Circular procurement: what and how? Reflections based on Dutch experiences

Interreg North-West Europe
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Project name

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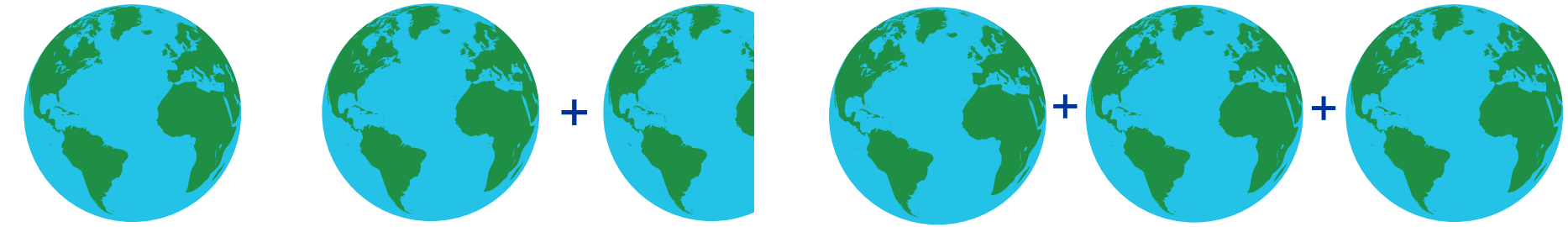
The urgency of circular economy: The overconsumption of natural resources and the scarcity of some natural resources



