



Circular Public Procurement Training

Masterclass for Champions

Joan Prummel, Take Padding, Mervyn Jones

The Hague, 23-25 January 2018 | Block 1

Check-in

How did you arrive here?





Welcome

- Welcome to The Hague
- Three-day training
- Intense, but... fun!



Program outline

Building block	Content
Tuesday afternoon (1) 13:00 – 18:00	 Introduction to Circular Public Procurement Start with why Selecting high-potential product groups
Wednesday morning (2) 09:00 – 12:30	 Internal collaboration External collaboration Asking the right question
Wednesday afternoon (3) 13:15 – 17:00	 Procurement procedures Requirements & criteria Measuring & assessing circularity
Thursday morning (4) 09:00 – 12:30	Revenue modelsContractingDetermining impact
Thursday afternoon (5) 13:15 – 16:00	 Organisation maturity Next steps: building an action plan Action plan presentations



Get-to-know



Introduce yourself with a powerful experience from the last year

What has been an important lesson in your work or life?



Building block 1 Program outline & case

Tuesday, January 23rd



Program Tuesday afternoon

Building block	Content			
14:00 (30 min)	Check-in, program outline & case introduction			
14:30 (50 min)	Introduction to Circular ProcurementCircular EconomyCircular Procurement			
15:20 (20 min)	Coffee break			
15:40 (70 min)	 Start with why Why start with why? Individual why Organisational why 			
16:50 (30 min)	Interview: Rijkswaterstaat			
17:20 (20 min)	Coffee break			
17:40 (40 min)	Selecting high-potential product groupsComplexity versus lifetimeImpact potential			
18:20 (10 min)	Check-out			
18:30	Hotel & dinner			



Introduction case assignment

- The training will use a case for illustration
- Case assignments are integrated in the training



Case description

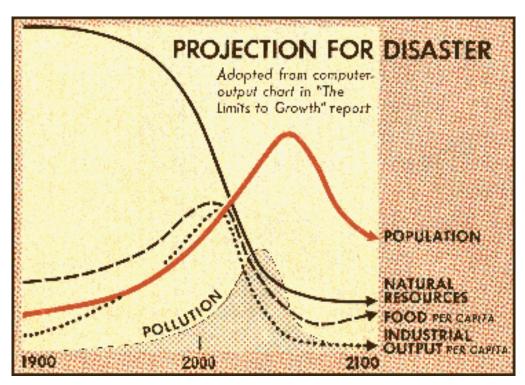
- The town of Greenfield requires new office furniture for it's civil servants.
- The organisation is expecting to contract over the years, leading to excess furniture compared to the present-day situation.
- The town is looking for a new supplier.
- The town wants to accelerate the circular economy, and the furniture plays an essential role in sharing the story.

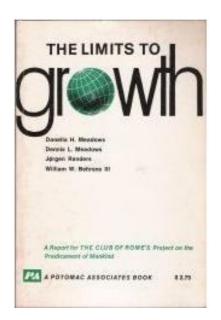


Introduction to Circular Public Procurement



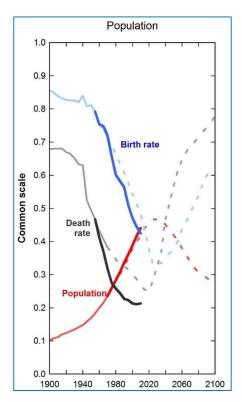
A brief history: the need for sustainable development

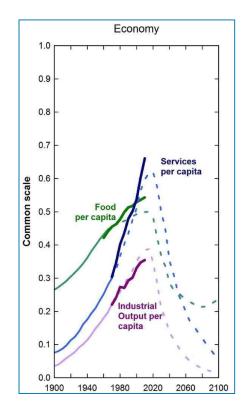


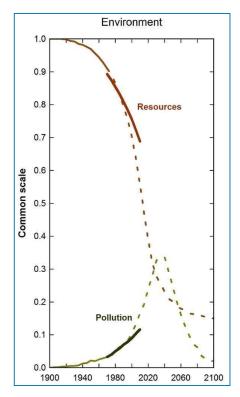


Source: Meadows e.a. (1972), Limits to growth

A brief history: trends continue into the present

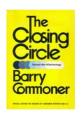


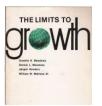




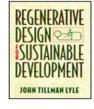
Source: Graham Turner (2016), Is global collapse imminent? Melbourne Sustainable Society Institute

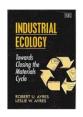
A brief history: circular economy principles in literature

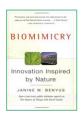




















The closing circle Limits to growth Commoner (1971)

Meadows et al. (1972)

Our Common Future Brundtland et al. (1983)

Regenerative Design | Lyle (1994)

Industrial ecology **Ayres** (1996)

Biomimicry Benyus (1997)

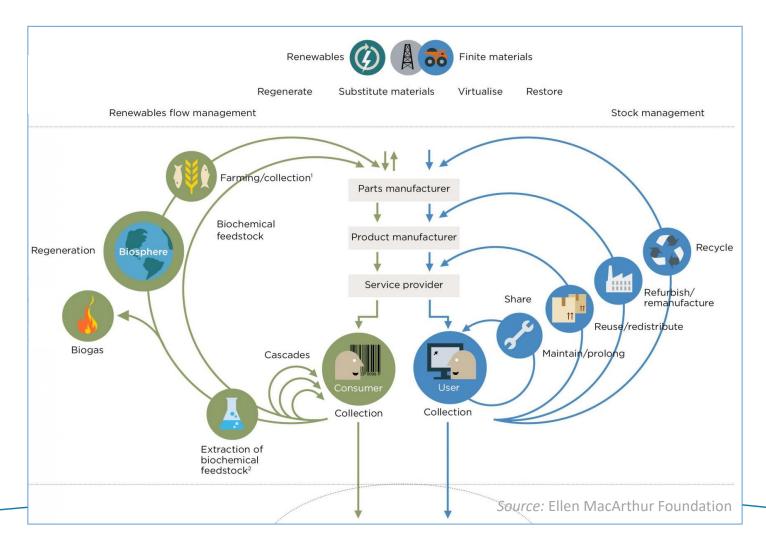
McDonough & Braungart (2002)

Cradle to Cradle Performance economy Blue economy Stahel (2006)

Pauli (2010)

Circular economy MacArthur & McKinsey (2013)

The circular economy framework



Circular economy in a product supply chain

- Circular economy impacts all steps in the supply chain
- Procurement is able to impact all of these steps
- However: change by one step at a time



Question: which chair is more circular?



New chair

- Virgin materials
- Cradle-to-cradle label
- Easy to disassemble



New chair

- Recycled PET
- No sustainability label
- Easy to clean

Question: which road is more circular?



Road with new asphalt

Low-temperature new asphalt



Road with re-used materials

Re-using existing asphalt

Question: which building is more circular?



Brummen town hall

- Existing residential building
- New building elements added
- All new elements can be taken apart and re-used



Venlo city hall

- New office building
- Completely Cradle-to-Cradle
- Focus on healthy living and working: air-cleaning wall



Alliander, Duiven office

- Refurbished office building
- 95% of existing materials reused, added materials are mostly recycled
- Net zero energy



Question

What is your definition of the Circular Economy?



Definitions of the circular economy: six examples from the built environment













Definitions of the circular economy: recent study shows at least 114

Conceptualizing the circular economy: An analysis of 114 definitions



Julian Kirchherr*, Denise Reike, Marko Hekkert

Innovation Studies Group, Copernicus Institute of Sustainable Development, Utrecht University, The Netherlands

ARTICLEINFO

Keywords: Circular economy 4R framework Sustainable development Definitions Content analysis

ABSTRACT

The circular economy concept has gained momentum both among scholars and practitioners. However, critics claim that it means many different things to different people. This paper provides further evidence for these critics. The aim of this paper is to create transparency regarding the current understandings of the circular economy concept. For this purpose, we have gathered 114 circular economy definitions which were coded on 17 dimensions. Our findings indicate that the circular economy is most frequently depicted as a combination of reduce, reuse and recycle activities, whereas it is oftentimes not highlighted that CE necessitates a systemic shift. We further find that the definitions show few explicit linkages of the circular economy concept to sustainable development. The main aim of the circular economy is considered to be economic prosperity, followed by environmental quality; its impact on social equity and future generations is barely mentioned. Furthermore, neither business models nor consumers are frequently outlined as enablers of the circular economy. We critically discuss the various circular economy conceptualizations throughout this paper. Overall, we hope to contribute via this study towards the coherence of the circular economy concept; we presume that significantly varying circular econom

- 80% DEFINITIONS: RECYCLING
- 50% DEFINITIONS: REDUCING MATERIAL USE
- 50% DEFINITIONS: ECONOMIC PROSPERITY AS PRIMARY DRIVER
- 10% DEFINITIONS: SUSTAINABLE DEVELOPMENT AS PRIMARY DRIVER

Definitions of the circular economy: two often-used examples

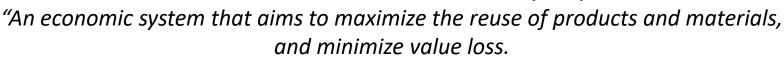
Ellen MacArthur Foundation

"A circular economy is an industrial system that is restorative or regenerative by intention and design.



It replaces the 'end-of-life' concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impair reuse, and aims for the elimination of waste through the superior design of materials, products, systems, and, within this, business models."

Green Deal Circular Procurement (NED)





This is different from the present-day linear system, where materials are transformed into products, which are destructed at their end of life."



Circular economy & ISO 26000

ISO 26000 provides international framework for sustainability, both for public and private sector

ISO 26000: Social responsibility

- Organizational governance
- Human rights
- Labour practices
- Environment
- Fair operating practices
- Consumer issues
- Community involvement & development

Environment: 4 issues

- Prevention of pollution
- Sustainable resource use
- Climate change mitigation & adaptation
- Protecting biodiversity and natural habitats



What is circular procurement?

Green Deal Circular Procurement (NED)

"The procurer ensures that the producer can optimally reuse products or materials at the end of their life cycle in a new life cycle."



Elements

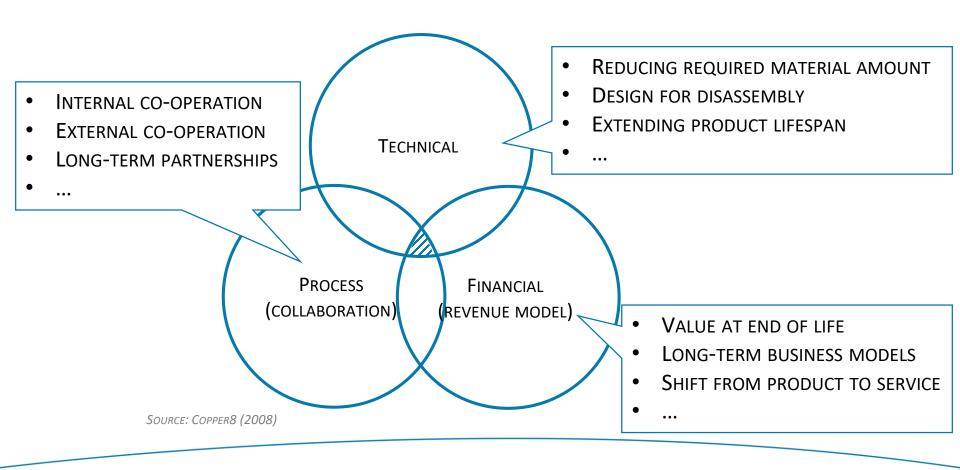
- Optimal reuse (relating to e.g. energy)
- Products or materials (level of reuse)
- New life cycle (continuous reuse)



Traditional, sustainable, circular procurement

	MARKET CONTACT	CRITERIA	Соѕт	COLLABORATION	CONTRACT
Trad.	 FOCUS ON SUPPLIER LIMITED MARKET CONTACT 	 FIXED SET OF REQUIREMENTS SELECTION BY EXCLUDING, BASED ON RISKS TECHNICAL SPECS 	 FOCUS ON SHORT-TERM COSTS LOWEST PRICE 	TRANSACTIONAL RELATION	 PRODUCT OWNERSHIP NO END-OF-LIFE ARRANGEMENTS NO SPACE FOR DEVELOPMENT
Sust.	 FOCUS ON SUPPLY CHAIN REGULAR MARKET CONTACT 	 REQUIREMENTS BASED ON EXISTING SUST. LABELS SELECTION ON SUST. PRACTICES MORE FUNCTIONAL SPECS 	Focus on TCO / TCUBALANCE PRICE/QUALITY	Transactional relation	 PRODUCT OWNERSHIP
CIRC.	 FOCUS ON SUPPLY CHAIN INTENSIVE MARKET CONTACT, ALSO ON CRITERIA 	 LIMITED SPECS: CRITERIA ON VISION AND AMBITIONS MAXIMUM FUNCTIONAL SPECS 	Focus on TCO / TCUFocus on Quality	LONG-TERM RELATION	 PRODUCT OWNERSHIP + USE END-OF-LIFE ARRANGEMENTS SPACE FOR DEVELOPMENT

Circular procurement requires change: technical, process-minded and financial





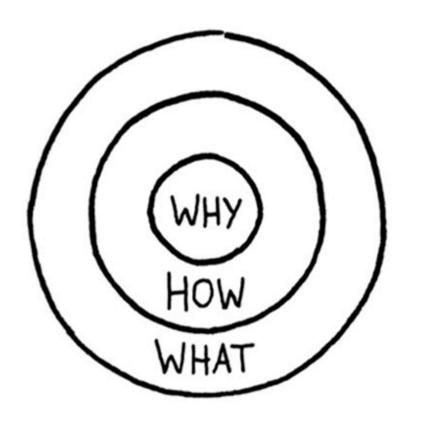
Coffee break



Start with why



Why start with why?



Starting with why is essential in realizing the circular economy: it is the strongest way to get others to join your efforts.

