ADDED VALUE

REAPING THE BENEFITS OF 3 YEARS OF THE GREEN DEAL ON CIRCULAR PROCUREMENT

GOVERNMENT AND BUSINESS WORLD:

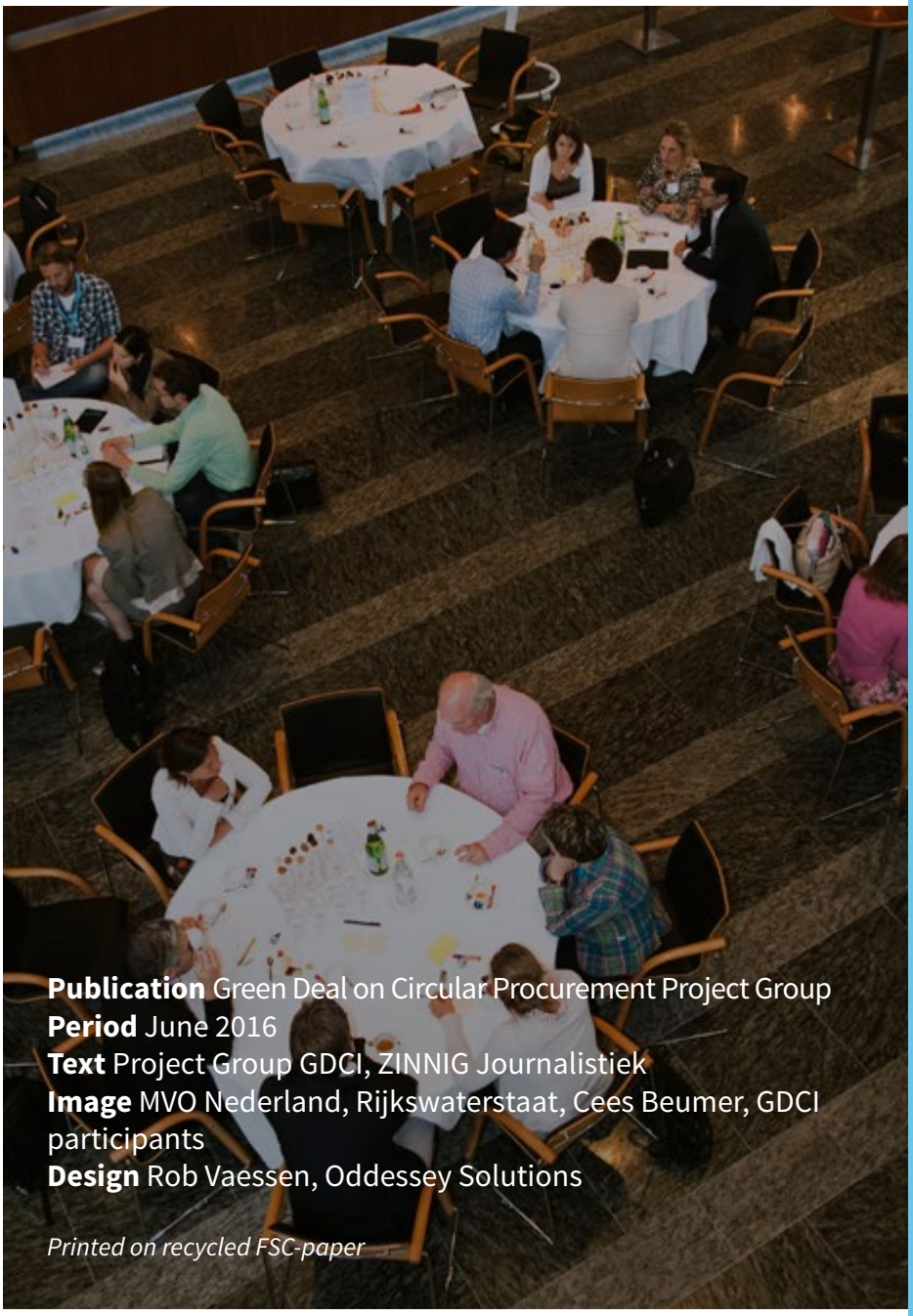
LESS DIFFERENT THAN YOU THINK

GDCI

UNIQUE COOPERATION BETWEEN A LARGE AND DIVERSE GROUP OF PARTICIPANTS

"FOR CIRCULAR PROCUREMENT YOU NEED COURAGE, POSITIVE ENERGY, LOBBYING AND PERSISTENCE, AND YOU ALSO JUST NEED TO START."

MAGAZINE GREEN DEAL CIRCULAR PROCUREMENT, JUNE 2017



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FOREWORD

More jobs, more innovation, more value for used materials. And better for the environment. We in government and the business community would like to capitalise on the opportunities offered by the circular economy. In the Green Deal on Circular Procurement, together with 45 public and private sector participants, we investigated how to use the procurement process to shape circular procurement within our own organisations.

After three years of the Green Deal on Circular Procurement we are now reflecting on a rich collection of circular procurement knowledge and experience, from almost 80 circular procurement projects. Everyone started circular procurement pilots within their own organisations, shared insights with others and integrated these experiences within their procurement policy. The convincing answer to the main Green Deal question was: yes, the procurement process does offer many options to put circular principles into practice.

The next issue is: can these pilots also be scaled up? If we were to make circular procurement mainstream, what would this involve? In the follow-up process we want to further deepen and expand our circular procurement knowledge. The challenge lies not only in the technical aspects, but particularly also in realising strategic change within the organisations.
The project group would like to take this opportunity to thank all 45 participants for their effort, openness and endeavours. Your commitment, knowledge and experience has enabled us to learn a lot about circular procurement; what works and how. And what - for now - doesn't work, because that's also good to know. We can be proud of the first steps that we've taken together.

You can read the achievements of these three years in this Green Deal on Circular Procurement publication,presented in the form of a magazine. We'll be reflecting on the partnerships and will share the most important insights.

Various factsheets about the participants and their pilots can be found via the www.gdci.nl website. And there's also the 'Circular Procurement Guide', a practical resource to help you get started straight away. Use it to your advantage.

PROJECTGROUP
GREEN DEAL CIRCULAR PROCUREMENT

Erik van Assen (NEVI)

Take Padding (PIANOo)

Michel Schuurman (CSR Netherlands)

Cas Arendonk (Kirkman Company)

Joan Prummel (Rijkswaterstaat*)

Cuno van Geet (Rijkswaterstaat*)

* Department of Waterways and Public Works

CIRCULAR PROCUREMENT DEMANDS ENTERPRISING BUYERS

"Going against the flow is the only way to get closer to the source." I have that slogan above my desk. I truly believe that this is the way to achieve sustainable change. And that applies to circular procurement too. It never happens with a 'big bang', it's almost always about taking many small steps towards the goal.

At Tilburg University we're conducting research with the Open University, NEVI and Groene Brein (Green Brain) into buyers' roles in the circular economy: how can circular business models be translated in the procurement strategy, procurement process and supplier relations? What skills do buyers need for this?

OUTSIDE THE BOX

Circular procurement demands enterprising buyers. 'Intrapreneurs': buyers who work proactively and accountably, and dare to think outside the box. They enter into discussions with suppliers to arrive at the right question and in order to assess a circular economy bid. That's asking a lot from buyers. Those who stick their necks out, can easily get sucked into the organisational 'quagmire', especially when traditional factors such as short-term savings are still primarily used for accountability. We need to support such buyers.

BREAK FROM CURRENT SYSTEM

We also investigated why Green Deal on Circular Procurement pilots worked or didn't work. Not all participants were successful in getting a pilot off the ground, not by a long way. And not through lack of commitment, but because of intractable problems in reality. Circular procurement falls within the 'wicked problems' category: issues with raw edges that cannot always be resolved according to 'ideal' models.

The circular economy involves nothing less than a break from the current system in a society still mainly designed in a linear way. Even those pilots that initially appeared to be easy faced some difficult issues: when is something circular, how far should we go in providing evidence? It is also logical that many pilots concerned secondary processes. This is where there is space to test new working methods before taking the step towards the primary process.

AT THE START

Building knowledge and experience together step-by-step: that is the core of the GDCI. Participants shared their experiences during the pilot project period in an open and constructive atmosphere. If one party didn't succeed, others did not criticise but rather helped them on their way. You could call this unique, in

Professor Bart Vos is NEVI Professor of Procurement Management at Tilburg School of Economics and Management (TiSEM). He is one of the project leaders of the national NWO and Groene Brein research programme into sustainable business models.

a world in which people are mercilessly 'held to account' when they deviate from the ideal. For me, what is particularly special about this cooperation is the fascinating group of participants; from small companies to large multinationals, universities and government agencies. It's a combination I could never have imagined in my wildest dreams.

As participants you should be really pleased. We already know so much more than we did three years ago, when the Green Deal started, and there are already many more organisations that see a future in circular procurement. Of course, there are still many unanswered questions. That's why we should all keep on going against the flow. That's the only way we'll get to the source.

1. GREEN DEAL ON CIRCULAR PROCUREMENT: A SPECIAL PARTNERSHIP

The Green Deal on Circular Procurement proved to be a golden opportunity to connect public and private parties. In just three years, the Green Deal on Circular Procurement has expanded to become a broad coalition from government, businesses, social organisations and knowledge institutes. Together we represent a tremendous potential for circular procurement.

The idea of joining forces and developing knowledge in the form of a 'Green Deal' arose in 2013 during the first Circular Economy Bootcamp; a pressure cooker for the circular economy. The question we considered was: how can we trigger a circular economy breakthrough using procurement as an instrument? The 'Green Deal on Circular Procurement' (hereafter: GDCI) was signed by 18 public and private parties on 12 November 2013 during the central government's Innovation Relay. In the end, the number of participants increased to 45 public and private parties.

BUILDING KNOWLEDGE TOGETHER

Within the GDCI we agreed to promote the circular economy with our procurement policies. We built knowledge about circular procurement in the form of pilots. We also integrated circular economy principles in our procurement policy. The knowledge collected was shared, including via the Circular Procurement Guide and our own database, Simplify. The Green Deal is facilitated by a project group comprising MVO Nederland (CSR Netherlands), NEVI, PIANOo, Ministry of the Interior and Kingdom Relations, Rijkswaterstaat, the European REBus/Life+ project and, until recently, also Kirkman Company and Coöperatie Circle Economy.

BROAD COALITION

'Green Deals' are contracts between Central government and other organisations, intended to stimulate sustainable innovations and remove potential barriers, such as restrictive legislation. Over 200 deals have been agreed since 2011, several of which are inspired by the circular economy. Because of its scale, the Green Deal on Circular Procurement could be called one of the most successful examples.

