakken.

Onderzoeksvraag en methode

Het onderliggende onderzoek had als doel de ziekenhuisorganisaties die “duurzaam inkopen” hebben geïntegreerd in de bedrijfsvoering te beschrijven, waar mogelijk de duurzaamheidsdoelen te evalueren en te onderzoeken welke maatregelen noodzakelijk zijn om duurzaam inkopen in de ziekenhuissector verder te stimuleren. In dit onderzoek stonden drie thema's centraal:

- Het creëren van draagvlak voor duurzaam inkopen
- De implementatie van duurzaam inkopen in de bedrijfsvoering
- De implementatie van duurzaam inkopen in het inkoopproces

De data werden verzameld door middel van semigestructureerde interviews. Deze interviews werden gehouden bij ziekenhuizen en bij organisaties die het beleid van ziekenhuizen kunnen beïnvloeden. De volgende ziekenhuizen werden onderzocht in dit onderzoek: UMC Utrecht, UMC Groningen, Erasmus MC en het Onze Lieve Vrouwen Gasthuis (OLVG). Ook werden er interviews gehouden bij de volgende organisaties: Nederlandse Vereniging van Inkoopers in de Zorg (NEVI Zorg), Milieu Platform Zorgsector (MPZ), Intrakoop, Ministerie van Infrastructuur en Milieu, De Friesland Zorgverzekeraar en Hogeschool Leiden. Daarnaast werden er interviews met experts gehouden om meer inzicht te krijgen in specifieke onderwerpen van deze studie.

Resultaten

Het UMC Utrecht gebruikt de criteria van Agentschap NL in het inkoopproces en heeft zichzelf het doel gesteld om in 2013 50% duurzaam in te kopen. Op dit moment heeft alleen het UMC Utrecht doelen gesteld qua duurzaam inkopen. Het OLVG heeft in de beleidsplanning aangegeven duurzaam in te gaan kopen vanaf 2013, maar er zijn nog geen concrete maatregelen getroffen. Het Erasmus MC heeft verschillende losse projecten lopen en evalueert op welke producten van de inkoopportefeuille de meeste winst qua duurzaamheid valt te behalen. Daarnaast gaat het ziekenhuis uit van een geïntegreerde aanpak en heeft het een werkgroep duurzaamheid opgericht om op verschillende terreinen van duurzaamheid te werken. Het UMC Groningen beperkt zich tot een klein deel van het inkoopvolume en koopt voor een deel duurzaam voedsel in.

Het creëren van draagvlak voor duurzaam inkopen gebeurt momenteel voornamelijk door gedreven en enthousiaste medewerkers op verschillende niveaus van de ziekenhuisorganisatie. De onderzochte externe partijen hebben geen directe invloed op de stimulering van duurzaam inkopen; op dit moment wil de Nederlandse overheid duurzaamheid in de zorg niet stimuleren. In het verleden was dit anders, maar door machtswisselingen in de politiek is hier een einde aan gekomen.

De verzekeringsmaatschappijen focussen voornamelijk op eigen bedrijfsvoering, de Friesland Zorgverzekeraar probeert duurzaamheid sinds 2010 te stimuleren door een gedifferentieerd zorginkoopbeleid aan te bieden. Partijen als NEVI Zorg en MPZ hebben voornamelijk een rol in het creëren van aandacht voor het onderwerp en in het verspreiden van kennis over duurzaam inkopen maar hebben onvoldoende gezag om pressie uit te voeren op ziekenhuizen.

De implementatie van duurzaam inkopen in het algemeen beleid van de organisatie is een belangrijke succesfactor voor de invoering van duurzaam inkopen in het inkoopproces. De reden hiervoor is dat de ziekenhuisorganisatie over het algemeen groot is en hiërarchisch is opgebouwd. Hierdoor zijn organisatorische veranderingen lastig in te voeren. Dit onderzoek laat zien dat het belangrijk is dat er enthousiaste medewerkers op verschillende organisatorische niveaus werkzaam zijn in de stimulering van duurzaam inkopen. Het gebrek aan enthousiaste medewerkers op verschillende organisatorische niveaus is een oorzaak waar veel duurzaamheidsinitiatieven op stranden. De initiatie van duurzaam inkopen gebeurt niet alleen vanuit de inkoop afdeling, ook vanuit andere functies worden duurzaamheidsinitiatieven geïnitieerd en gestimuleerd. Voornamelijk de inzet van de milieuoördinator speelt een belangrijke rol in het stimuleren van duurzaam inkopen, maar ook vanuit het bestuur van sommige ziekenhuizen wordt duurzaamheid gestimuleerd. Interesse in duurzaamheid is dus vooral persoonsafhankelijk en niet zozeer functieafhankelijk.

Ter vergelijking is in dit onderzoek ook gekeken naar het hoger onderwijs, een sector die een convenant heeft gesloten met de overheid met betrekking tot duurzaam inkopen. Hieruit bleek dat dit convenant duidelijkheid betreffende duurzaam inkopen geeft bij de interne klanten en dat dit ervoor zorgt dat duurzaamheid een standaard punt is dat wordt meegenomen in aanbestedingsprojecten.

Bij de implementatie van duurzaamheid in het inkoopproces wordt door de onderzochte ziekenhuisorganisaties gebruik gemaakt van de inkoopcriteria ontwikkeld door Agentschap NL. Deze criteria zijn voor 48 verschillende productgroepen opgesteld. Slechts één organisatie, het UMC Utrecht, heeft zelf ook een lijst met alternatieve criteria opgesteld voor de (medische) producten waarvoor nog geen criteria bestaan. Het Erasmus MC is op dit moment bezig om een alternatief aanbestedingstraject vorm te geven waarin de leveranciers worden uitgedaagd om met creatieve en innovatieve oplossingen te komen. In dit aanbestedingstraject, van in dit geval een beddenwasmachine, wordt bij alle gestelde criteria afgewogen of deze geen belemmering voor nieuwe ideeën vormen. Het is de bedoeling van het Erasmus MC om zo min mogelijk criteria op te stellen en de toeleveranciers creatieve oplossingen te laten aandragen. Dit betekent dat de leveranciers vrij zijn in de keuze voor een dienst, apparaat of totaaloplossing. De offertes van de toeleveranciers worden beoordeeld op duurzaamheidsaspecten en kosteneffectiviteit. Dit is een vorm van functioneel aanbesteden.

Knelpunten

In dit onderzoek zijn verschillende knelpunten aan het licht gekomen die de implementatie van duurzaam inkopen belemmeren. Dit zijn zowel organisatorische als culturele factoren van de ziekenhuis sector in Nederland.

Door een verschil in belangen tussen het management van het ziekenhuis en het artsenpersoneel ontstaat er een lastige positie voor de derde partij: de inkoopafdeling. Dit maakt het implementatieproces van duurzaam inkopen complex. Door externe ontwikkelingen en herstructureringen in de gezondheidszorg is er een grote interne druk ontstaan om kosten van zorg omlaag te brengen, terwijl ziekenhuizen bovendien geacht worden winstgevend te zijn. Het lijkt erop dat vooral deze financiële belangen een rol spelen bij het vormgeven van het beleid vanuit het management van ziekenhuizen. De aandacht voor duurzaamheidsaspecten lijkt hierbij in de verdrinking te komen. De artsencultuur in ziekenhuizen wordt bovendien gekenmerkt door een technocratische naar binnen gerichte houding en werkwijzen die georiënteerd zijn op klachten en diagnoses stellen. De inkoopafdeling speelt een lastige rol in deze complexe organisatiestructuur waarin verschillende tegengestelde belangen spelen. Mede door deze complexe interacties en

teggestelde belangen van verschillende partijen komen duurzaamheidsinitiatieven moeilijk van de grond.

Bij de onderzochte ziekenhuizen die actief duurzaam inkopen en duurzaamheid in het inkoopbeleid hebben opgenomen heerst onduidelijkheid over de opbrengsten van duurzaam inkopen. Men geeft aan dat duurzaam inkopen in sommige gevallen duurder is en in andere gevallen goedkoper. Desondanks kan men niet aangeven door welke factoren dit wordt beïnvloed. Gedurende het inkoopproces moet er dus beter gekeken worden naar kosten en baten van duurzame investeringen. Ook is het belangrijk om informatie hierover door de gehele organisatie te verspreiden, temeer daar vaak het paradigma heerst dat duurzaam inkopen duurder is terwijl dat niet onderbouwd is met cijfers. De geïnterviewden in dit onderzoek geven aan dat duurzaam inkopen bij sommige onderdelen van het inkoopassortiment een fikse besparing kan opleveren, dat het bij andere onderdelen niet uitmaakt en dat het bij weer andere onderdelen duurder kan zijn. Uit deze observatie blijkt dat een focus op het inzichtelijk maken van kosten van groot belang is.

Conclusie en advies

Voor een effectieve stimulering van duurzaam inkopen zijn maatregelen op verschillende niveaus nodig. Theorieën uit transitie management zijn gebruikt bij het ontwikkelen van ideeën voor maatregelen om duurzaam inkopen in ziekenhuizen te stimuleren. Belangrijk is dat de verschillende organisatorische niveaus elkaar niet moeten tegenwerken en hetzelfde doel voor ogen moeten hebben. Iets wat lastig is in een ziekenhuisorganisatie met veel tegengestelde belangen. Daarom zijn maatregelen op Macro-(overheid/landelijk), Meso-(ziekenhuisorganisatie), en Micro-(afdeling)niveau opgesteld.

Adviezen op macro-niveau:

- Teken een convenant omtrent duurzaam inkopen tussen de overheid en de ziekenhuizen. Stel doelen op betreffende het percentage duurzame inkoop van het totale inkoopvolume.

Als de overheid geen convent wil sluiten met ziekenhuizen, wat op dit moment het geval is, zouden andere partijen het initiatief kunnen nemen tot het ondertekenen van een convenant. NEVI Zorg, MPZ en MVO Nederland zouden samen met verzekeringsmaatschappijen, patiëntenorganisaties en ziekenhuizen die zich actief voor duurzaam inkopen willen inzetten een convenant kunnen ondertekenen.

Het samenwerkingsverband van ZonMw, MPZ, NIGZ en MVO Nederland zou een rol kunnen spelen in het onderhandelingsproces voor het ondertekenen van een convenant. Daarnaast zouden ze een rol kunnen spelen in het samenbrengen van de juiste personen.

- Ontwikkel inkoopcriteria voor het duurzaam inkopen van medische producten. Uit het grootschalige gebruik van de criteria van Agentschap NL blijkt dat het opstellen en gebruik van inkoopcriteria een effectieve manier is om massaproducten duurzaam in te kopen.

Zolang de overheid niet bereid is om de criteria voor medische producten te ontwikkelen zouden de grote ziekenhuisorganisaties zich daar, samen met marktpartijen, voor kunnen inzetten. MPZ en NEVI Zorg zouden een rol in het samenbrengen van de verschillende partijen kunnen hebben en zo kennisuitwisseling stimuleren.

Adviezen op meso-niveau:

- Start met een geïntegreerde werkgroep duurzaamheid binnen het ziekenhuis en combineer de verschillende onderdelen van duurzaamheid tot een geïntegreerd ziekenhuisbreed duurzaamheidsbeleid. Door meerdere duurzaamheidsgebieden te combineren kan er meer draagvlak voor het onderwerp worden gecreëerd. Duurzaam inkopen is voor de zorg niet het meest tot de verbeelding sprekende onderwerp, andere duurzaamheidsgebieden spreken meer tot de verbeelding. Duurzaam inkopen kan door een geïntegreerd duurzaamheidsbeleid meeliften met andere populairdere onderwerpen.

Het ontwikkelen van een algemeen duurzaamheidsbeleid is primair de taak van de ziekenhuisorganisatie zelf. Het samenwerkingsverband van ZonMw, MPZ, NIGZ en MVO

Nederland heeft verschillende aspecten van duurzaamheid onderzocht. Door deze onderzoeken te combineren kan een totaal advies voor de verduurzaming van de Nederlandse gezondheidszorg worden gegeven.

- Start met onafhankelijke inkoopcommissies voor de inkoop van strategische (medische) investeringen en maak van duurzaamheid een standaard controlepunt. Voor strategische aankopen zijn geen standaard criteria te ontwikkelen. Door het een standaard controle punt te maken voor inkoopcommissies worden organisaties gedwongen om na te denken over passende duurzaamheidscriteria.

Partijen betrokken bij het stimuleren van duurzaam inkopen als NEVI Zorg en MPZ zouden dit onderwerp verder moeten uitdiepen en er aandacht aan geven op bijeenkomsten en conferenties. Inkoopafdelingen van ziekenhuizen zouden dit onderwerp onder de aandacht moeten brengen bij andere lagen van de organisatie en zo de ontwikkeling van inkoopcommissies stimuleren.

- Verwijder obstructies in financiële structuren die de implementatie van duurzaam inkopen frustreren. Vaak wordt de aankoop en het gebruik van apparatuur uit verschillende bronnen en door verschillende afdelingen betaald, hierdoor heeft men minder belang bij enerzijds een lage inkoopsprijs of anderzijds bij een apparaat dat lage gebruikskosten heeft.

Om deze maatregel te implementeren moet het financiële systeem van ziekenhuizen worden veranderd. Dit is waarschijnlijk niet een gemakkelijk uit te voeren maatregel en meer onderzoek is nodig om alle implicaties van deze maatregel te evalueren. De coalitie van ZonMw, MPZ, NIGZ en MVO Nederland kan meer aandacht geven aan deze kwestie en het adresseren bij het Ministerie van Volksgezondheid, Welzijn en Sport (VWS), belangengroepen als de Nederlandse Vereniging van Ziekenhuizen (NVZ) en de Nederlandse Federatie van Universitair Medische Centra (NFU).

Adviezen op micro-niveau:

- Introduceer duurzaam inkopen doormiddel van kleine projecten en communiceer de resultaten door de organisatie. Duurzaam inkopen heeft de naam duur te zijn, laat zien dat dit zeker niet het geval hoeft te zijn. Belangrijk is om ook de taal van het hoger management van de organisatie te spreken. Dit betekent: concrete voorbeelden met duidelijke kosten/baten analyse.

Medewerkers werkzaam op inkoopafdelingen die zich willen inzetten voor duurzaam inkopen moeten duidelijk de resultaten kunnen laten zien en deze communiceren door de organisatie. NEVI Zorg en MPZ zouden deze strategie onder de aandacht van hun leden moeten brengen.

- Focus niet alleen op de producten waarvoor selectiecriteria zijn ontwikkeld, maar evalueer de meest effectieve inkoopstrategie voor het aan te schaffen product. Gebruik andere manieren van aanbesteden waarvoor bestaand productcriteria niet geschikt zijn. Focus hierbij ook op de kennis en de innovatieve kracht van de leverancier doormiddel van functioneel aanbesteden.

Het veranderen van de inkoopstrategie is allereerst de verantwoordelijkheid van de inkoopafdeling zelf, de afdelingen moeten wel geïnformeerd worden over deze mogelijkheden. De werkgroep duurzaam inkopen van NEVI Zorg en MPZ zou een belangrijke rol in voorlichting en informatieverbreiding van inkoopstrategieën kunnen spelen.

Abstract

Background

There is currently not much attention for sustainable procurement in the hospital industry compared to other markets. Procurement counts for a large portion of the total budget of hospitals, and contributes thereby to a large part of the environmental and social burden caused by healthcare. In addition the Dutch healthcare industry faces large challenges in the coming years; budget cuts, personnel shortages and an aging society are problems wherefore a solution should be found. Sustainability may give insights in answering these complex problems.

Objective

This study aimed to evaluate sustainable procurement in hospitals working on sustainable procurement, the establishment of commitment, implementation in the organization and in the procurement process. In addition measures to stimulate sustainable procurement in care are evaluated.

Methods

The data in this study were collected by semi-structured interviews with employees of hospital organizations involved in sustainable procurement and organizations that can influence sustainable procurement at hospital organizations.

Results and conclusion

The results of this study show that the establishment of commitment within the evaluated hospitals is created from within the organisations itself, and is based on enthusiasm of individual employees who stimulate sustainable procurement. According to the underlying study, other stakeholders have currently a minor role in stimulation of sustainable procurement.

Commitment at different organisational layers is an important success factor in the implementation of sustainable procurement in hospital organisation. Moreover, creation of a hospital wide procurement policy is an important success factor as well.

The evaluated organisations use the selection criteria from Agentschap NL in selection of sustainable products. None of the evaluated organisations uses specific control mechanisms to evaluate the sustainable performance of suppliers. The Erasmus MC has started a procurement process where they try to use the creativity and innovative power of suppliers in the procurement of strategic products of the procurement volume.

To effectively stimulate sustainable procurement in healthcare, measures at different levels are needed. Te sustainable procurement initiatives should be supported by the organisation. The hospital organisations should be supported on national level to secure sustainability in the organisation, and in the procurement policy.

Abbreviations

AA	AccountAbility
Actal	Adviescollege toetsing administratieve lasten, Dutch Advisory Board on Administrative Burdens
AWBZ	Algemene Wet Bijzondere Ziektekosten, General law on exceptional medical expenses
CPO	Chief Procurement Officer
CSR	Corporate Social Responsibility
GPP	Green Public Procurement
GRI	The Global Reportage Initiative
IPP	Integration Product Policy
ISO	International Organisation for Standardization
MPZ	Milieu Platform Zorgsector, Environmental platform for healthcare
MVO Nederland	CSR platform The Netherlands
NAP	National Action Plans
NEVI	Nederlandse Vereniging voor Inkoopmanagement, Dutch organisation of procurement professionals
NEVI Zorg	Dutch organisation of procurement professionals in healthcare
NFU	Nederlandse Federatie van Universitair Medische Centra, Dutch Federation of University Medical Centers
NIGZ	Nationaal Instituut voor Gezondheidsbevordering en Ziektepreventie, Netherlands Institute for Health Promotion
NOS	Nederlandse Omroep Stichting, Dutch national broadcasting organization
NVZ	Nederlandse Vereniging van Ziekenhuizen, Dutch Hospitals Association
OECD	Organisation for Economic Co-operation and Development
OLVG	Onze Lieve Vrouwe Gasthuis, Dutch hospital organisation
RIVM	Rijksinstituut voor Volksgezondheid en Milieu, National Institute for Public Health and the Environment
RvA	Raad van Accreditatie, Board of accreditation
SAI	Social Accountability International
SMK	Stichting Milieukeur
TNO	Nederlandse Organisatie voor Toegepast-Natuurwetenschappelijk Onderzoek, Netherlands Organisation for Applied Scientific Research
TCO	Total Cost of Ownership
UMC	University Medical Centre
ZiP	Zorg innovatie Platform, Health innovation platform

1 Introduction

During the 2010 debate on the Ministry of Health budget, the Sap motion was approved. In this motion, the Ministry of Health was asked to make a plan of action regarding sustainability in healthcare, focused on energy reduction to reduce the costs of AWBZ (Algemene Wet Bijzondere Ziektekosten) institutes and hospitals. Besides this, sustainability is an integrated approach for evaluation of the complete organisation and all of its activities. The procurement policy used in healthcare is an interesting subject to evaluate for possibilities on sustainable procurement and more efficient use of financial sources.