Bron: Start with Why (Sinek, 2011)

Start with *why* 28

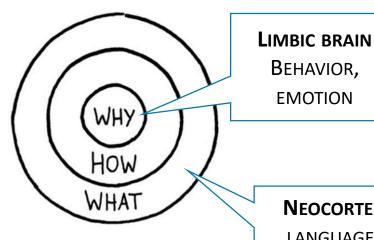


<u>Link to YouTube</u> (5.37 – 7.20)

Question

Why is the why essential?





BEHAVIOR, **EMOTION**

> **N**EOCORTEX LANGUAGE, **FACTS**

Starting with why helps us to connect to what truly matters

"People do not buy what you sell, they buy what you believe."

"You want to do business with people who believe what you believe."

- A circular economy requires different behavior: co-operation
- Share your why with others: both internal and external
- Always ask for the why of your potential suppliers
 -> only then will you be able truly influence their behavior

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and Water Management

Start with *why* 31



Question

"WE ARE ALL ASTRONAUTS
OF SPACESHIP EARTH"

What is your individual why?





Link to YouTube

Question

What is your organisational why for circular procurement?

"THE DAY MUST COME, WHEN PLUNDERING IS NOT ALLOWED ANY MORE."





Start with why

Organisation why: Achieving compliance

- Least Cost versus MEAT (Most Economically Advantageous Tender)
- Often, 'least cost' is used instead of MEAT in tenders (2015 figures):
 - 34% construction
 - 14% furniture
 - o 54% ICT OJEU
- Delivering national and EU reporting requirements
 - Netherlands: 10% circular procurement in 2020
 - Scotland: Procurement Reform Act 2015
 - Wales: Well Being & Future generations Act 2015
- Fulfilling public duties and responsibilities
 - Public Health Wales social & community benefits
 - Environmental due diligence

COMMISSION DECISION (19/12/2013)

Main types of irregularities:

- Contract notice and tender specifications (12)
- Evaluation of tenders (9)
- Contract implementation (4)



Start with *why* 36

Organisation why: European focus on circular procurement

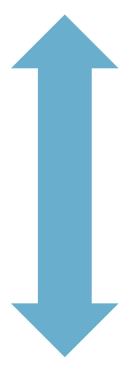
- European Commission focuses on market development
- Circular procurement as an important tool
- Initiatives of national and local governments are important
- Publication provides various examples from multiple nations



Rijkswaterstaat
Ministry of Infrastructure
and Water Management

Start with why

How to achieve an organisational why?



'ROYAL ROUTE' CORPORATE OBJECTIVES

- INFLUENCE CORPORATE STRATEGY
- ADD CIRCULARITY AND CIRCULAR PROCUREMENT
- ALIGN MANAGEMENT AND HR DPT TO STEER THROUGH PERFORMANCE REVIEWS

"NO MATTER WHAT YOUR MOTIVATION IS, YOU CAN ALWAYS FIND A MEANS FOR CIRCULAR PROCUREMENT."

'WORKAROUND' TEAM OBJECTIVES

- LINK CIRCULARITY AND CIRCULAR PROCUREMENT TO EXISTING SUSTAINABLE AMBITIONS
- STEER WITHIN YOUR CIRCLE OF INFLUENCE ON RESULTS



Studies show: circular economy pays



\$630 BILLION (EU)
THROUGH MATERIAL SAVINGS

(ELLEN McArthur Foundation, 2013)



€7.3 BILLION (NED) BY 54.000 NEW JOBS

(TNO, 2013)



+\$1200 BILLION (EU)
THROUGH ADDITIONAL BENEFITS

(ELLEN MACARTHUR FOUNDATION, 2016)

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Ministry of Infrastructure
and Water Management

Start with why

Increasing policies on circular economy







NETHERLANDS CIRCULAR 2050 DUTCH NATIONAL GOVERNMENT



TOOLKIT FOR POLICY MAKERS ELLEN MCARTHUR FOUNDATION

Start with why

How do you build circular economy policy?

- Example: national circular economy program of the Netherlands
- Intense stakeholder participation in each step

Nederland circulair in 2050

NATIONAL STRATEGY

TARGETS & SUPPLY CHAINS





Coffee break





Interview

Ellen Hoog Antink Rijksoverheid





Rijksoverheid

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Selecting high-potential product groups



Selecting high-potential product groups

Why?

- Helps to select product groups for circular procurement pilots with high opportunities for success
- A successful pilot helps scaling up to more pilots

Various ways

- How to determine high-potential product group:
 - Based on complexity lifetime
 - Based on spent risk
 - Based on risk scope
 - Based on influence scope



Product complexity vs technical lifetime

- Well-suited for circular procurement:
 - Average product complexity
 - Average technical lifetime

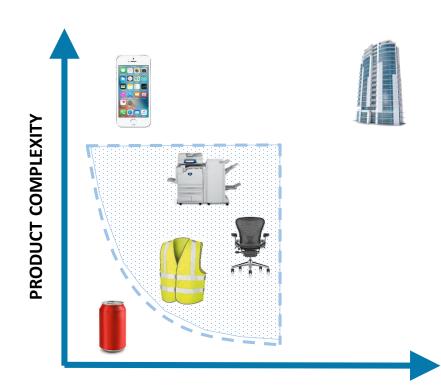
LOW COMPLEXITY AND LOW TECHNICAL LIFETIME?

RE-USE ON A MATERIAL LEVEL

THE HIGHER THE **PRODUCT COMPLEXITY, THE HARDER TO RE-USE EXISTING MATERIALS** AND COMPONENTS PRODUCT COMPLEXITY THE LONGER THE **TECHNICAL LIFETIME**, THE HARDER TO CLOSE THE CIRCLE AFTER THE PRODUCT LIFETIME TECHNICAL LIFETIME

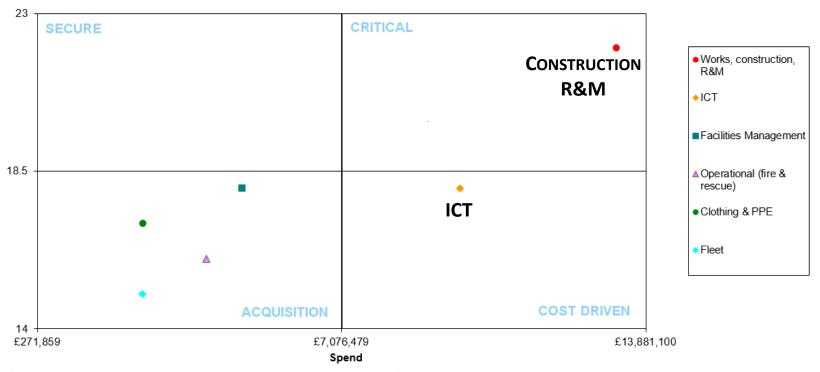
Product complexity vs technical lifetime

- Well-suited for circular procurement:
 - Average product complexity
 - Average technical lifetime



TECHNICAL LIFETIME

Prioritizing: spend - risk



SECURE: CLOSELY MANAGE

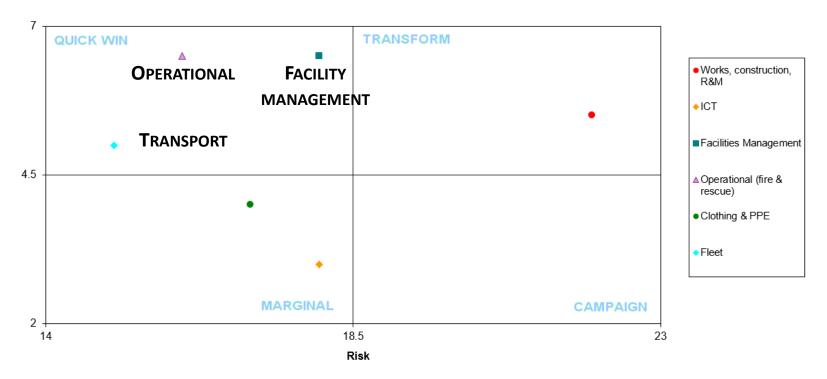
ACQUISITION: LOW VALUE, LOW RISK

CRITICAL: DRIVE VALUE AND CONTROL RISK

COST: MANAGE AND SECURE SAVINGS



Prioritizing: risk - scope

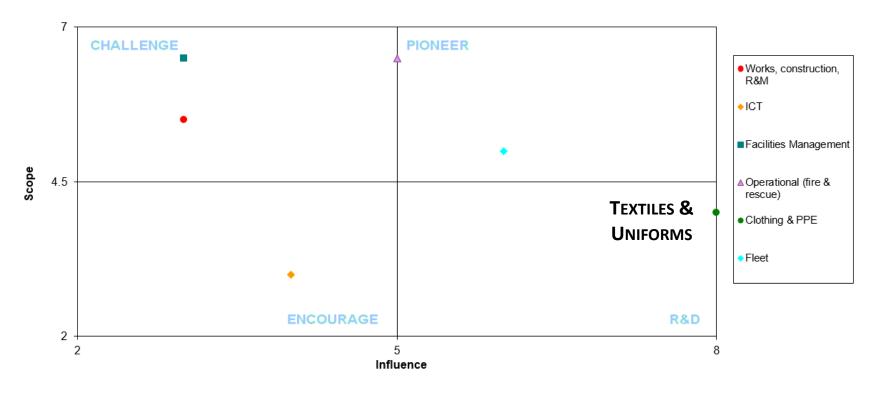


QUICK WIN: MANDATE MIN. STANDARDS

MARGINAL: OPPORTUNISTIC

TRANSFORM: ADDRESS MARKET AND/OR BM CAMPAIGN: HIGH RISK, LOW SCOPE TO IMPROVE

Prioritizing: influence - scope



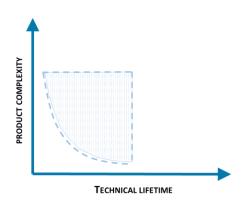
CHALLENGE: NEW PRODUCTS / BMS ENCOURAGE: SUPPLIERS TOWARDS CE

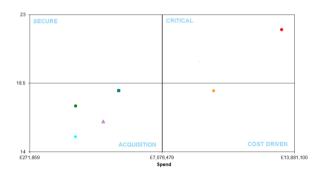
PIONEER: NEW PRODUCTS / BMS, HIGH POTENTIAL R&D: HIGH INFLUENCE BUT FEWER OPPORTUNITIES



Excersise

What can be high-potential product groups for your organisaton?





Check-out

What is your most urgent question?









EUROPEAN UNION

EUROPEAN REGIONAL DEVELOPMENT FUND

CircularPP





Mervyn Jones | Sustainable Global Resources <u>mervyn@sustainableglobalresources.co.uk</u>



Ellen Hoog Antink | Rijkswaterstaat ellen.hoogantink@rws.nl



Godard Croon | Copper8
croon@copper8.com





Circular Public Procurement Training

Masterclass for Champions

Joan Prummel, Take Padding Mervyn Jones

The Hague, 23-25 January 2018 | Block 2

Check-in

What did you dream about?



The Big Red / Blue game



Game instructions

- Target: achieve maximum positive points for your team
- You will be split in two teams (A + B)
- All games consist of six rounds, of +/- 2 minutes per round
- Every round, each team plays the color Red or Blue
- Each team receives a score, according to the table
- Negotiations between the teams can take place after rounds 2 and 4. One representative of each team is allowed to speak shortly to the representative of the other team. Negotiations only take place if both teams wish so.
- Rounds 5 and 6 provide double points.



Score table

ROUNDS 1 - 4

ROUNDS 5 + 6

Теам А	Теам В	Score A	SCORE B
RED	RED	+3	+3
RED	BLUE	-6	+6
BLUE	RED	+6	-6
BLUE	BLUE	-3	-3

Теам А	Теам В	SCORE A	Score B
RED	RED	+6	+6
RED	BLUE	-12	+12
BLUE	RED	+12	-12
BLUE	BLUE	-6	-6

Score results

Round	Теам А	Теам В	SCORE A	Score B	TOTAL SCORE
1	R	В	-6	6	0
2	В	В	-3	-3	-6
3	R	R	3	3	6
4	В	R	6	-6	0
5	R	В	-12	6	0
6	В	В	-6	-3	-6
		TOTAL SCORE	-18	6	-12



Collaboration: the prisoners dilemma

	TEAM BERLIN		
		COMPETITION	COLLABORATION
TEAM PARIS	COMPETITION	Paris: - 24 points Berlin: - 24 points Total: -48 points	Paris: +48 points Berlin: -48 points Total: 0 points
TEA	COLLABORATION	Paris: -48 points Berlin: +48 points Total: 0 points	Paris: 24 points Berlin: 24 points Total: 48 points



Game insights

- Who was your 'team'?
- Did you trust the other team?
- 'Winner' depends on who your team is
- People and organisations tend to (automatically!) work in their self-interest: this is an evolutionary habit
- Collaboration leads to more points then competition
- Both 'internal' collaboration within teams, as 'external' collaboration between teams



Building block 2 Program outline

Wednesday, January 24th



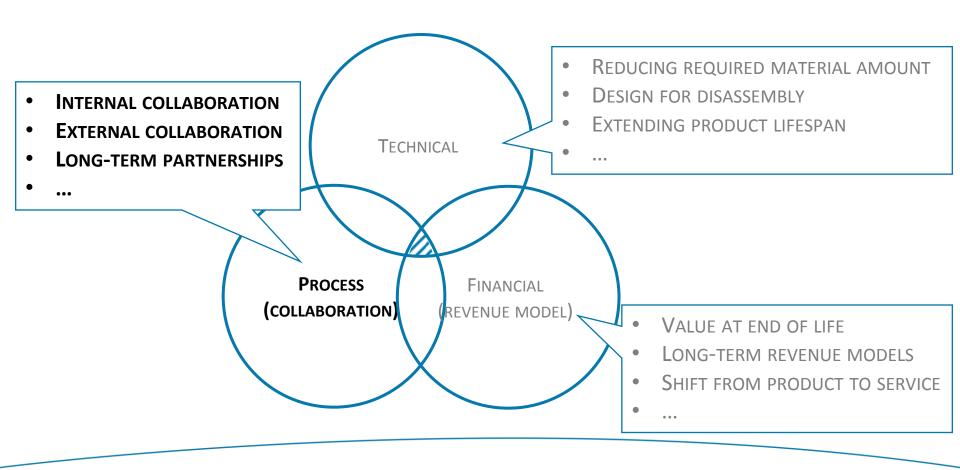
Program outline

Building block	Content
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Thursday afternoon (5) 13:15 – 16:00	Organisation maturityNext steps: building an action planAction plan presentations