CREATE CRITICAL MASS

The broad cooperation within the GDCI has enabled us to create critical mass. With tens of billions in procurement volume, together the participants represent tremendous potential for circular procurement. We were able to build momentum by starting new pilot pro-

jects, scaling up ongoing initiatives and integrating circular procurement within the procurement organisation. And as all participants contributed different pilot procurement projects, we're now 'hauling in the catch' for a wide range of procurement categories. We are sharing the knowledge and experience gained both within as well as outside the group.

PUBLIC AND PRIVATE

What is unique about this cooperation is that both public and private parties are represented within the GDCI. Six municipalities and three provinces are participating in the GDCI, plus a number of procurement specialists from Central government. Multinational participants include Philips, Interface, Vanderlande and ABN Amro, as well as a considerable number of smaller companies. Government and the businesses community need each other in order to progress with circular procurement. This partnership has enabled us to learn from each other and gain insight into each other's interests.

REBUS

We can learn a lot from each other not only nationally but also internationally regarding circular procurement. Similarities in content and approach have led to Rijkswaterstaat linking the Green Deal on Circular Procurement to the European REBus project (Resource Efficient Business Models). This is a project in the framework of the EU LIFE+ programme, which is being implemented in the Netherlands and the United Kingdom. REBus is stimulating the exploration of new business models that contribute to a longer service life of materials. This is taking place in pilots through joint learning and knowledge-sharing.

EFFECTIVE

The GDCI's initial question has been answered convincingly: procurement does indeed appear to be an effective instrument to give concrete form to the circular economy within an organisation. Having a large number of different participants has enabled us to learn a lot, both together and individually. Circular procurement, how do you do that? And what does this require of buyers and the procurement process? It appeared that legislation, such as the Public Procurement Act is hardly a hindrance to circular procurement.

STRATEGIC CHANGE

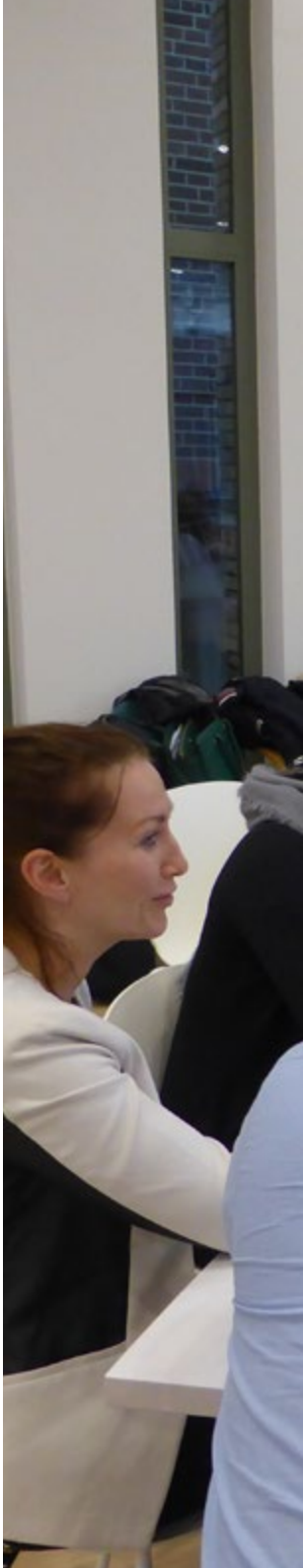
Procurement according to circular economy principles is new and therefore still takes more time than existing methods. Circular procurement is all about a totally new way of working and is not always in keeping with the often linear organisation of business processes in practice. More preparation is needed, if we want to incorporate guarantees for circularity. The pilots also showed that while the procurement process is important, it is certainly not the only link in the chain that can shape circular economy principles. Procurement is a facility process; and as well as being key to operations based on circular economy principles, it is also customer-driven.

The procurement customer/client exerts direct control on the procurement process and is certainly just as important.

TO BE CONTINUED

In the follow-up to the Green Deal we will be investigating how circular procurement can be scaled up to become mainstream. We would like to deepen our knowledge of circular procurement, as well as expand this with participants from other sectors and procurement categories. With the end goal of making circular procurement the standard.

This publication takes a brief look at the pilots during the three GDCI years and at participant experiences with circular procurement. If you would like to know more, factsheets will soon be available via the www.gdci.nl website.



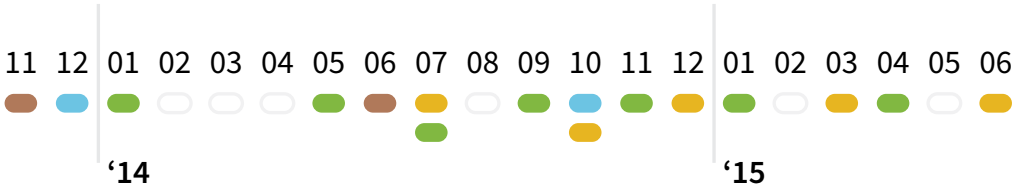
WHAT DID WE DO IN THE GREEN DEAL ON CIRCULAR PROCUREMENT OVER THE PAST THREE YEARS?

13

NOV NOV Signing of GDCI by 18 participating parties
DEC Launch of Circular Procurement Guide Version 1

14

JAN 1st Community of Practice (CoP) – Broad knowledge sharing
MAY 2nd CoP meeting – Zooming in on the pilot projects
JUN Start work on measuring impact of circular purchasing
JUL Market meeting Circulair Procurement of Company Clothing
3rd CoP Meeting – Business models
SEP 4th CoP Meeting – Knowledge management and sharing
OCT Start Circular Purchasing Training, NEVI and Kirkman Company
Market meeting Circular IT Hardware
NOV 5th CoP meeting – Support in the supply chain



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JAN 1st CoP meeting – Knowledge management via Simplify
MAR Market meeting Circular Procurement of Civil Engineering
APR 2nd CoP meeting – Support in our own organisation
JUN Market meeting Circular Procurement of Catering
SEP 3rd CoP meeting – Specifying and assessing
NOV 4th CoP meeting – Measureability and KPIs
DEC Market meeting Circular office furnishings

MARKET MEETINGS

Various market meetings were held between 2014-2016, allowing buyers and suppliers to discuss their requirements and possibilities. Market meetings were organised for various purchasing categories: workwear, catering, office furnishing, IT, civil engineering and street furniture.

PUBLICATIES EN ONLINE DOSSIERS

Reports of meetings and market consultations were shared among participants. Like the factsheets about the pilots, these can be accessed on the GDCI website (www.gdci.nl).

COMMUNITY OF PRACTICE MEETINGS

Four Community of Practice (CoP) meetings were organised annually during which all participants could share their experiences. Speakers shared their ideas of circular procurement and the implications of the new approach. In concrete terms, this raised such issues as: looking at ownership from a new angle, new business models, performance-based contracts, impact on the organisation's business procedures, required cultural transition, innovative forms of procurement, intensive dialogue between buyers and suppliers and the creation of mutual trust.

16

JAN Market meeting Circular Procurement of Street Furniture

FEB Launch of Circular Procurement Guide Version 2

MAR 1st CoP meeting – Simplify

APR PIANOo Work conference Circular Procurement

JUN 2nd CoP Meeting – Approach to knowledge management and sharing

SEP 3rd CoP meeting – Beyond the pilot

Start of Circular Procurement Academy for starting local governments Autumn Interviews participants

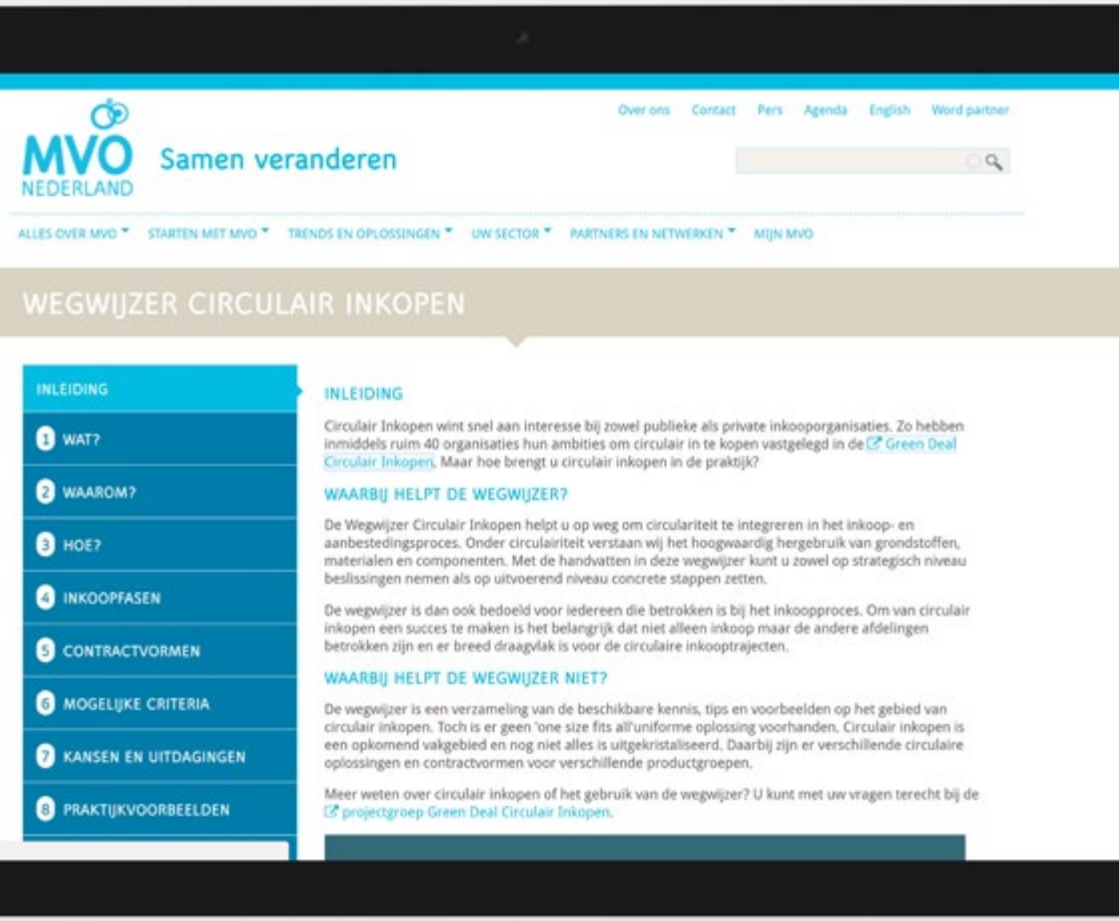
NOV 4th CoP meeting – 3 years along

Market meeting Circular office furnishings

DEC Publication of fact sheets and magazine

THE CIRCULAR PROCUREMENT GUIDE

The insights from the GDCI were incorporated in a practical guide for circular procurement. This is available online at:
http://mvonederland.nl/wegwijzer-circulair-inkopen



MVO NEDERLAND

Samen veranderen

Over ons | Contact | Pers | Agenda | English | Word partner

ALLES OVER MVO | STARTEN MET MVO | TRENDS EN OPLOSSINGEN | UW SECTOR | PARTNERS EN NETWERKEN | MIJN MVO

WEGWIJZER CIRCULAIR INKOPEN

- INLEIDING
- 1 WAT?
- 2 WAAROM?
- 3 HOE?
- 4 INKOOPFASEN
- 5 CONTRACTVORMEN
- 6 MOGELIJKE CRITERIA
- 7 KANSEN EN UITDAGINGEN
- 8 PRAKTIJKVOORBEELDEN

INLEIDING

Circulair Inkopen wint snel aan interesse bij zowel publieke als private inkooporganisaties. Zo hebben inmiddels ruim 40 organisaties hun ambities om circulair in te kopen vastgelegd in de Green Deal Circulair Inkopen. Maar hoe brengt u circulair inkopen in de praktijk?

