Workshop circular procurement

This is a summary report of a workshop on circular procurement held at Kamp C on 14 February 2020 during the partnermeeting of the Interreg NWE project CHARM.

The 7 pillars of circular construction @Kamp C

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Introduction

For the workshop we not only had the CHARM partners present but we also invited external stakeholders. We gave them an introduction on the pilot case of Kamp C: 't Centrum, a circular office building. This pilot is currently (February 2020) in the final stage of the procurement phase. We started the workshop with a short intro on why Kamp C is doing a circular procurement of a circular building and gave the basics of our case.

After the starter we asked the participants 3 questions about procurement. After each question we gave the answer from the Kamp C case. This approach was a deliberate setup as to not already steer the participants in a certain direction by giving our answers first as an example and then asking the question.

The presentation used for the workshop can be found at the end of this document.

Question 1 - circularity

Circularity and circular economy has many possible definitions. How would you, as a procurer, translate your circular ambitions when first approaching the market? How will you make sure your (potential) candidates understand what you want to reach? How do you involve them?

Internal: what can you do as a contracting authority (procurer):

- Be flexible in ambitions, have high expectations but don't be (too) restrictive,
- What is 'circular' for your organisation? A glossary can be very useful,
- Define what are non-negotiable needs,
- Define clear deliverables, aims/goals, be clear on what you want (e.g. do you want a circular building or a healthy work environment (regardless of building)?).

External: what can you do as a contracting authority (procurer) in regards to the market:

- Do open workshops for market input – codesign with the market to create new tenders, to improve your tenders,
- Hold expert meeting before tendering,
- On the one hand educate/coach the market and on the other let yourself be informed by pioneers,
- Ask the market: what can you do now already? How do you think about circularity in the future (of your company)?

Question 2 - price

How do you factor price into your procurement? Why do you do this like that?

- Mention the fixed budget towards the market and ask what the market can offer for this budget,
- Balance between necessary warranty asked and best offer for the project needed – what does warranty cost and what does it bring to the table?
- Split the budget: part non-negotiable, part open for discussion,
- Investment price is of high importance today, yet there are other possibilities:
    - Return on Investment/Total Cost of Ownership on 50 years (experience with Woonbedrijf Eindhoven on this),
    - 25 years warranty for the given budget,
    - Take-back business models of components – residual values,
    - Product-service systems – total cost of use,
    - Best Value Procurement (BVP) (https://www.supplyvalue.nl/en/kennis-methoden/best-value-procurement/): weigh the price for 20% and quality for 80%. The 80% is structured as follows:
        - Performance substantiation: 20%
        - Planning: 5%
        - RAVA plan (Risk and Chance file): 25%
        - Interviews: 30%

Question 3 - evaluation

How would you evaluate or measure the circular value of the received offers? How do you measure circularity?

Measure circularity: weight on various criteria:

- Weight-> pre-used materials, pre-usable materials,
- Carbon,
- Energy - operational energy, embodied energy,
- Price – cost, saving cost - maintenance cost,
- Reusability,
- Comfort,
- Environmental impact (LCA),
- User-satisfaction,
- Flexibility,
- Actual ánd future/potential impact,
- Health impact,
- % of reclaimed materials.

Pick the wanted criteria and make a weighted sum -> circularity index

How to evaluate:

1. Paper exercise,
2. Place them in a room together and let them criticize each other's offer,
3. Selection criteria:

a. See ‘measure circularity’
b. Subjective criteria:
    i. References,
    ii. Way of presenting,
    iii. Equality, social, economic activities,
    iv. Circularity of companies,
    v. Health & safety,
    vi. Circular working environment,
    vii. Local economy.

Sidenotes:

Make different indicators for each material flow.

Possible tools to use:

- MPG https://www.rvo.nl/onderwerpen/duurzaam-ondernemen/gebouwen/wetten-en-regels/nieuwbouw/milieuprestatie-gebouwen,
- Building circularity Index https://albaconcepts.nl/building-circularity-index/,
- LCA,
- Certifications (BREAM https://www.breeam.com/, WELL Building Standards https://www.wellcertified.com/,…).

Make it clear how you will measure upfront and make this objective.

Use a combination of the layers of Brand and the 10R model. You can define for each layer what kind of R’s you want to use or measure (see figures 1 and 2).

For example:

- Structure needs to be 50% recycle,
- Stuff needs to be 10% refuse and 80% re-use,
- Etc.