Program outline Wednesday morning

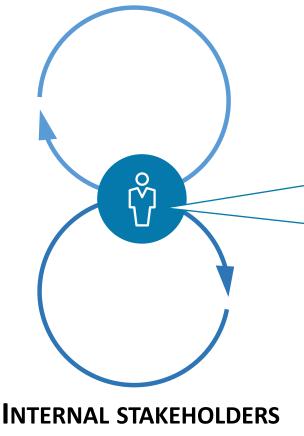
Building block	Content
09:00 (15 min)	Check-in
09:15 (30 min)	Game
09:45 (45 min)	The importance of collaborationInternal collaboration
10:30 (30 min)	The importance of collaborationExternal collaboration
11:00 (15 min)	Coffee break
11:15 (30 min)	Guest speaker: Municipality of Amsterdam
11:45 (45 min)	Asking the right questionDetermining your real needPractical examples
12:30 (45 min)	Lunch break

Recap: circular procurement requires co-operation



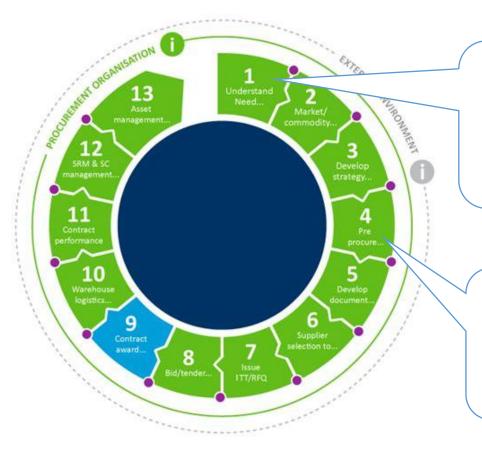
Both internal and external collaboration required

EXTERNAL SUPPLY CHAIN



- ALIGNING INTERESTS OF INTERNAL STAKEHOLDERS AND SUPPLY CHAIN
- MOVING TOWARDS LONG-TERM **COLLABORATION REQUIRES** PARTICIPATION OF ALL STAKEHOLDERS

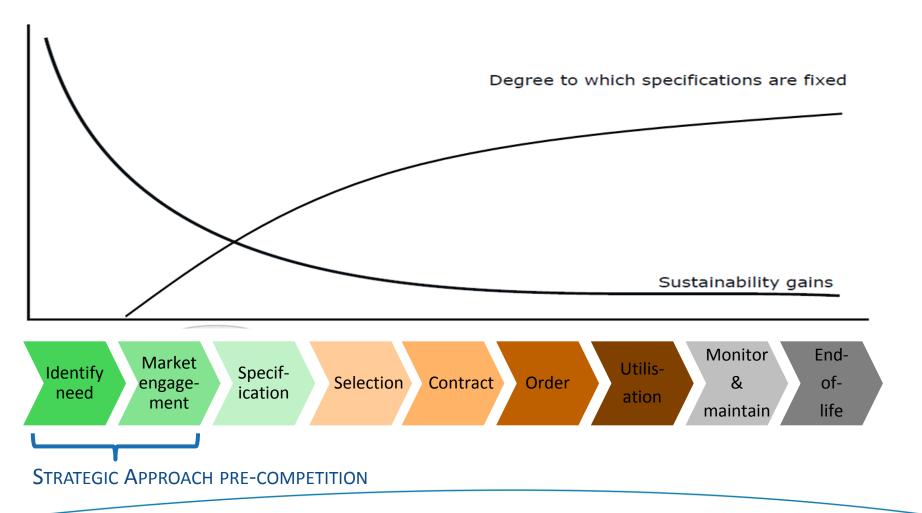
Circular procurement secured in early phase of procurement cycle



FOR A SUCCESSFUL (CIRCULAR)
PROCUREMENT PROCESS, IT IS
IMPORTANT TO INTEGRATE
(CIRCULAR) AMBITIONS ALREADY
IN 'UNDERSTANDING THE NEED'

IN A NORMAL PROCUREMENT
PROCESS, PROCUREMENT
OFTEN GETS INVOLVED IN THE
'PRE-PROCUREMENT' PHASE

where is the biggest impact?



Impact assessment 15



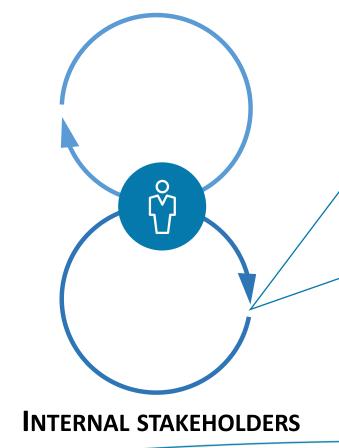
The importance of collaboration

Internal collaboration



Some relevant questions when looking at internal collaboration

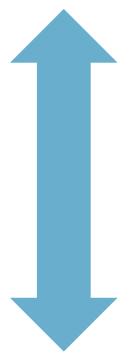
EXTERNAL SUPPLY CHAIN



- HOW DO YOU MAKE SURE CIRCULAR
 PROCUREMENT SUPPORTS THE INTERESTS
 OF INTERNAL STAKEHOLDERS (OR AT
 LEAST DON'T CONFLICT WITH THEIR
 INTERESTS)
- HOW DO YOU MAKE SURE CIRCULARITY
 IS PART OF THE PROJECT AIMS AS EARLY
 AS POSSIBLE
- WHO IS GOING TO 'CONNECT 'ALL RELEVANT STAKEHOLDERS
- What are the implications of CP for the use of the product?

THIS REQUIRES A ROLE CHANGE FOR THE PROCUREMENT DEPARTMENT

Two routes for internal collaboration



'ROYAL ROUTE' CORPORATE OBJECTIVES

- INFLUENCE CORPORATE STRATEGY
- ADD CIRCULARITY AND CIRCULAR PROCUREMENT
- ALIGN MANAGEMENT AND HR DPT TO STEER THROUGH PERFORMANCE REVIEWS

'WORKAROUND' TEAM OBJECTIVES

- LINK CIRCULARITY AND CIRCULAR PROCUREMENT TO EXISTING SUSTAINABLE AMBITIONS
- STEER WITHIN YOUR CIRCLE OF INFLUENCE ON RESULTS

A role change for procurement

- The role of the procurement department changes in circular procurement
- 'Procurement' will have a stronger, more central role in order to achieve collaboration
- It helps to align the priorities of both the external supply chain and the internal stakeholders

ROLE OF PROCUREMENT

RESPONSIBILITY

FINANCIAL INCENTIVES

TRADITIONAL PROCUREMENT

SUPPORTING ROLE

TRANSACTION

SHORT-TERM COSTS

CIRCULAR PROCUREMENT

INITIATOR / CONNECTOR

RELATION

LONG-TERM VALUE



How do you create internal collaboration?

- Appoint a CP 'champion' / catalyst
- Ambassador on a high management level, who will stand for the project and can help bridge split incentives
- Interdisciplinary session on project level ambitions
- 1-on-1 conversations: people feel themselves heard
 - Ambitions
 - Requirements
- Continuous communication
- Involving internal stakeholders in evaluation committee

INVENTORYING
INTERNAL STAKEHOLDERS

MAPPING STAKEHOLDER INTERESTS INVOLVING STAKEHOLDERS IN PREPARATION INVOLVING STAKEHOLDERS IN PROCEDURE

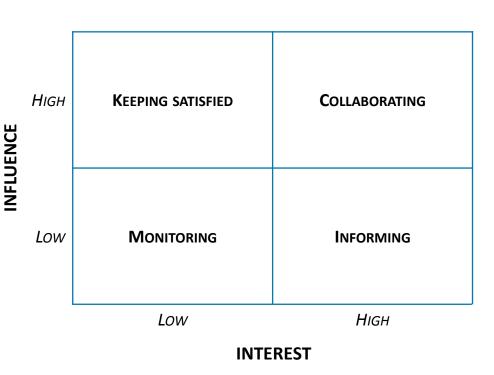
Case assignment



Assignment 1 Who are your internal stakeholders?

Various ways of involvement

- Different internal stakeholders require different types of involvement
- This depends on their influence (high / small) and their interest (low / high)



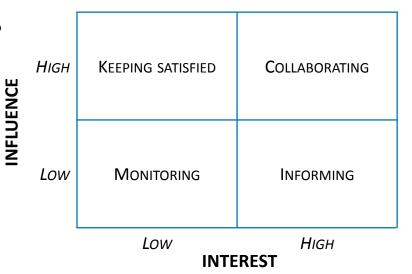
Source: Johnson, Whittington en Scholes (2011)

Case assignment

Assignment 2

Categorize your internal stakeholders in the matrix.





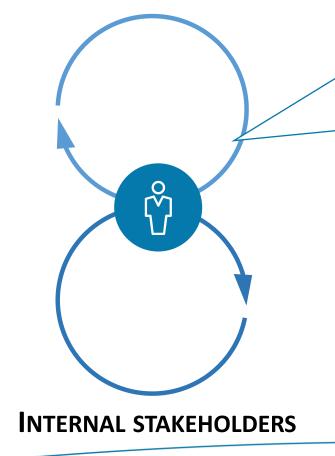
The importance of collaboration

External collaboration



The importance of external collaboration

EXTERNAL SUPPLY CHAIN



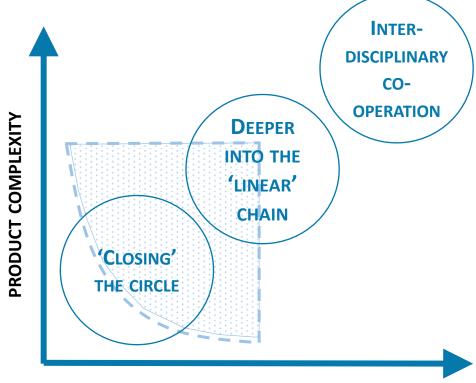
- How do you involve the Complete supply chain in Answering the question?
- HOW DO YOU GET THE RIGHT ORGANISATIONS FROM THE SUPPLY CHAIN AT THE TABLE?
- How do you work together with MARKET ORGANISATIONS BASED ON EQUALITY AND TRUST?

THIS REQUIRES AN ANALYSIS OF ALL ACTORS IN THE SUPPLY CHAIN

AN INTENSIVE MARKET DIALOGUE IS A MUST-DO FOR CIRCULAR PROCUREMENT!

Analyzing the supply chain

- Differences per product type
- Depending on two factors:
 - Product complexity
 - Technical lifetime



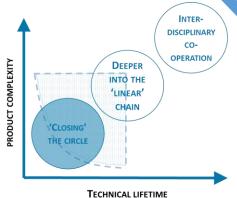
TECHNICAL LIFETIME

Example: Office furniture (Public Health Wales), PRACTICE

Circularity aims within project:

- Re-using existing high-quality PHW furniture
- Providing re-used and remanufactured items
- Providing a functional space plan





Wales - furniture







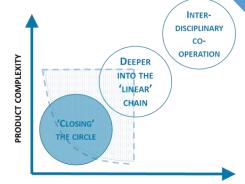
Example: Textiles (Ministry of Defense, NL)

Circularity aims within project:

- Re-use of existing products and materials
- Recycled content in new textiles

What happens outside traditional procedures?

- Category manager
- Market contact: RFI
- Meet-the-market-events
- Collaboration with others: police, fire brigade, ...



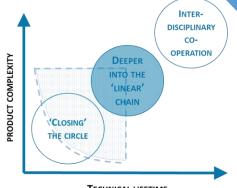
TECHNICAL LIFETIME



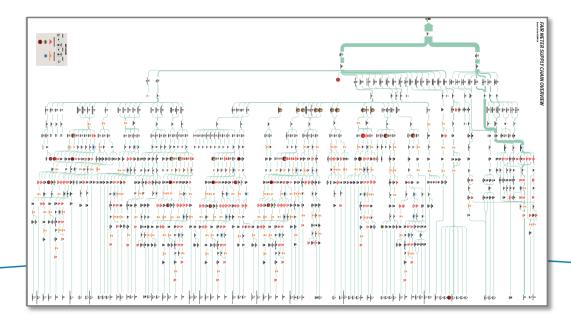
Example: 'Fair Meter' (smart meters)

Project aims:

- Speed of delivery
- User satisfaction
- Minimalizing TCO in complete supply chain
- Fair Meter



TECHNICAL LIFETIME



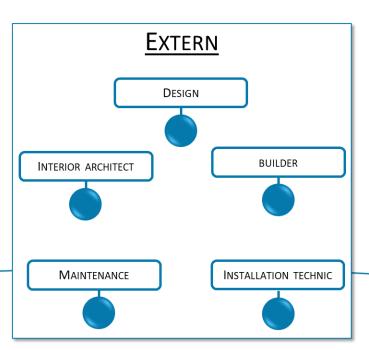


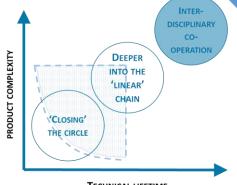
Example: Reconstruction Alliander Duiven

Project aims:

- Energy positive
- Circular building and building process
- A new work concept (internal connection)
- Area task (external connections)
- Integrality







TECHNICAL LIFETIME

How do you create external collaboration?