To give more attention to corporate social responsibility (CSR) in healthcare, a coalition of MVO Nederland, ZonMw, Nationaal Instituut voor Gezondheidsbevordering en Ziektepreventie (NIGZ) and Milieu Platform Zorgsector (MPZ) was formed on the 11th of November 2010 at the: 'Dag van de Duurzaamheid' organised by Urgenda. The four partners work together on the project starting from their own expertise and network and focusing on different aspects of CSR:

- NIGZ: employees/patient aspects of CSR
- MPZ: energy consumption and waste reduction, pollution reduction
- ZonMw: sustainable procurement in healthcare
- MVO Nederland: employees/patient aspects and communication of CSR

This joint project will lead to a combined report with best practices on the above mentioned subjects and aims to give more attention to sustainability in healthcare. In this report the focus will lay on sustainable procurement in healthcare. The procurement department of institutes in care and cure is responsible for a large proportion of the total health budget. The total costs of procurement in healthcare are estimated to be 30 milliard, covering at least 30% of the total budget in healthcare (Goemans 2008). With the current financial cuts in healthcare this department can become a target for budget savings, firing employees can be prevented with budget cuts on procurement. Next to this the money saved on procurement is directly available. Sustainable procurement can be used to save money by spending it more efficiently and as consequence works as investment in human and natural capital. Sustainable procurement covers all products in the product portfolio, from medical equipment to energy procurement. The Netherlands Organisation for Applied Scientific research (TNO) has calculated that AWBZ institutes can save structurally 80 million Euros per year and hospitals 20 million Euros per year by the introduction of relatively simple energy saving measures like energy saving lights. For these savings is a single investment impulse of 20 million Euros is necessary (TNO 2009).

Given the fact is that only 6% of the health institutes have a sustainable procurement objective in their corporate policy, compared to 48% of the educational institutes and 87% of the central government there is not much attention for CSR in healthcare compared industries (André de Meulder 2009). A workgroup of procurement professionals working in healthcare has tried to implement sustainable procurement in healthcare and give more attention to the subject, so far without real success. There is a need for a thorough study evaluating the bottlenecks and opportunities to implement sustainable procurement in healthcare.

This study aims to increase the focus on sustainable procurement in cure, by focusing on examples of sustainable procurement in hospitals. These cases will be combined in this report with practices of sustainable procurement. In addition the study intends to analyse how sustainable procurement can be promoted and implemented in health and gives advices to stimulate sustainable procurement in the future.

Problem statement:

The health sector in The Netherlands faces changes in the labour market, budget cuts and a call from society to reduce pollution. CSR can act as framework for an integrated vision on answering these problems and help resolving them. An important aspect of the application of CSR is sustainable procurement, because procurement is responsible for a large proportion of the budget in healthcare.

Objective:

This study will focus on sustainable procurement in healthcare with specific focus on hospitals. The study intends to evaluate and describe sustainable procurement initiatives in hospitals and evaluate the implementation process of sustainable procurement in hospital organisations. In addition this study aims to give an advice on further stimulation of sustainable procurement.

Central research question:

How are sustainable procurement initiatives organised in hospitals and what are opportunities for the future to stimulate sustainable procurement?

2 Theoretical background

In the theoretical background the definitions used in this study are explained. Next to this it will elaborate on the theoretical background of this study. The background will start with information about the healthcare sector in The Netherlands, some information about the background and definition of CSR, the use of the so-called Tipple Bottom Line in procurement and the pros and cons of CSR. Next to this, other sectors that have implemented sustainable procurement are evaluated and finally this theoretical background will focus on the incorporation of sustainable procurement in healthcare.

2.1 The healthcare sector

The healthcare sector in The Netherlands is responsible for 13% share on the labour market and thereby a substantial and large employer. Nevertheless there is a labour shortage expected in the future of the Dutch health-care market. The aging of the Dutch society has severe consequences for financing and cost control of healthcare. It is estimated that the number of people with the age of 65 and higher will grow from 2.5 now to 3.7 million in 2025. In addition the average age will increase (ZiP 2011). With the growth in number of people using healthcare the costs will increase as well. In additions the technological development causes pressure on the health budgets. These costs have to be paid by a decreasing labour market. The total costs of healthcare in The Netherlands are estimated on 62 milliard Euro in 2010 increasing to 74.2 milliard Euro in 2015 (NOS/RIVM 2010). The expected increase in healthcare costs and the increasing number of people using healthcare are a call for higher efficiency and cost reduction. It is estimated that 30 to 50 % of the total healthcare expenses of a hospital are spend by the procurement departments, which makes this department a target for cost reduction and efficiency improvement (Goemans 2008).

2.2 History and definition of CSR

The origin of CSR can be found in different cultural and religious traditions. CSR is in its essence thinking about the other and about the world surrounding us and not only about short-term profit. The first real attention for CSR was made by Howard Bowen in his book *Social Responsibilities of the Businessman* (Bowen 1953). There are many different definitions for CSR used nowadays, this can confuse the discussion about what CSR really is. Carroll describes in his model about CSR the different obligations businesses have. He describes economic responsibilities, legal responsibilities, ethical responsibilities and discretionary responsibilities. The economic responsibility is the first and foremost important aspect. This means a responsibility to produce goods, sell them, and make profit. Legal responsibility means acting according to the law. Ethical responsibilities consist of what is expected by society, next to the economic and legal responsibilities. Discretionary responsibilities/volitional responsibility and later called philanthropic responsibility cover the philanthropic activities of a business. (Carroll 1991; Carroll 1999)

The definition of Carroll is further developed and defined; others have proposed new models for the definition of CSR. Wood for example reviewed the CSR theory of Carroll and others and made an integrated framework based on structural principles. She describes as input the principle of social responsibility at institutional, organisational and individual level. As throughout the process of acting socially responsible at these three levels and as output the resulting outcome (Wood 1991; Wartick and Wood 1998). Nowadays several definitions of CSR exist but there is no definite definition, for an extensive review on CSR definitions see Moir (2001) and Wood (2010).

The reason why businesses adopted CSR is described by Matten and Moon. They divide CSR in explicit and implicit CSR. The major difference between these two subgroups can be seen in cultural differences and differences in origin of the European countries and the United States of America. Explicit CSR refers to corporate policies that lead companies to assume responsibility for some interests of society. Explicit CSR is voluntary and often driven by self-interest. The focus points for CSR are made-up by companies itself or by its stakeholders. Implicit CSR refers to a country's formal and informal institutions through which the corporations' responsibility for society's interests are agreed and assigned to corporations. Implicit CSR consists of values norms and rules resulting in mandatory requirements to regulate social political or economic issues wherefrom it is thought to be reasonable to obligate businesses. Explicit CSR is most dominant in the United states, implicit CSR is more an European approach although both explicit and implicit CSR are often present in a society. (Matten and Moon 2007)

During the 1970s social accounting became a more important aspect. Social and environmental accounting can be seen as a justification of the things a business has done in a year. For clarity, social accounting is not exactly the same as the definition used for CSR nowadays, because CSR incorporates social, ecological and economical aspects. It is often presented as a yearly report wherein a business describes the measures being taken. In the 1980s there was less interest and attention for social accounting, possibly caused by the economic depression. In the 1990s social accounting became a more important subject and several countries formalized CSR measures in legislation (Elkington 2004). Today many multinational companies like Shell, BP, McDonalds and The Body Shop present yearly annual reports about CSR. Social and environmental accounting is an important aspect of many modern multinational companies.

Also at governmental level CSR measures became more important. An important event in the development of sustainability was the publication of the Brundtland report in 1987 called 'our common future' by the United Nations World Commission on Environment and Development. The definition for sustainable development stated in this publication is: 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' this definition is later used by many others. Nowadays there is attention for green public procurement at European and national level, many governments in Europe have implemented CSR measures in their procurement process.

With the attention for social accounting in the 1990s the call for standardization in social accounting became louder. Nowadays the majority of the companies use a standardized reporting format. With the implementation of a standard uniform format for these reports, a comparison of different companies or different sectors is easier and more straightforward. The Global Reporting Initiative (GRI) aims to make a standardized approach to exchange and enclose sustainable information by the GRI Sustainability Reporting Framework. (Kolk 2004)

Next to the GRI, which is in essence a self-report, there are several norms and guidelines to describe CSR. These norms and guidelines can be used by institutes or businesses to show their commitment to CSR. Next to this, the norms and guidelines support the management to give rise to, monitor and control CSR measures. Some of the norms and guidelines are assessed by third party assessments which increase the credibility. Some well-known norms are:

- ISO 14001 helps organizations to control and minimize negative effects to the environment
- ISO 9001 describes quality management measures
- ISO 26000 provides guidelines for social responsibility
- AA 1000 standards for helping organisations become more accountable, responsible and sustainable developed by the non-profit organisation AccountAbility,
- SA 8000 is a standard for working conditions based on the UN Universal Declaration of Human Rights and the Convention on the Rights of the Child developed by Social Accountability International (SAI)
- OESO guidelines providing voluntary principles and standards for responsible business conduct for multinational corporations

In addition to the norms and guidelines several methods are developed to evaluate CSR developmental performance. Maon (2010) developed a seven stage model to evaluate CSR development (appendix B). The model is used to assess where organisations stand concerning sustainability. The seven-stage model builds on earlier work from others to assess CSR, and on stakeholders' theory (Maon, Lindgreen et al. 2010). Within the seven stages three cultural phases are defined: cultural reluctance, cultural grasp and cultural embedment. These cultural phases reflect the: moral, cultural, strategic, and organisational properties of an organisation. An organisation within the cultural reluctance phase ignores its environmental and social responsibility. Short time and self-interests thinking are key features of organisations in this phase. The cultural grasp phase is divided in three phases: self-protecting, compliance seeking, and capability seeking. This phase is characterized by an increase in recognition and progress toward CSR. The cultural embedment phase consists of three stages, caring strategizing and transforming. Key futures of this phase are the adoption and implementation of CSR within the organisation. The organisation is aware of CSR. Further details about the model, an overview and a description can be found in appendix B.

2.3 The triple bottom line and sustainable procurement

The triple bottom line is firstly described by John Elkington in his book 'Cannibals with forks: The triple bottom line' and often used to express the different aspects of CSR. The three dimensions of CSR are people, planet and profit. 'People' describe the social capital and covers social and ethical aspects of an organization. 'Planet' describes the human capital and involves the ecological and environmental aspects of CSR. 'Profit' covers the financial and economic aspects of CSR. These three aspects should be in balance to form a balanced entity of CSR (Elkington 1998). These three aspects of the triple bottom line can be incorporated in the procurement process. This is called sustainable procurement or green procurement. There are no fixed rules or definitions for the use of the term sustainable procurement. The Dutch government based their sustainable procurement policy on selection criteria. These criteria are based on environmental and social aspects, in the triple bottom line expressed as planet and people.

The definition MPZ uses to describe green procurement is:

“Sustainable procurement is the use of environmental and social aspects in all facets of the procurement process. This will lead to the supply of a product, service or labour that incorporates environmental and social aspects” (MPZ 2011).

This definition will be used during the study to explain what sustainable procurement means. Important is the use of sustainable procurement in all facets of the procurement process, this is an important aspect in this study. It should be locked in the complete organisation process and policy at strategic, tactical and operational level.

2.4 Pros and cons of CSR

Pros

There are several reasons why companies, non-governmental and public organizations implement a CSR policy. Important reasons why CSR measures are implemented are image building, efficiency improvement, societal responsibility, license to operate and pressure of stakeholders (Waard 2002; Kellerman 2006).

- Image building. An example of image building is Shell that worked hard on its image after the Brand Spar debacle and is nowadays one of the leaders in yearly CSR reporting. One should not forget that this organization has a large economic interest in the polluting oil industry. It is in their primary interest to have a 'green' image. The Body Shop is another example of a company that effectively builds and has built a green image.
- Efficiency improvement. By cost reduction and less use of resources the efficiency can be improved, other often used methods to improve efficiency are waste reduction and separation. Important is also the calculation of total cost of ownership, instead of only looking at the purchase price. All these measures may create more value and increase the (long term) profitability.
- Societal responsibility. Businesses adopt CSR measures to act socially responsible often done to build up license to operate or legitimacy. This aspect is based on the legitimacy theory. The theory assumes that in order to operate successfully a company or institute should act according to what the society identifies as socially acceptable. The legitimacy theory acts on two levels, the institutional level which describes the stakeholders that influence the legitimacy of a business, for example the government and the society. The other aspect, the organizational level describes the different phases wherein an organisation can be with regards to legitimacy. The different phases described are: establishing legitimacy, maintaining legitimacy, extending legitimacy and defending legitimacy. (O'Donovan 2002; Tilling 2004)
- Pressure of stakeholders, several stakeholders can influence the CSR policy of a business. Labour unions can influence the social aspects of CSR. The government and environmental groups focus more on the environmental improvements and have opportunities to influence environmental policies. Especially in explicit CSR businesses are susceptible to stakeholders pressure regarding to CSR because it is voluntarily and the results are self-driven (Matten and Moon 2007). An important theory related to this aspect is the stakeholder theory. This theory describes that a business should take into account their responsibilities to legitimate

stakeholders. The opposite of stakeholder theory is the shareholder theory which focuses on maximal profit for the shareholders. (Freeman 1984; Donaldson and Preston 1995)

These aspects are also important for healthcare, according to former minister Cramer reputation improvement could lead to economic value creation and together work as a synergetic rise in value. Organisations that have implemented CSR measures have less absenteeism and employees have more commitment to their organisation (Kellerman 2006; Opdam 2010).

Cons

To see CSR in a historical and political context, and understand more about the principles behind the theory it is important to evaluate the opponents of CSR. One of the biggest challengers of CSR is Milton Friedman, a highly influential economist of the 20th century and economic advisor of the American president Ronald Reagan. He has won the Nobel Prize for economics. In the book 'Capitalism of freedom' first published in 1962 he describes an American liberal and libertarian view on the economy and advocates the free market thinking. He argues that the only social responsibility of a business is making profit. Measures that increase social responsibility lead to bureaucracy, less profit and totalitarianism. He concludes that businesses are no physical persons and that only persons may and can choose to support charity. The businessman should act in the interest of his business and employees by making profit, in case of a hospital curing people (Friedman 1962). Another opponent of CSR is David Henderson former chief economist of the OECD. He has elaborated on the arguments of Friedman (Henderson 2001; Henderson 2005).

Both Friedman and Henderson have an extreme liberal political view and only highlight the economical profits of businesses. They do not see any potential social profits of CSR like increase in motivation of labour or improvement of working conditions. Next to this they ignore the possible financial advantages like increase in efficiency, cost reduction, image building and less use of natural resources due to the implementation of CSR.

2.5 Sustainable procurement in the public and commercial industry

The European commission has adopted in 2003 the document Communication on Integration Product Policy (IPP). This document describes the aim to encourage member states to greening their public procurement (European Commission 2003). In June 2010 twenty-one EU countries have implemented regulation or National Action Plans (NAPs) on Green Public Procurement (GPP), currently six countries are preparing NAPs on GPP (European Commission 2010).

The public sector in The Netherlands is a forerunner in GPP. The Dutch central government has the aim that with 100% of all procurements in 2010 CSR measures are incorporated. The provinces and higher education aimed to have 50% of its procurements green this year. The local government aims 75% green procurement this year and in 2015 100%.

Currently governmental CSR measures are a sensitive political subject. VVD and PVV criticized the CSR policy of the government and call for withdrawal of the current sustainable procurement policy. Their main critiques on the current policy are the lack of efficiency, the increase in cost and the administrative burden at supplying businesses.

Their critiques are a reaction on a report from KPMG which has been made on behalf of Adviescollege toetsing administratieve lasten (Actal) with the aim to analyse bottlenecks of the current policy (KPMG 2010). The KPMG report concluded that sustainable procurement reduces innovation, it is expensive and the benefits are low. Based on this report Actal advised the responsible minister to withdraw unnecessary regulation. Next to this the government should make clear to business within which timeframe they should act according to the regulation. The report was criticized by many stakeholders, mainly because it gives a false and extremely negative impression about sustainable procurement. VNO-NCW and MKB Nederland for example wanted to adapt the current regulation regarding sustainable procurement but stated that they want to stimulate their members to implement sustainable procurement measures (VNO-NCW and MKB Nederland 2011). The consultancy firm DHV criticized the report because Total Cost of Ownership (TCO) was not incorporated in the calculations (DHV 2011). Minister Atsma has asked VNO-NCW and MVO Nederland to advise the Dutch government regarding sustainable procurement in healthcare and come up with a new plan for sustainable procurement. The advice should be finished before the summer of 2011 (Blom 2011; MVO Nederland 2011).

Results, positive or negative, from other sectors can be useful to give examples about how to incorporate sustainable procurement in health. Therefore other sectors that have implemented CSR measures in their procurement process are consulted in this study.