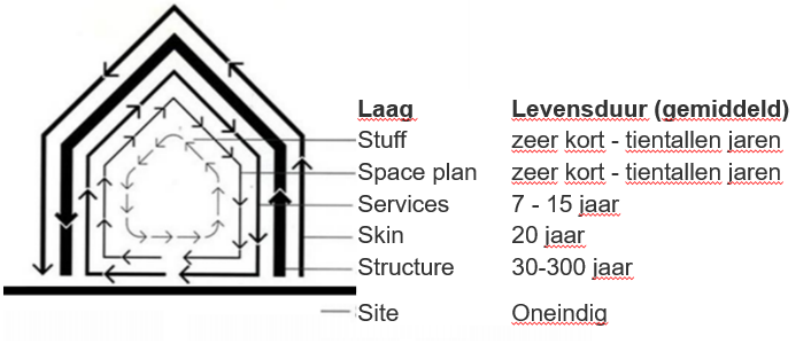

Figure 1 – the layers of Brand

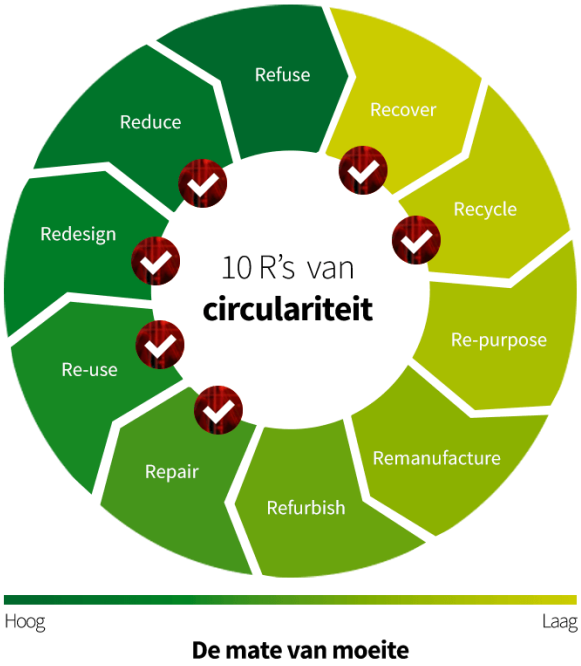

Figure 2 - The 10R model

Presentation

APB Kamp C

Centre for sustainability and innovation

Province of Antwerp

Kamp C is a nutshell

- Vision driven,
- **Transition driven**,
- Clear focus: the built environment, the construction sector,
- Target audience: (local) governements, citizens, construction companies, education and knowledge institutions
- Various projects:
  - 3D printing
  - Circular procurement and construction
  - Renovation

Provincie Antwerpen

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KAMP C duurzaam bouwen

from thought to action

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Circular economy

Disruption in the construction industry!?

What?
How?
Who?

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Circular economy

Disruption in the construction industry

Circular economy

Disruption in the construction industry

Circular area development

Organize an area on the basis of available material, residual-, waste- or energy flows so that surpluses or waste from one serves as input for the other.

CIRCULAIRE GEBIEDSONTWIKKELING

Provincie Antwerpen

Interreg North-West Europe CHARM

KAMP C duurzaam bouwen

Circular economy

Disruption in the construction industry

Circular Design

Design a building and its components in such a way that the building is dynamic, convertible, modular and functions as a temporary material bank.

CIRCULAIR ONTWERPEN

Provincie Antwerpen

Interreg North-West Europe CHARM

KAMP C duurzaam bouwen

Circular economy

Disruption in the construction industry

Circular materials

Materials that can be re-grown, that are reusable, up- or recyclable and are used in a "pure" way, so they remain in the cycle as long as possible.

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Circular economy

Disruption in the construction industry

Circular business models

Purchase products as a service whereby the producer remains the owner and is therefore responsible for maintenance, energy consumption and return.

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Circular economy

Disruption in the construction industry

Circular Financing

Forms of financing via total cost of ownership, life cycle cost, investments that are paid for by savings or earnings in time, deposit on materials and leasing formulas.

CIRCULAIRE FINANCIERING

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Interreg North-West Europe CHARM

KAMP C duurzaam bouwen

Circular economy

Disruption in the construction industry

Circular working

Offer workspace as a service. The office is open and dynamic with high-tech support. Communication and connection with other employees and companies are key.

HET NIEUWE WERKEN

Provincie Antwerpen

Interreg North-West Europe CHARM

KAMP C duurzaam bouwen

Circular economy

Disruption in the construction industry

Circular Procurement

A package of openly formulated ambitions with a fixed budget challenges the market to form building consortiums and to come up with innovative building solutions themselves.

CIRCULAIR AANBESTEDEN

Provincie Antwerpen

Interreg North-West Europe CHARM

KAMP C duurzaam bouwen

Circular economy

Disruption in the construction industry

't CENTRUM

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Question 1

Circularity and circular economy has many possible definitions.