Three options

- 1) Consulting the market, which can be done for various aims:
 - Inventorying (technical) possibilities
 - Validating procurement strategy
 - Stimulating combinations of market organisations
 - Strengthening internal support
- 2) Actively promoting combinations of various disciplines
- 3) Integrating physical contact in the procurement procedure:
 - Information meeting
 - Dialogue within procedure
 - Information notice

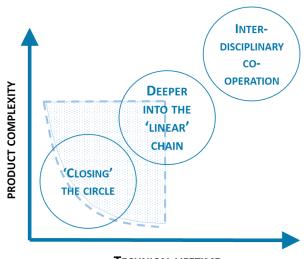
MARKET CONSULTATION FORMAT	1-on-1	REQUEST FOR INFORMATION	PLENARY MEETING
TECHNICAL INVENTORY	X	X	X
VALIDATING STRATEGY	X		X
STIMULATING COMBINATIONS			X
STRENGTHENING INTERNAL SUP.	Х		X

Case assignment



Assignment 3

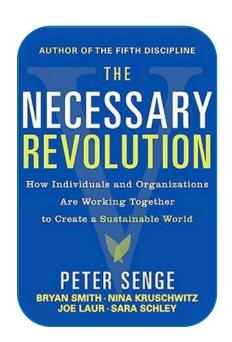
Who are your external stakeholders?



TECHNICAL LIFETIME

"ALL GREAT JOURNEYS START WITH SMALL STEPS AND MEANINGFUL QUESTIONS."

Coffee break





Interview

Niek Heering Municipality of Amsterdam









Asking the right question



Question



What kind of questions have you asked in your last tender procedure?



Excercise

What could be functional questions for the following products?



LED-LAMPS



OFFICE CHAIRS



OFFICE BUILDING



FLEET WITH LOW EMISSIONS



BRIDGE



Five functional questions



LIGHTSCHIPHOL



'HEALTHY WORKING ENVIRONMENT'PUBLIC HEALTH WALES



MOBILITY BREMEN



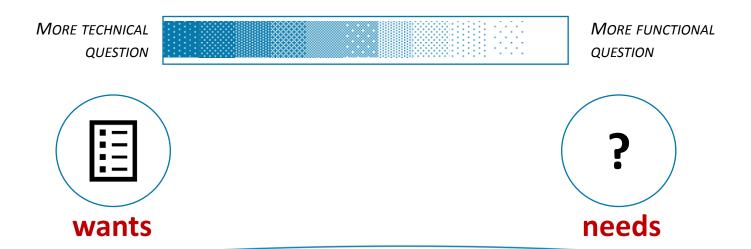
CONNECTION BETWEEN A AND B
RIJKSWATERSTAAT



OFFICE BUILDING FOR Y EMPLOYEES
ALLIANDER

Different types of questions

- There are different types of questions: more technical and more functional
- There is no 'black' or 'white', but lots of 'grey'
- The degree of functionality depends on the context of the product group, and also your organisation and ambitions



Asking questions: complexity & maturity

THE MORE **COMPLEX** THE PRODUCT, THE HIGHER THE KNOWLEDGE DIFFERENCE BETWEEN YOU AND THE SUPPLIER.

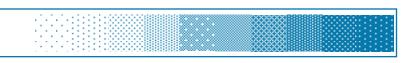
THE MORE COMPLEX THE PRODUCT, THE MORE FUNCTIONAL YOUR QUESTION CAN BE.

THE **MATURITY** OF THE MARKET (IN RELATION TO CIRCULARITY) DETERMINES HOW FUNCTIONAL A QUESTION CAN BE.

THE MORE MATURE A MARKET IS, THE MORE FUNCTIONAL YOUR QUESTION CAN BE.

PRODUCT COMPLEXITY MED Low HIGH Low **MARKET MATURITY M**ED HIGH

MORE FUNCTIONAL
QUESTION



MORE TECHNICAL
QUESTION



Complexity & maturity: examples

		PRODUCT COMPLEXITY		
		Low	MED	Нібн
MARKET MATURITY	Low			
	Med			
Σ	Нібн			



Summary: functional questions

WHY

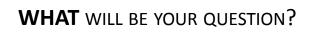
A MORE FUNCTIONAL QUESTION?

PROVIDING SPACE TO SUPPLIERS TO DELIVER
THE OPTIMAL SOLUTION TO THE NEED



HOW DO YOU DO THIS?

ASKING A QUESTION, BASED ON A **NEED**, INSTEAD OF WRITING DOWN A SOLUTION.



THIS DEPENDS ON TWO FACTORS: THE COMPLEXITY OF THE PRODUCT AND THE MATURITY OF THE MARKET











Voorbeeld Circulair Inkopen

NEVI



Uitreiking tijdens congres Green Buildings Holland 2013 in Amsterdam RAI



De 1e prijs werd uitgereikt aan Gemeentehuis Brummen. Jurylid Hidde van der Kluit: "Dit gebouw dient als grondstoffenbank waarbij alle bouwmaterialen de komende 20 jaar dienst doen, het ontwerp is voor 90% demontabel en de nieuwbouw omarmt een monumentale villa".

HET KENNISNETWERK VOOR INKOOP EN SUPPLY MANAGEMENT

Question



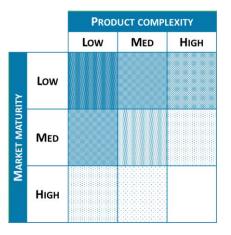
A better world starts with asking a better question Cécile van Oppen, Copper8



Case assignment



Assignment 4 What will be your question?









EUROPEAN UNION

EUROPEAN REGIONAL DEVELOPMENT FUND

CircularPP





Mervyn Jones | Sustainable Global Resources <u>mervyn@sustainableglobalresources.co.uk</u>



Niek Heering | Gemeente Amsterdam n.heering@amsterdam.nl





Circular Public Procurement Training

Masterclass for Champions

Joan Prummel, Take Padding Mervyn Jones

The Hague, 23-25 January 2018 | Block 3

Building block 3

Wednesday, January 24th



Program outline

Building block	Content
Tuesday afternoon (1) 13:00 – 18:00	 Introduction to Circular Public Procurement Start with why Selecting high-potential product groups
Wednesday morning (2) 09:00 – 12:30	Internal collaborationExternal collaborationAsking the right question
Wednesday afternoon (3) 13:15 – 17:00	 Procurement procedures Requirements & criteria Measuring & assessing circularity
Thursday morning (4) 09:00 – 12:30	Revenue modelsContractingDetermining impact
Thursday afternoon (5) 13:15 – 16:00	 Organisation maturity Next steps: building an action plan Action plan presentations

Program Wednesday afternoon

Timing	Content
13:15 (45 min)	Procurement procedures
14:00 (30 min)	Requirements & criteria
14:30 (50 min)	Measuring & assessing circularity
15:20 (20 min)	Coffee break
15:40 (60 min)	Developing requirements & criteriaCase assignmentCriteria weighting
16:40	Check-out

Procurement procedures



Procurement procedures

- Public procurement procedures are set by European law.
- There are six main procedures within circular procurement:
 - Below threshold procedure
 - Open procedure
 - Restricted procedure
 - Competitive dialogue
 - Competitive procedure with negotiation
 - Innovation partnership (only recently introduced!)
- Each procedure is suited for certain demands / situations



Below threshold procedure

- Free tenders have only one phase, and three to five participants
- Only suitable for small purchases

PROCEDURE	# SUPPLIERS	PRODUCT COMPLEXITY		MARKET MATURITY		Purchase size		REQUIRED TIME			
		L	M	Н	L	M	Н	L	M	Н	
BELOW THRESHOLD PROC.	N/A	Χ	Χ		Χ	Χ	Χ	Χ			< 3 MONTHS

PUBLICATION AWARD PHASE

OFFICE FURNITURE (LEIDEN MUNICIPALITY)

- Low size
- Temporary solution for 2 4 years
- HIGH TIME PRESSURE ON PROCUREMENT



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and Water Management

Open procedure

- Open procedures are suitable with a limited amount of suppliers
- Only one phase: criteria on both organisation and product level
- No possibilities to filter on organisation level (vision/policy)

PROCEDURE	# SUPPLIERS	PRODUCT COMPLEXITY		MARKET MATURITY		Purchase size		SIZE	REQUIRED TIME		
		L	M	Н	L	M	Н	L	M	Н	
OPEN PROCEDURE	<7	Χ				X	Χ		Χ	Χ	3 MONTHS

PUBLICATION AWARD PHASE

Office furniture (RIJKSWATERSTAAT)

- RESTRICTED BY LIMITED TIME
- OFFICE FURNITURE FOR NATIONAL GOVERNMENT
- FOUR PLOTS; MAX 2 PLOTS / SUPPLIER



Restricted procedure

- Restricted procedures have two phases, but limited contact
- Suitable for markets with high differences between suppliers
- Possibilities to filter on organisational level (vision/policy)

PROCEDURE	# SUPPLIERS		RODUC		MAR	KET MATU	JRITY	Pur	RCHASE :	SIZE	REQUIRED TIME
		L	M	Н	L	M	Н	L	M	Н	
RESTRICTED PROCEDURE	>7		Χ		Χ	X	Χ		Χ	Χ	4-6 MONTHS

PUBLICATION SELECTION PHASE PHASE

SMART METER (COLLABORATING DUTCH NETWORK SUPPLIERS)

- AIM 1: STIMULATING COLLABORATION IN MARKET
- AIM 2: FINDING SUPPLIER(S) WITH VISION + EXPERIENCE
- FOCUS ON FAIR SUPPLY CHAINS: 'FAIR METER'
- AWARD TO TWO CONSORTIA OF SUPPLIERS: MUTUAL LEARNING



Competitive dialogue

- Suitable for large purchases with a high complexity
- Many possibilities for contact between tenderer and suppliers, resulting in a better match between supply and demand

PROCEDURE	# SUPPLIERS	PRODUCT COMPLEXITY		MARKET MATURITY		Purchase size		SIZE	REQUIRED TIME		
		L	M	Н	L	М	Н	L	M	Н	
COMPETITIVE DIALOGUE	>7		Χ	Χ	Χ	Χ	Χ			Χ	6-12 MONTHS

PUBLICATION SELECTION PHASE DIALOGUE PHASE

PUBLIC SPACE SCHIPHOL TRADE PARK (STP)

- CONSTRUCTING + MAINTAINING INFRASTRUCTURE
- 'MOST CIRCULAR' BUSINESS PARK OF EUROPE
- PARTNER FOR 15 YEARS OF DEVELOPMENT



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Competitive procedure with negotiation

- Suitable for large and complex purchases
- Negotiation helps to specify the answer to the question

PROCEDURE	# SUPPLIERS	PRODUCT COMPLEXITY		MARKET MATURITY		Purchase size		SIZE	REQUIRED TIME		
		L	М	Н	L	М	Н	L	M	Н	
COMPETITIVE PROCEDURE WITH NEGOTIATION	>7		X	X		X	X			X	6-12 MONTHS

PUBLICATION SELECTION PHASE PHASE NEGOTIATION

RENOVATION ALLIANDER DUIVEN

- SELECTION ON VISION + REQUIREMENTS
- 'NEGOTIATION' ON EXACT DESIGN AND BUILDING SPECIFICS
- Integral question: renovation + maintenance + energy (15 years)



How to choose the right procedure?

Key insights from the game help determine the suitable procedure

GAME INSIGHT

COLLABORATION REQUIRES VULNERABILITY, VISION AND INTERNAL SUPPORT

YOU CANNOT TRUST EVERYONE

PERSONAL CONTACT HELPS TO COLLABORATE MORE EASILY

THE HIGHEST NUMBER OF (COMBINED)
POINTS WILL ONLY BE ACHIEVED THROUGH
LONG-TERM COLLABORATION

ASPECTS IN PROCEDURE

A STRONG, INTERNAL TEAM, THAT IS WELL-ALIGNED AND HAS TOP-DOWN SUPPORT

SELECTION, BASED ON A 'VISION' AND COMMON VALUES

CREATE SPACE FOR DIALOGUE, BOTH BEFORE AND IN THE PROCEDURE

TAKE TIME TO DISCUSS INCENTIVES THAT
STIMULATE LONG-TERM COLLABORATION, AND
WAYS TO SECURE THESE



Summarizing six main procurement procedures

Procedure	# SUPPLIERS		RODUC		Mar	RKET MATU	JRITY	Pui	RCHASE	SIZE	REQUIRED TIME
		L	M	Н	L	M	Н	L	M	Н	
BELOW THRESHOLD PROC.	N/A	Χ	Χ		X	Χ	Χ	Χ			< 3 MONTHS
OPEN PROCEDURE	<7	Χ					Χ		Χ	Χ	3 MONTHS
RESTRICTED PROCEDURE	>7		Х		Х	Х	Х		Х	Х	4-6 MONTHS
COMPETITIVE DIALOGUE	>7		Х	X	X	X	Х			X	6-12 молтнѕ
Competitive procedure WITH NEGOTIATION	>7		Х	Х		Х	Х			Х	6-12 MONTHS
Innovation partnership	?			Χ			Χ			Χ	> 1 YEAR

THE **RESTRICTED PROCEDURE** AND **COMPETITIVE DIALOGUE** ARE USUALLY PREFERRED, BECAUSE OF:

- POSSIBILITIES FOR PRE-SELECTION ON ORGANISATION LEVEL (E.G. ON CIRCULAR ECONOMY VISION)
- POSSIBILITIES FOR DIALOGUE HELP SPECIFY THE QUESTION OF THE TENDERER, DISCUSS CIRCULAR
 ECONOMY ISSUES RELATED TO THE QUESTION, AND MATCH SUPPLY AND DEMAND

Note: in more simple questions cases, a 'light' dialogue can be sufficient



Case assignment



Assignment 5

What would be a fitting procedure?

And what are the steps in the procedure?