WAARBIJ HELPT DE WEGWIJZER?

De Wegwijzer Circulair Inkopen helpt u op weg om circulariteit te integreren in het inkoop- en aanbestedingsproces. Onder circulairiteit verstaan wij het hoogwaardig hergebruik van grondstoffen, materialen en componenten. Met de handvatten in deze wegwijzer kunt u zowel op strategisch niveau beslissingen nemen als op uitvoerend niveau concrete stappen zetten.

De wegwijzer is dan ook bedoeld voor iedereen die betrokken is bij het inkoopproces. Om van circulair inkopen een succes te maken is het belangrijk dat niet alleen inkoop maar de andere afdelingen betrokken zijn en er breed draagvlak is voor de circulaire inkooptrajecten.

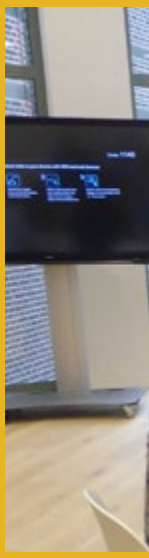
WAARBIJ HELPT DE WEGWIJZER NIET?

De wegwijzer is een verzameling van de beschikbare kennis, tips en voorbeelden op het gebied van circulair inkopen. Toch is er geen 'one size fits all'uniforme oplossing voorhanden. Circulair inkopen is een opkomend vakgebied en nog niet alles is uitgekristaliseerd. Daarbij zijn er verschillende circulaire oplossingen en contractvormen voor verschillende productgroepen.

Meer weten over circulair inkopen of het gebruik van de wegwijzer? U kunt met uw vragen terecht bij de projectgroep Green Deal Circulair Inkopen.

AWARDS FOR GDCI

The Green Deal on Circular Procurement won the Green Deal Board Runner Up Award on 24 November 2014. The jury praised the partnership, the courage and the innovation within the group. The jury comprised business community, social organisation and government representatives. The government's Green Deal approach aims to accelerate the transitiontowards a sustainable economy and the incentive prize rewards the three Green Deals with the highest 'green and growth potential'.



2. CIRCULAR ECONOMY:

ADDED VALUE FOR RAW MATERIALS

More and more companies and organisations are switching to new, circular business models. National and European governments are also supporting the transition towards the circular economy. What does this involve?

The 'manufacturing industry' has brought us a lot of prosperity and convenience over the past two hundred years. However, the old linear model of 'obtaining-producing-using-throwing away' is no longer sustainable. In the 20th Century, with a fast-growing world population, we started using no fewer than eight times more raw materials globally. If we continue in this way, this will triple again in the coming 30 years. And then you also have to realise that the majority of products are often discarded within a year and are destroyed as waste. The consequence is that the industry has become 'addicted' to the continuous supply of new raw materials and components. In the meantime, more and more raw materials are becoming depleted or are unobtainable because of geo-political or social reasons. The consequences are price increases, continuity problems and a surplus of waste. Harmful for the environment and society as well as a constraint on wealth development.

SMART TECHNOLOGY

We now also have access to more technology enabling us to continue using products for longer and in a smarter way. For example, new IT applications that enable us to share products with each other, or supply these as a service to customers. Or innovations such as 3D printing of components and all kinds of bio-based materials, which make us less dependent on fossil fuels.

RETAIN VALUE

Whereas the linear economy does not offer a way back for discarded materials, the circular economy does provide this. Products, parts and raw materials are returned to the supply chain at the end of their service life, preferably as high-grade as possible. The circular economy stands for a completely different way of thinking and working, ensuring that products, parts and raw materials are given another life after use. What is waste for one party, can be a high-quality raw material for another. This creates cycles of organic products and raw materials (organic origin) and/or inorganic products, materials and raw materials (technical origin).

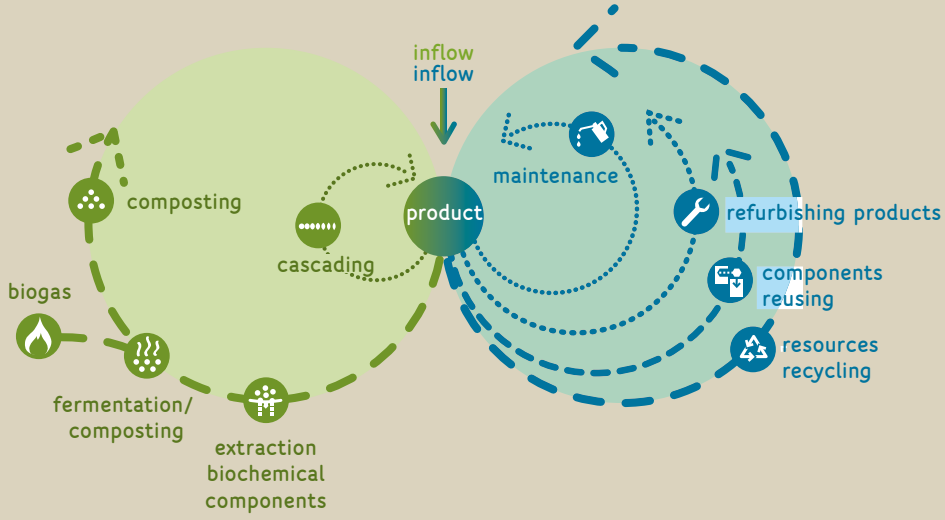
DIFFERENT DESIGN

The challenge now is to transform the existing linear processes into closed cycles. This demands different, some-

times new forms of ownership and supply chain cooperation. It also demands products and services to be designed in such a way that they last longer, are easier to repair and dismantle, and that the material is available for reuse afterwards at the highest grade possible. This reuse should take place in the smallest of circles ('cascades'): the smaller the circle, the more value is retained and the less energy and raw materials are needed.

THE PRINCIPLES OF THE CIRCULAR ECONOMY

1. Curb the depletion of natural resources
2. Prevent waste and harmful emissions to water and air
3. Service life is optimised as early as the product and system design phase, products, parts and raw materials can be re-used and no waste streams or side effects are produced that are transferred into mankind and/or the environment.
4. From the circular economy perspective, the party that is best able to support this becomes the owner of, and is thus responsible for, a product or service. This can be the user, but can also be the manufacturer or supplier.



The circular economy comprises cycles of organic products and raw materials (organic of origin) and/or inorganic products, materials and raw materials (technical of origin).
Source: 'Nieuwe rondes nieuwe kansen', MVO Nederland 2016. Tegenwind Grafisch Ontwerp.

MORE JOBS, BETTER PERFORMANCE

The circular economy has considerable environment benefits but it is also good for the economy. In 2014, research agency TNO calculated that we could earn at least 7 billion Euro annually with this, create over 50,000 jobs and at the same time significantly reduce our impact on the environment. New figures from the Ellen McArthur Foundation (EMF) show that profits in Europe could reach 1.8 billion Euro in 2030.

THE NETHERLANDS A 'CIRCULAR HOTSPOT'

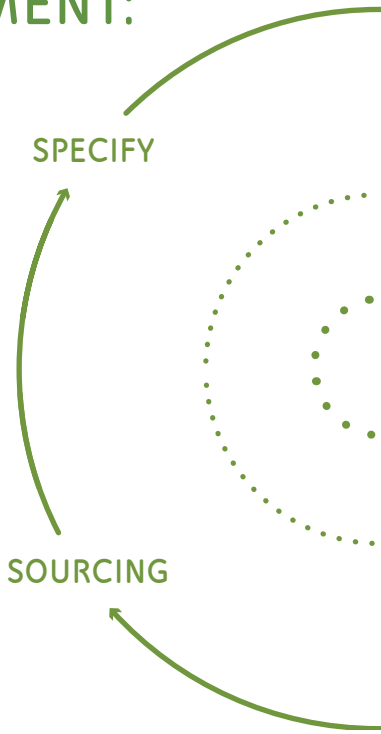
How can we save the environment while simultaneously stimulating the economy? In the switch to the circular economy, the business community is now being supported by the government. The Netherlands was proclaimed 'circular hotspot' in 2016, with the 2014 coalition agreement giving an important boost. The European Union produced a large-scale plan to stimulate the circular economy in 2015, particularly by creating space for reuse and for recycled and organic materials. A government-wide Circular Economy Programme is now being developed, which, together with the Raw Materials Agreement and five transition agendas, aims to accelerate the development of a more circular economy in the Netherlands.

MUNICIPALITY OF VENLO: GREEN OFFICES

The new Municipality of Venlo municipal offices opened in October 2016. Air quality, energy consumption, material use and the water cycle were central to the construction and design. The building generates half of its own energy. The furniture was also procured according to circular economy principles.