In the commercial sector CSR is nowadays an important subject. Many multinational companies have a sustainable procurement policy and publish yearly reports on their progress regarding CSR. Although this is a hopeful development, critical assessment of CSR activities of commercial businesses remains important. Green washing should be kept in mind, companies that use CSR as a marketing strategy are described with this definition. Several studies have shown that companies use CSR reports to send messages to their stakeholders about their social and environmental activities and use it to boost their green image. (Frost and Wilmshurst 2000; O'Donovan 2002; KPMG 2008)

2.6 Implementation of sustainable procurement in healthcare

Reflecting on the fact that only 6% of the healthcare institutes have a sustainable procurement objective in their corporate policy a logic conclusion would be that sustainability and thereby sustainable procurement is not an important agenda point in healthcare (André de Meulder 2009). Several attempts have been made to evaluate how sustainable procurement can be promoted in healthcare. There are several reports of consultancy firms that evaluate the role and possibilities for implementation of CSR in healthcare (Waard 2002; MPZ 2006). In 2008 MPZ and the NEVI signed a covenant to form a workgroup on CSR and agreed on transferring knowledge and facilitation of sustainable procurement in healthcare. In addition NEVI has started an education program on green procurement (not specific for healthcare). On governmental level, there were plans to promote sustainable procurement in healthcare; with the end of the Balkenende 4 cabinet all governmental plans were cancelled.

An important aspect is the way sustainable procurement is implemented. Two dominant theories about implementation are top-down and bottom-up implementation (Sabatier 1986). The Dutch government has used a top-down approach by the implementation of sustainable procurement in their own governmental organisations. It might be important to evaluate which method is most successful in the specific healthcare setting. Each method has its own advantages and disadvantages. A top-down approach can be described as an authoritative decision on executive level which is executed at lower levels. Main critiques are the focus on legislation instead of practical objectives. Implementation is more than an administrative process, it requires support of lower levels and involves politics. Finally the top-down theory focuses mainly on the executive decision maker and ignores the knowledge of so-called street-level bureaucrats. Main critiques on the bottom-up approach are the overemphasizing of the autonomy at local level. Some authors highlight the normative critique that in a democratic system policy making is the task of elected representatives and not of street level bureaucrats. The term street level bureaucrats was coined for the first time by Micheal Lipsky and explained as the person who actually implements a policy to practice. Examples are social workers, police officers and others with direct contact to the public. (Matland 1995; O'Toole 2000)

Several authors have moved away from the traditional top-down or bottom-up approach and combined both implementation methods. Matland describes four implementation forms: experimental, administrative, political, and symbolic implementation based on ambiguity and conflict chance of the policy. (Elmore 1983; Matland 1995)

- Experimental implementation is characterized by high ambiguity and low conflict change, in this implementation model the outcome is mainly dependent on resources and stakeholders that have to execute the policy plans. Because the dependency on local stakeholders and the local situation the implementation will differ from place to place.
- Administrative implementation has a low ambiguity and conflict change, characteristic for this implementation form is the rational decision making process with clear goals that have to be achieved.
- Symbol politics has a high policy ambiguity and a high conflict change. It is associated with non-implementation but the outcome is really depending on the local situation and the strength of the local coalition.
- Political implementation has a low ambiguity and a high conflict change, the different parties have clear goals but they are incompatible with each other. The outcome of the conflict is based on power relations.

Based on the results of this study the discussion will further elaborate on the implementation of sustainable procurement in healthcare and conclude whether the top-down/bottom-up paradigms are useful in describing the implementation of sustainable procurement in the organisation.

There are several medical centres in The Netherlands who have implemented CSR measures in their procurement strategy. One of the frontrunners is the University Medical Centre Utrecht (UMC Utrecht) who has implemented sustainable procurement criteria in their procurement procedure. Focus points for them are sustainable procurement, green energy and sustainable building (UMC Utrecht 2011). The Martini hospital in Groningen is another example of a hospital that has implemented sustainable procurement measures in their operational management, sustainable building is a subject that receives much attention for this hospital. Next to this the hospital wants to reduce the energy consumption this year by 10% (Persbericht Martini Ziekenhuis 2011).

2.7 Implementation of sustainability in the procurement process

The procurement process in healthcare has been professionalized the last couple of years (Ruiter 2011). According to literature there are different distinct steps in the procurement process. The specification step aims to specify the properties of a product; product specifications can be technical or functional. Selection can be done on common sense, price, and comparison of price, delivery period, market research, risk analysis and total cost of ownership calculations. The next steps are contracting, ordering, controlling and evaluation (Weele 2008; de Meulder 2009)



Figure 1 Graphical representation of the procurement process (Weele 2008).

The CSR measures should be incorporated in the procurement process. First of all during the specification, the CSR specifications should be used as a selection criterion. For the non-medical products, product group specifications are developed by Agentschap NL. For medical products, product groups are defined but the specifications per product group are not yet developed, currently it is unclear who will do this. Next to this and based on the ambition of an organisation additional criteria, on for the organisation important fields, can be developed. Use of the triple bottom line principles can be supportive in this process.

Once the new procurement criteria are implemented, monitoring of the results is important; this should be part of the evaluation. Supplier assessments and audits can be useful at this stage. (de Meulder 2009)

2.8 Relation between theory and study

Given the described background information of this study three aspects regarding sustainable procurement are defined as important in studying the procurement process in hospitals. The creation of commitment to stimulate sustainable procurement is an initiative step in sustainable procurement. In literature two paradigms about the reasons why organisations pay attention to CSR are described. In this study, and as logic section of an organisation giving attention to CSR, the subject sustainable procurement will be analysed by the implicit/explicit CSR definition.

The implementation of sustainable procurement in the organisation is another important aspect, given the size and complexity of healthcare organisations. There are different theories about the implementation of new policies, the top-down/bottom-up approach and other theories are described in chapter 2.6. It would be interesting to evaluate whether there are decisions from the top of the organisation or from the bottom that initiate and influence sustainable procurement. If other mechanisms of implementation of sustainable procurement are recognized, the results and the corresponding literature will be described in the discussion of this report. In addition, after the description of the sustainable procurement initiatives described in this study, an analysis of the CSR development will be performed. The seven stage model of Maon et al. developed to evaluate CSR development will be used to analyse the different hospital organisations. In addition a conservative comparison of the sustainable procurement implementation will be made.

In addition to the implementation in the organisation sustainable procurement is something performed by the procurement department. As described in chapter 2.7, in literature the procurement process is

described as a six step pathway. The current sustainable procurement process will be evaluated and compared with theories from literature.

The stakeholders analyses was performed to analyse the complexity of the healthcare system and to evaluate the roles of different stakeholders. This element is coming back in the first part of the conceptual framework and the following research questions by the analysis of stakeholders that can influence the procurement policy of hospitals. The conceptual framework visualizes the concepts from theory used in this study and describes the study subjects.

3 Theoretical framework

3.1 Stakeholder analysis

In the stakeholder analysis all stakeholders, directly or indirectly involved in the implementation of sustainable procurement in hospitals are listed. The relations are schematically visualized in figure 2.

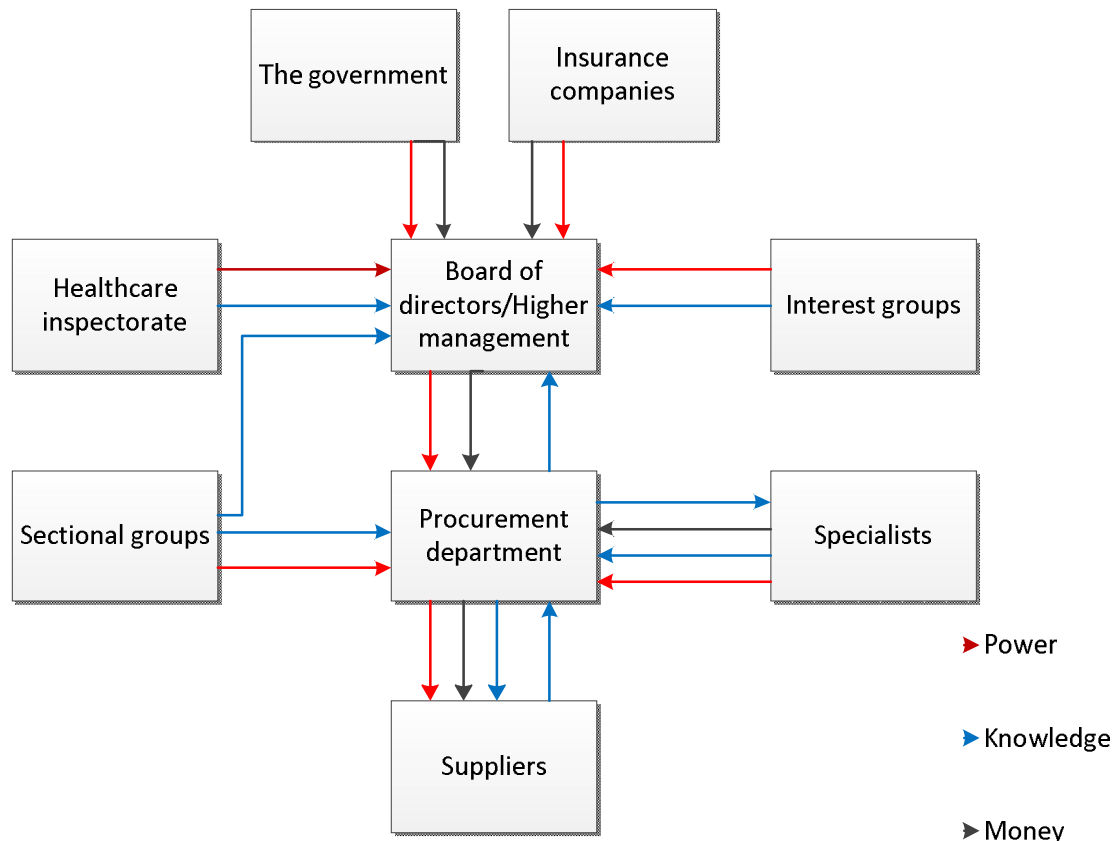


Figure 2 Schematic representation of the stakeholders involved in the implementation of sustainable procurement. The red arrow connections between the boxes visualize a power role, blue: knowledge and in black: money.

- The procurement department of hospitals: The procurement department of hospitals is responsible for the procurement of goods. Sometimes the department works as an independent entity within the organization but often is it part of the facility department. They form the connection between the hospital and the suppliers. Especially in the procurement process of medical apparatuses the procurement department is an important connection between the suppliers and the medical professionals. The specialists have the knowledge about the technical/medical background of a product and the procurement department has knowledge about contracting and price negotiations.
- Insurance companies: With the liberalization of the healthcare market the role of insurance companies changes and they may have more power to influence care and cure institutes by setting requirements for healthcare they buy in.
- Specialists: The specialists have a role in the procurement of medical devices and tools by participating procurement teams. Often the partnership of specialists has a role in deciding which application is bought. The procurement department negotiates about the price of a product. Specialists do not have a role in the procurement of non-medical products.
- Suppliers: The role of the suppliers in incorporation of CSR in the procurement process is to adapt to the new specifications. For the non-medical products specifications already exist because the government had implemented CSR in their own procurement strategy and created thereby a market demand. For these products no problems will arise in selecting and buying sustainable goods because many suppliers have adapted their products to the green specifications. This could be different for medical products. Suppliers can supply the procurement department with information about CSR measures in their procurement although this is of course driven by economic benefit.

- Interest groups: Possible interests groups who may try to stimulate CSR and sustainable procurement are the NGOs involved in environmental issues, human right groups, patient organisations and the work group on sustainable procurement in healthcare.
- Sectional groups: There is a sectional group of employees involved in procurement in health called NEVI Zorg. They organize congresses, provide education and represent the employees.
- The government: The role of the government in the implementation of CSR in healthcare is small. Only on the university hospitals the government has direct influence because they are semi-public institutes. The government has an important role in financing healthcare.
- Healthcare inspectorate (IGZ): Controls and evaluates the quality of healthcare, they do not have a role in the procurement process of non-medical products. They have an indirect role in the procurement of medical products by controlling the medical quality.
- Board of directors/Higher management: The board of directors in healthcare institutes can implement CSR measures in their corporate policy and thereby boost the implementation of CSR measures at lower levels.

The stakeholder analysis gives insight in the complex role of the procurement department and stakeholders that influence the departmental procurement policy. Although this analysis visualizes the power, money and knowledge roles, affecting the procurement department, clearance about the role in the creation of commitment for sustainable procurement in hospital organisations cannot be given. Especially because the exact roles of the different parties on stimulation of sustainable procurement is not clear and cannot be concluded from theory. Consequently based on the stakeholder analysis cannot be concluded which stakeholders can stimulate sustainable procurement and are willing to stimulate sustainable procurement.

Based on theory and the outcome of this stakeholder analysis the decision was made to incorporate an evaluation of the creation of commitment. To evaluate this complex aspect the study uses chain referral sampling. Hereby the study is drawing on the knowledge of the interviewees and the interviewees indicate which stakeholders are influential in adapting the procurement process.

3.2 Conceptual framework

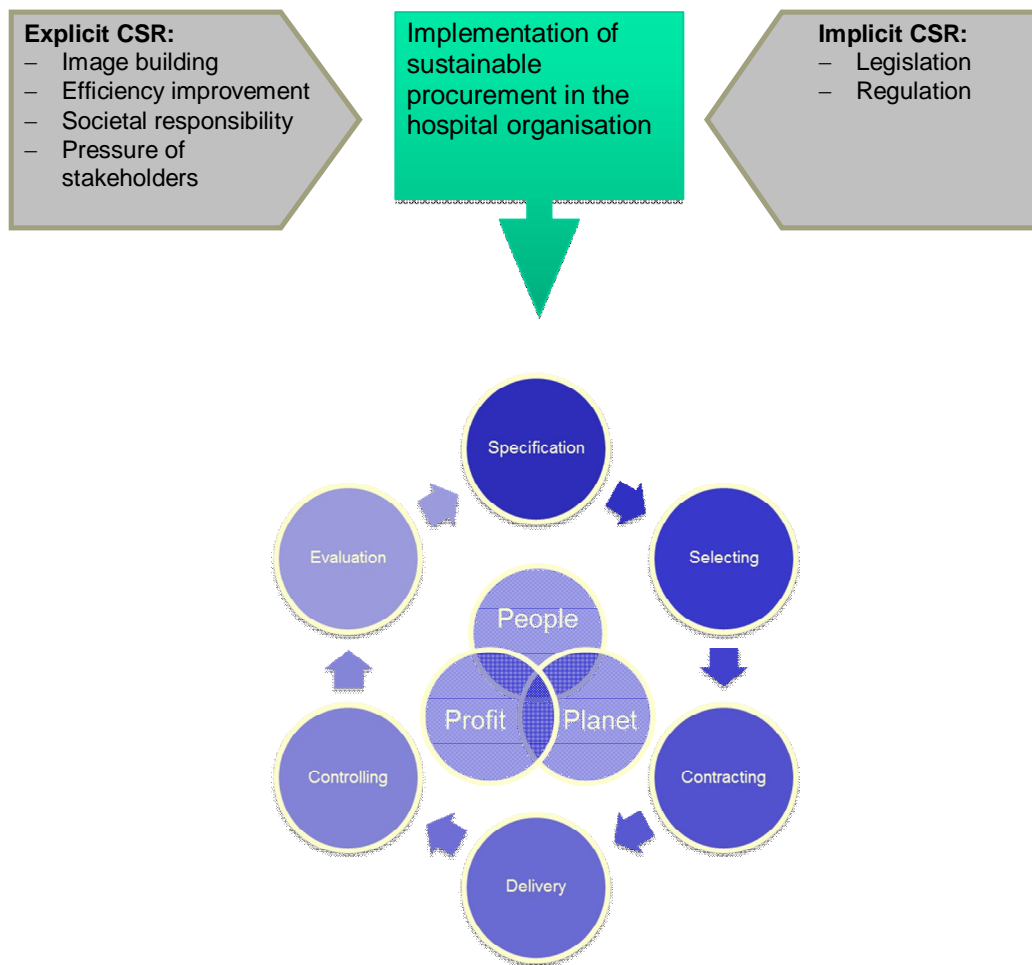


Figure 3 The Conceptual framework visualizing the theoretical concepts used in this study. The three colour variations elucidate the three central themes in this study: 1) grey the creation of commitment, 2) green the implementation on the organisation and 3) blue colour variations the implementation in the procurement process.

A visualization of the theory and the concepts used in this study is shown in figure 3. The starting point in the implementation of CSR in the procurement process is the reason that triggers healthcare institutes to give attention to sustainable procurement. These motives can be divided in explicit and implicit as based on the concepts of Matten and Moon. Implicit and explicit CSR are important to analyse because if only the implicit measures trigger healthcare institutes to implement CSR, commitment of other stakeholders like governments is necessary. This affects also the way CSR is implemented in the procurement process, formally with legislation or regulation or informally as loyalty and self-interest. Explicit CSR fulfils more a need of society, businesses want to commit on that need and identify itself with it to create legitimacy. (Matten and Moon 2007)

The next step is the implementation of a sustainable procurement in the organization. The different organisation levels can be specified on strategic, tactical and operational level. The following definition will be used for this subdivision: 1) strategic, board level, 2) tactic, mid-level, environmental coordinator/head procurement department, 3) operational, employees working on the procurement department. This study will evaluate the implementation of sustainable procurement in hospital organisations and the role of the different organisational layers. Traditionally, implementation is described by two paradigms regarding policy implementation theory; top-down and bottom-up implementation. Both implementation methods have their own advantages and disadvantages as explained in the theoretical background, besides this a combination of top-down and bottom-up implementation is also possible. The discussion will further elaborate on the implementation method of sustainable procurement.

The last step in this framework is the incorporation of sustainable procurement in the procurement process. The triple bottom line visualizes the incorporation of sustainability in the procurement process, for the non-medical products product specifications exist and are used by UMC Utrecht and other (UMC Utrecht 2011). Both during the tactical as well as in the operational process of procurement, sustainability is a point of attention. During the tactical procurement process the selection specifications are used to select the products that meet the set sustainability criteria. At the operational level suppliers should be evaluated by audits or other control methods to evaluate whether they comply with the selection criteria. (Weele 2008; de Meulder 2009)

The conceptual framework has a brought scope which was especially suitable for this inventorying study in evaluating sustainable procurement. Based on the conceptual framework the three main study subjects can be recognized: establishment of commitment for sustainable procurement, implementation of sustainable procurement in the hospital organisation and the implementation of sustainable procurement in the procurement process. The sub-research questions were based on these three study subjects and based on these sub-research interview questions were made, as can be derived from the interview question list.