Requirements & criteria

- Requirements and criteria are set by the tendering organisation
- Requirements must be met by all tenderers
- Criteria provide possibilities for distinguishment: tenderers can determine how to meet these

	DETERMINANT
REQUIREMENTS	YES / NO
Criteria	GOOD-BETTER-BEST



Two phases: selection and award phases

- The selection phase selects potential suppliers that fit (on an organisation level) with the tendering organisation
- The **award phase** determines which supplier is able to deliver the product in the best price/quality ratio
- A procedure with one phase, only has an award phase

	SELECTION PHASE	AWARD PHASE
REQUIREMENTS	YES / NO (ORGANISATION LEVEL)	YES / NO (PRODUCT LEVEL)
CRITERIA	GOOD-BETTER-BEST (ORGANISATION LEVEL)	GOOD-BETTER-BEST (PRODUCT LEVEL)



Example: conditions & criteria



	SELECTION PHASE (ORGANISATION)	Award phase (product)
CONDITIONS (YES/NO)	FINANCIAL CARRYING CAPACITYTECHNICAL ABILITIES	 MEETING PRODUCT-LEVEL CONDITIONS (HEALTH & SAFETY)
CRITERIA (GOOD- BETTER-BEST)	 VISION ON THE CIRCULAR ECONOMY VISION ON HEALTHCARE VISION ON COLLABORATION ACHIEVEMENTS ON CIRCULAR ECONOMY 	 PLAN OF ACTION, EXISTING OF: COLLABORATION UMCU CIRCULAR ECONOMY OFFER, EXISTING OF: COMFORT, ESTHETICS, FUNCTIONALITY CIRCULARITY OF OFFER TRANSPARENCY IN PRICING PRICING

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Requirements & criteria

18

Example: conditions & criteria





	Award phase (tender)	Award phase (tender)
CONDITIONS (YES/NO)	 ORGANISATION-LEVEL CONDITIONS MEETING PRODUCT-LEVEL CONDITIONS 	 ORGANISATION-LEVEL CONDITIONS MEETING PRODUCT-LEVEL CONDITIONS
CRITERIA (GOOD- BETTER-BEST)	 CIRCULARITY OF THE OFFER MEASUREMENT TOOL CIRCULARITY (OWN CALCULATION) PLAN OF ACTION ON FUTURE RE-USE PLAN OF ACTION ON COLLABORATION VISION ON OFFICE FURNISHINGS PRICING 	 ACTION PLAN FUTURE CE DEVELOPMENT INCENTIVES FOR RE-USE OF PRESENT FURNITURE COLLABORATION CIRCULARITY OF PRODUCTS SPECIFIED FOR 5 PRODUCTS SOCIAL RETURN PRICING

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Case assignment



Assignment 6

Draft a first set of conditions and criteria, on both an organisation and a product level

	SELECTION PHASE	AWARD PHASE
REQUIREMENTS	YES / NO (ORGANISATION LEVEL)	YES / NO (PRODUCT LEVEL)
Criteria	GOOD-BETTER-BEST (ORGANISATION LEVEL)	GOOD-BETTER-BEST (PRODUCT LEVEL)

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Measuring & assessing circularity



Measuring versus assessing circularity

- Measuring of the circularity can be done in a quantative,
 objective way
- Assessing the circularity can be done in a qualitative, subjective way

	Measuring	Assessing
INDEX?	Index available	No index available
Q	Quantitative	Qualitative
EXAMPLE	% RECYCLED CONTENT	VISION ON THE CIRCULAR ECONOMY



Measuring & assessing circularity: what is more circular?

Remember yesterday's examples?

- Circularity often difficult to compare:
 - Complexity of the issue
 - System boundaries
- Sometimes exact measurement is possible; sometimes not

Question: which chair is more circular?



- · Virgin materials
- Cradle-to-cradle label
- · Easy to disassemble



- · Recycled PET
- · No sustainability label
- · Easy to clean

Question: which building is more circular?



Brummen town hall

- Existing residential building New building elements added .
- All new elements can be taken apart and re-used



Venlo city hall

- · New office building Completely Cradle-to-Cradle .
- Focus on healthy living and working: air-cleaning wall



Alliander, Duiven office

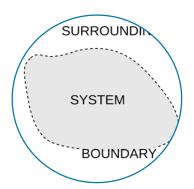
- Refurbished office building 95% of existing materials reused, added materials are mostly recycled
- · Net zero enery



Measuring circularity: important steps

- Be clear on your own definition of the circular economy
- Determine your system boundaries
- Specify the way you measure circularity







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Recap: many definitions exist



- Be clear on your own definition up-front
- Develop a definition which suits your context
- Specify your definition towards your product group, and validate your definition with market organisations

Conceptualizing the circular economy: An analysis of 114 definitions



Julian Kirchherr*, Denise Reike, Marko Hekkert

Innovation Studies Group, Copernicus Institute of Sustainable Development, Utrecht University, The Netherlands

ARTICLEINFO

Keywords: Circular economy 4R framework Sustainable development Definitions Content analysis

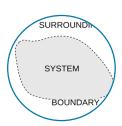
ABSTRACT

The circular economy concept has gained momentum both among scholars and practitioners. However, critics claim that it means many different things to different people. This paper provides further evidence for these critics. The aim of this paper is to create transparency regarding the current understandings of the circular economy concept. For this purpose, we have gathered 114 circular economy definitions which were coded on 17 dimensions. Our findings indicate that the circular economy is most frequently depicted as a combination of reduce, reuse and recycle activities, whereas it is oftentimes not highlighted that CE necessitates a systemic shift. We further find that the definitions show few explicit linkages of the circular economy concept to sustainable development. The main aim of the circular economy is considered to be economic prosperity, followed by environmental quality; its impact on social equity and future generations is barely mentioned. Furthermore, neither business models nor consumers are frequently outlined as enablers of the circular economy. We critically discuss the various circular economy conceptualizations throughout this paper. Overall, we hope to contribute via this study towards the coherence of the circular economy concept, we presume that significantly varying circular economy definitions may eventually result in the collapse of the concept.

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System boundary: past, present, future

REALIZED



CIRCULARITY FROM PAST TO PRESENT

CIRCULARITY

- RECYCLED CONTENT (PRODUCT, COMPONENT OR MATERIAL LEVEL)
- ... CONSIDERING EXTERNALITIES IN REUSE (E.G. CO_2 , ENERGY)



PAST PRESENT

CIRCULARITY FROM PRESENT TO FUTURE

- DESIGN FOR DISASSEMBLY (MODULAR)
- USE OF CLEAN MATERIALS
- AGREEMENTS ON FUTURE RE-USE

POTENTIAL CIRCULARITY



Measuring circularity: three methods



- There are various methods to measure circularity
- Method can be used in addition to each other

MEASUREMENT TOOL	EXAMPLE	Pros	Cons
LABEL	CRADLE-TO-CRADLE SILVER	EASY TO REQUEST (AS REQUIREMENT)UNIVERSAL COMPLIANCE	 PRODUCT LEVEL FOCUS ON NEW PRODUCTS (I.E. NEW MATERIALS)
SHADOW COSTS	COST: EUR 4.372	EASY TO COMPARE (AS CRITERIUM)EXPRESSION IN PRICE	 FEWER POSSIBILITIES FOR SPECIFIC FOCUS RELATIVELY NEW AND LABOUR INTENSIVE METHOD
SPECIFIED MEASUREMENT TOOL	Score: 0.80	 UNIQUE FOR SPECIFIC TENDER FULLY IN LINE WITH AMBITIONS 	 TIME-CONSUMING TO CREATE NEW (ONE OFF) METHOD FOR TENDERER AND MARKET

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Method: requesting a label



- In the office furniture market, Cradle-to-Cradle labels are used relatively often
- Easy condition to check



EXAMPLE: HERMAN MILLER



EXAMPLE: AHREND 2020





Method: shadow cost



- Shadow cost can determine the environmental impact of a product during it's production and use
- Environmental impact after the use phase is based on assumptions



EXAMPLES OF FACTORS:

- MATERIAL SOURCING
- TRANSPORTATION OF MATERIALS + PRODUCTS
- ENERGY USE IN PRODUCTION PHASE
- Toxic materials in production or product
- PRODUCTION WASTE

• ..



Method: specified measurement tool



- Specified measurement tools provide the possibility to focus on your own why within circularity
- Various factors possible, either on the level of the offer or the level of the product



EXAMPLES OF FACTORS:

- CIRCULARITY OF THE OFFER
 - Recycled products
 - RECYCLED COMPONENTS
 - RECYCLED MATERIALS
- CIRCULARITY OF THE PRODUCT
 - Recycled content
 - RECYCLABLE CONTENT
 - Design for disassembly



Considerations: circularity of a table





WHICH TABLE IS MORE CIRCULAR?

- LEVEL OF RE-USE?
 - WEIGHT?

HERSO	GISPEN SECONDLIFE
RE-USED TIMBER PARTS	RE-USED TABLE
(MATERIAL LEVEL)	(PRODUCT LEVEL)
100 KILOGRAMS	60 KILOGRAMS

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Considerations: circularity of a table





WHICH TABLE IS MORE CIRCULAR?

- Level of re-use?
 - WEIGHT?
- MATERIAL HEALTH?

HERSO	GISPEN SECONDLIFE
RE-USED TIMBER PARTS (MATERIAL LEVEL)	RE-USED TABLE (PRODUCT LEVEL)
100 KILOGRAMS	60 kilograms
NON-TOXIC MATERIALS	UNKNOWN CONTENTS

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Considerations: circularity of a table





HERSO	GISPEN SECONDLIFE	
RE-USED TIMBER PARTS (MATERIAL LEVEL)	RE-USED TABLE (PRODUCT LEVEL)	
100 KILOGRAMS	60 KILOGRAMS	
NON-TOXIC MATERIALS	UNKNOWN CONTENTS	
LEGS ARE SCREWED DOWN	LEGS ARE GLUED	

WHICH TABLE IS MORE CIRCULAR?

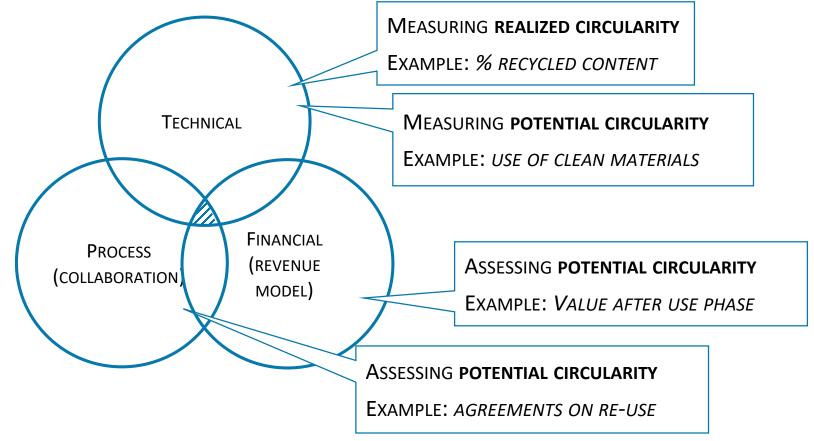
- LEVEL OF RE-USE?
 - WEIGHT?
- Material health?
- Design for disassembly?

THE CIRCULARITY OF A
PRODUCT DEPENDS ON YOUR
DEFINITION, SYSTEM
BOUNDARIES AND
MEASUREMENT TOOL.

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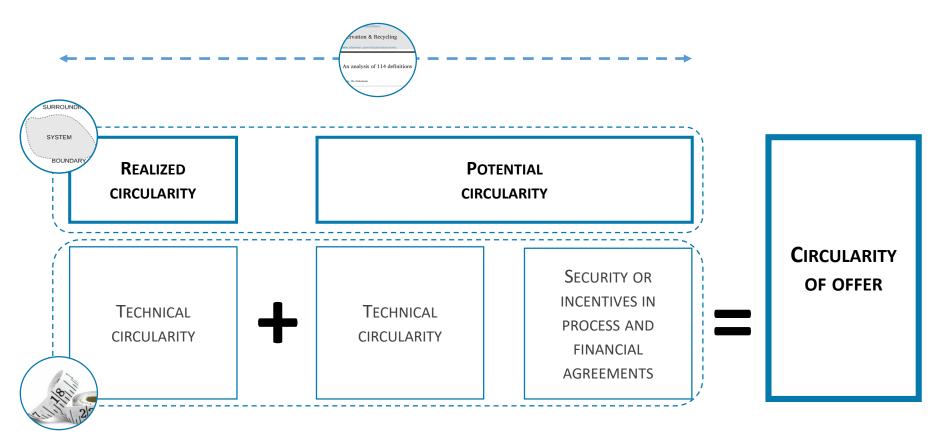
Circularity requires technical, process and financial indicators







Circularity = realized + potential circularity





Coffee break





Developing requirements & criteria

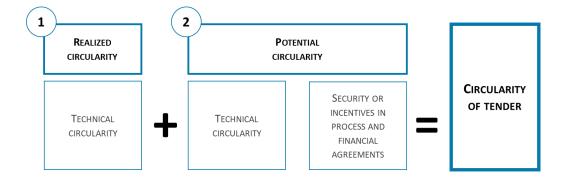


Case assignment

Assignment 7

Develop an assement method for circularity of this tender





Weighting of conditions & criteria

- To stimulate circularity:
 - Price should have a maximum weighting of 10-30%
 - Quality should have a minimum weighting of 70-90% (PHI Factory, 2017)
- Assessment methodology also determines weighting of criteria

Weighting of conditions & criteria



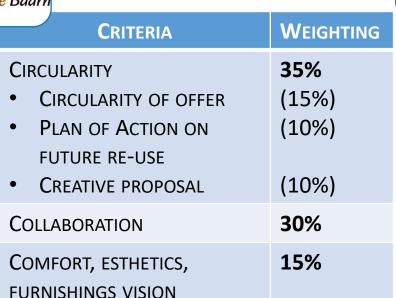
SELECTION PHASE CRITERIA	WEIGHTING
VISION ON THE CIRCULAR ECONOMY	30%
VISION ON HEALTH CARE	20%
Stakeholders	25%
CIRCLAR ECONOMY RESULTS	25%

AWARD PHASE CRITERIA	WEIGHTING
PLAN OF ACTIONCOLLABORATION UMCUCIRCULAR ECONOMY	35% (20%) (15%)
 OFFER COMFORT, ESTHETICS, FUNCTIONALITY CIRCULARITY OF OFFER TRANSPARENCY OF PRICE 	55% (20%) (25%) (10%)
PRICING	10%

Weighting of conditions & criteria

20%







Rijksoverheid

CRITERIA	WEIGHTING
 ACTION PLAN FUTURE CE DEVELOPMENT INCENTIVES FOR RE-USE OF PRESENT FURNITURE COLLABORATION 	45% (15%) (15%)
CIRCULARITY OF PRODUCTSSPECIFIED FOR 5 PRODUCTS	20%
SOCIAL RETURN	15%
PRICING	20%

PRICING

Case assignment

Assignment 8

(1) Review your criteria

(2) Determine the weighting of your criteria



Check-out

What excited you the most today?











