Embedding Circularity in Public Procurement Criteria

PUBLIC PROCUREMENT INTEGRITY IN PRACTICE
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Circular Economy in the Netherlands

• By 2050: 100% circular economy
• By 2030: 50% reduction in use of primary raw materials
• International cooperation is essential for the transition
• Raw materials agreement: 400 organisations endorsed these goals
• Transition agendas for 5 priority chains:
  o Biomass and Food
  o Plastics
  o Manufacturing industry
  o Construction (buildings and infrastructure)
  o Consumer goods
Rijkswaterstaat CE & CO₂ ambitions (2016)

• 2030: Rijkswatersaat will be climate neutral and ‘working circular’
  • Strategy (2020); organised in four ‘transition paths’:
    • Roads
    • Constructions,
    • Groundworks/building sites and
    • Flood protection/river maintainance

• In 2016 we lacked the knowledge of what the circularity ambition would imply
  • Therefor we started the “Impulse Programme Circular Economy for the infra sector”
Focal points for action

• Planning
  • When to act and in what categories

• Prioritisation & proportionality
  • When to act
  • What requirements
  • where in tenders

• Projecting –
  • your requirements (and aims) to the market
  • Asking the right question
Planning - across the procurement cycle

Procurement Cycle
- Asset Disposal
- Identify Need
- Contract Management
- Supply
- Evaluation & Award
- Specification & Tendering
- Market Collaboration
- Use Longer
- Buy Less
- Buy Better

Post-tender

Pre-tender

Tender stages
Prioritising - when to act

How CP delivers circular benefits

Degree to which specifications are fixed

Sustainability gains

Stage 1: Pre-tender
Stage 2: Specification
Stage 3: Selection
Stage 4: Contract
Stage 5: Supply
Stage 6: Manage
Stage 7: Maintain
Stage 8: Asset Disposal
Projecting - to the market

A life cycle approach to criteria

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**Sourcing**

- Do we really need it?
- Where does it come from?
- Who made it?
- How is it designed?
- What is it made of?

**Use phase**

- Lifetime optimisation - how will it be used?
- Can we reuse internally or externally?
- Can we repair or refurbish?

**End-of-life**

- What will happen to it afterwards?
- Is it designed for deconstruction/disassembly?

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**Functional and/or Technical?**

**CIRCULARITY STARTS BY ASKING THE RIGHT QUESTION**

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Adapted from Circular Flanders
A circular approach to needs

The hierarchy for meeting the procurement requirement

1. **Re-think the need**
   - Address procurement needs by making use of existing products, materials or assets already purchased or available.

2. **Reduce**
   - Satisfy needs by refurbished existing products and assets/materials already purchased or available.

3. **Reuse**
   - Satisfy needs by making use of existing reused or refurbished products, materials or assets already in circulation outside the organisation.

4. **Procure**
   - If new products or assets are required, procure these in line with relevant strict circularity requirements reflecting the required function and costs e.g. recycled content/recyclable/design for recovery.

5. **Use**
   - Ensure optimal use of products, components and materials during ownership - enable subsequent cycles to retain economic value as far as possible by closing product and materials loops to minimise environmental impacts of use and disposal.

Change it one step at a time
The full carbon picture

You think you are looking at this...

But the reality is different
Circular Procurement in 8 steps

1. From definition to ambition
2. Internal organisation
3. Defining your need
4. Business models
5. Market collaboration
6. Tender procedure
7. Measuring and awarding
8. Contract management

Which asphalt is more sustainable?

- A: Low temperature asphalt
- B: Low temperature asphalt + 50% recycling
- C: Traditional asphalt
- D: Traditional asphalt
- E: Low temperature asphalt + 50% recycling

Comparison:
- 50 km
- 50 km
- 10 km
- 15% less asphalt
- 100 km
- 50% recycling
Criteria, standards & labels

Understand the criteria behind them...how do they address circular approaches?

EU Green Public Procurement (GPP) criteria
- Regularly updated but based on market availability across Europe

Link between selection, technical, award and contract management criteria.

Procurers should choose ‘Type I’ ecolabels i.e. verified by a third party and awarded on the basis of life cycle costs.
Price vs Quality – is it a competition?