3. CIRCULAR PROCUREMENT:

PROCUREMENT ON QUALITY



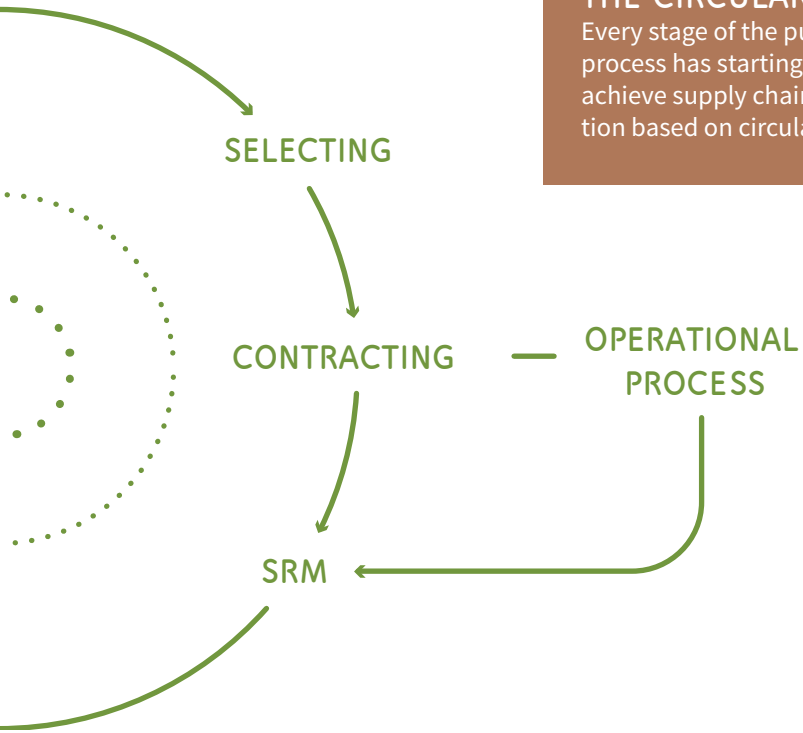
Businesses and governments would like to translate circular economy opportunities into their own business processes. The purchasing process offers starting points to realise circular economy ambitions. And procurement departments can fulfil a key role in this, both at strategic as well as operational level.

Cooperation in the supply chain, transparency in the production process and social innovation. Three important success factors for the circular economy in which the procurement process plays a role. We can use the organisation's procurement policy to stimulate demand for products and services that are made according to circular principles and are suitable for repeated, high-grade reuse.

We can also build in guarantees to ensure that used products, parts and materials actually do return to the cycle at the end of their service life.

We take the following into account in circular procurement:

- Technical product conditions to optimise retention of raw materials
- Different procurement models (shift from ownership to usership)
- Supply chain thinking (partnership)
- Management (contract/supplier management)



THE CIRCULAR CHAIN
Every stage of the purchasing process has starting points to achieve supply chain cooperation based on circularity

SUSTAINABLE AND MODULAR

Circular economy procurement starts with determining the need for products or services in the organisation: what do we really need? How can we obtain that? Do we need to purchase for this or do we have this available somewhere?

Assessment criteria also need to be clearly described at the start of the procurement process, so that these are transparent for all potential tenderers.

The procurement process can start as soon as the decision has been taken to obtain a product or service. After multiple suppliers have made their own specific tender bid to supply the need, as described in the call for tenders,

the actual bids can be compared.

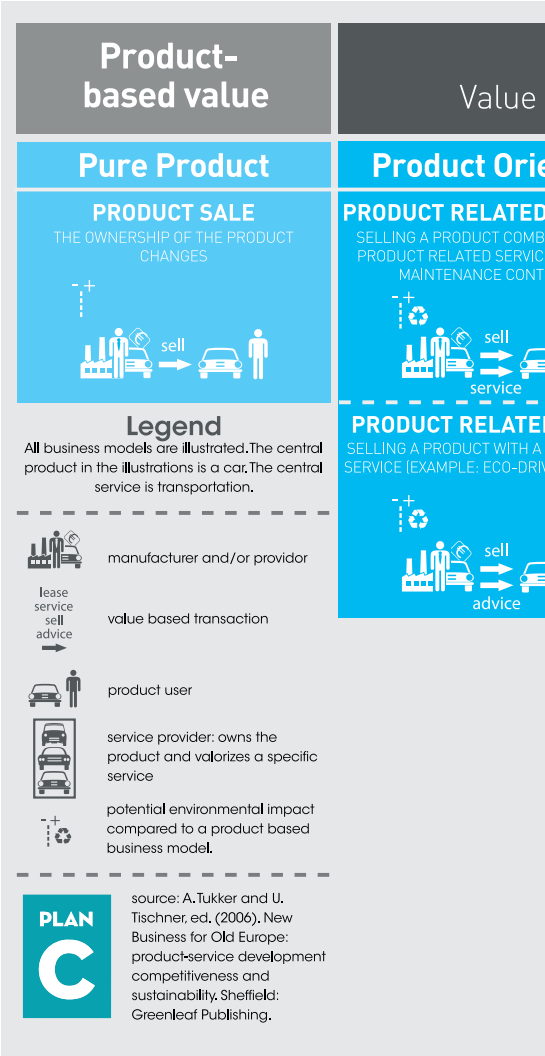
In circular procurement we do not necessarily focus on the lowest price, but particularly on the materials used and the way in which products and services are realised. For example, you could go for reused parts, or for plant-based and non-toxic raw materials that can be reused safely.

Design is also a procurement selection criterion: does the product have a long service life, is it easy to dismantle and repair or can it be revised after use ('refurbished')? How can the product be maintained in the best way possible during use so that it retains the highest possible value?

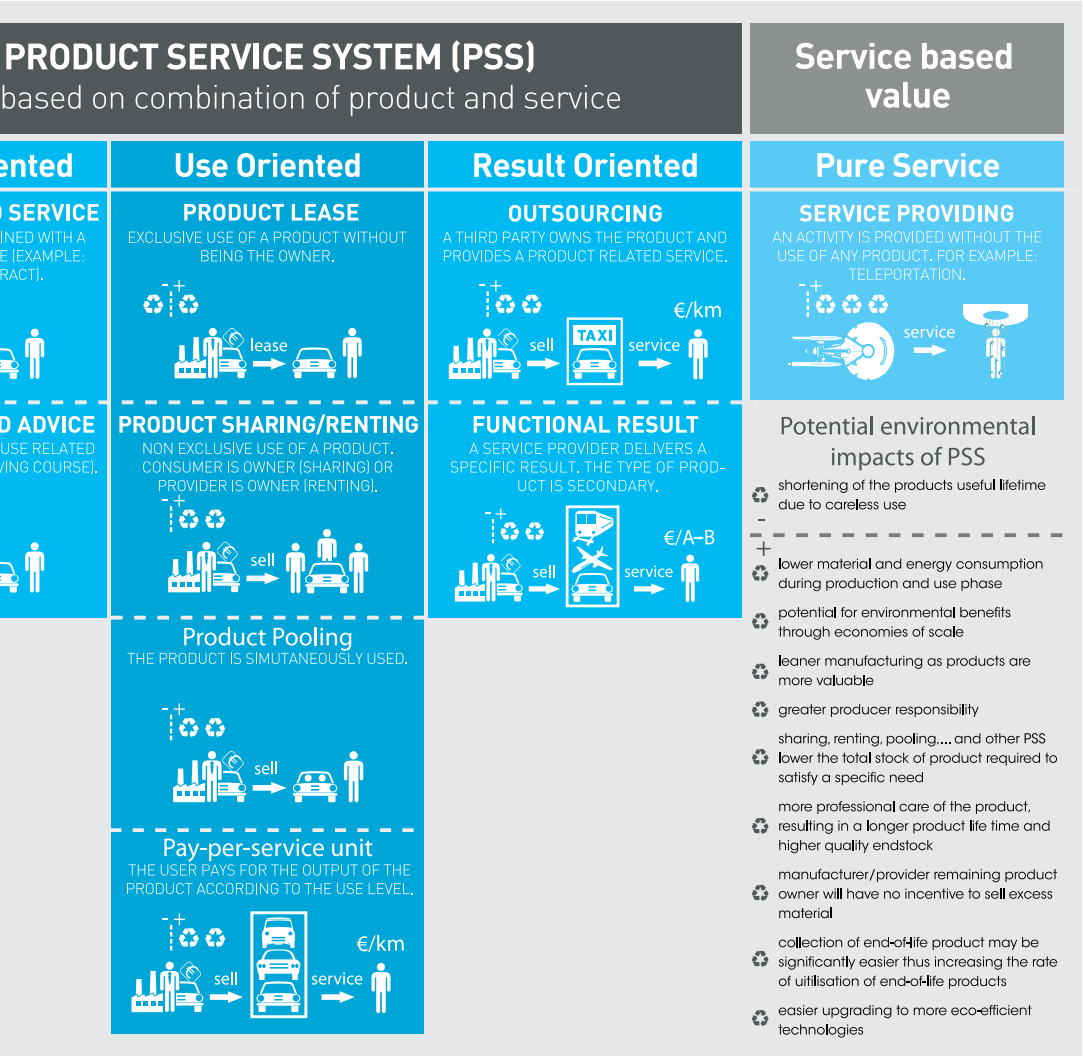
Finally, we also want to ensure that reverse logistics and supply chain collaboration are guaranteed, which is why suppliers and purchasers are also involved in closing raw material cycles.

NIEUWE PRODUCT-DIENSTENCOMBINATIES

The further your organisation goes along the circularity path, the more we ask the question: what do we really need in our organisation? For example, does this concern the procurement of chairs or possibilities for seating? Are you looking for lamps and fittings or do you just want to ensure that your office is well-lit? We then often see that various other solutions exist, or can be devised; solutions that don't concern ownership, but use and performance. All kinds of combinations of products and services can be devised for this.



Product-service combinations
(Plan C according to A. Tukker en U. Tischner)


PRODUCT SERVICE SYSTEM (PSS)
based on combination of product and service
Service based value
ented
Use Oriented
Result Oriented
Pure Service
SERVICE
INED WITH A
E (EXAMPLE:
RACT).
PRODUCT LEASE
EXCLUSIVE USE OF A PRODUCT WITHOUT BEING THE OWNER.
lease
OUTSOURCING
A THIRD PARTY OWNS THE PRODUCT AND PROVIDES A PRODUCT RELATED SERVICE.
sell
TAXI
service
€/km
SERVICE PROVIDING
AN ACTIVITY IS PROVIDED WITHOUT THE USE OF ANY PRODUCT. FOR EXAMPLE: TELEPORTATION.
service
D ADVICE
USE RELATED
ING COURSE).
PRODUCT SHARING/RENTING
NON EXCLUSIVE USE OF A PRODUCT. CONSUMER IS OWNER (SHARING) OR PROVIDER IS OWNER (RENTING).
sell
FUNCTIONAL RESULT
A SERVICE PROVIDER DELIVERS A SPECIFIC RESULT. THE TYPE OF PRODUCT IS SECONDARY.
sell
service
€/A–B
Product Pooling
THE PRODUCT IS SIMUTANEOUSLY USED.
sell
Pay-per-service unit
THE USER PAYS FOR THE OUTPUT OF THE PRODUCT ACCORDING TO THE USE LEVEL.
sell
service
€/km
Potential environmental impacts of PSS
shortening of the products useful lifetime due to careless use
lower material and energy consumption during production and use phase
potential for environmental benefits through economies of scale
leaner manufacturing as products are more valuable
greater producer responsibility
sharing, renting, pooling,... and other PSS lower the total stock of product required to satisfy a specific need
more professional care of the product, resulting in a longer product life time and higher quality endstock
manufacturer/provider remaining product owner will have no incentive to sell excess material
collection of end-of-life product may be significantly easier thus increasing the rate of uitilisation of end-of-life products
easier upgrading to more eco-efficient technologies

CIRCULAR ECONOMY CONTRACT FORMS

Other contract forms are also appropriate for circular economy business models. These contract forms themselves do not yet per definition guarantee circular application, but they do create improved conditions for this. The contract is the finale of a process of collaboration, getting to know each other and sharing each other's ambitions, interests and concerns. At the same time a contract is the start of putting these ambitions and interests into practice.