As explained, the stakeholder analysis gives an overview of the influence of different stakeholders. Based on this analysis cannot be indicated which stakeholders influence and stimulate the implementation of sustainable procurement. Therefore, as indicated in chapter 3.1, the study uses chain referral sampling in the selection of interviewees.

4 Study Design

4.1 Objective

This study will focus on sustainable procurement in healthcare with specific focus on hospitals. The study intends to evaluate and describe examples of sustainable procurement in hospitals and evaluate the implementation process of sustainable procurement in hospital organisations. In addition this study aims to give an advice on further stimulation of sustainable procurement.

4.2 Central research question

How are sustainable procurement initiatives organised in hospitals and what are opportunities for the future to stimulate sustainable procurement?

4.3 Sub-research questions

This study aims to focus on three aspects of sustainable procurement: 1) the establishment of commitment for sustainable procurement, 2) the implementation of sustainable procurement in the hospital organisation and 3) the implementation of sustainable procurement in the procurement process.

Based on the conceptual framework the three study subjects were defined and sub-research questions were developed per aspect to answer the central research question.

1. The establishment of commitment for sustainable procurement. Sub questions are:
 - Which stakeholders have the possibilities and are willing to influence the procurement policy of hospitals?
 - Which explicit or implicit factors contribute to the establishment of commitment to sustainable procurement in hospitals?
2. Implementation of sustainable procurement in the hospital organisation. Sub questions are:
 - How is sustainable procurement organised in the internal policy and the different organisational levels of hospital organisations?
 - How important is commitment of the organisation at strategic, tactical and operational level to stimulate sustainable procurement?
3. The implementation of sustainable procurement in the procurement process. Sub questions are:
 - How is sustainable procurement implemented in the procurement process?

Based on this subject selection two groups of interviewees can be recognized:

- Interviews with informants at external stakeholders to answer part 1) the establishment of commitment.
- Interviews with informants at hospital organisations to describe the sustainable procurement initiatives, to evaluate part 1) the establishment of commitment, part 2) the implementation in the internal organisation, and part 3) the implementation of the sustainable procurement in the procurement process.

5 Methodology

The data collection in this study consisted of semi-structured interviews with relevant stakeholders in healthcare. Interviews with key informants were held and later expanded using snowball sampling. The interviews at the relevant stakeholders were used to describe and answer the questions posed in the conceptual framework. Within the interviews a selection was made in interviews at hospitals, to describe sustainable procurement initiatives, and interviews with stakeholders at organisations that can influence in the procurement policy of hospitals.

5.1 Interviewee selection

The selection of participants for the interviews was started with an interview with a key stakeholder at MPZ. The majority of the hospitals in The Netherlands are participating in MPZ. This organisation gives advice and develops knowledge on environmental questions related to healthcare. In addition, the organisation has a workgroup on sustainable procurement in healthcare which consists of professionals working in this field.

Our key informant was asked to give examples of health care organisations that are working or have worked on the subject sustainable procurement. In addition the key informant was asked to indicate organisations that have a possible role in influencing the procurement policy of hospitals. By using chain referral sampling, also called snowball sampling other hospitals and influential stakeholders involved in sustainable procurement were contacted (Biernacki and Waldorf 1981). Based on the type of organizations the key informant provided the decision was made to focus primarily on the hospital industry. In addition, this decision was also motivated by the limited available time for this study.

The potential participants were contacted by email or telephone and asked to participate in the study. 12 of the 15 persons that were approached, were complying with the selection criteria and were willing to participate in the study. One organisation was not complying with the selection criteria because there was no knowledge available about the subject. One person was not able to participate due to illness and lack of colleagues with adequate knowledge. There was one non-reaction. The male/female ratio was 8/7 (including two double interviews). The selection criteria for the interviews at the hospital organisations were that interviewees should be actively working in the field on sustainable procurement. In addition, they should have (practical) knowledge about the implementation or stimulation of sustainable procurement; this can be at operational, tactical or executive level. This was evaluated by asking the potential interviewees in advance if they were involved in sustainable procurement.

Besides this, a post hoc study was conducted, inspired by questions arising after conducting the primary study. The higher educational institute Hogeschool Leiden was used to exemplify how sustainable procurement is implemented in another semi-public industry. In addition, several interviews with experts and people from other industries were held to receive more knowledge about specific subjects in this study, and to compare the situation in healthcare with other industries. These were the interviews with the director of Transforum, and a partner of Atos Consulting.

The study aimed to conduct approximately ten interviews and used a broad scope to select interviewees at hospitals and other relevant organisations as posed in the study design. For a comprehensive list of interviewees see appendix A. The interviewees function and the interview objectives are described in table 1.

Organisation and function:	Primary aim of the interview:
Initial study:	
Milieuplatform Zorgsector, Director	Starting interview, evaluate the current situation and initiatives the organisation and others have taken. Collect contact data of sustainable procurement initiatives.
OLVG Amsterdam, President of NEVI Zorg/MPZ workgroup sustainable procurement in health, Environmental coordinator at OLVG Amsterdam	Evaluate and describe the sustainable procurement initiatives. Evaluate measures and tactics the workgroup has taken to stimulate sustainable procurement.
Government, Ministry of Infrastructure and the Environment (I&M), Director of the intergovernmental project on sustainable procurement	Evaluate the measures the government takes/has taken to stimulate sustainability in healthcare.
UMC Utrecht, Environmental coordinator	Evaluate and describe the sustainable procurement initiatives.
UMC Groningen, Employee at the procurement department responsible for the Food section	Evaluate and describe the sustainable procurement initiatives.
Nevi Zorg, Board member and responsible for sustainable procurement	Evaluate the measures the organisation takes/has taken to stimulate sustainability in healthcare.
Erasmus MC, Advisor environment, Procurement policy maker	Evaluate and describe the sustainable procurement initiatives.
De Friesland Zorgverzekeraar, Chairman of the board, Public relations officer	Evaluate the measures the organisation takes/has taken to stimulate sustainability in healthcare.
Post-hoc study:	
Atos Consultancy, Partner, Senior business consultant	Asses possibilities for cooperation on sustainable procurement.
Hogeschool Leiden, Head of the facility services department	Evaluate sustainable procurement in another industry and evaluate possible chances for healthcare.
Transforum, Director	Evaluate measures to implement sustainability in agriculture and evaluate whether the used innovation tactics can be implemented in healthcare as well.
Intrakoop, Consultant/product manager	Evaluate whether the organisation is involved in sustainable procurement and evaluate the organisation strategy regarding sustainable procurement.

Table 1 Interview overview ordered on interview date.

5.2 Interviews

The interviews were conducted at the interviewee's office if possible, otherwise telephone interviews were held. During the interviews the snowball sampling was used to contact other relevant stakeholders to continue the data collection process. For the interviews members of procurement departments, environmental coordinators of academic and generic hospitals were interviewed to cover all decision making levels of hospitals.

This study has used qualitative semi-structured interviews to collect data. The interviews consisted of different topics concerning sustainable procurement in healthcare. A loose interview design was developed based on key themes in the conceptual framework, research questions and relevant organisation specific questions. The interview design was adapted to the situational circumstances and only relevant questions were questioned.

The following list shows the general interview design, themes and questions addressed in the interviews at the hospital organisations:

- Introduction, explanation about the project.
- Current CSR policy in practice, examples of sustainable procurement:
 - What is this organisation doing on sustainability?
 - Does this organisation have sustainable procurement initiatives of sustainable procurement?
 - Why does this organisation pay attention to sustainable procurement?
- Commitment of the organisation to sustainable procurement:
 - How is attention for sustainable procurement created in this organisation?
 - Who were involved in the decision to implement sustainable procurement?
 - Is there a role for other organisations to stimulate sustainable procurement in hospitals?
- Implementation of sustainable procurement in the different organisational levels:
 - What is the role of the board of directors, the specialist and the procurement department?
 - Are you supported by the higher management in the introduction of sustainable procurement?
 - Are you supported by the operational personnel in the implementation of sustainable procurement?
 - What are/where counteracting factors in the implementation process?
- Implementation of sustainable procurement in the procurement process:
 - How is sustainable procurement implemented in the procurement process?
 - Do you use the selection criteria of Agentschap NL?
 - How do you handle with the medical products?
 - What is the role of medical specialist in the procurement of medical products?
- Expectations for the future of sustainable procurement in healthcare:
 - How do you see the future of sustainable procurement?
 - Does the recession have influence on sustainable procurement?
 - How can we give more attention to sustainable procurement in the future?
- Finishing questions, contact with other people, use of names and data, presentation of results:
 - Do you know contact persons at other organisations who are involved in sustainable procurement and who I can interview about this subject?
 - How do you want me to inform you about the results of this study?

The following list shows the general interview design, themes and questions addressed in the interviews with informants at organisations that have possibilities to influence the procurement policy of hospitals:

- Introduction, explanation about the project.
- What is the reason that the organisation wants to stimulate sustainable procurement:
 - Why does your organisation want to stimulate sustainable procurement?
 - Why is there attention for sustainable procurement?
- Role in stimulation of sustainable procurement:
 - Has your organisation possibilities to stimulate sustainable procurement?
 - How does your organisation stimulate sustainable procurement?
 - How can we create more commitment for sustainable procurement?
 - Is there a role for other organisations to stimulate sustainable procurement in hospitals?
- Implementation of sustainable procurement in the different organisational levels:
 - What is the role of the board of directors, the specialist and the procurement department in the implementation of sustainable procurement?
 - Is support of the higher management and the operational personnel in the introduction of sustainable procurement necessary?
- Implementation of sustainable procurement in the procurement process:
 - How can sustainable procurement be implemented in the procurement process?
 - Are the selection criteria of Agentschap NL useful?
 - How should a hospital handle with the medical products?
 - What is the role of medical specialist in the procurement of medical products?
- Expectations for the future of sustainable procurement in healthcare:
 - How do you see the future of sustainable procurement?

- Does the recession have influence on sustainable procurement?
 - How can we give more attention to sustainable procurement in the future?
- Finishing questions, contact with other people, use of names and data, presentation of results:
- Do know contact persons at other organisations who are involved in sustainable procurement and who I can interview about this subject?
 - How do you want me to inform you about the results of this study?

If the interviewee agreed with recording the interview, a small voice recorder was used to record the interview. Otherwise notes were made and later transcribed and summarized.

5.3 Analysis of the interview data and comparing the data with existing literature

The interviews were listened and verified by the interviewer and directly transcribed using Express Scribe Transcription Playback Software. Some of the interviews were summarized as indicated in appendix A. The additional data report 'Uitwerking van de interviews behorende bij het onderzoek naar duurzaam inkopen in de gezondheidszorg' shows all raw interview data. The sustainable procurement initiatives were described in the result section and analysed using the conceptual framework and research questions.

Furthermore the data of the interviews were compared and themes were identified based on the concepts in the conceptual framework and the resulting sub research questions. The interviews were colour coded based on the themes of the sub research questions as shown in table 2.

Code:	Description:
Who is willing and can influence the procurement policy	Which external and internal parties have the possibilities and are willing to influence the procurement policy of hospitals?
Creation of commitment	Which factors, explicit or implicit contribute to the establishment of commitment to sustainable procurement of hospitals?
Sustainability in policy	How is sustainable procurement organised in the internal policy and different organisational levels of hospital organisations?
Importance of commitment	How important is commitment of the organisation at strategic tactical and operational level to stimulate sustainable procurement?
Implementation in the procurement process	How is sustainable procurement implemented in the procurement process?

Table 2 Coding scheme demonstrates the codes and related research question.

The results were compared with knowledge from existing literature. The implementation process of the sustainable procurement initiatives were evaluated and reported in the result section.

Quotations used in the result section were translated from Dutch to English. The interviewees had the possibility to evaluate the data of their interview and were asked if they agreed with publication of their names and quotation of the interviews in this report.

6 Results

The results section consists of two parts; in the first part the hospital organisations are briefly described and compared with higher education. Subsequently in the second part the results on the three subjects of this study are described and the opinions of the different stakeholders are compared and evaluated.

6.1 Organisation description

6.1.2 UMC Utrecht

The UMC Utrecht has implemented sustainable procurement in the internal policy next to two other target points for sustainability: energy and sustainable building. In the environmental policy report developed in 2009, the hospital sets targets regarding sustainable procurement for the coming 5 years. In 2013, the hospital wants to purchase 50% of the non-medical equipment and products by using the sustainable procurement criteria made by Agentschap NL, a part of the Dutch government. For the other products, the hospital has developed its own list of general criteria for packaging and transport based on ISO 26000 guidelines. In addition they develop specific product criteria for medical products, because criteria for medical products do not exist. The hospital aims to purchase 50% of the medical products by using these criteria. Last year, and the first year wherein the hospital has used the sustainability criteria, in 20% of the purchases the sustainability criteria were used during the purchasing process.

The attention for sustainability came from the organisation itself. Within the organisation several employees were actively supporting and thinking about sustainable procurement before it became part of the hospital's policy. An environmental coordinator and somebody at the procurement department were both enthusiastic about the subject sustainable procurement. Their starting point was that sustainable procurement should be part of the normal working process at the procurement department. In the beginning the procedure was that at the moment a tender started the procurement department contacted the environmental coordinator who made selection criteria for the product. This method was used for some years but was not the best implementation of sustainable procurement because the hospital is a large organisation and they wanted to implement sustainability in more tenders and purchases and not only in a selected group. In addition, the procurement department should be responsible for sustainable procurement itself and at that point only a few persons working at the procurement department were enthusiastic about sustainable procurement. This changed due to a new cluster manager who was enthusiastic about sustainable procurement. At that point a vision document about sustainable procurement was made and approved by the board of directors of the hospital to create commitment from the top of the organisation. A new strategy to implement sustainable procurement in the procurement process was developed. It was the time wherein the criteria from the Dutch government were developed. The organisation decided to use these criteria as well and developed a short list for the products that are not covered by the criteria of Agentschap NL. All employees working at the procurement department received in-company training by NEVI on the day the hospital started with sustainable procurement two years ago. They trained them in using the selection criteria of Agentschap NL and created commitment under the employees.

6.1.2 UMC Groningen

The UMC Groningen focuses primary on the food section of the assortment. Their aim is to stimulate sustainable procurement in this part of the total procurement volume. For 2011 the hospital aims to offer 40% of the hospital restaurant assortment and 25% of the banqueting service by sustainable procurement. The interviewee stated that sustainable procurement is not a key policy point at the moment because the hospital has to save 25 million Euros, although it is part of the key project Healthy Aging of the hospital and university. This is a hospital wide project to stimulate research, education and practical application of knowledge about healthy aging. Besides this, the hospital aims to stimulate a healthy lifestyle under students and employees of the hospital by the program 'Balans'. The program offers sport activities, workshops on alcohol abuse and smoking. Also part of this program is the stimulation of eating healthy food. The restaurants in the hospital are offering a section of biological products and stimulate healthy food consumption by workshops, advice and other activities. The hospital aims to offer patients as well a sustainable meal in the future but this is currently not happening. Our interviewee stated that the complicating factor at the moment is the fixed

price compensation for patient meals. Sustainable meals are still more expensive than their regular equivalent.

Sustainable procurement is not an explicit part of the organisations policy plan and there is no official sustainable procurement policy. But the organisation has found ways to give attention to this subject by connecting it to important programs of the hospital without explicit approval of the board of directors. Our interviewee stated that the board of the hospital is currently not willing to implement sustainable procurement in the organisational policy because of 25 million Euros on savings.

6.1.3 Onze Lieve Vrouwen Gasthuis Amsterdam

The Onze Lieve Vrouwe Gasthuis (OLVG) in Amsterdam has taken several measures to incorporate sustainability values in their operational management. The hospital aims to receive the silver level of the 'Milieuthermometer Zorgsector' by the end of 2012 which is incorporated in the organisational policy plan (OLVG 2009). This is a scale with three levels: gold, silver, and bronze developed by MPZ and Stichting Milieukeur (SMK) to evaluate and grade the environmental burden of hospitals. The scale is accepted by the Raad van Accreditatie (RvA) who monitors the participating institutes. Parts of the silver level are criteria regarding the procurement of the hospitals. These criteria are: the purchaser has access to procurement criteria, there is attention for environmental factor during investments and tenders and there are environmental criteria incorporated in the standard procurement contracts. In addition suppliers are questioned on regular base to apply sustainable solutions and are selected on preferably a certified environmental management system (SMK 2010). Tangible results which the organisation has developed so far are a check list for the procurement department with aspects regarding sustainability of the product, the packaging, and suppliers of different product categories. In conclusion the OLVG hospital wants to give more attention to sustainability. Measures have been taken to reduce energy consumption by a new efficient heating system. By setting the aim to reach the silver level of the 'Milieuthermometer Zorgsector' the organisation has implemented sustainable procurement in the future internal policy. So far the organisation has no concrete plan on how to implement sustainable procurement, but it is working towards it and has set a goal for the future.

6.1.4 Erasmus MC

For the Erasmus MC hospital sustainability is an important agenda point. The hospital focuses on different aspects of sustainability and not only on sustainable procurement. Other important themes are building and the use of environmental resources like energy consumption. The hospital has started a hospital wide workgroup to combine the different aspects with regards to sustainability an important objective of this workgroups is connecting the different projects regarding building, use of resources, procurement and personnel policy.

Currently the hospital does not have an integrative policy regarding sustainability. There are several projects wherein sustainability is incorporated in the procurement process of the different departments. Because of the size of the organisation, an integrated procurement policy is essential in stimulation of sustainable procurement. The hospital is working together with TNO to evaluate on which aspects of the procurement portfolio they can receive most profit with regards to sustainability. TNO is calculating the CO2 footprint for the hospital based on this study, the procurement department evaluates which projects are most profitable in ways of reduction of environmental burden and which are suitable for implementation of sustainability.