• Life-cycle costing and the best price-quality ratio (BPQR)
• Initial cost or whole life cost? TOTAL COST OF OWNERSHIP because you pay even if you don’t account for it
• Life cycle approach to cost will drive a life cycle approach to products and their impacts
Best Price Quality Ratio (BPQR)/ Most Economically Advantageous Tender (MEAT)

- Selection of tenders based on a combination of price and quality
- Quality includes for instance:
  - Public oriented approach (‘less hindrance’)
  - Risk management
  - Sustainability
- The criteria must:
  - Create competition between tenderers
  - Be easy to understand for tenderers
  - Show differences in quality
- Two instruments
- CO$_2$ performance ladder and DuboCalc
About DuboCalc

• DuboCalc calculates the environmental impacts of the different infrastructure designs, based on material and energy use during the whole lifecycle, this is called the Environmental Cost Indicator (ECI)

• DuboCalc uses the method of the environmental Life Cycle Analysis (LCA)

• Objective comparison of tender-bids

• RWS uses this LCA-instrument to evaluate the environmental impact of the bids (award criterion) (BPQR/ MEAT)
BPQR calculation

Offered price  Notional discount  Notional price
Circular viaduct:
Vianen archbridge, Netherlands

Reduce materials used, Reduce waste, Minimise disruption

- Modular approach – multi-span
- Designed for disassembly
- Faster onsite build – less disruption
- Fewer materials used in total construction
- Materials passport

LESSONS LEARNED
- Early consideration of alternatives to traditional build result in life cycle benefits.
The Royal Netherlands Ministry of Defence (MoD)

Textiles procurement - workwear & towels and overalls

INTENDED OUTCOMES
1. Prevent incineration of discarded items:
   • contract awarded to sort 750,000 end of life items for reuse or recycling into fibres for use in new textile products.
2. Procuring towels and overalls containing at least 10% recycled post consumer textiles fibres:
   • contracts awarded for 100,000 towels and 10,000 cloths containing 36% recycled content and 53,000 overalls, containing 14% recycled content.

LESSONS LEARNED
The MoD found that the original requirements included too many technical specifications. Circular invitations to tender must be described in more functional terms to give the market room for solutions.

"Our historical specifications were defined down to the last detail. We don't want to do that anymore." Stephanie Grieving, Workwear Chain Specialist, Ministry of Defence.
Utilisation
Lifetime optimisation and lifetime extension

Full Service Life VRPs (Within factory operations)
- OEM New (Manufacturing)
- Remanufacturing
- Comprehensive Refurbishment

Partial Service Life VRPs (Within non-factory operations)
- Arranging Direct Reuse
- Repair
- Refurbishment

From: D Fitzsimmons
Source: IRP ‘RRRDR’ Report
Lifetime and CO₂ reduction potential

- Consider mobile first / mobile only strategies - significantly lower CO₂ footprint;
- Evaluate the hardware available and buy best in class products with the lowest CO₂ footprints;
- Consider Bring You Own Device (BYOD) and/or Company Owned, Personally Enabled (COPE). This deduplication of hardware leads to >40% reduction of CO₂ / raw materials;
- Reuse redundant display’s elsewhere, within the government or for home use; and,
- Optimise lifecycles for maximum CO₂ reduction, reduction of raw materials, mitigate abuses in the supply chain (for social accountability) and, cost reduction:
  - Smartphones and tablets 5-6 years;
  - Laptops 5-7 years; and,
  - Displays 10 years.
Light as a service Schiphol airport

Schiphol airport
Rethinking the future of lighting
Disposal
Disposal

• Disposal options should be considered in the initial procurement as they impact circular choices
  • But often another person, role and another budget

• Contracting for disposal can be included in the primary contract
  • But rarely is – this is not necessarily a barrier as long as there’s a robust sustainable procurement policy in place.
Summary

• Plan - Use procurement as a strategic instrument to maximise benefits

• Prioritise - Circular procurement involves many stakeholders so collaboration internally and externally is important

• Project - Procurement integrity is not just about sourcing but also use and disposal so consider all aspects at the start and ask the right question(s)
The time to act is now!
Thank you

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