For circular procurement, we distinguish three main contract forms that support circularity:

1. PRODUCT-SERVICE SYSTEMS

pay per use-contract: Here, the procurement organisation pays for the use of the product, but the producer/supplier remains the owner.

performance based contract: The procurement organisation pays the producer/supplier not only for the use of the product, but also for managing and maintaining it.

2. PURCHASE AND BUY BACK

In this case, the procurement organisation does become the owner of the product. Both parties agree that the producer/supplier will buy back the product at the end of its service life. After this, the producer/supplier will return the product, the components and finally the materials to the supply chain. A condition is that the value is retained as far as possible, so that the product can be reused at the highest grade possible. The user is also obliged to handle the project with care.

This contract form is suitable for products that are still interesting enough for the supplier to buy back at the end of their use period so that these can be reused, following any necessary refurbishment. This could include machinery, office furniture and street furniture.

3. PURCHASE AND RESALE AGREEMENT

In procuring the product, both parties record that, after use, a third party will take care of the products and/or materials in a circular way. This could entail using a waste processing company or the second-hand market, for instance in the case of office furniture. This process is known as circular procurement if the management of this form of reuse is arranged as well as possible at the start.

RIJKSWATERSTAAT SELECTS CIRCULAR ECONOMY OFFICE FURNISHINGS

Rijkswaterstaat is making its office furnishing more sustainable by using circular procurement. The service life of chairs, desks and cupboards is being extended and all furniture and materials will be reused as much as possible.

Office furnishing offers a lot of opportunities because central government owns a lot of furniture. The circular procurement of office furniture can offer Rijkswaterstaat estimated savings of around 2 to 3 million euro in the long term, compared with the purchase of new office furnishing. The estimated savings for central government could amount to 8 to 11 million euro. This does depend on the precise details of the circular economy approach to office furnishing. This was shown in a report formulated by advice agency Turntoo, contracted by Rijkswaterstaat.

Rijkswaterstaat's first contracts for the circular use of office furnishings need to be signed in 2017. The ultimate goal is for the whole of central government to reuse the existing furnishings. If office furnishings do need to be purchased, this must be done according to circular economy principles. Rijkswaterstaat is organising the procurement of office furnishing for a large section of central government via its procurement centre (IUC).

This contract form is mainly interesting for product groups in which individual products retain little value after use, and it is not worth the producer/supplier buying these back. This could include coffee cups or used glass. The advantage is that the procurement organisation can generate income from waste streams, instead of incurring costs for their removal. With a waste processor you examine which streams are still worth processing. One person's waste can, after all, be another person's raw material.

THE ADVANTAGES OF CIRCULAR PROCUREMENT

STRATEGIC

- The procurement organisation becomes more future-proof: lower costs, tighter supply chain collaboration and thus a more robust delivery chain
- The economic risk lies with the party that can best carry this, viewed from a circular way of working
- Reputation: the brand's distinguishing capacity. Customers value it when you handle sources and raw materials with respect. This also contributes to the organisation's credibility.

FINANCIAL

- Lower costs: both in terms of total cost of use (TCU) as well as ownership (TCO)
- No own service costs: pay per use model (full service model for the organisation)
- Buying less: longer service life and reuse of products
- Less waste or no waste or waste management
- Fewer problems with price fluctuations

SOCIAL

- Circular procurement prevents and minimises the use of hazardous substances
- Helps address raw material scarcity
- Results in supply chain transparency
- Stimulates innovation: multiple companies in the chain can retain or increase their revenues because they innovate in their business models and products or processes.
- Stimulates employment: in the end the circular economy has the potential to create 54,000 new jobs in the Netherlands according to TNO.

DUTCH MINISTRY OF DEFENCE: TEXTILE FROM RECYCLED COTTON

The Dutch Ministry of Defence is a high user of textile products in its extensive military gear. In this project, the Ministry sought to address the problem throughout the supply chain. Surplus/used army clothing is no longer burned, but is recycled and processed into reusable fibres. The Ministry of Defence then offers this product to the market as high-quality raw material. And when purchasing new textiles - towels, wash cloths, scarves, handkerchiefs and overalls - these must contain recycled fibre.

4. IN BRIEF:

LESSONS AND FOLLOW-UP QUESTIONS FROM THE GDCI/REBUS PILOTS

Under the flag of GDCI and REBus, the participants have together implemented almost 80 pilots. This has produced a broad range of examples, in various procurement categories. All information about participants and their pilots can be found online at www.gdci.nl. In this chapter we reflect on various questions that came up frequently during the GDCI.

With GDCI and REBus we demonstrated convincingly that the procurement process offers concrete starting points to realise the circular economy. With this we have taken a first, important step. Circular procurement is now firmly established among governments and businesses. The broad range participants and the different perspectives of their pilots offered us a wide variety of interesting examples of circular procurement. We've seen what works, but also what doesn't work just yet and needs further investigation.

The knowledge and experience from the pilots were collected in the Circular Procurement Guide. Various reports and background information can be found online at www.gdci.nl. Factsheets per participant are also available on this website (early 2017).

In the next chapter, we offer a brief overview of several topics that emerged during the pilots. We point out the learning points or issues that we need to address in more depth in order to know how it works and what is needed in order to make the transition towards a circular economy.

5 SUCCESS FACTORS FOR CIRCULAR PROCUREMENT

1. Search for joint interests. Where are the opportunities for partnership, both internally as well as within the supply chain? What do you each need to do in order close the cycle?

2. Be transparent. What is your goal and what do you need from others to achieve this? How can others help you in this? Have the courage to put yourself in a vulnerable position.

3. Be clear about what you want to achieve. How circular do you want to make it? When is your product or service circular and how will you measure this? 'Circularity' is a multi-interpretable umbrella term. Determine your own system boundaries, frameworks and definitions and communicate these clearly to the market. For example is renewable energy part of your view of circular procurement? What is your view of international employment conditions (e.g. extraction of raw materials) and social return? Do you prefer to use new Cradle to Cradle products above previously used raw materials/components/products?

4. Make agreements about the risks. You are bound to face dilemmas in this. Discuss how to assess this and how to share risks; financial ones too.

5. Do not aim immediately for 100% circular procurement, but learn by doing. Start small and build on this step by step. Give yourself (and others) the space to learn and to experiment.

4.1 WHICH PRODUCT CATEGORIES LEND THEMSELVES WELL TO CIRCULAR PROCUREMENT?

If we examine the pilots we started with in the GDCI, we see that furniture and textiles (particularly workwear) are doing well. We also see a lot of projects in the area of machines and systems, construction and IT. Most pilots thus involve the purchase of products and services in participants' facility business processes.

Most participants selected circular procurement of products or services in facility business processes and also gave themselves the initial space to experiment. Some participants set measurable goals, but others first wanted to explore where the opportunities and possibilities lay. A few leaders are now about to focus on their primary process. Companies such as ProRail and Alliander are currently taking preparatory steps for this. GDCI participant Interface has already been able to make carpet tile production a largely circular process.

EASY PICKINGS

It is a good idea to start by looking at the 'easy pickings' in the organisation. Which materials in the organisation retain their value after the end of their service life? What products and processes involve a lot of raw materials? Can our waste perhaps be used as a raw material for others? Which components can we already reuse ourselves? Could product service life be stretched by buying according to design specifications that fit the circular economy? Such easy pickings can often be found in procurement contracts that use a lot of raw materials that have a short life cycle. These products have a low risk profile and lend themselves well to testing and learning. Within the GDCI, this was reflected in pilots for furniture and textiles. Building projects result in the most raw material waste, which means that circular procurement can have a lot of immediate impact here. Successful examples of a circular approach in this sector include the refurbished Alliander office in Duiven and the Municipality of Venlo's new municipal offices.

Counter municipality of Wageningen (Photo by Cees Beumer)

FROM START TO FINISH

Circular procurement can pay off at the start of the supply chain, because conditions are already embedded there for retaining value and for high quality reuse. For example, because fewer raw materials are used in a product, or previously used (secondary) materials or components or products are processed in this. Other products that are suitable, are products that have a long service life because of their design and that can be reused after use. If products can be disassembled easily (modular), they lend themselves better to repair and reuse. Here we talk of 'design for reuse, repair and recycling'.

There are also opportunities at the end of the supply chain. We then speak of 'recycling for design': demolition and dismantling taking the circular economy into account This can sometimes be close to home: which materials from our own warehouse can be given a new function, possibly with the help of a designer? Can this perhaps even be expanded into a new business model? Examples include the Municipality of Wageningen, which has processed used sports hall ropes in its new municipal office reception desk. And Copper 8, which used old sliding doors as noise partition between desks in the sustainable redesign of its own offices.

> “ In taking the first circular procurement steps, it can be useful to start with support services. There is often still some trepidation within organisations regarding pioneering in the core business, because of the instinctive business continuity risk. But many organisations have already gone before you and good examples can be found everywhere. You can use your own and others’ experiences with circular procurement to develop a feeling for the circularity method that best suits your organisation. You can then adapt this if you are scaling up projects to your core business. You can make a real impact there. ”
>
> Hendrik van Zantvoort, Alliander

COMPLEXITY AND SERVICE LIFE

Until now, most circular business models have been designed for products with an average service life and moderate complexity.

The complexity concerns the number of materials used and the way in which these are connected and can thus be separated. This is important, because raw materials can be reused in a better and higher-grade way if we have access to pure raw material streams (‘mono streams’). An example of a less complex product is an office chair; a more complex product is a smartphone.

MULTIPLE LIFE CYLES

In circular procurement we do not only look at the value of the product during one life cycle (LCA), but also across multiple life cycles (MCLA). As well as purchase price, the costs of control and re-manufacturing are also included in the financial picture. It may then become apparent that a product purchased according to circular principles delivers savings in subsequent life cycles, as fewer materials are consumed and production costs are lower. In the Alliander, Dura Vermeer and TBI/Croon workwear pilot, the 15-year contract with the producer meant that the reuse of clothing would be profitable from the 3rd life cycle.