Although the hospital is in a predevelopment stage with regards to sustainability there are some examples. The hospital uses energy and water from green resources since 2009.

Currently the hospital has no real sustainability policy although sustainability is part of the strategic policy plan for the coming years (Erasmus MC 2008). Currently the hospital is evaluating the different projects and based on these results the organisation wants to set targets for the future with regards to sustainability.

6.1.5 Hogeschool Leiden

The Hogeschool Leiden is actively working on sustainability. Sustainable procurement is standard used in the tendering procedures. In addition the organization has a project on waste reduction and stimulates separate collection of different waste streams by an awareness campaign among students and employees. The Hogeschool Leiden is using the criteria developed by Agentschap NL in the procurement process and the interviewee stated that the board of directors is actively stimulating sustainability and sustainable procurement. Not all internal customers, the departmental managers,

are aware of sustainable procurement; if they have a tender the procurement department clarifies the regulation regarding sustainable procurement. This does not give problems and some internal customers are willing to pay more for sustainable products. Cost price is never the only selection criteria in the procurement process at Hogeschool Leiden also service level and the cost/quality ratio is important.

6.1.6 Conclusion

In conclusion we see that there are some hospitals actively working on sustainable procurement, but this is a minority of the complete field of 145 hospital organisations (NVZ 2010). The great majority of the hospital organisations have no attention for sustainable procurement. As we can see within these organisations there is a large variety in the way sustainability is implemented, the scale of implementation and the commitment to sustainability. What all organisations have in common is the commitment of a small group of innovative employees who form an impellent force to stimulate sustainable procurement. In comparison, for Hogeschool Leiden, a higher education institute, belonging to another semi-public industry sustainable procurement is much easier. In this organisation there is commitment at different organisational layers and it is clear for everybody that sustainability is a standard aspect in the procurement process. The covenant the government signed with higher educational institutes has the advantage that all internal organisational layers are aware of the goal the organisation has set and thereby making sustainability a standard criterion in the procurement process.

6.2 The establishment of commitment for sustainable procurement

In this part of the result section the following questions will be answered:

- Which stakeholders have the possibilities and are willing to influence the procurement policy of hospitals?
- Which explicit or implicit factors contribute to the establishment of commitment to sustainable procurement in hospitals?

The role of the different stakeholders is described and evaluated for possible influence in the procurement policy of hospitals. In addition the question which explicit or implicit factors contribute to the commitment to sustainable procurement will be evaluated.

6.2.1 The role of the government

Interviewees from the OLVG and UMC Utrecht hospital stated that the government influences the stimulation of sustainable procurement. Especially the academic hospitals are influenced by the government because the higher education in The Netherlands aimed to have 50% of its procurements sustainable this year.

Also the pressure from outside is getting larger, the government has set targets and the UMC is a semi-governmental institute. It would not be strange if we worked on this already (Esther Willems, UMC Utrecht).

Before the fall of the cabinet in the autumn of 2010 there was money available to stimulate sustainable procurement in other sectors like healthcare:

The government wants to stimulate sustainable procurement but the question is how. During the Balkenende 4 cabinet it was the aim that other organisations like healthcare, the police and the fireguards would be covered under the program as well. There were modest resources available to introduce and implement sustainable procurement. Nowadays we do not have those resources any more. For example for the organisation of meetings, this cabinet does not make a choice regarding this subject and does not give any subsidies (Wiana Partakusuma, Ministry of Infrastructure and the Environment I&M).

Nowadays the stimulation program of sustainable procurement from the government has been minimized. This has implications for the role in stimulation of sustainable procurement as clarified by an interviewee:

At the moment we stimulate sustainability by information transfer, we give introductions if necessary, inspire and explain the use of the sustainability criteria (Wiana Partakusuma, Ministry of I&M).

Concluding, the government has currently a minor role in further stimulation of sustainable procurement. The last couple of years the Dutch government has stimulated sustainable procurement extensively in different industries by developing procurement criteria and setting targets regarding sustainable procurement, but due to the fall of the cabinet in 2010 all stimulation programs regarding sustainable procurement are set on hold, including the development of the product criteria for the medical product groups (appendix B). For the coming period the stimulation of sustainable procurement by the government is not expected. Implicit stimulation of sustainable procurement of the government by regulation and development of covenants with the industry is hereby not a direct option.

6.2.2 The role of health insurance companies

Other possible organisations that may influence the procurement policy of hospitals are the health insurance companies. There are several health insurance companies with a sustainability policy, for example De Friesland Zorgverzekeraar and Achmea. Several interviewees stated that insurance companies are interested in sustainable healthcare and may ask in the future for sustainable solutions in healthcare:

We see the first questions from Insurance companies appear, Menzis has indicated that sustainability is an issue for them. If they are calling then you have to do something with it, it is also a preparation for the things that are coming (Esther Willems, UMC Utrecht).

De Friesland Zorgverzekeraar is a health insurance company that is supporting and stimulating sustainability in healthcare. In an interview the director of De Friesland Zorgverzekeraar, Diana Monissen described the measures the organisation has taken to stimulate sustainable procurement. The organisation uses a segmented health procurement contract with four different scales: no partnership, basis partnership, facilitating partnership, and a strategic partnership. To reach a higher partnership level the healthcare provider has to take measures on quality, collaboration, organisation and knowledge sharing. For reaching the facilitating partnership level a healthcare provider should have a CSR policy. The healthcare provider on the other hand is rewarded financially, with PR possibilities, with facilitating advantages, and gain sharing by reaching a higher level. The organisation itself has taken several measures on sustainability, to be a good example of a sustainable organisation. Our interviewee stated that the government should have a role in stimulating sustainability and that it should be an important aspect on the political agenda. This does not mean that the government should give subsidies but obligate measures like what is happening in France with E-Health by digital patient dossiers and the development of a patient health smart card to authenticate patients. In addition our interviewee explained that healthcare organisations should make business cases with clear cost benefit analysis of their sustainable activities to show tangible results which can work as incentive for others.

In this study no other health insurance companies were interviewed. A quick internet search seemed to suggest that for the majority of the health insurance companies sustainability and CSR is more an internal project. The focus is mainly laying on the internal organisation and not on the customers of the healthcare providers.

6.2.3 The role of other stakeholders and pressure groups

There are several pressure groups calling for sustainable procurement. MPZ and NEVI are two stakeholders who have been involved in stimulation of sustainable procurement in healthcare by starting up a workgroup on sustainable procurement in healthcare.

MPZ has developed tools to evaluate and compare the environmental burden of care and cure. A key tool which they have developed is the 'Milieuthermometer Zorgsector'. Details about the 'Milieuthermometer Zorgsector' are explained earlier in this report in chapter 6.1.3. In addition the organisation aims to transfer knowledge of the members regarding environmental subjects like toxins, use of resources, and monitoring.

NEVI is an organisation representing purchasers in many different industries. The section NEVI Zorg is representing the purchasers in healthcare. Together with MPZ this section group formed a

workgroup on sustainable procurement in healthcare. The main task of the workgroup on sustainable procurement was described by an interviewee:

A number of tools were developed by the workgroup, one of the tools were the criteria regarding sustainability coupled as addition to the standard procurement conditions, they can be added to the standard procurement conditions. Besides this we made a website about sustainable procurement in healthcare. There are nearly no healthcare related sites about sustainability. On this website we place our actions. Agentschap NL has developed 43 product groups; none of them covers healthcare related products. We have created healthcare related product groups and subsequently wanted to create criteria for these groups. In total we have created 28 different product groups (Wil van Loon van de Laar, NEVI Zorg).

Currently the workgroup is not very active, they have done important work in agenda setting by purchasers within hospital organisations. Finding a connection with the board of directors is a complicating factor and the government does not support the development of product criteria for medical products (appendix B) any more what tempered the enthusiasm of the members of the workgroup.

6.2.4 Reasons for hospitals to pay attention to sustainable procurement

In the interview sessions the interviewees were asked why the organisation pays attention to sustainable procurement. There were several factors addressed in their answers. There were several reasons pointed out why organisations are willing to implement sustainable procurement:

There are several reasons; we are a model organisation as hospital. In addition, by sustainable procurement the environmental burden can be reduced. The director of the OLVG said once to me, working on the environment is working on healthcare. There is a connection, you cannot cure patients and at the same time they get ill at the moment they step outside. Also the pressure from outside is getting larger, the government has set targets and the UMC is a semi-governmental institute. It would not be strange if we worked on this already. It might also be a bit image building something we would like to show to the outside we are aware of the problem. These are the most important aspects (Esther Willems, UMC Utrecht).

This statement is in line with the official vision document of the UMC Utrecht wherein the hospital describes her intentions to stimulate sustainable procurement. In this document the hospital describes the following issues as reasons to work on sustainable procurement: connect to the governmental policy on sustainable procurement, serve as an example to others, a positive image, reduction of environmental and social burden, in some cases also cost reductions, and a contribution to innovation. (Utrecht 2009)

An interviewee at the OLVG hospital stated the following reason to stimulate sustainable procurement:

Because the hospital focuses on being leading and hospitable I brought sustainable procurement under attention as something leading. The 'Milieuthermometer Zorgsector' was a useful tool to give attention to sustainable procurement (Ellen Parma, OLVG).

The OLVG hospital has described the reason why they want to reach the silver level of the 'Milieuthermometer Zorgsector', and thereby implement sustainable procurement, in their strategic policy plan. Their reasons are reduction of environmental and social burden and being a leading organisation.

The Erasmus MC hospital explains on their website the reason why they want to stimulate sustainable procurement. These reasons are: being the best in class regarding sustainability, and sustainability is a social responsibility for an organisation that derives its 'legitimacy to act' from society.

6.2.5 Stimulation of sustainable procurement by the organisation itself

We see that different hospitals are not prioritizing sustainable procurement at the moment as can be concluded from the following quotes. For the UMC Groningen short-term money savings are currently important task for the procurement department. One interviewee from the UMC Utrecht stated that sustainability should come from the operational level of organisation itself before the board of directors

can stand for it. At the OLVG hospital there is a lack of interest for the subject sustainable procurement within the organisation at operational level. In conclusion organisations have different priorities and sustainable procurement is not on the top of the priority list.

We would like to see that the board of directors stands more for the subject; they are not going to place it in the newspaper. They do not want to enforce it, because they say it should come from the organisation itself (Esther Willems, UMC Utrecht).

It is a target point of the board of directors, but it is not number one because we have to save a lot of money. We have a target saving of 25 million Euros, which means you have to put all your energy in this project (Wilma Meijering, UMC Groningen).

A top-down implementation is necessary because within organisations there are only individuals working on sustainability. At this hospital there is not much attention for sustainability, but because this hospital focuses on being innovative and on hospitality I was able to bring it under the attention as an innovation. The 'Milieuthermometer Zorgsector' was herein a useful tool (Ellen Parma, OLVG).

Sustainability should for both the board of directors as well as the rest of the organisation be an important issue. Instead of number seven on the priority list it should be higher on the agenda. If they say we want to do something with it, more initiatives will arise from lower parts of the organisation, so I think it should come from two sides (Wilma Meijering, UMC Groningen).

6.2.6 Conclusion

- Which stakeholders have the possibilities and are willing to influence the procurement policy of hospitals?

Concluding there is currently no influential stakeholder that stands for the subject and explicitly forces the application of sustainable procurement in healthcare. The government does not want to stimulate sustainable procurement with stimulation of implicit measures and the role of health insurance companies in stimulating sustainable procurement is currently relatively small. At first sight only a minority of the organisations have a program to stimulate sustainability at the healthcare providers, if more health insurance companies give attention to this subject this may work as a stimulus for sustainable procurement.

Other stakeholders like NEVI Zorg and MPZ have a minor role in direct stimulation of sustainable procurement. They create attention for the subject and develop tools to implement and start with sustainable procurement in health organisations. They have an important role in creating support for sustainable procurement at operational level.

- Which explicit or implicit factors contribute to the establishment of commitment to sustainable procurement in hospitals?

Stimulus and explicit factors to implement sustainable procurement in hospital organisations are given by the interviewees. Only the UMC Utrecht and the Erasmus MC have formalised these reasons in an official policy report. Often heard reasons why organisations support sustainable procurement are reduction of environmental burden, and being leading. Nevertheless one of the interviewees stated that pressure from outside is also an important stimulus for promotion of sustainable procurement although after evaluation, only one organisation, De Friesland Zorgverzekeraar could be recognised as organisation that is stimulating sustainability in hospitals. Interesting was the observation that the OLVG, UMC Utrecht and Erasmus MC state that they want to be leading or create a positive image are reasons for hospital organisation to implement sustainable procurement. This suggests for an explicit stimulation of sustainable procurement.

Within the organisations itself we see a diffuse picture of stimulators of sustainable procurement. The stimulators are active on all organisational levels and if a connection of active people on different levels is made support can be given. Many of our interviewees stated that their organisations have currently different priorities than promoting sustainability. The most heard reason why organisations have no attention for sustainable procurement is the pressure on money savings and budget cuts. In

addition an argument often heard in hospital organisations is that sustainable procurement is more expensive than the procurement of non-sustainable goods.

6.3 Implementation of sustainable procurement in the hospital organisation

In this part of the result section the implementation of sustainable procurement in the hospital organisation is evaluated by answering the following sub-research questions:

- How is sustainable procurement organised in the internal policy and the different organisational levels of hospital organisations?
- How important is commitment of the organisation at strategic, tactical and operational level to stimulate sustainable procurement?

6.3.1 How is sustainable procurement organised in the internal policy and the different organisational levels of hospital organisations?

As can be derived from the explanation of the hospital organisations in chapter 6.2, there is no uniform organisation of sustainable procurement at the hospitals. One hospital, the UMC Utrecht has a real sustainability policy, at other organisations more informal structures, or small projects exist wherein sustainable procurement is promoted. Often creative ideas to stimulate sustainable procurement are used to promote the subject or implement it in the organisational process. The lack of uniformity may be caused due to the fact that sustainable procurement is at the moment not the standard in procurement. Table 3 shows the differences between the hospital organisations with regard to implementation and organisation of sustainable procurement.

There is currently no integration between the different subjects regarding sustainability. Sustainable procurement is often the responsibility of the procurement department and the environment care, clustered in the facility management, for example at the UMC Utrecht and the Erasmus MC. At the OLVG attention for sustainable procurement was created by the environmental coordinator. Nevertheless several interviewees emphasized the need for further integration with other subjects regarding sustainability like patient participations and the personnel policy. The integration of the different aspects regarding sustainability is an important characteristic of the people, planet and profit concept.

Within this organisation people are involved in many different activities. By many of those activities we did not think about sustainability in first sight, but they really fit in the subject sustainability. For example the organisations' personnel policy and the social sides of sustainability. We are currently evaluating how we can organise this integral and not only from the environmental perspective. For the environmental part it is all clear but the other aspects it is unclear for us how they give attention to the subject and how we can combine this (Esther Willems, UMC Utrecht).

There was a mission from the board of directors, we want to be a sustainable hospital and we want to be the best. At that point we evaluated what do we have, we saw that there was no policy and there were many fragmented projects. Everybody was doing something but you did not know if it was relevant. There was no integrated approach. There were many initiatives by different directors; we went along with the popularity of sustainability. We like popularity but think that we should connect the different projects. At the moment we are in a phase where we have a report in concept to start a sounding-board Group (Louis Lodder, Erasmus MC).

We want an umbrella policy regarding sustainability that covers different subjects like housing, property, personnel, and procurement. We have to communicate this to the different themes to bring it under the attention of the different sections of the organisation. This will be something very broad and it will take several years to make suggestions on all these subjects (Louis Lodder, Erasmus MC).

	UMC Utrecht:	OLVG Amsterdam:	UMC Groningen:	Erasmus MC:
Initiators of sustainable procurement.	Initiated at operational level, support found throughout the organisation at different levels.	Initiated at operational level and supported by the board.	Initiated at operational level, no explicit support of the board.	Initiated at board and operational level. Both are supporting sustainable procurement.
Sustainable procurement part of the standard procurement process.	Yes, the hospital aims 50% sustainable procurement in 2013.	No, only some small projects. In 2013 the hospital wants to apply sustainability in the procurement process.	No, only for a part of the food section.	No, only some small projects.
Organisation of sustainable procurement within the hospital organisation.	Sustainable procurement is the main responsibility of the procurement department. The criteria of Agentschap NL are used as selection criteria, for other products a general criteria list has been developed.	Currently not yet implemented in the organisation, only an aim in the policy report of the hospital.	No formal organisation structure, the responsibility for sustainable procurement is the task of individual enthusiastic employees.	Not (yet) a formal structure, but the board aims to stimulate sustainability. Currently the hospital is evaluating which aspects have the highest impact.
Sustainability secured in organisational policy?	Yes, the organisation has set targets regarding sustainable procurement. In 2013 the hospital wants to apply in 50% of the procurement procedures sustainability criteria.	Yes, the organisation has set future targets regarding sustainable procurement. The organisation aims to apply sustainability measures in the procurement process by 2013.	No, sustainability is not an official agenda point at board level and not a part of the organisational policy.	Yes, but currently no explicit targets set.
Integration of sustainable procurement with other subjects regarding sustainability?	Yes, with environmental subjects regarding energy, and building. The interview admits the need for more integration with non-environmental sides of sustainability.	No.	No.	Yes the hospital has started a workgroup with representatives of different departments to evaluate the current situation and select targets for sustainability.

Table 3 Comparison of the differences in organisation of sustainable procurement between the evaluated hospital organisations.

The position of the procurement department within the cure organisation is different compared with other industries. In many competitive businesses the CPO, Chief Procurement Officer, is part of the board of directors. This is different in healthcare where the procurement department has a more facilitating role and has often no direct connection to the board of directors. As concluded in the previous chapter commitment to sustainable procurement on the different organisational layers is essential for an organisation wide implementation of sustainable procurement.

There is tension between the procurement projects and the relation with the budget holder. The budget holder says we have to save money and sustainable procurement is said to be more expensive. There is also difference in what the boardroom wants and what the business is doing, they want the cheapest option. That is a problem for the procurement department but that comprises as well for housing and personnel (Johan Schepers, Erasmus MC).