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CircularPP





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Circular Public Procurement Training

Joan Prummel, Take Padding Mervyn Jones

The Hague, 23-25 January 2018

Building block 4

Thursday, January 25th



Program outline

Building block	Content
Tuesday afternoon (1) 13:00 – 18:00	 Introduction to Circular Public Procurement Start with why Selecting high-potential product groups
Wednesday morning (2) 09:00 – 12:30	 Internal co-operation External co-operation Asking the right question
Wednesday afternoon (3) 13:15 – 17:00	Procurement proceduresConditions & criteriaMeasuring circularity
Thursday morning (4) 09:00 – 12:30	Revenue modelsContractingDetermining impact
Thursday afternoon (5) 13:15 – 16:00	 Organisation maturity Next steps: building an action plan Action plan presentations

Program Thursday morning

Timing	Content	
09:15 (10 min)	Check-in	
09:10 (90 min)	Business and revenue modelsIntroduction to revenue modelsCase assignment	
10:40 (20 min)	Coffee break	
11:00 (45 min)	Circular contracting	
11:45 (45 min)	ImpactVarious ways to determine impact	
12:30	Lunch break	

Business and revenue models



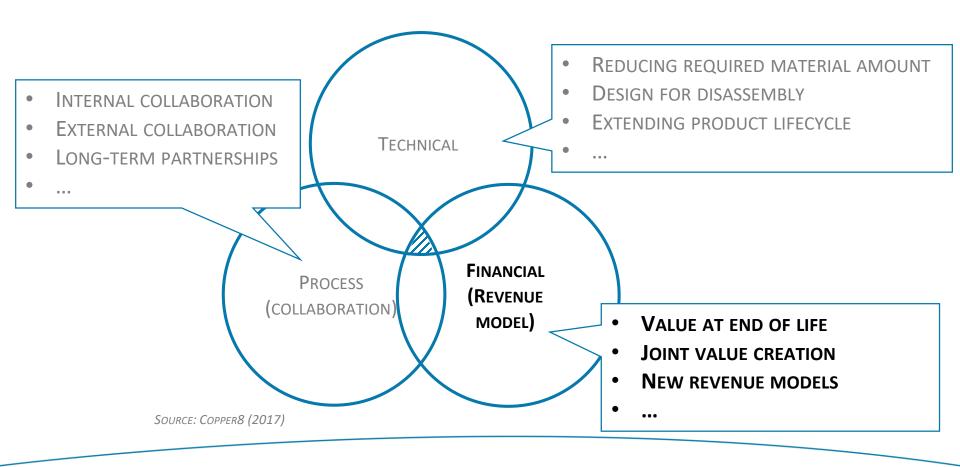
Recap: split incentives and the prisoner's dilemma

- Split incentives between user and supplier are persistant and widespread: the prisoners dilemma
- Circular business and revenue models can help overcome these split incentives

	BERLIN			
		COMPETITION	COLLABORATION	
Paris	COMPETTION	Paris: -24 Berlin: -24 Together: -48	Paris: +48 Berlin: -48 Together: 0	
	COLLABORATION	Paris: -48 Berlin: +48 Together: 0	PARIS: +24 BERLIN: +24 TOGETHER: +48	

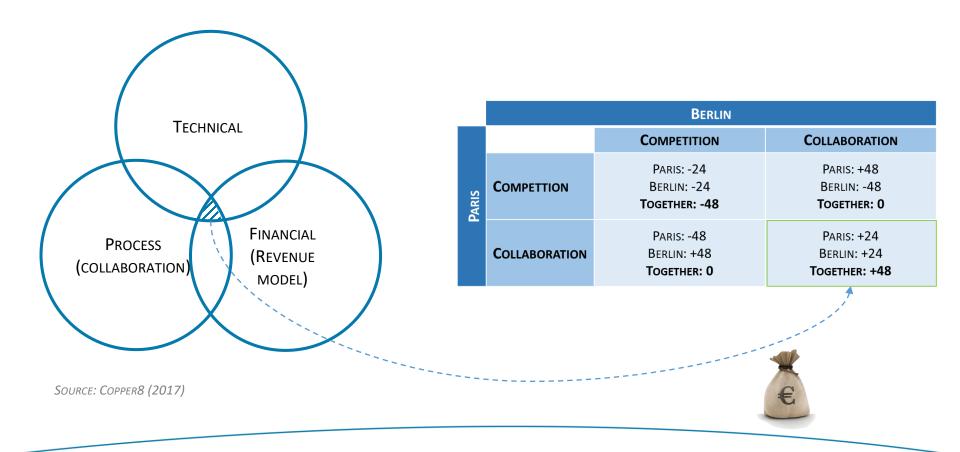


Recap: circular procurement requires new business and revenue models





Circular revenue models help overcome split incentives and secure future circular practices





Business model vs revenue model

BUSINESS MODEL

A business model describes how a business creates, supplies and retains value.

Simply put: how a company has organised its activities and serves its client.

REVENUE MODEL

The revenue model is the way a company earns money.



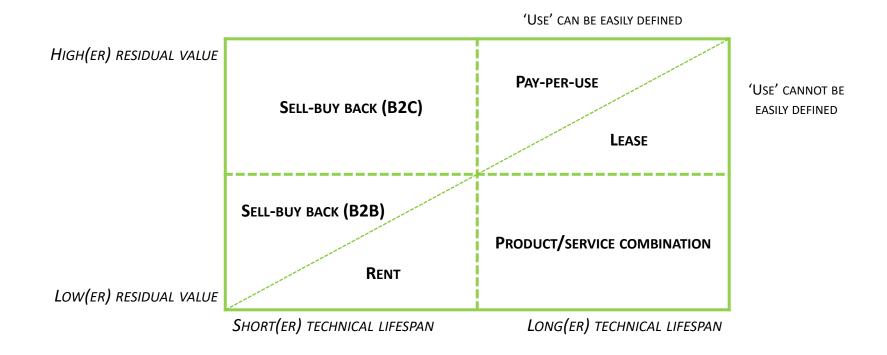
Which revenue models exist?

- Lease
- Rental
- Pay-per-use
- Sell-buy-back
- Product-service combination

+ Risk-benefit sharing



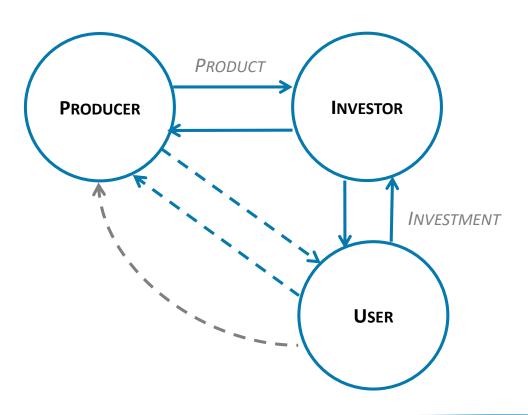
Five circular revenue models



SOURCE: COPPER8 (2017)



Lease (1)

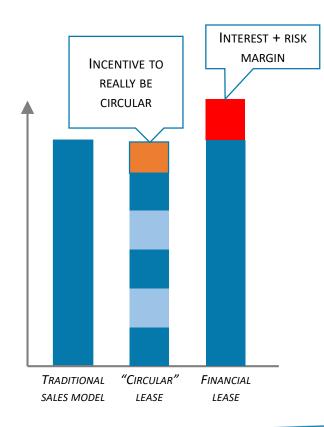


Characteristics

- Tripartite agreement
- Investment of product
- Financial & operational Lease
- Maintenance and other services not always included
- Possible transfer of ownership (start or end of lease term)
- Ownership is used to manage risks



Lease (2)



- Financial product
- Therefore, investor wants to earn money:
 - Purchasing price (+ interest + risk margin)
 - Implies depreciation to 0
 - Unless proven residual value

N.B. "CIRCULAR" LEASE IS NOT A REALISTIC SCENARIO BUT A THEORETICAL SCENARIO



Lease (3): bad and good practices



BAD PRACTICE: LIGHTING AT COPPER8

- TECHNICAL LIFECYCLE 10 YEARS;
- PROPOSED LEASE PERIOD 5 YEARS;
- Lessee = Young and Small Party
- NO PROVEN RESIDUAL VALUE FOR ARMATURES
- BUDGET = €20,000, OFFER = €56,000

GOOD PRACTICE: CARS

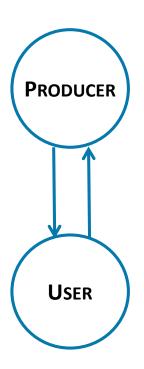
- PROVEN RESIDUAL VALUE (AND SECOND HAND MARKET, WILL BE DEDUCTED FROM LEASE PRICE)
- But: Product has not been made circular

OTHER POSSIBLE GOOD PRACTICES

- LARGE MEDICAL EQUIPMENT FOR HOSPITALS
- SEMI-TRAILERS
- AIRPORT LUGGAGE BELTS
- ...



Rental (1)

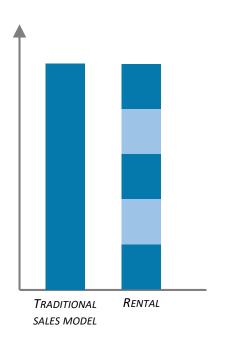


Characteristics

- Bipartite agreement
- Use in return for periodic payment
- Return flow secured
- On balance sheet of producer (ownership)
- Short & long term
- Maintenance
- Pay-per-use



Rental (2)



- Producer wants to earn money
- Equity needed to 'lengthen balance sheet'
 - Less capital intensive goods are more fit
 - Transition difficult for producers
- Financial risk lies with producer
 - Dependent on type of product (fixed vs. unfixed)
 - Dependent on user (eg. organisation size with respect to monitoring)

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Rental (3)



BAD PRACTICE: RENTAL OFFICE SPACE

- INCENTIVES ARE NOT 'ALIGNED'
- STANDARD CONTRACTS WITH LONGER TERMS (NO FLEXIBILITY)
- Renter and user often don't speak



- SMALL ORGANIZATION SIZE, EQUITY REQUIRED TO FINANCE RELATIVELY LOW
- MONITORING OF FURNITURE EASIER THAN WITH LARGE CUSTOMERS

OTHER POSSIBLE GOOD PRACTICES

- FLOOR TILING
- ..



Pay-per-use (1): good and bad practice

Success factors

- When there is a 'consumption'- component, such as:
 - Energy use
 - Driven kilometers
 - ...
- When the 'use' or consumption is easily measurable, for instance:
 - Kilometers
 - kWh
- When the user group consists of more than 1 paying customer.

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Pay-per-use (2)



BAD PRACTICE (1): 'WALKING HOURS' CARPET

- How to Measure?
- ONLY 1 PAYING CUSTOMER

BAD PRACTICE (2): Pay per print

- ONLY 1 PAYING CUSTOMER
- STIMULUS FOR SUPPLIER TO SELL AS MANY PRINTS AS POSSIBLE (= UNSUSTAINABLE)

GOOD PRACTICE: CAR2GO

- Use component, so easier to measure what use is
- MORE THAN 1 PAYING CUSTOMER →
 MODEL EASIER TO MAKE PROFITABLE (WIN-WIN)

OTHER POSSIBLE GOOD PRACTICES

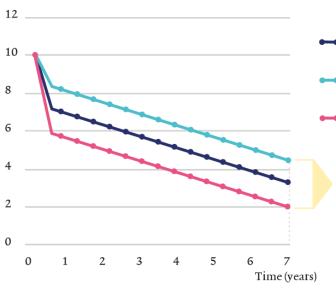
- FORKLIFT TRUCKS
- Tools





Sale buy back (1): good and bad practice

DEPOSITORY VALUE MODEL



Intended depository value

Actual depository value (positive)

Actual depository value (negative)

RISK AND MARGINS:

Determining percentages to share the difference between actual despository value and intended despository value.

SHARING RISK AND MARGIN



Party	Positive	Negative
Supplier (60%)	+0.72	-0.72
Customer (40%)	+0.48	-0.48

SOURCE: CIRCULAR BUSINESS (2016).

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Sale buy back (2)



BAD PRACTICE: FURNITURE ALLIANDER

- RESIDUAL VALUE 20%, USED AS A FUTURE OBLIGATION
- COMMERCIALLY 'BEST' YEAR OF SUPPLIER WOULD SUDDENLY BE THE 'WORST' YEAR ACCOUNTING-WISE



GOOD PRACTICE: FURNITURE ALLIANDER

- BASED ON TRUST, GOOD FOUNDATION FOR ADJUSTING AGREEMENT
- ADDED OR REDUCED VALUE SETTLED → JOINT OBLIGATION

OTHER POSSIBLE GOOD PRACTICES

- FLOOR TILING
- LIGHTING
- ... ETC. PROVIDED THAT YOU ARRANGE EVERYTHING WELL!



Revenue models

21

Product-service combination (1)

- Mainly on lengthening life span
- Can be used for various product groups
- Often used within buildings and public works

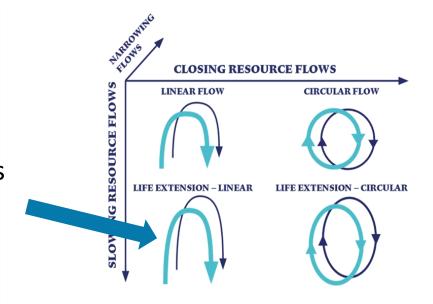


Figure 2.5 Categorisation of linear and circular approaches for reducing resource use. Source: Bocken et al., 2015, 2016; based on, and expanded from Stahel, 1994 and Braungart et al., 2008.

Source: Circular Business (2016).