RESIDUAL VALUE AND OWNERSHIP INFORMATION

Service life concerns such things as the potential residual value of products and components at the end of their use. Examples of products with a shorter service life and limited raw material value and complexity are disposables, such as coffee cups and packaging. Here it seems to be a good idea to work towards clean mono-material streams such PET or paper. Long-lasting products are buildings (with a service life of 30-50 years) and Rijkswaterstaat concrete lock gates (50 - 100 years). The challenge regarding products with a longer service life is, however, to estimate now the possible reuse in the far future.

" For our GDCI pilot we sought a product outside our core business. This means you don't affect your primary business processes. It gives you the space to gain experience. At that time we needed new safety jackets for our staff. We also knew that there were already initiatives to make clothing production more circular. It was important that the product was seen and experienced as an improvement. Those who were going to wear the jackets were involved in the entire process. And the safety committee needed to be behind this too. It worked out so well that we are going to scale this up as soon as the opportunity arises.

A second pilot concerned a product that is often used in systems. It is a product with relatively limited investment value, which enabled us to demonstrate on a small section that we can deliver better quality with circular procurement. Because we first do need to give customers a convincing message. On the other hand, I hope that our end customers will now start asking more questions about the delivery of a service instead of a product, because then we will really see many more opportunities. "

GEA - John van Rooijen (manager technology & innovation)

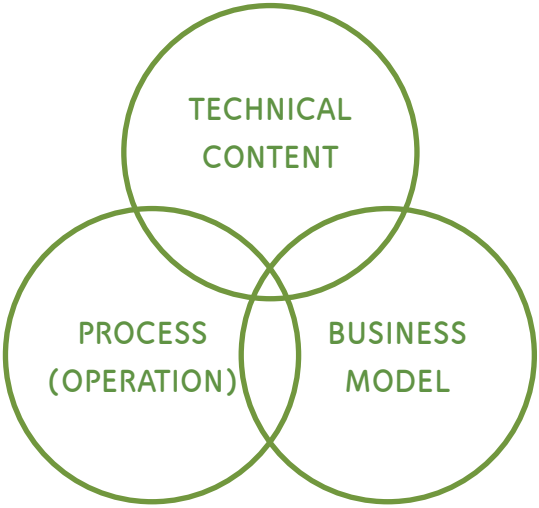
4.2 HOW CAN WE SAFEGUARD PRODUCT AND PROCESS CIRCULARITY?

When is a procurement process circular? Is it possible and desirable to impose a lower limit, or can it be a little more or less? Within the GDCI we examined possible indicators and how we can give these indicators substance. Translating circularity into KPIs still proves to be a real challenge in practice.

When can we call a product or procurement process circular? Various GDCI participants came up against this issue. This included the Utrecht government group that signed a covenant in March 2014 resolving that 10% of their procurement budget would be spent according to circular principles by 2020. Central government also wants to make 10% circular procurement the standard. It is then important that you're able to determine when you meet this standard. How do you assess this; do you look at waste prevention or agreements about reuse? How do you make circularity transparent and measurable? How do you keep it simple and prevent it from becoming a constraint?

" There is an important difference between a product's actual circularity and potential circularity. Actual circularity is measurable, for example in the quantity of re-used materials used. However, in order to realise the potential for circularity in the long term, it is also necessary to organise the process towards circularity and to safeguard this with a business model for all parties. Otherwise a fantastic circular chair will still end up as waste in the incinerator after its economic service life. "

Godard Croon, Copper 8



What defines something as 'circular'? Three types of indicators (Based on Springtij 2015)

INDICATORS

We can measure the circularity level and map this out using indicators or KPIs. An inventory by CSR Netherlands for Springtij Festival 2015 resulted in over 350 indicators. You can read more about circular KPIs in the 'Ondernemen in de circulaire economie' (Entrepreneurship in the circular economy) report (CSR Netherlands and OPAi, 2014).

We can divide indicators roughly into three groups:

Technical Indicators
For example the toxicity of raw materials and the level of reusable, or reused materials in a certain product

Process indicators
for example circular maintenance contracts with suppliers, or agreements that safeguard reverse logistics

Business model indicators
for example, products introduced on the market with lease or repurchase constructions to support reverse logistics.

The more these three groups converge in a product or process, the better this is for the circular economy.

MEASURING CIRCULARITY

Indicators cannot simply be converted into a checklist for circularity. First of all we need to know our goal and what precisely it is we want to

measure with this. The value of the circular economy is currently often expressed in material or cost savings, while for the GDCI participants it was mainly about giving substance to their organisation's circular ambitions. In the Alliander workwear pilot, the focus was not so much on costs, but on the desire to extend the service life and to learn how circular ambitions can be realised successfully in practice.

Various approaches were used within the GDCI. There are participants who used circular procurement to examine their procurement processes carefully and in doing so focussed on a few, possibly more large-scale procurement streams. Others preferred to search for generic indicators starting from the size and nature of their organisation. And yet another group approached circular procurement mainly as a component of professionalising and of innovation. Standard recipe or customisation? The lesson from the GDCI is that none of these approaches was right or wrong. Each organisation has to select its own starting point in order to build towards circularity step by step.

ABN AMRO: REPURCHASE AND SERVICE LIFE GUARANTEE ON LIFTS

ABN AMRO Bank focused its pilot on repurchase agreements with lift suppliers as a 'service life guarantee'. The functionality of the lift was defined here as 'the transport of people', and this concerned the supplier's knowledge and specialism. The bank agreed guarantees about the service life of parts of the system. If a part needs to be replaced earlier, then the replacement (work and material) was to be paid pro rata. For instance: a part should last 10 years, but is worn after 5 years. The procurement organisation then pays for 50% of the work and 50% of the material needed for repair.

The bank expected this to stimulate the supplier to supply a more sustainable product, by improving components (innovating) thus preventing early replacement. For example, by extending the service life of the lifts using regular software updates. Ultimately, on the purchase of a system the bank is aiming to make agreements that combine the repurchase and service life guarantee. This also gives the supplier the opportunity to innovate, improving the parts for the entire system and so increasing the value.

4.3 WHAT DOES CIRCULAR PROCUREMENT MEAN FOR SPECIFICATION AND ASSESSMENT?

In purchasing for the circular economy we use different criteria than in the traditional procurement process. Apart from price, we focus mainly on quality aspects that safeguard and demonstrate that products, parts and raw materials can return to the cycle after use. Not only do requirements change, but the procurement process itself can also look different.

In the circular economy, the procurement process starts with asking what the organisation's actual procurement requirement is. That leads to different requirements and decisions than in the traditional procurement process. Not only must the newly purchased goods be circular, we also want to be able to use existing stocks for longer. Circularity will then not only result in material savings but also in cost savings.

FUNCTIONAL SPECIFICATION

Products and services are purchased according to an organisation's actual needs, which suits a functional call for tenders. All weighting factors and criteria are no longer entirely described in detail (technical specification); requirements are described using the functions for which the procurement is being made.

This makes better use of market knowledge and experience and market parties are challenged to devise creative, circular solutions. The more open the question,

MUNICIPALITY OF THE HAGUE: SUSTAINABLE WASTE AND RECYCLING CENTRE

The Municipality of The Hague offered two examples of its circular economy ambitions: a waste and recycling centre with façades produced from reused plates from the automotive industry and a circular procurement process for 72,000 m2 of flooring. Uitenhagelaan waste and recycling centre was delivered in early January 2017. It uses sustainable and partly reused materials. In using such material the municipality also wanted to stimulate the centre's users to start thinking about the reuse of raw materials.

the more space there is for innovation, and for new market parties to participate.

MARKTCONSULTATIE

Circular procurement is new territory for both purchasers and suppliers, and this is also not always consistent with the existing linear process and organisation structures. It proved useful to consult market parties prior to the tender and start discussions with supply chain partners. Discussions in advance regarding what market parties need in order to answer a call for tenders with an appropriate circular economy bid, will increase the likelihood of appropriate solutions. Other participants have also held market consultations, since Alliander's positive experiences with inviting market parties to help think about the circular call for tenders for its offices in Duiven in 2013. Market meetings were also organised by the GDCI for various procurement categories: for workwear, catering, office furnishing, IT, civil engineering and street furniture.

> "A MORE FUNCTIONAL CALL FOR TENDERS LEADS TO BETTER RESULTS."
>
> MICHIEL PLANCKEN, SENIOR PURCHASER UMC UTRECHT

It is also a good idea to enter into discussions internally with management and internal customers. This makes it possible to

take a closer look at the support base and the importance of a clear, shared circular economy vision and ambitions.

APPLES AND PEARS

How should we assess the received bids? The more open the call for tenders, the greater the likelihood that different types of bids will be presented. This does indeed sometimes lead to 'comparing apples with pears', but in this case it was not too problematic. Avoiding standard formulations and procedures during the call for tenders results in more space to go along with new, sometimes unexpected circular solutions and market parties. For example, by not only including familiar names in framework contracts but also including newcomers.

This demands that we put our old habits aside and have the courage not to record everything in advance. However, you do need to be able to explain this to the rest of the organisation. This brings us to the next question: how do you create sufficient support among the right people?

"SUSTAINABILITY DOES NOT HAVE TO BE EXPENSIVE."

CECILE VAN OPPEN,

OWNER COPPER8

AWARD ON CIRCULARITY MUNICIPALITY OF AMSTERDAM

Consultancy agency Kirkman Company helped the Municipality of Amsterdam with the circular procurement of office furniture in 2015. Both investigated the subsequent phases of the product's service life: design, production process, use and management of waste materials after use. Suppliers were asked to give their vision on the circular economy and to produce their tender for circular office furniture.

Criteria for awarding the purchase order were: technical content; financial including residual value; transition plan including return stream and management of the partnership and contract. The circular economy bid also needed to be demonstrated as clearly as possible in order to prevent 'greenwashing'. The more a supplier could make this concrete, the more points it was awarded.

"The lesson from the pilot was: the more open the functional call for tenders was formulated, the better", said René Dijkstra from Kirkman Company. "Challenge the market for circular solutions without prescribing. If you describe things too precisely, you're likely to exclude solutions and market parties. 'Unknown, unloved': if you're not careful you will fall back on old habits and existing rules and procedures. The technical solutions are often there, but you do have to have the courage to go off the beaten path."