In addition the financial sources of hospitals and the division in budgets of purchase and use of equipment affect the implementation of sustainable procurement. One of the interviewees explained this problem:

If the preconditions are not in line with the official policy of the board of directors nothing will happen. For example if we want to work on sustainable procurement but you finance the equipment from a different source as the materials you use to run the equipment this is not stimulating situation. Those preconditions should move in the right direction to make sustainable procurement possible. For example you can buy a cheap machine that is very expensive in use (Johan Schepers, Erasmus MC).

Concluding on this sub-research question we see many different ways of implementation of sustainable procurement. There is no golden standard in implementation of sustainable procurement in the hospital organisations. None of the hospitals that have implemented measures regarding sustainable procurement have incorporated measures relating to social sustainability within their policy. Sustainable procurement is often part of the environmental policy of a hospital and the stimulators are also involved in this field. Some of the interviewees signalized this aspect as well and noticed the advantages of incorporation of measures regarding personnel policy and patient treatment. An important observation was the existence of obstructing financial structures. The use and purchase of equipment is funded by different sources. This reduces the motivation to evaluate the costs of using equipment and only focuses on the purchase price. In stimulation of using total cost of ownership as tool to stimulate sustainability these financial structures should be adapted. As consequence a reduction in use of natural resources may be realised by energy saving.

6.3.2 How important is commitment of the organisation at strategic, tactical and operational level to stimulate sustainable procurement?

If we evaluate the successfulness of the sustainable procurement initiatives, an important issue arises, the commitment of the different parts of the organisation wherein approval of the board of directors (strategic level) is important. Without an explicit approval of the boardroom, the projects remain small and often cover only a part of the procurement volume for example the food section at UMC Groningen. Several interviewees underlined the importance of commitment of the board of directors:

If we talk about implementation and realisation a connection with the board is a success factor. Another important issue is that this makes it more inspiring. The procurement function was somewhat anonymous in this kind of organisations. It is different as in businesses where the CPO is sitting at the board table there is a connection to the board. Here we did not have such a structure (Wiana Partakusuma, Ministry of I&M).

Sustainability should for both the board of directors as well as the rest of the organisation be an important issue. Instead of number seven on the priority list it should be higher on the agenda. If they say we want to do something with it more initiatives will arise from lower parts of the organisation, so I think it should come from two sides (Wilma Meijering, UMC Groningen).

At our spring congress we have talked about sustainable procurement and therefore held a questionnaire about sustainable procurement. We have asked how the subject should be stimulated, top-down or bottom-up. We saw very clearly that it should come from two directions; it should be nourished by people who do something wholeheartedly. But it should be supported from the top as well. It does not have to be forced, but at least there should be commitment, you should not be counteracted. If it is part of the policy than it's nice and clear that something should be done because it is a policy vision, if not you shouldn't be counteracted because it isn't a policy vision. Both bottom-up as top-down are important (Wil van Loon van de Laar, NEVI Zorg).

During the starting phase of implementing sustainable procurement, commitment at operational level is important. The head of the procurement department and individual employees are important keys in showing the successful projects. Some of the interviewees elucidated the importance as operational division of an organisation to show the results to the executive layer to create support for sustainable procurement. In addition it remains important to integrate sustainable procurement within the organisational structure as an interviewee at UMC Utrecht explains.

With only bottom-up initiatives you can move forward but it will hamper at a certain moment. You need commitment from the top as well to make a project successful. This does not have to be very explicit but there has to be support. It is smart to start with bottom-up, nice projects. To show the results and communicate them throughout the organisation. In addition it is important to give it a place in the organisation, we have 10 000 employees and a decentred organisation structure with 18 divisions. It is complex to integrate it. You have to find a structure to make sustainable procurement a precondition. Small project works for a while but you have to secure it in the organisation (Esther Willems, UMC Utrecht).

The work field has to show where they are standing and demonstrate the results and dilemmas. At that moment it is possible to talk about it. At the board table is this the way of talking, the procurement department should do this as well. They are able to take the gauntlet; with a business case it should absolutely be more concrete. It is also important to set targets and be transparent especially in this field. Cheaper and money saving is for many people a trigger to implement sustainability. This is for example a good way to bring sustainability under the attention in the energy field. This is also important for people at home (Wiana Partakusuma, Ministry of I&M).

Several interviewees described the way sustainable procurement should be implemented and stimulated in a hospital organisation, is starting with a small project and communicate the results throughout the different levels of the organisation. Besides this the results should be transparent and clear presented with a clear cost/benefit analysis.

6.3.3 Conclusion

- How is sustainable procurement organised in the internal policy and the different organisational levels of hospital organisations?

We see that the organisations that have secured sustainable procurement in their internal policy process cover more areas of sustainable procurement, as exemplified by the UMC Utrecht. For making sustainable procurement part of the whole organisational process commitment of the board of directors is essential especially in larger organisations with many divisions. The sustainable procurement projects with the largest impact have support from different organisational layers including the board of directors.

- How important is commitment of the organisation at strategic, tactical and operational level to stimulate sustainable procurement?

The process of creation of commitment and finding people at different position in the organisation who want to stimulate sustainable procurement is essential for the implementation of sustainable procurement within an organisation. The sustainable procurement initiatives at Erasmus MC, UMC Groningen and UMC Utrecht show that the sustainable procurement initiatives often start with a small

project initiated on operational level with a section of the total procurement volume. This can be a useful way of starting with sustainable procurement. The implementation of sustainable procurement at the OLVG hospital was initiated at tactical level by the environmental coordinator. Nevertheless it remains important that the strategic level of the organisation approves with, or has at least attention for, implementation of sustainable procurement. Something what has happened at the Erasmus MC, OLVG and UMC Utrecht.

Another aspect regarding the implementation covers the way sustainable procurement is implemented. The traditional top-down or bottom-up theories are not useful in this subject. Mainly because there are no clear standardized success stories regarding the implementation of sustainable procurement by using a top-down or bottom-up strategy. We see different approaches in the implementation of sustainable procurement, influenced from the top as well as the bottom of the organisations. Concluding on this observation we can see that for the implementation of sustainable procurement measures on all organisational levels are necessary. In addition some hospitals evaluated in this study are much further in implementation of sustainable procurement and can thereby be identified as frontrunners.

6.4 The implementation of sustainable procurement in the procurement process

In this chapter the sub-research question 'How is sustainable procurement implemented in the procurement process?' will be described and compared with the literature.

The interviews at hospital organisations showed that the organisations that are actively working on sustainable procurement are using the product criteria from Agentschap NL in their procurement process of the non-medical products. The complicating factor is the selection of sustainable medical products, as explained in the introduction. There are product categories developed by Agentschap NL and the workgroup on sustainable procurement in healthcare but no selection criteria. Currently only one hospital, the UMC Utrecht uses sustainability criteria in the procurement of medical products. This hospital has developed a general list with criteria for the medical products.

6.4.1 How is sustainable procurement implemented in the procurement process?

An interviewee stated that the health sector should start with the easy markets wherefore the product criteria are already developed. This is a large proportion of the total procurement volume.

In a healthcare institute we have a lot of non-medical products. But the medical products, these products make it complicated. If you want to start with sustainable procurement you better start with the easy products. We made a general list of the medical products which we can use during the procurement process. This contains aspects regarding packaging, transport and ISO-20001. If we do a tender we evaluate whether there are criteria for the product, if not we use our own general list (Esther Willems, UMC Utrecht).

Other ways of implementation of sustainable procurement were opposed by the interviewees. One interviewee stated that criteria regarding sustainability should be integrated in the general procurement conditions of healthcare. This is an option although product specific criteria cannot be implemented in the standardized procurement conditions.

At the moment we have contacts with ActiZ about the procurement conditions. We aim to implement regulations regarding sustainability in the standard procurement conditions. The standard procurement conditions are probably changed in the near future because they are out-dated, within healthcare we hear that they are out-dated on the ICT and services field. Nor sustainability and procurement criteria are described, neither environmental criteria (Wil van Loon van de Laar, NEVI Zorg).

In addition several interviewees stated that the maturity of the procurement department is an important aspect in the incorporation of sustainable procurement. Berenschot has evaluated the maturity of the care and cure sector in The Netherlands and concluded that this is in many aspects at the same level as multinationals like Unilever and Shell, but not on sustainability. One interviewee stated this about the maturity of the procurement department/function:

I think if the procurement function would be more mature, sustainability would be standard weighed, just like service and quality. One time you will choose a product that fits all of your specifications. In another situation sustainability and quality is an issue, in other situations not at all. The maturity of the procurement function focuses for me mainly on the question whether I want a box mover or a strategic partner. With a strategic partnership, sustainability is a discussion point, with a mass product just a demand. That is the maturity of the procurement function, that you know when sustainability is an item. That you know: I do not have to talk about that because all of your suppliers meet the criteria, you do not ask for a car with four wheels. This is for me the maturity of procurement (Wil van Loon van de Laar, NEVI Zorg).

These interviewees stated that the procurement procedure should be adapted to the kind of product group. The most well-known and the standard in product group definitions were made by Kraljic in 1983. According to Kraljic there are different product groups wherefore group specific strategies should be used. The matrix he developed defines different product categories: noncritical items, leverage items, bottleneck items and strategic items which are divided on importance of purchase and complexity of the supply market. The procurement department has different roles in the procurement of products from the different groups which can be useful in sustainable procurement (Kraljic 1983). This method is called purchasing portfolio management. There are several authors who posed the use of this knowledge in sustainable procurement. Based on these different groups there are different roles of the procurement department as described in the table below (Kraljic 1983; van Tilburg 2007).

- The noncritical products are often routine purchases and cover products like office articles and have in general a low value. Sustainability is a demand and a knock-out criterion in the request for proposal.
- The leverage items can be sold by many vendors but are in opposition of the noncritical products valuable and have a large impact on the financials. Examples are bulk chemicals with a standard quality, for a hospital medicines are an example. Risk reduction by selecting vendors on management control systems like for example ISO 14001.
- Bottleneck products are products wherefore only one or a few suppliers deliver and that are essential for the business, they have a relatively low financial value. Sustainability is not the first priority.
- Strategic items are the highly valuable investment products, examples in a hospital situation are highly valuable medical equipment. Use dialogues and work together to stimulate the sustainability process.

For the non-critical products and some of the leverage items the use of selection criteria can be useful. For other products the use of product criteria can be a drawback. A method posed by several interviewees is to let the market develop sustainable solutions instead of setting criteria in the tender. The aim in this procedure is to avoid obstruction product criteria that hamper the creativity or innovative power of a supplier. Hereby letting the supplier decide what kind of solution it wants to develop or provide.

We often think we make a program with requirements, but if you ask for something that does a specific task for me you use the expertise of the supplier. So you do not ask for a car with a lot of requirements but for something you can use to go from A to B. With this method you can stimulate your supplier to innovate. At the moment we do not do this, but it is stimulated. At the beginning of the procurement process you have a certain degree of freedom, later this becomes less. Using the knowledge of your supplier can be an advantage. We have plans to do this, but often you have to do this together. Also your supplier should be ready for this (Wilma Meijering, UMC Groningen).

At the moment none of the hospitals used this method, but the Erasmus MC is preparing a tender where they are going to use this method for the procurement of 'something' that cleans beds.

One of the initiatives we have started with the procurement department is the tender for a bed washing machine. We would like to tender the process instead of buying a new machine. This is not common. In The Netherlands, this way of tendering has not been done before in healthcare. When we started this project, we asked the other UMC Hospitals if they had experiences with this way of tendering, none of them had done this before. We have made jokes about self-inflating beds or disposable beds. It can also become a service or a building nearby that takes care of the beds. We also thought about only cleaning the bedding and mattresses. We do not want to give these ideas to the suppliers, but let them think about solutions.

We have not been started yet but we are formulating currently the assessment criteria and thinking about how to assess sustainability. Possible selection criteria are use of toxins, material, and diversity of toxins, water consumption, and energy consumption. We do not know yet how this is going to end.

In Great Britain a hospital has been doing it this way, we are going to evaluate how they did that and if they were satisfied with the results. If it does not work this way and we fail to inspire the suppliers we will start a traditional tender. For us this is also a good opportunity to evaluate if this way of tendering is working, if it is working we could use it as well for the procurement of other products and services (Louis Lodder, Erasmus MC).

6.4.2 Conclusion

- How is sustainable procurement implemented in the procurement process?

Currently there is no standard way of sustainable procurement all evaluated hospitals, there are different approaches in implementation of sustainable procurement. The differences are most evident on the focus on one product group at the UMC Groningen, and the attempt of the UMC Utrecht to totally implement sustainability in the complete procurement assortment. The OLVG has not implemented sustainability in the procurement process so far and the Erasmus MC has different incoherent projects. There are also similarities; all organisations actively working on sustainable procurement use the product criteria of Agentschap NL.

For the future, the effective implementation of sustainable procurement requires knowledge of the market and about the positioning of the product in the market to use the right procurement strategy. The UMC Utrecht has used a straightforward method by using selection criteria. This covers a large proportion of the total procurement volume although the large medical hardware cannot be covered by using this method. For the procurement of this kind of apparatus other procurement procedures are required as exemplified by Erasmus MC. In addition by only using selection criteria, only a part of the total procurement volume will be sustainable. For a large part of the procurement volume other measures than selection criteria are required.

Despite the fact that one of our interviewees stated that a hospital should start with the easy market a lot of profit can be gained by focusing on the savings on natural resources like energy which the large investment products consume. For example in the Erasmus MC, the procurement of medical apparatus covers 25 to 30 million Euros of a total procurement budget of 180 million Euros, excluding medicines and blood products. There is even a chance that it is possible to save more money by reducing the use of natural resources like electricity. To stimulate attention for usage costs the organizational and financial structures of an organization should form a stimulating environment for sustainability as exemplified in chapter 6.3.1. The procurement of smaller goods like office equipment are single purchases and do not have any costs in usage, this may make it harder to make these sustainable goods also more profitable. But the advantage of these products is the availability of product criteria and the existence of a market demand because several public organisations are already using the criteria.

7 Discussion and conclusion

In this part of the study the results of the study are discussed and compared with literature. The strengths and weaknesses of the study are evaluated, the conclusion will be given and an advice with measures to stimulate sustainable procurement in healthcare is proposed.

7.1 Discussion of the results

7.1.1 The establishment of commitment for sustainable procurement

As concluded in the result section in chapter 6.2.1 the government is currently not willing to stimulate sustainable procurement by signing a covenant. This makes it complicated to stimulate sustainable procurement by implicit measures (for a definition and explanation of implicit/explicit CSR see chapter 2.2). Implicit CSR is driven by norms and values from society and resulting in the development of rules or regulations. If the government is not willing to stimulate sustainable procurement in hospitals, sustainability should be stimulated by explicit CSR.

Matten and Moon (2007) conclude that there is evidence for the introduction of the more 'American' explicit CRS in Europe. Based on different observations they conclude that explicit CSR is rising in Europe. The observations they made are: the growing popularity of CSR Europe, the growth of organisations that set standards regarding sustainability, and the growing interest of consultancy firms for the subject sustainability (Matten and Moon 2007).

A noticeable fact is the interest for sustainability and sustainable procurement in healthcare by the consultancy industry given by the different offers the researchers received to cooperate with them in this study. In addition the cooperating partners in this study; MPZ and NIGZ and MVO Nederland are also organisations advising healthcare organisations.

These observations may suggest an increase in interest in explicit stimulation of sustainability. It is interesting to evaluate whether the sustainable procurement initiatives in hospitals are stimulated by explicit CSR. The hospital organisations indicate that being leading and having a good image are reasons to give attention to sustainability. Although one should keep in mind that at the start of the sustainable procurement initiatives the political climate was more supportive for sustainable procurement. The changes in the political climate may have caused a move from implicit to a more explicit CSR approach.

Explicit CSR is mainly self-interest driven and a reaction on problems perceived by the business or by pressure of its stakeholders. So what are the benefits of more attention for sustainability and specifically sustainable procurement? For example, by incorporating measures regarding energy consumption in the procurement process the organisation can actually save money on procurement. In addition, it is contradictory if a healthcare organisation attempts to cure patients but at the same time pollutes the environment and does not take care of its own social responsibility. This aspect could be a normative pressure for hospital organisations from society to give more attention for sustainability.

Explicit CSR in healthcare and especially hospitals is also stimulated by coercive isomorphism, meaning that an organisation is influenced by other dependent stakeholders. This implies pressure from other organisations and the expectations of the society wherein the organisation is working. As concluded in the results the evaluated organisations are currently not forcing healthcare to become more sustainable. Nevertheless there are some promising initiatives to stimulate sustainability in healthcare by the health insurance industry. Another important stakeholder, not evaluated in this study, is the society at large. The reason for this was that the society is not a direct stakeholder involved in sustainable procurement. However the society has possibilities to force healthcare to become more sustainable.

In addition identification and highlighting of best practices regarding sustainable procurement can provoke a mimetic process among hospital organisations. This underlines the need for emphasizing organisations that are actively working on sustainable procurement at congresses and stimulation of other PR-activities in relevant networks. (DiMaggio and Powell 1983)

7.1.2 Implementation of sustainable procurement in the hospital organisation

The culture of the cure industry has large impact on the implementation of sustainable procurement in the hospital organisation. Therefore is it important to evaluate which cultural aspects cause a hampering in the implementation of sustainable procurement. In addition the way healthcare is organisation in The Netherlands has large impact as well. This is an aspect which influences the ability of an industry to adapt new innovations and paradigm changes in society regarding sustainability. In the results we saw that budget control is an important issue in healthcare. Many interviewees indicated that they have to save money; sustainable procurement has the name to be more expensive and is thereby not an interesting measure according to many people. It remains important to remove this label if possible because it is still obstructing the application of sustainable procurement in healthcare.

The costs of healthcare have increased the last decade and will increase in the coming years. Causes are the aging society (5-10%), increase in service volume (30%), and the increase in possibilities through medical technological research (50-60%). The problem is that our economy is not growing as fast as the cost of healthcare which causes problems with financing of the increases in healthcare costs (Thai, Wimberley et al. 2002).