Product-service combination (2)



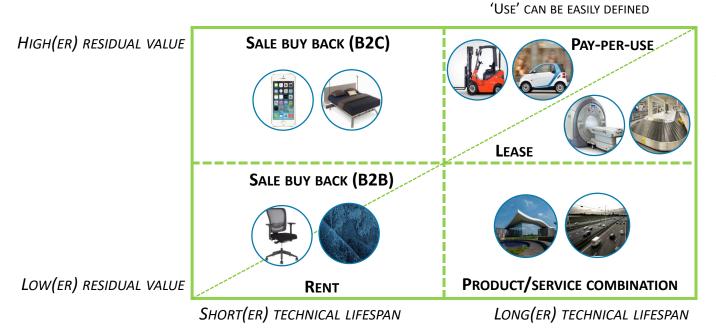
BAD PRACTICE: PUBLIC PRIVATE PARTNERSHIP PROJECTS

- PPP IN BUILDINGS/INFRASTRUCTURE
- WHY: CONTRACTOR IS STILL IN THE LEAD
- MAINTENANCE PARTY IS SUBORDINATE AND IS NOT ABLE TO INFLUENCE DESCISIONS YET





When is which revenue model most applicable?

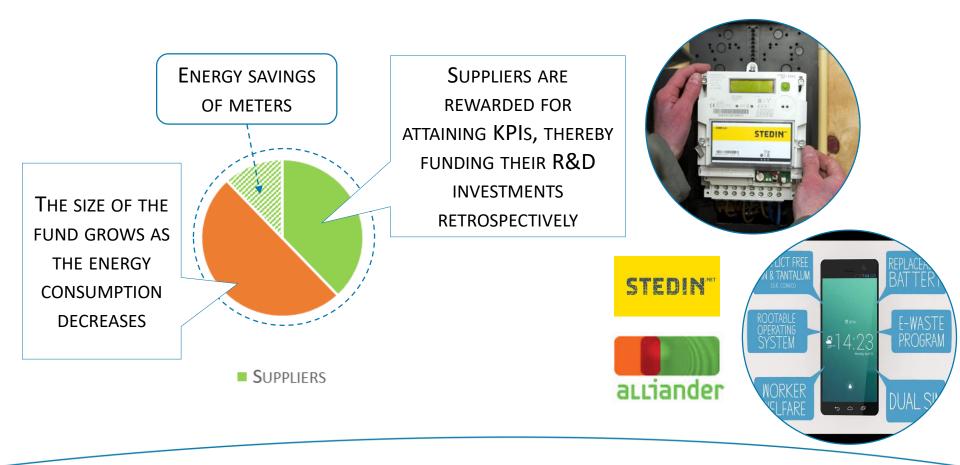


'USE' CANNOT BE EASILY DEFINED

SOURCE: COPPER8 (2017)

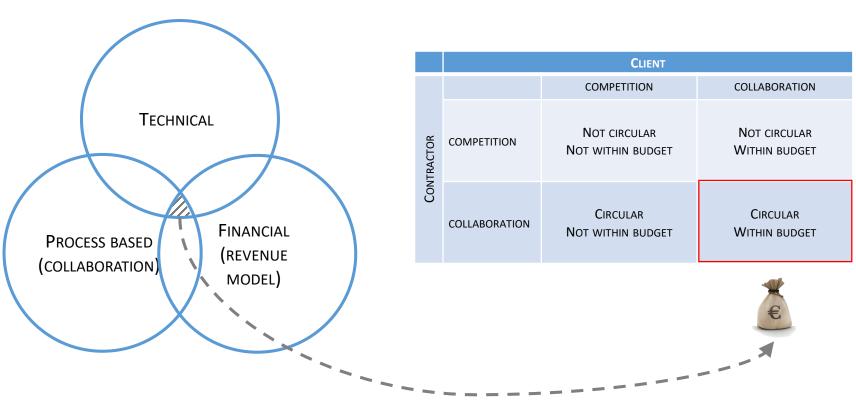
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Risk/Benefit Sharing: Fair Meter



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The goal of circular revenue models is to secure trust and circularity



SOURCE: COPPER8 MODEL (2008)



Revenue models

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How to include this in the awarding framework?

IN WHAT WAY COULD YOU SECURE THE (LONGTERM) CIRCULARITY OF YOUR OFFER THROUGH A CIRCULAR REVENUE MODEL? PLEASE ELLABORATE HOW THIS REVENUE MODEL WIL SECURE CIRCULARITY IN THE FUTURE. EXTENT IN WHICH THE SUPPLIER UNDERSTANDS AND ACKNOWLEDGES THE CONSEQUENCES OF CIRCULAR REVENUE MODELS FOR CUSTOMER AND SUPPLIER EXTENT IN WHICH THE PROPOSED REVENUE MODEL FITS WITH THE PROJECT WAY IN WHICH THIS REVENUE MODEL WIL SECURE CIRCULARITY IN THE FUTURE

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Case assignment



Assignment 9

What could be suitable revenue models? How can you create space for such models?





Securing 'trust' in contracts

- Enabling the circular economy requires a different view on contracting
- Embedding trust by making process agreements

	LINEAR CONTRACTING	CIRCULAR CONTRACTING
RISK SHARING	RISKS AND BENEFITS ARE ASSIGNED TO SPECIFIC ORGANISATIONS	RISK AND BENEFITS ARE SHARED BETWEEN ORGANISATIONS (WIN/WIN - LOSE/LOSE)
RISK CONSEQUENCE	CONSEQUENCE OF RISK IS DETERMINED	THE WAY HOW PARTIES DEAL WITH RISKS IS DETERMINED
FUTURE FLEXIBILITY	CONTRACT WITH STANDARD OR FORESEEABLE 'CERTAINTIES'	FUTURE-PROOF CONTRACT WITH FLEXIBILITY AND PROCESS AGREEMENTS



Securing trust in contracts: for key understandings



Every agreement consists of a transaction of performance



Individual performance indicators are usually not alligned



Arrangements to create dependency of performance



From Transaction to Relationship

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Arrangements with respect to the performance

Issues

- The performance defines the sort of contract chosen
- Specifications and agreement on performance
- Exclusivity is the norm
- Confidentiality, IP rights, force majeure, etc.

Possible solution

- Regard the use or the function as the performance
- Involve life cycle of product or service
- Allocate responsibilities for parties
- Make scalable by working with appendices
- Contract process, and define performance criteria in appendix



EXAMPLEFLEXIBLE RENTAL
CONTRACT

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Arrangement with regard to the future

Issues

- We cannot predict the future
- Create understanding rather than 'hard' assurances
- Flexibility versus assurance
- Performance versus progress

Possible solution

- Determine joint goal
- Test arrangements and consequences with regards to goal
- Sustainbility KPIs 'in addition to' standard services



EXAMPLE

Make CSR performance integral part of contract



"If Everything Else Fails"

- Plan a way out for all parties involved
- Focus on the process
- Costs of failure as an insurance for exit



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Case assignment



Assignment 10

What are points of emphasis in developing the contract?



Circular contracting 35

Coffee break







"Only quantitative impact is 'real' impact."



"All impact can be measured in a life-cycle analysis (LCA)."



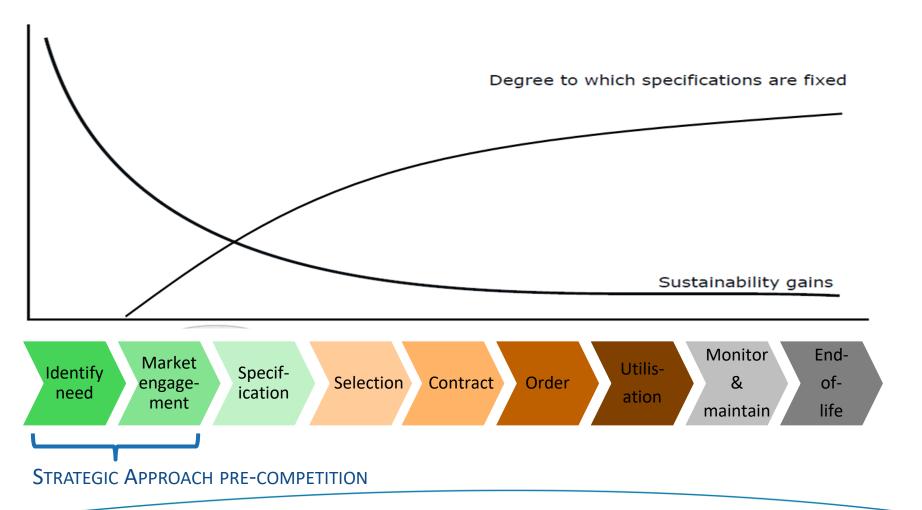
"Impact only matters if it includes a financial return for the tenderer."



"Changing the way people work, is real impact."



Process approach: where is the biggest impact?





Category approach: reducing procurement impact

IMPACT CATEGORY	MOST SIGNIFICANT SERVICE	IMPACT OF MOST SIGNIFICANT SERVICE (% OF TOT. IMPACT)	KEY RESOURCE EFFICIENCY ACTION IN THE MOST SIGNIFICANT SERVICE
MATERIALS CONSUMED	CATERING (SUPPLY OF FOOD)	50%	REDUCE AVOIDABLE FOOD WASTE
WASTE PRODUCED	Furniture Construction	50%	PRODUCT REUSE RECYCLING
ENERGY AND CO ₂ IN- USE	HEATING, VENTILATION AND AIR CONDITIONING (PARTICULARLY HEATING)	70%	UPGRADING AND REFURBISHMENT OF EQUIPMENT
EMBODIED CO ₂ EMISSIONS	ICT EQUIPMENT	45%	EXTENDING LIFESPAN OF EQUIPMENT
WATER USE	Washrooms and kitchens	90%	REDUCING MAINS WATER USE (E.G. FLOW REGULATORS)
Соѕт	ICT EQUIPMENT	30%	EXTENDING LIFESPANS





Measuring impact: identifying issues

ENVIRONMENTAL ISSUES

CIRCULARITY

CO₂ + OTHER GHG EMISSIONS

RESOURCE PRODUCTIVITY

RAW MATERIAL USE

REUSE & RECYCLING

Waste to Landfill

HAZARDOUS SUBSTANCES

ENERGY

WATER

BIODIVERSITY

TRANSPORT

SOCIO-ECONOMIC ISSUES

HEALTH

EDUCATION

EMPLOYMENT

COMMUNITY

DEVELOPING WORLD SUPPLY CHAINS

EQUALITIES - ACCESSIBILITY

EQUALITIES — **EQUAL GROUP NEEDS**

EQUALITIES — CULTURAL

EQUALITIES — POVERTY

EQUALITIES — APPROPRIATE COMM.



Measuring impact: key questions

- How do we best use circular procurement as an implementation instrument for circular economy?
- How do we monitor and measure implementation of tenders
 & pilots going forward

What are the data collection and evaluation requirements?



Measuring impact: types of indicators

There are different types of indicators that help measure different elements of the Circular Procurement process:

- Operational indicators measuring the impact of a whole organisation or part of it, e.g. total annual water use.
- Capacity indicators measuring the readiness of an organisation with respect of Sustainable Procurement, e.g. % of staff trained
- Process indicators measuring features of the procurement process that are expected to contribute to Sustainable Procurement, e.g. % of procurement carried out with a sustainability checklist.
- **Outcome indicators** measuring the impact of what is procured, e.g. circularity, embodied carbon, jobs created etc.

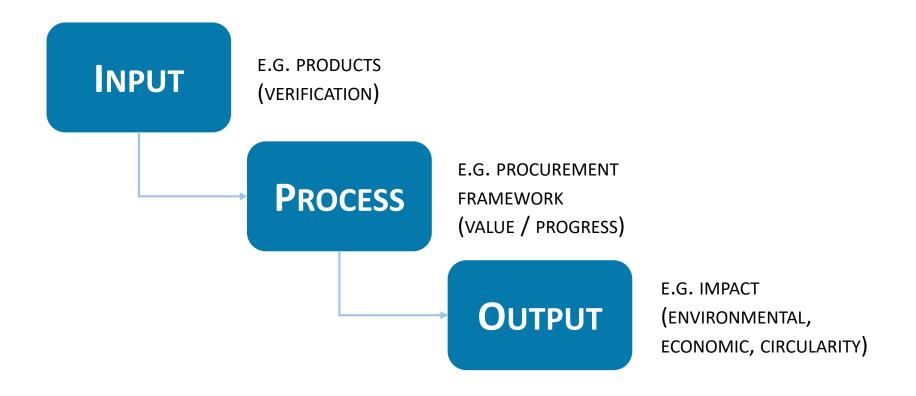


Measuring impact: choosing the right indicator

- To achieve a full picture need a combination of operational, capacity, process and outcome based indicators.
- Are all indicators are of equal importance?
- Indicators should be proportionate (in number and form) to the ability to ability to measure and report.
- It may be appropriate to consider how to 'incentivise' both internal and external stakeholders to provide the relevant data, e.g. through performance and contract management objectives.
- When considering material flow indicators, market and environmental perspectives may not coincide, e.g. suppliers may not be able to deliver cost effectively in the short term.

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Circular procurement indicators





Contract & performance management

Impact linked to cost

- Cost as a criterium?
- Use Life Cycle Costing, which includes environmental impacts

Monitor performance in the contract

- Contract performance clauses are special conditions, not award criteria, and must be mentioned in procurement documents
- Performance clauses must be linked to the subject matter of the contract

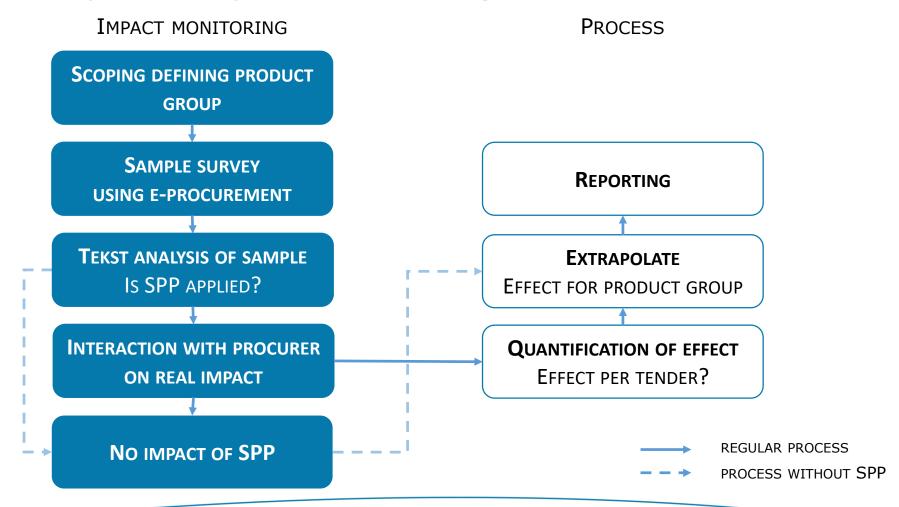
Monitor and evaluate the supplier

- When the contract is awarded, performance clauses must be met
- Sanctions can be set when the supplier does not comply, e.g. a price sanction

EXAMPLE: IN DENMARK'S AWARD CRITERIA, PROCESS IS SCORED AGAINST COMMITMENTS FROM THE BIDDER. FOR THE SUCCESSFUL BIDDER, THESE COMMITMENTS BECOME BINDING IN THE CONTRACT.