" If you want the tenders to better meet the needs of your organisation, you should enter into discussions with the market. As soon as you know what is possible in the market, you can formulate realistic requirements. Don't only set your own requirements as you then run the risk that nobody can meet these."

Joan Prummel, Rijkswaterstaat

4.4 HOW DO WE CREATE A SUPPORT BASE IN THE ORGANISATION AND IN THE SUPPLY CHAIN?

The procurement process can play an important role in the transition towards the circular economy, but cannot be viewed separately from the rest of the organisation. Without a support base and the cooperation of the right people and departments, or chain partners, we won't get far. The challenge that almost all participants faced was: how to realise a support base in our own organisation as well as getting suppliers and customers on board?

It doesn't matter how well we have organised things ourselves, if others don't cooperate, we won't get where we want to be and we will probably be dragged down by old, linear structures. The procurement department may be important, but it is not the deciding link in the supply chain. And although buyers are responsible for guiding the process, in practice it is others who formulate the demand for products and services: the budget holders, policy advisers, project managers, marketers or the finance department.

OTHER CHOICES

Circular procurement requires decisions to be taken at the start of the process. This starts with the question of what we really need in the organisation; chairs or seating comfort. Does the purchased material always need to be new or can it also be reused material? It is not the buyer that poses these questions in practice, but the client. This means that the buyer must have a position in which he is already involved at an early stage. But we also have to deal with other departments and supply chain partners when making choices in the various phases of the procurement process. This does perhaps make circular procurement more of an organisational issue than a technical one. In the GDCI we regularly agonised over how the required strategic change in the organisation could be realised.

LINK BY LINK

As the organisation can't be turned on its head in one go, the only way forwards is step by step. Start small and gradually learn what works, so that it is possible to scale up using examples

from more and more successful pilots. Using the goal of being able to return the organisation's raw materials to the supply chain as high-grade as possible, you can map the successive links. Which stakeholders are involved in each step? Where can we find supporters who can help us realise our circular ambitions? If, for example, we make agreements about repurchase and residual value guarantee it is wise to work together on this in the organisation. This also applies to acceptance of used materials, or the decision to no longer purchase certain products. Buyers cooperate with departments including R&D, marketing and finances, as well as HR. How can we link to each other in the supply chain? Circular successes are created where interests merge.

LEADERSHIP

The 'leadership' factor is crucial. A clear and stimulating vision offers something to work towards. Certainly if you have directors and managers who are able to communicate this. In many pilots, leadership and management support was an important factor. It also concerns personal leadership, 'the power of one'. You too can take the next step towards more circular procurement. It is also important that there are leaders and ambassadors who can persevere in getting everyone on board. 'Oilmen'

> " A broad support base was created quickly by starting with pilots in the GDCI. First of all because the pilots clarified what an abstract concept like circularity actually means in practice. Secondly because the results of the pilots offered me the opportunity to connect circularity with various incentives within government. Applying circularity within central government operations gave substance to the example role that Central government is expected to play and we also achieved savings. At the same time we gave colleagues from policy departments insight into the use of the policy. In circularity, everyone can thus find something that enhances his or her own organisation's interests and those of others. For me it is very logical that circular thinking and doing is becoming the norm. "

André Weimar, Director of Facilities, Housing and Procurement Policy, Central Government

CSR

SRP

Themes within SRP (PIANOo, 2015)

who work hard in their own work for the circular economy and keep on putting this on the agenda time after time.

REWARDS AND ASSESSMENT

It is important that management also manages according to circularity and quality. The reward and assessment structure must also be adapted for this, because buyers, as well as others in the organisation, are often still paid according to cost reduction. Then, even though people want to cooperate on circular procurement, nothing comes of this in practice, or other choices are still being made. This is something that various participants unfortunately came up against.

CONNECT INTERESTS

To create a support base it is good to examine where we can connect interests. What are the long-term costs and benefits of circular procurement? Most organisations now have separate budgets for procurement and maintenance. If these are linked, it could become apparent that although circular products are more expensive to purchase, they are cheaper in maintenance. And not only at department level, but for the entire organisation. Circular procurement is also good for immaterial benefits, such as a sustainable image, or responsible behaviour towards mankind and the environment.

MULTIPLE SUSTAINABLE MOTIVES

Multiple components of a sustainable purchasing policy can also be linked. This includes the social conditions under which raw materials are extracted, emissions that are released during the production process, or the deployment of those disadvantaged in the labour market in the production process. Circular procurement then actually offers the opportunity to translate sustainable ambitions into financial and business advantages. Leaders in the area of the circular economy, such as GDCI participant Interface, show that it pays off for all supply chain partners if the economy, environmental and social value are linked.

CIRCULAR PURCHASING

SOCIAL RETURN

ENVIRONMENTALLY FRIENDLY PURCHASING

INNOVATION BASED PURCHASING

INTERNATIONAL SOCIAL CONDITIONS

BIOBASED PURCHASING

GEA & DUTCH AWEARNESS: GEADA SAFETY JACKETS

Together with Dutch Awearness, GEA developed the GEADA safety jacket: a 98% fully reusable safety jacket that meets international safety standards. The producer is Latino Group from Portugal. Dutch Awearness supplied a CCMS system with this.

Using a track and trace system, comprising a QR code in every jacket, GEA can track the origin of all raw materials, at which locations the jacket has undergone treatments and when a jacket reaches the end of its technical service life.

Circular econom

The concept of the circular economy s
smartphone and its protective case.
With streams of:

- biological materials: 'green' resource
  components;
- (high quality) technical materials co
  product, component or resource ('ca

In the circular economy, products, com
value as much as possible. Design and
account. Customers are no longer own
a product.

COMMUNICATION: CLEAR, CONCRETE AND WITH A HUMAN FACE

Communicating well about the circular economy and circular procurement is essential in creating a support base. First of all, it is good to be transparent and clear about the definitions and objectives that are used in the organisation. What exactly is the circular economy? In our organisation, why should we choose for a procurement instrument that serves our own circular ambitions? And how do we do this?

The trick is also to keep the arguments and examples as close to home, tangible and concrete as possible. And to stay away from management terms and figures. Use examples that demonstrate what makes the difference in practice and which lessons can be drawn from this. In communication sciences it is known that 'storytelling' is an effective way to convince others: stories about people and experiences enter our brains better and stay there for longer too. (Many publications can be found online, such as 'No story, no fans' by Raf Stevens). Effective communication also uses the unconscious choice processes that influence our actions. These are also determined by issues such as recognition and appealing stories about human emotions (e.g. in 'The 6 principles of persuasion' by Robert Cialdini). In the end this always concerns the people and things that affect us, the world around us and the future of our children. In the communications about circular procurement we can also refer to things that we use daily - a telephone or a printer - to clarify why we should choose good products that last a long time and are also reputably produced.

4.5 FROM PILOT TO MAINSTREAM

Thanks to the GDCI, circular procurement is now firmly established in the Netherlands, both within central government and in the business community. Over the past three years the projects have delivered a rich array of circular procurement pilots. We noticed that procurement according to circular ambitions is indeed possible and is effective. And we discovered what else is involved in practice. But: how can we scale up these pilots to the mainstream?

Circular procurement proved to be a suitable perspective because it offers the opportunity to take short-term steps towards the circular economy. At the same time these are just careful initial steps, because in procurement we also appear to be significantly dependent on underlying business processes. Many pilots in this first GDCI focused on the secondary process. But what happens if we get started in our primary process? Can we also scale up these experiments and what new issues will we come up against then?

VESTED INTERESTS

Procurement is a great way to start transition to the circular economy, but if interests are still organised in a linear way, there is a risk that a pilot will simply remain a pilot and it is unlikely to be rolled out across the organisation. We sometimes also undermine vested interests in the projects. How can we make clear what it means for the rest of the organisation if we have not yet been here ourselves, and if we cannot see into the future? Does scaling up actually deliver viable business models?

KIJKEN NAAR FINANCIERING

There are important issues regarding circular business models and financing. Interesting issues include: more demand for pre-financing, changing cashflow and the question of how raw materials are to be valued as security. For business models based on hiring instead of buying (for example lease), payment for the delivered products and services is, after all, not on delivery but is at some point in the future. What are the consequences for a buy-back scheme, if reserves for buy-back remain on the balance sheet? For several pilots that is still acceptable, but wouldn't wider use pose problems for an organisation's liquidity?

We are at the start of the transition towards the circular economy; it is nothing less than a break from the

> “ The most important thing is to develop the right pilots. As a company we want to provide a restorative contribution to the environment and society by 2020, without negative impact. It is important that we keep on challenging existing suppliers to present new ideas in this area, and that we keep searching for new suppliers and approaches that can contribute to this goal. Good cooperation between our own and our suppliers’ R&D departments is essential. If we select the right pilot and the R&D process is implemented properly, moving from pilot to mainstream will be simply a matter of scaling up. And, as we have allowed ourselves to be led by facts by using a service life analysis, it will be easier to make choices to realise the most sustainable circular solutions.”
>
> Nico de Wijk, Purchasing Manager Interface European Manufacturing B.V.

current system. Business processes are still mostly designed in a linear way. Financial systems also need to be overhauled. Other models of ownership after all require a new look at financing, with other payback periods and residual values. If we look towards the long term, the question is not only who bears the costs, but also how we can spread the risks and share the difference. Whereas, in the linear economy, we work with annual budgets and accounts, the circular economy requires more continuity in financing constructions.

CIRCULAIRE EXPERTISE

That is why it is necessary that we also include financial institutions on our voyage of discovery and develop the circular expertise together. Various major banks in the Netherlands now have in-house specialists who can advise on how to develop circular economy-based business models. There is ongoing consultation with banks and the professional association of accountants, both from the GDCI as well as outside, to examine whether we can devise solutions for this together.

Furthermore, in the area of both procurement (more about this later) and other functions in the organisation, we need people who can use circular principles and know how we can develop circular business models. Specialists with knowledge of the choices and risks in different sectors,

ALLIANDER: CIRCULAR CABLES

Netherlands, has high circular economy ambitions. Now that the accommodation in Duiven has been built according to circular principles and is now an icon for circular procurement, Alliander is immersing its core business in the circular procurement of cables, transformers and meters. Together with various parties, the company also aims to achieve a 100% use of circular economy materials in the underground infrastructure by 2040.

because each of these have their own product-service combinations, with various future perspectives.

MATURE MARKET

It is also important that the market for second-hand products and reused materials matures quickly. Buying a second-hand car is considered normal, but the residual value of chairs or clothing is often not yet recognised. The differences between products is also still significant; in every product category the residual value is determined differently. In this area standards will have to be developed as well. The market needs to be harmonised at a national, European and global level, and there should be an even playing field for reused parts and raw materials.