The Dutch government wants to damper this increase in costs by the introduction of several measures. An important measure to keep control of the cost of healthcare was the reformation of the health insurance system and the current focus on competition in healthcare. The aims of these measures are to let the market organize healthcare. This would cause a lower price, higher quality and more patient satisfaction due to competition. The healthcare insurance companies select the healthcare provider who will give the best value for money. This seems an attractive method but has some undesirable results; there is a tension between cost reduction and stimulation of quality and making profit by the introduced market drive. By decreasing the margins on care through competition the healthcare provider receives an incentive to deliver more care with lower quality to keep its profit (Van Bottenburg, De Vries et al. 1999; Schnabel 2002; Schut 2003; Broerse and Bunders 2010).

These aspects regarding the financing of healthcare may cause a primary focus on cost reduction and not on quality of care and cure although the quality of healthcare is controlled by the healthcare inspectorate, the Zorgverzekeringswet/AWBZ, Wet Marktordening Gezondheidszorg, and the Wet Beroepsuitoefening Individuele Gezondheidszorg/Kwaliteitswet Zorginstellingen. A semi-public industry focusing on profit may lose sight on other aspects like personnel, environment, and patient. This may be part of the explanation why there is not much attention for sustainability and the primary focus is turnover. Although one could argue that sustainable procurement could possibly cause a cost reduction due to the 'expensive' image of sustainable procurement this is not introduced.

This could be the case as well in the commercial competitive industry but in my opinion healthcare is different, the primary aim for people to go to a hospital is to get cured, this was confirmed by several interviewees. At a commercial party one receives a product or a service, it is possible to compare and select the product fulfilling most of the customers' expectations. This is a complete different view on expectations, in a hospital one expects to get cured and from a commercial party getting a good product or service is the primary aim.

Another important result of this study was the finding that for a successful application of sustainable procurement support at different organisational levels is necessary. One of the reasons for this is the complexity and size of hospital organisations. As a result of commitment at different organisational levels a hospital wide policy regarding sustainable procurement can be made to make clear for all internal customers what the organisation expects from them. Important are the sub-cultural differences in organizations among different hierarchical levels. This has a large impact on sustainable procurement and on commitment for the subject (Cooke and Rousseau 1988). The cure sector is a traditional hierarchically organised industry which makes it more complicated for initiatives originated at the bottom of an organisation to grow throughout the organisation. Jan Rotmans described the dominant culture in hospitals as a powerful and strong healthcare regime, a doctor's culture and inward oriented. The procedures of healthcare are compliant/diagnosis oriented and have a technocratic nature. Paul Schnabel described the culture of hospitals as focussed on luxuriousness, the best of the best equipment and the highest quality and safety measures are standard nowadays. Symbolised by the allure of the public spaces in hospitals, he compares hospitals with airports. Everything is focussed on an atmosphere of quality. In addition he says that healthcare is much more

driven by spendthrift than the educational industry. (Schnabel 2002) This topic was underlined by an example of an interviewee, a managing professor at a hospital department changed all 300 chairs because he wanted another colour of the lining, this was all possible.

These aspects give the procurement department a complicated role, the management has to save money, the doctor wants to cure people with high quality equipment, and in addition the delivering industry wants to make a profit. This demands for a highly integer procurement department. Boonen and Oldhuis call for an independent procurement team with an independent procurement coordinator for large medical investments and a code of conduct describing two important things. All communication with the delivering stakeholders is only done by the procurement team and there is a behavioural code for all employees including doctors, describing for example that perverse incentives are prohibited and delivering information to suppliers is not allowed. In addition, suppliers have to sign this code of conduct as well. By this method a matrix is used to evaluate the different offers, and consists of the following for themes: 1) selection/allotment, 2) installation and delivery, 3) program with requirement, and 4) feelings about the product. Sustainability could be implemented as a standard control point of the procurement team besides the four other themes of the matrix and be part of the code of conduct (Boonen and Oldhuis 2011). The need for a code of conduct and the installation of procurement teams in hospitals is underlined by recent items in the news; the Dutch multinational company Philips dealing in large medical equipment is accused for bribery in Poland (NOS 2011).

As concluded in chapter 6.3.3 there are no concrete bottom-up/top-down success stories regarding the implementation of sustainable procurement. In addition interviewees indicate that for a successful implementation support of different organisational layers is essential, it is initially not something that can be or is pressurized from the top or from the bottom of an organisation. Therefore these theories are not suitable in this setting. Mattland (1995) uses another definition in distribution in of the policy implementation state as described in chapter 2.6. This distribution has similarities with transition theory. At the OLVG and the Erasmus MC the implementation is currently in the experimental stage. Sustainable procurement is therefore currently an experimental implementation. At the UMC Utrecht sustainable procurement is an administrative implementation that does not cause conflicts. At the UMC Groningen the implementation of sustainable procurement has both a political and a symbolic character.

To evaluate the possibilities for the future and compare the different organisations it might be better to see sustainable procurement as an innovation wherefore a transition of the system is needed, starting with the organisation itself. If we compare the current implementation and organisational process of sustainable procurement with transition theory we have to evaluate the current position in the transition from procurement to sustainable procurement. This theory developed by Brugge and Rotmans (2002) is especially suitable for complex societal dilemmas and developed for sustainability and governance to cope with persistent problems. Based on the large national problems healthcare faces and complexity in conflicting interests as described above, transition management is a useful frame to evaluate the problems and possible solutions.

The transition theory by Brugge and Rotmans describes four phases in a transitioning system: predevelopment, take-off, acceleration and stabilization. The stabilization phase is reached by a successful transition but other less desired pathways are also possible. Two mechanisms are influencing the transition: destabilization of the regime and up-scaling of the innovation. There are several pathways of failure described, the lock in means that the existing system remains next to the innovation. If there is no stabilization reached after the accelerating phase a backlash to the old system can occur. If there is chaotic situation and the innovation is not a desirable substitute, a system breakdown may occur. (Brugge and Rotmans 2007)

The current transition state of sustainable procurement differs between the hospital organisations but the majority is in the predevelopment/take-off stage and some are accelerating. The UMC Utrecht is using sustainable procurement for a portion of 50% from the total procurement volume and the UMC Groningen only for the food section; this could be a lock in situation. Other hospitals like the OLVG and the Erasmus MC are still in the predevelopment stage.

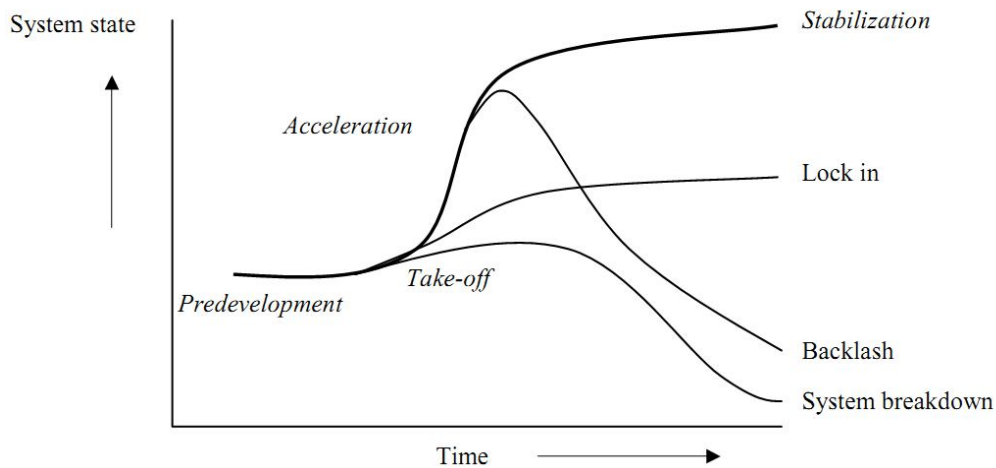


Figure 3 schematic representation of possible adaption of a complex societal system, the thick black shows the desired transition of sustainable procurement. Other, less desired pathways are the lock in, backlash and system breakdown. Picture derived from (Brugge and Rotmans 2007).

In addition the development at macro-, meso-, and micro-level should move to the same direction for a successful transition. This three level framework is called the multi-level framework and was aimed to understand technological innovation, it has been adapted and generalised (Geels 2002). The macro level describes factors like macro-economy, population dynamics, natural environment and politics. It is relatively stable and reacts slowly to trends but can react fast in case of a large calamity. The meso-level contains the regime, the rules and norms used in a certain field, in this study the hospital sector. The micro level contains the niche, this are the groups or individuals with new ideas and innovations. (Brugge and Rotmans 2007). A niche is described as a small group protected from direct influence of the outer world (Schot 1998). Besides this a niche provides possibilities to build a social network to support an innovation (Kemp, Rip et al. 2001).

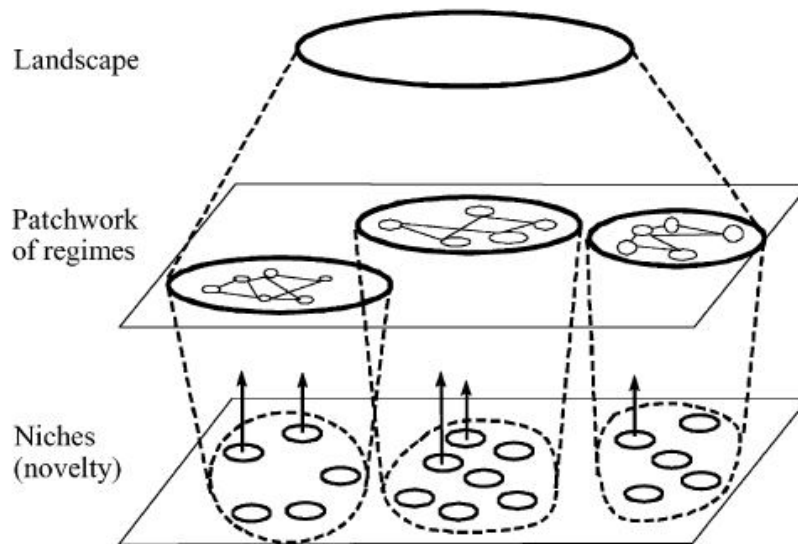


Figure 4 schematic representation of the multi-level development of transitions. Picture derived from (Geels 2002).

If we compare this theory with the current situation regarding sustainable procurement, several niches wherein organisations are experimenting with sustainable procurement can be recognized. The UMC Groningen is implementing sustainable procurement in the food section; the UMC Utrecht has started with sustainable procurement by some small projects and has broadened it to the whole hospital. The connection between the niche and macro-, and meso-level is an important success factor in the implementation process. In the hospitals where sustainable procurement is part of the current general policy, the regime is positive about sustainable procurement and thereby supporting the implementation process. In addition if there is more attention for sustainability at macro level the landscape should influence initiatives at meso- and micro-level. In this study several stakeholders at

macro-level were evaluated on their willingness and possibilities to stimulate sustainable procurement. As can be derived from the interview at a higher educational institute the government has a large role in influencing a semi-public sector in stimulation of sustainability and thereby stimulating sustainability from the macro-level on meso-level. Currently the government is not willing to support sustainable procurement in health actively, this makes the implementation process more complicated. An evaluation of the role of health care insurance companies revealed that De Friesland Zorgverzekeraar is taking measures to stimulate sustainable procurement in healthcare. At first glance other health insurance companies are more focussed on making their own business more sustainable and on good governance. As concluded in the result section, there are currently no stakeholders pressuring hospitals to pay attention to sustainability and sustainable procurement.

In this light an integration of sustainable procurement with other subjects regarding sustainability is an interesting possibility to stimulate sustainability. By creating hospital wide workgroups on sustainability the different niches within organisations can come together and strengthen each other in stimulation of sustainable procurement. This is especially important because of the low organisational position of procurement in the hierarchical structure of a hospital as shown in this study. By starting an integrated workgroup on sustainability, procurement can join in with other more appealing subjects. Different interviewees in this study stated that sustainability is a segregated subject, only one hospital, the Erasmus MC is currently working on an integrative workgroup on sustainability by combining different organisational functions in the workgroup. Interviewees at other hospitals admitted that an integrative approach would be a preference.

The organisations evaluated in this study are involved in CSR and sustainable procurement. It is interesting to evaluate the position regarding sustainable procurement on the seven stage model from Maon et al. as explained in chapter 2.2 (appendix C), to assess the current state of the healthcare industry with regards to sustainable procurement. The four hospital organisations evaluated in this study differ in the integration and adoption of sustainable procurement within the organisation but there is no real aversion against sustainability, most of the hospitals are in the cultural grasp phase. The UMC Groningen could be in the self-protecting stage, sustainable procurement is a small project coupled to a life style campaign, there is no real awareness in the organisation and the subject has no high priority on board level. The OLVG could be in the compliance seeking stage, the hospital has structured sustainability in a policy plan and has set targets for the future, there is some defence from the organisation but the higher management approved for implementation of sustainability measures in the policy plan for the coming years. The Erasmus MC could be placed in the compliance seeking phase or in the capability seeking phase. The board of directors is actively supporting sustainability initiatives, but there is not yet a real plan of action for many subjects regarding sustainability. There is awareness for sustainability; some people within the organisation see the advantages that can be gained with CSR, others see it more as avoiding troubles. The hospital is currently identifying profitable niches for CSR initiatives. The UMC Utrecht is the frontrunner of the evaluated hospitals with regards to sustainable procurement, and is the only organisation that has set targets concerning sustainable procurement. Thereby it can be categorized in the cultural embedment phase and the care stage. There is commitment for sustainability and knowledge about CSR, the organisation is aware of this knowledge. The organisation has implemented sustainable procurement throughout the complete organisation and is publicly reporting the results.

7.1.3 Implementation of sustainable procurement in the procurement process

The implementation of sustainability in the procurement process at the evaluated hospital organisations is mainly done by using the product criteria of Agentschap NL. The UMC Utrecht has made a general list for the products which are not covered by the product criteria list of Agentschap NL. Currently the evaluated organisations do not use other procurement methods regarding sustainability, as proposed in the result section the procurement strategy should be adapted to the product category. Figure 5 demonstrates the sustainable supply chain management matrix developed by Kraljic (1983) and adapted by van Tilburg (2007) for sustainable procurement. It elucidates the procurement strategy for the different product groups to incorporate sustainability measures.

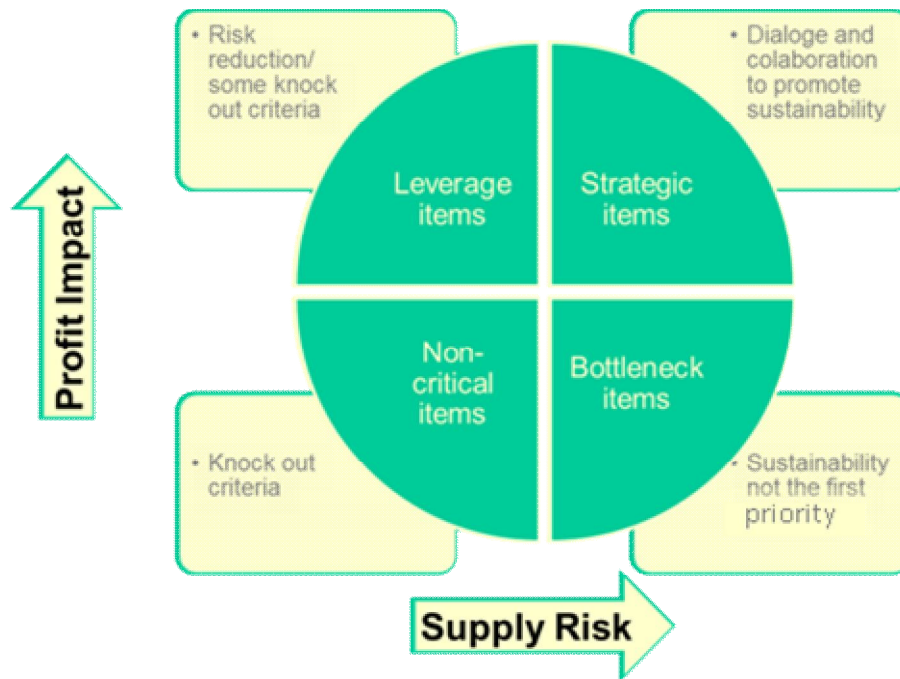


Figure 5 Schematic representation of the adaptation of the Kraljic matrix, based on van Tilburg 2007. (Kraljic 1983; van Tilburg 2007). The Y axis describes the financial influence of a product; the X axis describes the supply risk defined as the probability of loss occurring from unavailability of materials.

Table 3 describes the procurement process for the four different product groups in detail. In summary, for the non-critical products and for some of the leverage items, product criteria are a useful selection tool. For the strategic items, these criteria won't work and sustainability measures should take in cooperation and dialogue with the supplier, the procurement procedure the Erasmus MC uses can be useful. In addition, many of the large medical investments are covered in this category, as explained earlier in this discussion; sustainability should be a standard point of interest of the procurement team. For the bottleneck products sustainability is not the first priority.

	Specification	Selection	Contracting	Delivery	Controlling	Evaluation
Product type:						
Leverage items	Some knock-out-characteristics and some preferred criteria	Check knock-out-certification and weigh preferred criteria			Audits, evaluate certification	Warning
Strategic items	Name key issues, questions regarding handling them	Dialogue about dilemmas	Agree on joint appointment of issues		Audits and data review	Dialogue and collaboration
Non-critical items	Knock-out-characteristics	Check knock-out-certification		Check certification		Switch by non-compliance
Bottleneck items	Name issues, bring under attention	Risk assessment			Monitor handling of the issues	Dialogue

Table 3 The procurement strategy for the different product categories. Table based on: Kraljic (1983) and van Tilburg (2007).

The question whether sustainable procurement is more expensive than regular procurement cannot be answered with this study although several interviewees stated that the higher cost price is a reason for the organisation to ignore sustainable procurement in times of budget cuts. A study by PwC commissioned by the Dutch government has evaluated sustainable procurement at the organisations who signed a covenant on sustainable procurement. One of the questions posed was whether sustainable procurement is more expensive, 56% answered that sustainable products are more expensive, 30% stated that they are cheaper, and 22% answered that the extra costs are a reason to not buy a product. Unlike these results the respondents in the study by PricewaterhouseCoopers state that their experience is depending on the product category and that they often earn back the additional costs by other means (PwC 2009).