Impact assessment 49 Rijkswaterstaat Ministryof Infrastructuru Ministr

Steps for impact monitoring



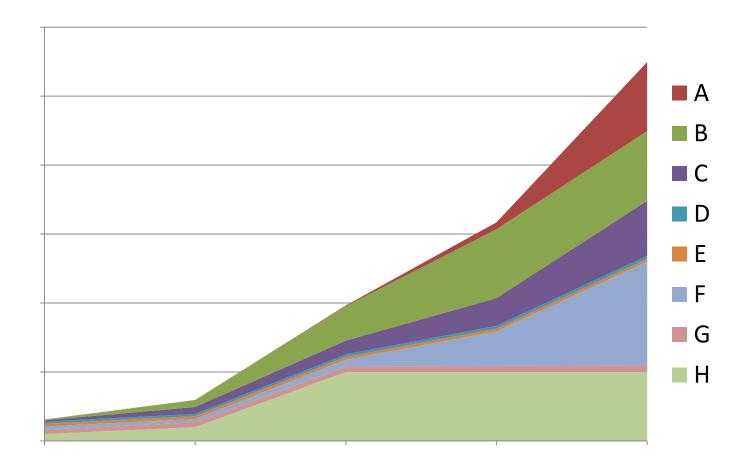


SPP application in Dutch Green Deal tenders

	Type SP			
	Minimum	Ambitious	Allocation	
Productgroep	requirement	requirement	criteria	None
Workwear	70%	20%	10%	30%
Electricity	90%	0%	10%	10%
Solar Panels	30%	20%	20%	30%
Gaz	70%	0%	20%	30%
Traveling	67%	11%	33%	33%
Contract transport	100%	10%	50%	0%
Company cars	80%	20%	40%	20%
Taxi service	100%	30%	60%	0%



Impact monitoring: potential per product group





SPP application: text vs actual change

TEXT IN TENDER BRIEF

ACTUAL CHANGE

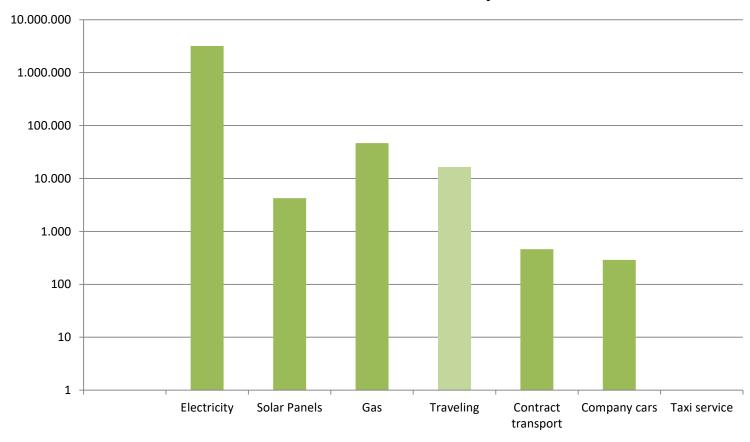
	Productgroup	Environment	Climate	Biobased	Circular	Soc. Intern.	Soc. Return
į	Workwear	70%	0%	10%	30%	50%	20%
	Electricity	0%	90%	0%	0%	20%	10%
i	Solar Panels	20%		0%	20%	20%	30%
)	Gas	0%	70%	10%	0%	0%	10%
! -	Traveling	0%	56%	0%	0%	0%	11%
:	Contract transport	100%	50%	30%	0%	10%	60%
;	Company cars	80%	60%	10%	0%	20%	10%
	Taxi service	100%	50%	0%	0%	30%	70%

Productgroup	Environment	Climate	Biobased	Circular	Soc. Intern.	Soc. Return
Workwear	38%	0%	0%	3%	0%	11%
Electricity						
Solar Panels						
Gas						
Traveling	0%	44%	0%	0%	0%	8%
Contract transport	74%		50%	0%	0%	74%
Company cars	88%	78%	7%	0%	25%	14%
Taxi service						

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SPP application: estimated CO₂ reduction

tonnes avoided CO2 eq.











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Circular Public Procurement Training

Joan Prummel, Take Padding Mervyn Jones

The Hague, 23-25 January 2018

Building block 5

Thursday, January 25th



Program outline

Building block	Content
Tuesday afternoon (1) 13:00 – 18:00	 Introduction to Circular Public Procurement Start with why Selecting high-potential product groups
Wednesday morning (2) 09:00 – 12:30	 Internal co-operation External co-operation Asking the right question
Wednesday afternoon (3) 13:15 – 17:00	Procurement proceduresConditions & criteriaMeasuring circularity
Thursday morning (4) 09:00 – 12:30	Business modelsContractingDetermining impact
Thursday afternoon (5) 13:15 – 16:00	Organisation maturityNext steps: building an action planAction plan presentations

Program Thursday afternoon

Timing	Content
13:15 (30 min)	Organisation maturity
13:45 (60 min)	 Next steps: building an action plan Introduction to action plan steps Building an action plan
14:45 (60 min)	 Action plan presentations Presentation per organisation Peer-to-peer feedback
15:45 (15 min)	Check-out
16:00	Closing

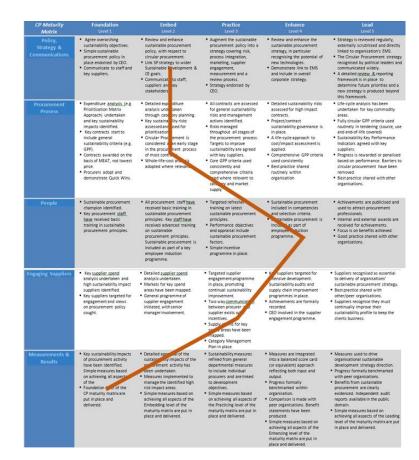
Organisation maturity



Organisation maturity model Circular Procurement

Circular procurment is more than just procurement criteria

- Five themes:
 - Policy, Strategy & Communications
 - Procurement Process
 - People
 - Engaging Suppliers
 - Measurements & Results
- Five levels:
 - Foundation
 - o Embed
 - Practice
 - Enhance
 - Lead

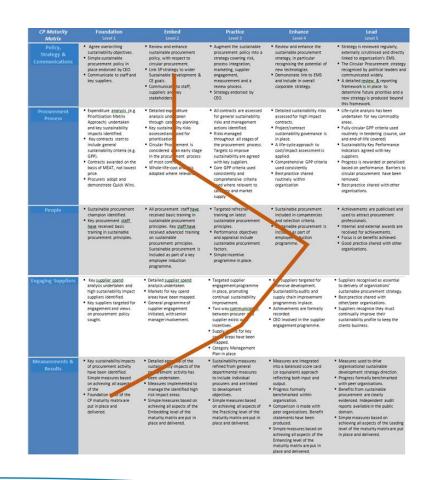




Organisation maturity 6

Discussion

What is your overall organisation maturity?



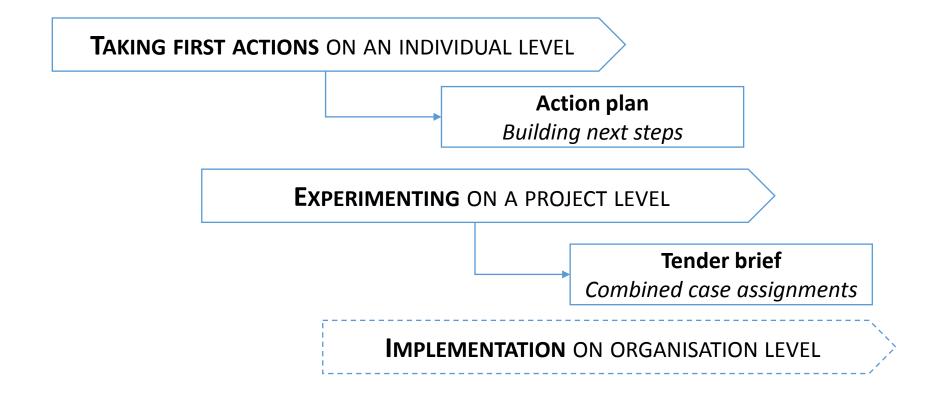
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Organisation maturity 7

Building an action plan



Next steps on three levels





Recap: training program



Block 1: Start with why
Why on personal and organisation level

Block 2: Collaboration

The importance of internal and external collaboration





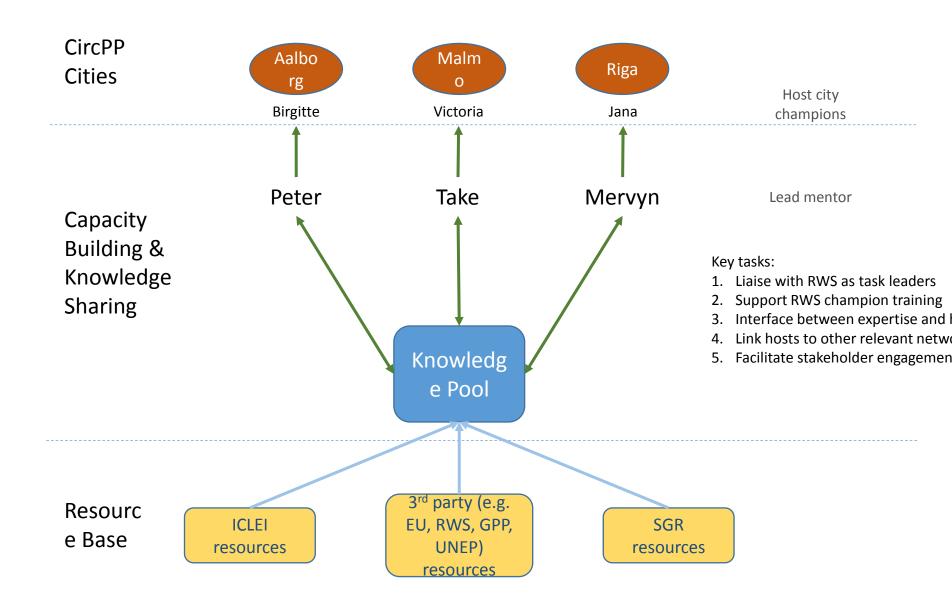
Block 3: Procedures, requirements & criteria Important steps for a good tender

Block 4: Business models & contracting Incentives to make your circular contract work



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WP3.2 mentoring approach



Individual action plan: five next steps



Step 1: Define your starting point and organisation why
Use maturity model insights and insights from block 1

Step 2: Assess implications for procurementUse insights from block 2 and develop a target for CP

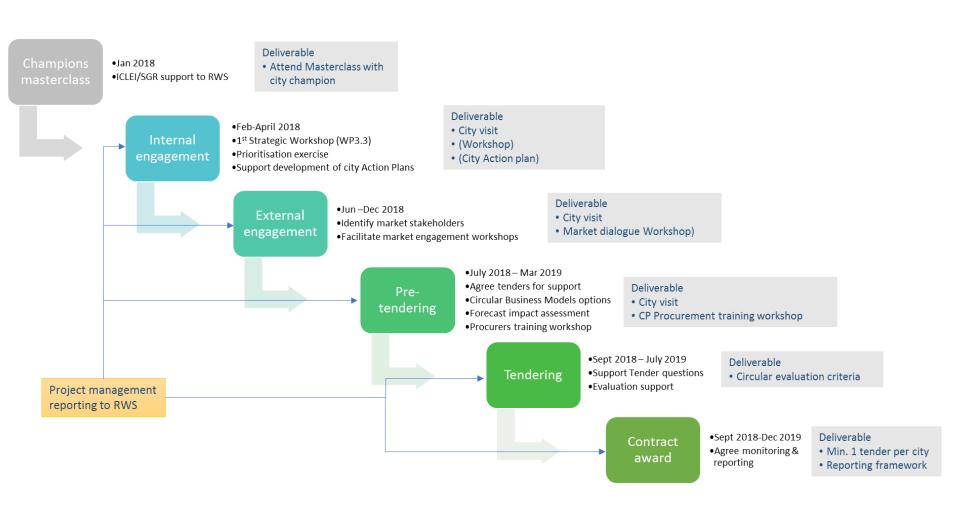
Step 3: Select high-potential product groups
Use provided frameworks (and procurement planning)

Step 4: Develop internal stakeholder supportInventarize stakeholders and find their common interest

Step 5: Next steps for the coming months

Determine next steps and timescale

Outline approach with timescale for each city



Some questions

- How to ensure internal support?
 - What evidence is required
 - Who needs to be involved
- How to choose a pilot?
 - Which category
 - What is your rationale
- How to determine your need?
 - prioritisation
- How to engage the market?
 - · What evidence is required
 - Who needs to be involved
- How to determine your definition (system boundaries, scope) on circularity?
- How to determine procurement strategy and procedure?
 - Part of action plan
- How to determine specifications?
 - When does this need to be done
 - Who is involved
- How to evaluate offers?
 - Who is involved
- How to make your next step in CP? On a project level, and on an organisational level

Presentations

Action plan presentation & peer feedback



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Check-out

How do you feel?











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