GOVERNMENT INCENTIVE

The first GDCI leaders are now busy scaling up circular procurement, or have already identified opportunities to implement the circular economy in their primary process. In Central government huge steps are being taken with a successful office furniture project which stretches far beyond the initial pilot project. From 2017, all furniture will be purchased according to circular principles. Apart from saving millions of euros, this also sends a strong signal to the market. There are also great spin-off processes, such as the group of municipalities that started working with circular procurement in a series of sessions. And there is interest in the GDCI approach of learning and doing together from countries around us. It's not about first convincing leaders and then amending regulations; it's about just getting started and presenting good examples.

NEW ISSUES

In scaling up, we will also face new problems and challenges. Instead of resistance within the organisation, we will be facing resistance from the market. How should we handle this? What does this mean for specifying needs?

This is why we are continuing with the GDCI 2.0. Again in the design of a learning network. The strength of this lies in interaction. And in the hands-on approach: just trying it out and convincing others using good examples.

R FOR 'RE-ORGANISE'

Those starting with circular procurement, notice that this has various effects on the tasks, roles, functions and ways of cooperating in the organisation. Initially, it is still possible to find 'ad hoc' solutions for this. But when we want to apply circular procurement in a structural way, we cannot avoid the fact that processes and structures need to be re-organised and re-designed. So this means 'Re-organising'.

ACTION	NIVEAU
REFUSE (DO NOT BUY)	HIGH
REDUCE	
REDESIGN	
RE-USE	
REPAIR	
REFURBISH	
REMANUFACTURE	
REPURPOSE	
RECYCLE	
RECOVER (ENERGY)	LOW

levels of circularity according to Prof. J. Cramer

The need for reorganising is clear as soon as we start thinking fundamentally about the organisation's circular needs. To illustrate: when an organisation only focuses on purchasing 'new' circular economy-based furniture, the purchase of chairs with the Cradle-2-Cradle certificate would be sufficient. However, in this situation not much will change regarding internal processes. It does not guarantee that furniture will actually be reused.

ALIGNMENT

We go a step further if we want to make agreements in the organisation about the take-back of furniture by the supplier. If a use agreement such as a lease is signed, it will have an effect on the financial handling of the furniture. This

could mean a monthly fee instead of a one-off purchase price. Although leasing can turn out to be more expensive, the organisation as a whole could have fewer costs because of maintenance and waste management. Internal alignment of financial aspects is therefore vital.

RESIDUAL VALUE AND QUALITY

We go even further if purchase and buy-back agreements are made, in which the residual value at the end of the contract term flows back to the purchasing organisation. Agreements can also be made here about the condition of the goods being bought back. It is important to safeguard that, after buy-back, the product is still of the quality that both parties agreed at the time of signing the contract. The internal facility processes will need to be adapted further if the furniture is purchased as a product-service combination and the supplier is responsible for maintaining the quality.

NO PROCUREMENT

The need for reorganisation is even greater when we ask the question: 'How can I fulfil the workplace needs of my organisation in the most circular way possible?' Perhaps the service life of existing furniture can be extended. We will then examine the existing stock of furniture and its quality. That brings new issues such as: how we can monitor quality? How do we design preventive maintenance, how do we store excess furniture and then re-allocate this? The procurement question of 'what is my need' thus leads to a whole series of challenges in the area of operations. Various facility processes will then need to be reorganised, as can be seen in the Rijkswaterstaat project in which furniture procurement is organised according to circular principles.

ORGANISATION-WIDE

In short: a pilot with circular procurement is a good and achievable start.

> "FOR CIRCULAR PROCUREMENT YOU NEED COURAGE, POSITIVE ENERGY, LOBBYING AND PERSISTENCE, AND YOU ALSO JUST NEED TO START."
>
> GEERKE VERSTEEG, PROJECT LEADER FACILITIES FURNISHING & CIRCULAR PILOT PROJECTS

But subsequently scaling up to an entire product category, and across the organisation, demands an organisation-wide ambition to embrace the circular economy. That is a shared responsibility and ambition. If you want to get started seriously with circular procurement, then the entire organisation needs to be involved, from F&C to budget holders and facility managers. It is a considerable, but also fantastic challenge that will raise the professionalism of the procurement function to a higher level.

ANOTHER ROLE FOR PROCUREMENT

Procurement for the circular economy demands all kinds of adaptations in an organisation's operations and internal processes. This means that we also have other requirements for the role of procurement and the profile of future buyers. Tomorrow's buyer fulfils the role of supply chain manager, and becomes a true 'intrapreneur'.

In the GDCI pilots, we saw that in practice 'procurement' is too narrow an approach. Embracing the circular economy will only succeed if the entire operations undergo a fundamental change. If cross-functional teams start working together, from a common goal and joint KPIs. It also demands a shift in culture, to look at the bigger picture rather than only focusing on your 'own street' and to link the short-term costs to the long-term ones.

INTERNAL AND EXTERNAL CONNECTION

The procurement function that we know today will no longer exist in 2020. The future buyer will be connected internally and externally, will be creative and courageous in challenging all parties to achieve the best-performing circular supply chain for the organisation. The procurement roles of the adviser, relationship manager and director merge in circular procurement.

SUPPLY CHAIN MANAGER

In the circular economy, the buyer is more of a supply chain manager. He/she managers and connects the successive links in the supply chain. For example, for purchasing catering, or even a building, the buyer can use the circular ambitions to start discussions with internal customers and the facility manager. Together they determine how the purchasing process should be designed for the project concerned and which products should be purchased for this.

In the same way, the buyer could meet with an external team including the supplier, designer of the product being purchased and the waste service provider, to devise together which product adaptations will lead to high-quality recycling after use.

NETWORK OF EXPERTS

The buyer thus engages suppliers much more as experts in their area. The cooperation with suppliers focuses much more on the long term, and on retaining as much value as possible. The buyer builds a network comprising the producer/supplier, users and the waste processing company. Implementing this approach is not simple. It takes more time than simply purchasing according to price and also demands leadership, vision and perseverance.

'INTRAPRENEUR'

In the circular economy, we expect the buyer to think and act much more as an entrepreneur within the organisation and supply chain; in short an 'intrapreneur'. He or she acts as manager, works across the boundaries of multi-disciplinary teams and focuses on partnership both internally and externally (relationship manager). He or she helps the organisation to change through innovation at both process as well as product level (adviser). The aim is to create value by accessing new products and markets, making supply chains quicker, better and cheaper, or by actually closing supply chains (director). Circular procurement is all about activities for the coordination of various units in the supply chain, with the aim of closing the chain as a whole instead of optimising each unit separately.

SKILLS NEEDED FOR CIRCULAR PROCUREMENT

1. **Enterprising and developing**
   As a buyer, are you capable of making business models that focus on the future and of circular economy thinking?
2. **Procurement skills**
   Are you sensitive to the end user's needs, or do you focus on technical problems? Are you able to connect with stakeholders?
3. **System thinking and identifying supply chains**
   Can you cooperate and are you open for feedback? Do you think from a social, economic and environmental context and do you know what this means for the stability, resilience and quality of your organisation and the supply chain?
4. **Future-focused and out-of-the-box**
   Are you future-focused and do you concentrate on tomorrow's solutions?
5. **Point out uncertainties and risks**
   Can you face challenges and do you know how to handle uncertainties? Are you able to respond positively?
6. **Creativity, innovation and connection**
   Are you able to create a feeling of openness for new solutions and are you always searching for other networks? Are you a cooperative thinker?

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GDCI PARTICIPANTS AND THEIR PILOTS FOR CIRCULAR PROCUREMENT

ABN Amro	Pilot projects Pavillion Office furniture Emergency power generator
Alliander	Sealbags Office furniture (with Gispen) Workwear
ASR Nederland	Insulation material
BMA Ergonomics B.V.	Unknown Foam
Brink Industrial	Fabrics
Copper8	Lune waste bin
Desko	Circular office furnishings
De Meerlanden	Circular office furnishings Waste-free office, workwear
Dura Vermeer	Workwear
GEA Grenco	Workwear
Municipality of Amersfoort	Designing the home of the future Office chairs Renovation of municipal offices

Municipality of Amsterdam	Office furniture Concrete recycling
Municipality of The Hague	Flooring Construction of waste recycling centre
Municipality of Rotterdam	Concrete tiles
Municipality of Utrecht	Street furniture Outdoor advertising Municipal waste collection facility Personal protective equipment Office paper
Municipality of Venlo	Construction of town hall
Municipality of Wageningen	Renovation and design of town hall IT replacement/expansion Council chamber audio and video systems Hot beverage dispensers
Gispen	Furniture (with Alliander, accommodation in Duiven)
GP Groot	IT hardware Service life extension of tyres and shovels Office chairs Wheelie bins Products from waste
High Five Health Promotion & Intenz Gezondheidsplan	Unknown

Humanagement	Project and interim agency (incl. 2 pilots for ProRail, RIBW Brabant)
ING	Waste containers IT
Interface	Floor tiles
ISS	Unknown
Jan Kuipers Nunspeet	Unknown
Landal	Beds Waste management Parks
Logge interior design	Circular interior design
Dutch Ministry of the Interior and Kingdom Relations	Workwear Office furnishing, category plan
Dutch Railways	Public transport bike Consumer waste Ticket machines Permanent magnets (infra)
Philadelphia Zorg	Office chairs
Philips	IT (telephones and laptops)
Pon	IT hardware Waste management (lubricants)
ProRail	Office furniture Flooring Circular railway
Province of Noord-Brabant	No specific pilot projects
Province of Utrecht	Laptop park

Province of Zuid-Holland	Unknown
Rabobank	Design and renovation of flooring
Rendemint	PRP methodology, advice
Royal Haskoning DHV	Office chairs Carpet tiles Catering (food waste factory) Coffee cups IT hardware (laptops)
TBI	Workwear
UMC Utrecht	Office furniture White uniforms Hospital beds
Universiteit van Tilburg	Unknown
VanDerLande Industries	Yellow transport containers Conveyor belts
Verstegen Spices & Sauces	Transport containers
Waternet	Electrical tools Milled roofing

WOULD YOU LIKE TO READ MORE ABOUT PROCUREMENT FOR THE CIRCULAR ECONOMY?

Green deal circular procurement, web: www.gcdi.nl
CSR Netherlands, Michel Schuurman: m.schuurman@mvonederland.nl
PIANOo, Take Padding: take.padding@pianoo.nl
NEVI, Erik van Assen: e.vanassen@nevi.nl
Rijkswaterstaat, Cuno van Geet: cuno.van.geet@rws.nl
Kirkman Company, Cas van Arendonk: c.van.arendonk@kirkmancompany.com