7.2 Limitations of the study and suggestions for further research

An important limitation is the absence of interviewees at care institutes and AWBZ financed healthcare in this study. Because of the limited time schedule of this study only the hospital industry was evaluated. It would be interesting to evaluate the complete healthcare industry in The Netherlands to see if there are other possibilities to implement sustainability in the care sector. One may expect that there are different obstacles obstructing the implementation of sustainable procurement in the care sector compared to the cure sector evaluated in this study. The organisational structure and task of organisations in the care sector is different than in hospitals. For giving an advice about the complete healthcare industry in The Netherlands this is an essential aspect that still has to be evaluated. In addition there are more university hospitals evaluated in this study than regular hospitals. It would be interesting to evaluate if university medical centres are more involved in sustainable procurement than other hospital organisations. And if so, it would be important to evaluate which factors are contributing to this difference; possible success factors may be found.

Important stakeholders not questioned in this study are the patients and the opinions of society. This group has potentially a lot of power in forcing the healthcare industry to become more sustainable, although there are currently no signs that patients are willing to force healthcare to become more sustainable. Nevertheless it would be interesting to evaluate the opinions regarding sustainable procurement in healthcare among patients and in society, and the possibilities this group has to stimulate sustainability in healthcare. This is also important in the question whether sustainable procurement is stimulated by explicit or implicit CSR. If there would be a need for sustainability from society it would be a logic response of hospitals to pay attention to sustainability, even without regulation or stimulating measures from the government.

The current study gives a brought base of the current state regarding sustainable procurement in healthcare. A suggestion for the future might be a more specific study focused on procurement. There is lack of information about sustainable procurement in healthcare, reflecting the fact that there is currently no literature available about sustainable procurement in healthcare. A follow-up study should also evaluate which product groups are suitable and profitable for sustainable procurement and should give a clear costs benefit analysis of sustainable procurement. This advice is based on the observation that the interviewed stakeholders could not specify the costs and benefits of sustainable procurement. In addition the procurement strategy for the different product groups especially the strategic products wherefore the development of criteria is impossible should be further evaluated.

7.3 Validity and generalisation

In the selection of organisations, selection bias may be introduced by selecting organisations that are actively working on sustainable procurement. The interviewees at these organisations are in general positive about the subject and willing to stimulate sustainable procurement, this may have caused a one-sided story regarding sustainable procurement. In addition for the selection of interviewees a key informant at MPZ was used. MPZ is an organisation that aims to stimulate environmental care in health. This starting point may have caused a bias in the group of interviewed people who are not representative for the whole hospital industry. The used sampling method, snowball sampling may have caused an interview round on a group of people that already know each other, and are interconnected in a way that may have introduced bias. For example people with shared ideals or visions on the world and on the procurement profession in hospitals. Notwithstanding this possibility, one should take in account that the group of procurement professionals working in hospitals is relatively small. At meetings of the sectional group NEVI Zorg the researcher attended, many people knew each other and were aware of issues and problems in other hospitals. This method was used to incorporate also the small projects, which probably would not be found by other selection methods.

The observer-expectancy effect may have introduced bias during the interviews and analysis of the interview results. Caused by an expectancy of the organisation by the interviewer, in terms of willingness to support sustainable procurement. On the other hand not only the interviewer is a cause of deviation of the truth, the interviewees may introduce response bias by giving answers the interviewer wanted to hear. To avoid these biases a standardized interview question list was used to give some direction to the semi-structured interviews. In addition the interviewer was aware of importance of avoiding suggestive questions and tried to evaluate what the organisations were actually doing and not only intend to do on sustainable procurement.

This study has evaluated hospital organisations involved in sustainable procurement, a drawback of this methodology is the lack of critical voices from organisations that are not willing to implement sustainability measures. Although it was not the aim of the study to evaluate unwilling people and organisations, by evaluating the reasons why organisations and people are not willing to implement sustainable procurement more understanding of the problem would be created. Nevertheless the used method has the advantage that studied organisations show the factors that contribute to implementation and application of sustainable procurement. These results are examples for other hospital organisations that want to implement measures regarding sustainable procurement.

7.4 Conclusion and advise

In this part of the study the central research question used in this study will be answered. The central research question used in this study was:

How are sustainable procurement initiatives organised in hospitals and what are opportunities for the future to stimulate sustainable procurement?

The first part of the research question is 'how is sustainable procurement structured in hospitals which are involved in sustainable procurement'. This part of the research question is divided in three distinct parts by the sub-research questions: the establishment of commitment for sustainable procurement, the implementation of sustainable procurement in the hospital organisation, and Implementation of sustainable procurement in the procurement process.

The commitment for sustainable procurement within the evaluated hospitals is not directly coming from outside the organisation. Although the government had attention for the subject in the past, currently there is no pressure and this stakeholder is therefore not a stimulus. Pressure groups like MPZ and NEVI have an important role in giving attention for the subject and creating knowledge. Within the evaluated organisations that have successfully implemented sustainable procurement are people working who stand for the subject and do not directly need an external stimulus to be involved in sustainable procurement, it is often more an ideological motivation. Pressure from outside may be important to involve people without intrinsic motivation for the subject and apply these measures as well in other hospital organisations. Therefore initiatives from healthcare insurance companies are hopeful initiatives and may possibly give more attention for the subject, not in the last place in society at large. If there is more pressure from society, politics and healthcare organisations may be forced to implement sustainability measures.

The successful implementation of sustainable procurement in hospital organisations is characterized by a hospital wide policy to apply sustainability measures in the procurement process. The structure, culture and size of hospital organisations stresses the need for an unambiguous policy to make clear to all internal customers that sustainable procurement is a social or public demand for an organisation. The evaluated organisations have shown that commitment at the different organisational layers is an essential success factor to make a hospital wide policy.

The implementation of sustainable procurement in the procurement process is characterized by the use of the product criteria from Agentschap NL. For the products not covered in these product criteria only the UMC Utrecht has found a way to assess sustainability by creating an own general procurement list. Especially on the procurement of large (medical) equipment many profit can be achieved in terms of sustainability. The evaluated organisations do not use control mechanisms to evaluate suppliers' performance on sustainability.

The second part of this study and the research question was to evaluate possible opportunities for the future to stimulate sustainable procurement. An important result of this study was the observation that for a successful transition the stakeholders on all organisational and societal levels should move in the same direction. This observation was confirmed by transition theory. To successfully implement sustainable procurement measures on all three levels, as mentioned earlier are needed. Advises to stimulate sustainable procurement are divided on macro-(governmental/national), meso-(organisational), and micro-(departmental) level:

Macro-level:

- Sign a covenant between the government and care institutes to stimulate sustainable procurement and set goals regarding the percentage of sustainable goods in the total procurement volume. As this study has shown in higher education, signing a covenant is an effective measure to inspire organisations in giving more attention to sustainability. An important advantage is the demands a covenant creates for the internal customers to pay attention to sustainable procurement. The hierarchic culture of healthcare, with other primary aims and divided responsibilities, in large organisations like hospitals demands for clear and tangible goals on this subject.

If the government does not want to sign a covenant with the hospital industry, what is expected at the moment, a covenant with several health market parties and stakeholders is an interesting alternative. For instance NEVI Zorg, MPZ and MVO Nederland together with health insurance companies, care recipients, and healthcare providers that want to work on sustainable procurement like the Erasmus MC and UMC Utrecht and the health insurance industry could sign a covenant.

The collaboration of ZonMw, MPZ, NIGZ and MVO Nederland should have a role in bringing the right persons of different organisations together. In addition the partnership should form a collaborative network to develop a covenant and could have a role in the negotiation process for this covenant.

- Develop product criteria for medical products. As seen by the extensive use of the product criteria developed by Agentschap NL in the hospital and others (semi) public industries, these criteria are a useful tool in selecting sustainable goods. The product criteria are especially useful in non-critical product categories with many vendors.

As long as the government does not want to stimulate the development of these selection criteria, the development is a primary task of the large hospital organisations working on sustainable procurement in cooperation with the delivering market. MPZ and NEVI Zorg can have a role in bringing the different organisations together and stimulate hereby the transfer of knowledge.

Meso-level:

- Start with an integrated workgroup about sustainability within the hospital organisation to combine the different aspects of sustainability regarding procurement, personnel and patient care. By creating hospital wide workgroups, support of different disciplines and organisational layers may be stimulated. The goal of these workgroups should be making a hospital wide policy regarding sustainability. By covering different aspects regarding sustainability, and not only sustainable procurement, commitment may be encouraged. Mainly because other subjects regarding sustainability may be more appealing for a hospital than sustainable procurement.

This is a primary responsibility of the hospital organisation itself. The partnership of ZonMw, MPZ, NIGZ and MVO Nederland has studied different subjects regarding sustainability; by combining these measures on different fields they can give a total advice to the hospital market about running a sustainable business.

- Start with independent procurement teams for the procurement of strategic medical investments and implement sustainability as a standard control point. Sustainable performance indicators are not standardized but product dependent and should be formulated per tender.

Parties involved in sustainable procurement like NEVI Zorg and MPZ should further elaborate on this subject and give attention to this subject on meetings and conferences. Procurement departments involved in sustainable procurement should bring this subject under the attention at other levels of their organisation and thereby stimulate the development of a hospital wide policy.

- Remove obstructing financial structures that hamper the implementation of sustainable procurement. This study has shown that purchase and use of equipment is financed from different sources, this removes the incentive to evaluate the total cost of purchase and use of apparatus.

To effectively implement this measure the financial system of a hospital should be changed, this is probably not easy to implement and further study on the consequences of this measure are needed. Nevertheless this is something that should be evaluated, the coalition of ZonMw, MPZ, NIGZ and MVO Nederland can give more attention for this subject throughout their own network and address the subjects at the Ministry of Healthcare and interest groups like NVZ and NFU.

Micro-level:

- Introduce sustainable procurement with small projects and communicate the results throughout the organisation and the board of directors. Sustainable procurement has the name to be expensive as shown in this study, disprove this preconception if possible by showing grounded profitable examples of sustainable procurement with clear cost/benefit calculations.

Employees working at procurement departments that want to stimulate sustainable procurement should show their results regarding sustainable procurement and also communicate this to administrative levels of the organisations. NEVI Zorg and MPZ have a role in communicating this strategy among their members.

- Do not only focus on the products wherefore selection criteria are developed but evaluate the most effective procurement strategy for the product that has to be purchased. Use new ways of procurement for product categories wherefore product criteria are not useful, hereby drawing on the knowledge and innovative power of the suppliers.

Adapting the procurement strategy is the primary responsibility of procurement departments itself. They should be informed about other strategies regarding sustainable procurement. The workgroup on sustainable procurement from NEVI Zorg and MPZ could have a role in stimulating and informing hospital organisations about procurement strategies for sustainable procurement.

The coalition of ZonMw, MPZ, NIGZ and MVO Nederland has especially a role in bringing different sustainability initiatives in healthcare together as well as bringing the subject sustainability under the attention of stakeholders in healthcare.

As concluded in the first part of this report there is not much attention for sustainability in healthcare, other industries are much further in development of sustainable strategies and concrete actions. It is time for healthcare to take care of social and environmental aspects, this is something one may expect from an industry that receives its legitimacy to act from curing people. Especially in light of the 'healthcare governance code' all stakeholders in healthcare have signed, more attention for societal problems and long term solutions may be expected. The future asks for innovation and creativity to solve the social and environmental problems we face, not only on procurement, but on all fields of healthcare.

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Appendices

A List of interviewees

Adriaan van Engelen
Director of Milieu Platform Zorgsector and Stichting Stimular
Interview date: 21st of February, 2011
Location: Office Milieu Platform Zorgsector, Rotterdam
Interview summarized

Ellen Parma
President of NEVI/MPZ workgroup Sustainable procurement in Health, Environmental coordinator at OLVG Amsterdam
Interview date: 1st of March, 2011
Location: OLVG Hospital, Amsterdam
Interview summarized

Wiana Partakusuma
Director of the intergovernmental project on sustainable procurement, Ministry of Infrastructure and the Environment (I&M)
Interview date: 3rd March, 2011
Location: Ministry of I&M, Den Haag
Interview fully transcribed

Esther E.F.A Willems
Environmental coordinator UMC Utrecht
Interview date: 15th of March, 2011
Location: UMC Utrecht
Interview fully transcribed

Wilma Meijering
Employee at the procurement department of UMC Groningen responsible for the Food section
Interview date: 24th of March, 2011
Location: UMC Groningen
Interview fully transcribed

Wil van Loon van de Laan
Board member of NEVI Zorg and responsible for sustainable procurement, director of the procurement department at WoonZorg Groep Vitalis
Interview date: 30th of March, 2011
Interview fully transcribed

Louis C.D. Lodder, Johan Schepers
Advisor environment at Erasmus Medical Centre, Procurement policy maker at Erasmus MC
Interview date: 19th of April, 2011
Location: Erasmus Medical Centre Rotterdam
Interview fully transcribed

Diana Monissen, Gerard Akkermans
Chairman of the Board at De Friesland Zorgverzekeraar, Public relations officer
Interview date: 24th of May, 2011
Location: Telephone interview
Interview summarized

André de Meulder, Hanneke Lankeveld
Partner, senior business consultant
Interview date: 9th of May, 2011
Location: ZonMw, Den Haag
Interview summarized

L.C. Kambier
Head of the facility services department at Hogeschool Leiden
Interview date: 13th of May, 2011
Location: HS Leiden, Leiden
Interview summarized

Henk van Latesteijn
Director of Transforum
Interview date: 25th of May, 2011
Location: Telephone interview
Interview summarized

Irving Lieveld
Consultant/product manager for Intrakoop
Interview date: 9th of June, 2011
Location: Intrakoop, Waardenburg
Interview summarized

B Product groups for medical products

Productgroepen

- toedieningssystemen
 - intra veneus
 - enteraal
- verbandmaterialen
 - gipsverband
 - standaard verband (gazen, pleisters, rekverband, etc.)
 - speciale wondverbanden (bevatten een actieve stof ter bevordering van de wondgenezing)
- afzuig- en drainagesystemen
 - redonsedraains, thoraxdrains voor wondvocht
 - afzuigsysteem voor maagsap of sputum
- urine afvoerende producten
 - urine katheters
 - urine zakken
- incontinentiemateriaal
 - luiers
 - matjes
- handschoenen
- injectiematerialen
 - spuit
 - toedieningsnaalden
 - opzuignaalden
- bloedafnamesystemen
 - afnamenaalden
 - bloedbuizen
- disposable afdek materiaal
- disposable operatiekleding
 - operatiejassen en isolatiejassen
 - mutsen
 - maskers
- disposable washandjes
- infuuszakken
- bloedzakken
- kunstnieren
- verpakkingsmaterialen voor specifiek ziekenhuis afval: euralcode 18.01.03*, 18.01.08*)
 - naaldencontainers
 - vaten
- vernevelsetjes (voor het toedienen van bronchiën verwijdende medicatie)

Developed by the workgroup on sustainable procurement. (MPZ 2011)

C CSR development model

CSR cultural Phase	Dimensions of CSR development														
	Knowledge and attitudinal dimensions					Strategic dimensions					Tactical and operational dimensions				
	Stage of CSR development	CSR view and prominence in organizational culture	Organizational sensitivity to CSR issues	Driver of CSR initiatives development	Support of top management	Social responsiveness	Rationale behind CSR initiatives	Performance objectives	Transparency and reporting	Stakeholders relationship	Resources commitment	Structuring of CSR initiatives	Coordination of CSR issues		
CSR CULTURAL RELUCTANCE	1. Dismissing	*Winning at any cost perspective/ None	Active opposition to CSR broader than financial benefits	None	Rejection	None	None	Black-box	Purely contractual	None	None	None	None		
CSR CULTURAL GRASP	2. Self-protecting	*Reputation & Philanthropy perspective/ CSR as marginal	Wind-up-dressing and/or lack of awareness or ignorance about CSR issues	Lack of CSR-orientation perceived as potentially harming business	Piecemeal involvement	Strong defence	Limitation of potentially harming and uncontrolled criticisms	Justifying posture	Punctual	Budget for problems as they occur	Activities	Public relations concern			
	3. Compliance-seeking	*Requirements perspective/ CSR as worthy of interest	Growing awareness of CSR-related troubles to be avoided	CSR perceived as a duty and an obligation – Focus on restricted requisites	Involvement in theory/ professed	Light defence/ reaction	Compliance objectives	Internal reporting/ Legal disclosure posture	Unilateral	Limited-minimal funding	Policies	Functional			
	4. Capability-seeking	*Stakeholder management perspective/ CSR as influential	Growing awareness of CSR-related advantages to be gained	CSR perceived as a duty and an obligation – Focus on confluent expectations	Fair involvement/ supportive	Accommodation/ response	License to operate	Internal reporting/ Selective disclosure posture	Interactive	Generally sufficient but inconstant funding	Plans of action	Multi-functional			
CSR CULTURAL EMBEDMENT	5. Caring	*Stakeholder dialogue perspective/ CSR as embodied	Knowledgeable CSR awareness	CSR perceived as important as such	Commitment	Adaptation	Competitive advantage	Public reporting posture	Reciprocal influence	Dependable funding	Programmes	Cross-functional			
	6. Strategizing	*Sustainability perspective/ CSR as prevailing	Leadership objectives on CSR-related issues	CSR perceived as inexorable direction to take	Sound commitment	Strategic proactivity	Value proposition	Certified reporting posture	Collaborative	Substantial funding	Systems	Organizational realignment			
	7. Transforming	*Change the game perspective/ CSR as ingrained	CSR as an internalized management ideology	CSR as the only alternative considering universal mutual interdependency	Devotion	Proactivity	Enlarged finality – Societal change	Fully transparent posture	Joint innovation	Open-ended funding and resource commitment as usual	Core integration – CSR as business as usual	Institutionalization			

The seven-stage CSR development model derived from Maon and Lindgreen et al. (2010).

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