How would you, as a procurer, translate your circular ambitions when first approaching the market?

How will you make sure your (potential) candidates understand what you want to reach? How do you involve them?

't Centrum – ambitions & market approach

- Internal sessions to make a vision and ambition document about the project,
- First 'translation' was tested with a stakeholdergroup,
- 5 Masterclasses about circular construction and our 7 pillars:
  - Inspiration,
  - Knowledge sharing,
  - Call for action,
  - Networking (guided & not guided).

Masterclasses

Masterclasses

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Masterclasses

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't Centrum – ambitions & market approach

- Information session after publishing selection guide,
- Selection guide contained summary of vision and ambitions,
- Information session after publishing award guide,
- Award guide contains full vision and ambition document.

't Centrum – ambitions & market approach

4 Ambitions:

1. **Future-proof sustainability – Circularity**: transition from traditional to circular, a prominant example of a circular building.
2. **Future-proof sustainability – Flexibility**: able respond to changing spatial and functional needs.
3. **Responsible sustainability - Health & well-being:** building = healthy and comfortable environment.
4. **Image**

Question 2

How do you factor price into your procurement?
Why do you do this like that?

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't Centrum - Price

- Made it clear from the start what our budget was: this is all we can and will give you.
- Divided into CAPEX and OPEX (20years).
- It is not a weighted criteria.
- Who can give us the best building for our budget?

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't Centrum - Price

Radical? Yes! But possible within the legal framework!

Instead of differentiating on price, the market will be stimulated to a more qualitative and constructive approach.

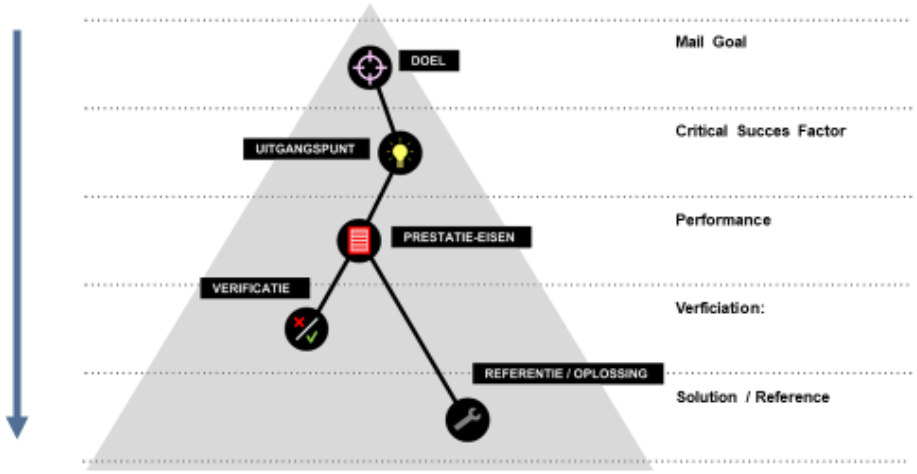
From transaction to relation.

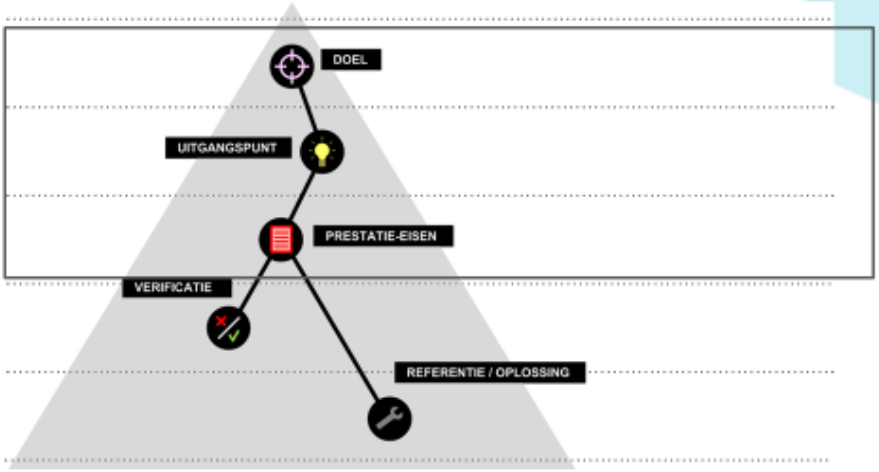
Question 3

How would you evaluate or measure the received offers?

How do you measure circularity?

Nordic Five Level Structure.





Staying high in the Pyramid

Characteristics

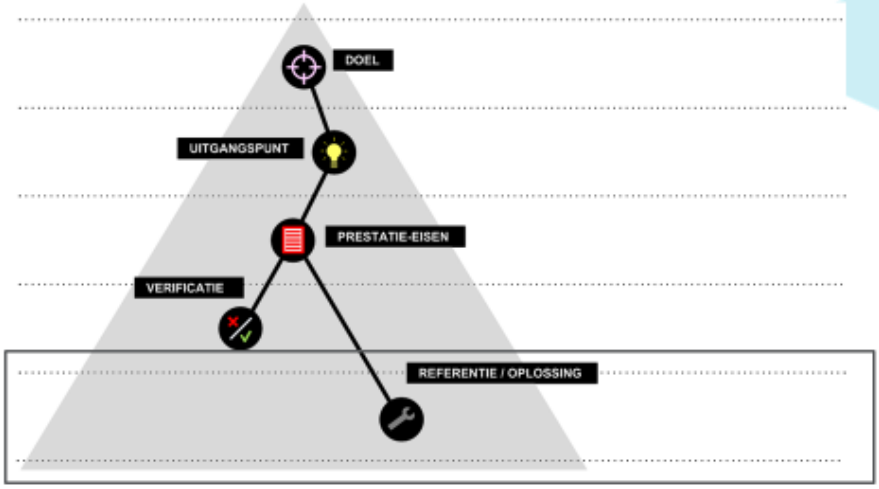
- *Builder decides how to reach the formed ambitions / goals.*
- *Even possibility to have the Builder set the height of the ambition / goals.*

Advantage

- *The requestor stays focussed on it's real goal and ambition.*
- *The 'How to do it' is vested by the expert.*
- *Responsibitilty of reaching the goal/ambition is for the builder.*

Disadvantages

- *Lesss controle and influence on how goals are reached.*
- *The challeng is within the objectivitiy of rating.*
- *On innovative aspects more controle and guidance is needed.*



Detailing until bleuprints

Characteristics

- *Fully description of what to make, how to make it, including all necesarry drawings.*
- *Builders makes what is on the drawing*

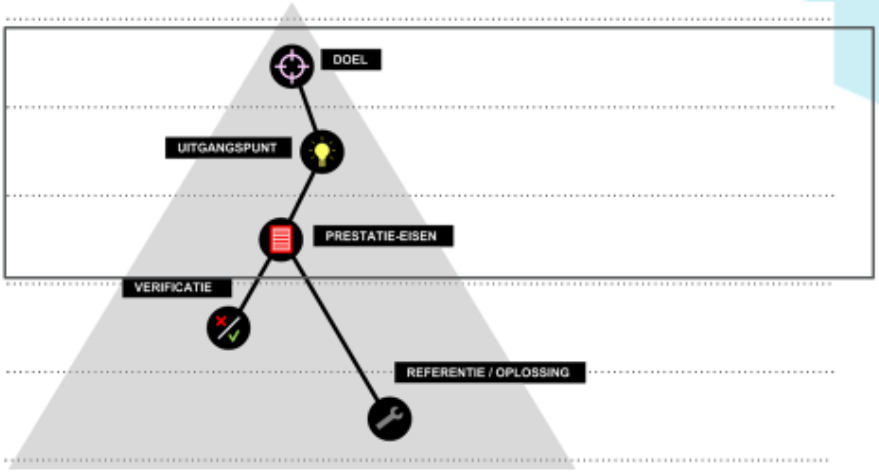
Benefits

- *Full influence on the outcome of the project*
- *Low costs in tendering and clear competitive pricing*

Disadvantages

- *Full responsibility for the client*
- *Circulariy is determined by the design without a full optimalization of the realization.*
- *Knowledge and expertise of the builders are not fully utilized.*
- *More difficult of Total Cost of Ownership*
- *Kennis en ervaring van de markt wordt mogelijk onvoldoende benut*
- *Er wordt niet altijd rekening gehouden met levenscycluskosten (TCO).*

What we did at Kamp C



't Centrum – measure offers

Three criteria:

1. (Sketch)Design & integration in the Kamp C site (40%)
2. Circularity (40%)
3. Actionplan – process (20%)

Circularity: Performance statements

(raw) materials.
Consumption & emissions.
Image & process.
Health & Use.
Finance.
Flexibility.
Mobility.

Circularity : Raw materials

Topic	Nr	Make a performance statement that includes ...
1 (raw) materials	1.1	Detachability / Dry connections / reversible
	1.2	Origin / Non-virgin application / Minimal "virgin materials"
	1.3	Rainwate reuse
	1.4	Upgrade and reuse in-site waste streams
	1.5	Consumable products must be biodegradable
	1.6	Extension of lifetime of products and building components
	1.7	Origin of materials and use of local materials
	1.8	Reuse of materials and components
	1.9	Recycled materials: upcycling