Opportunities

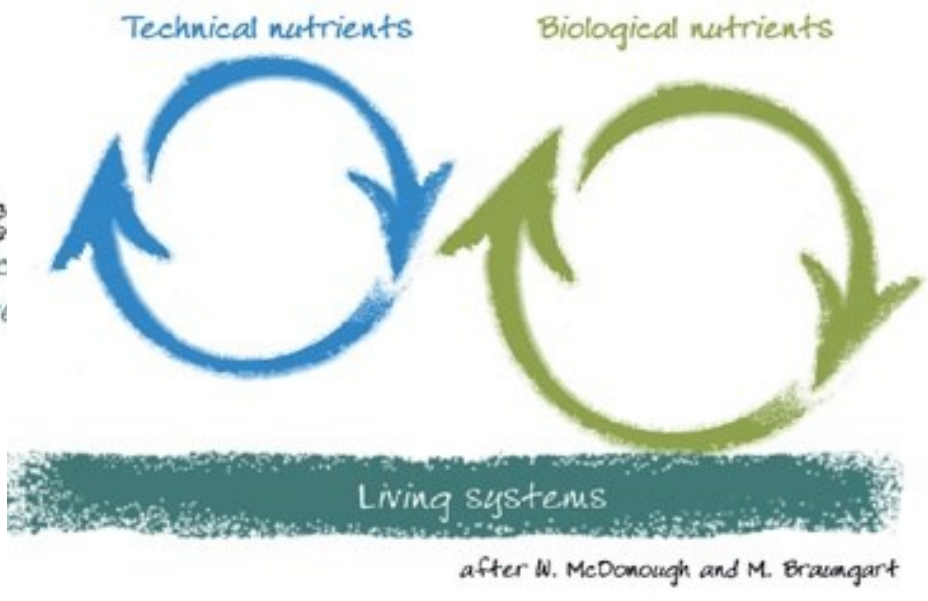
. Decrease environmental impacts

. Increase certainty of resources' provision

. Increase consumer awareness and producer responsibility

We move from a linear economy…

… to a circular economy



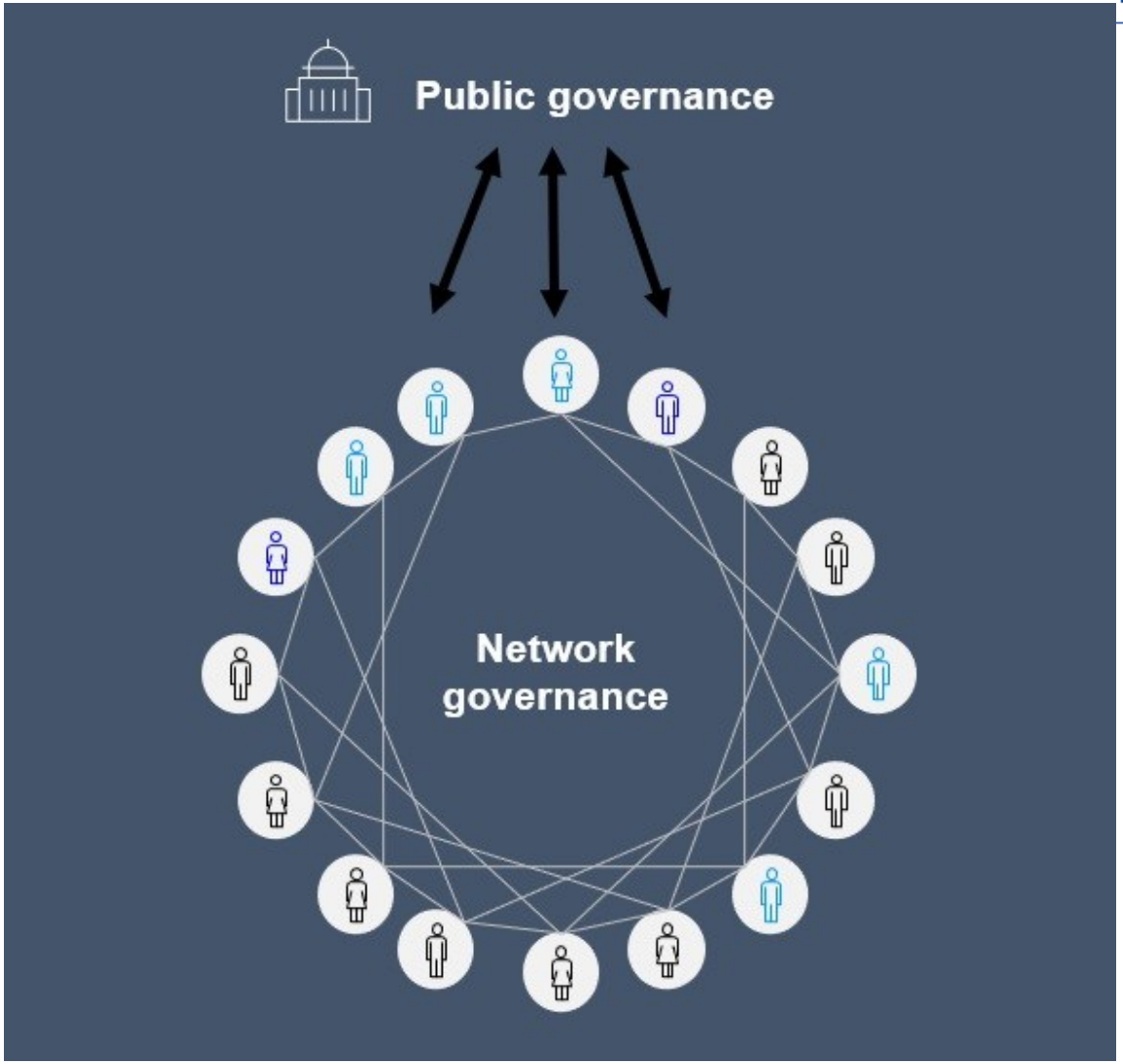
Levels of circularity: 10 R's

- **Refuse:** prevent raw materials use
- **Reduce:** decrease raw materials use
- **Renew:** redesign product in view of circularity
- **Re-use:** use product again (second hand)
- **Repair:** maintain and repair product
- **Refurbish:** revive product
- **Remanufacture:** make new product from second hand
- **Re-purpose:** re-use product but with other function
- **Recycle:** salvage material streams with highest possible value
- **Recover:** incinerate waste with energy recovery

Netherlands: One of the frontrunners

2016: Government broad program on Circular Economy: The Netherlands circular in 2050

- Netherlands: 1989 ‘integrated chain management’ policies’, roots of CE
- Focus on Transition agendas for biomass/food; building; consumption goods, plastics and manufacturing industry
- 50% reduction in raw materials’ use in 2030
- Government interventions (legislation, economic/financial incentives, knowledge/innovation)


Public governance
Network governance

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The worldwide use of natural resources is growing at an alarming speed. If we maintain our present consumption and production patterns, we will need three Earths by the year 2050. The circulair economy can bend this curve: it closes the loops of products, materials and resources, yielding the lowest possible environmental impacts, while using renewable energy sources and safeguarding the planet's biodiversity.

In this book, Jacqueline Cramer shows how network governance can power the circular economy. Network governance is about building a coalition of partners, which all fulfill a specific function in the network and are aligned by so-called transition brokers. By complementing conventional, public governance with this new form of governance, the best of both worlds is created. Network governance strengthens the positive forces in society and increases the support for circular economy.

Cramer shares her huge experience in implementing numerous circular initiatives in the Netherlands. As a practitioner and scholar, she has identified ten guiding principles for building circular initiatives, based on network governance. These guidelines can support everyone that wants to start or expedite a circular initiative.

Jacqueline Cramer is a member of the Amsterdam Economic Board, where she is actively engaged in circular economy initiatives. She is also a professor emeritus of sustainable innovation at Utrecht University. From 2007 to 2010, she was the Dutch Minister of Housing, Spatial Planning and the Environment. She holds numerous managerial positions, among which supervisory board chair of Holland Circular Hotspot and chair of the Dutch Concrete Agreement.

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Amsterdam Economic Board

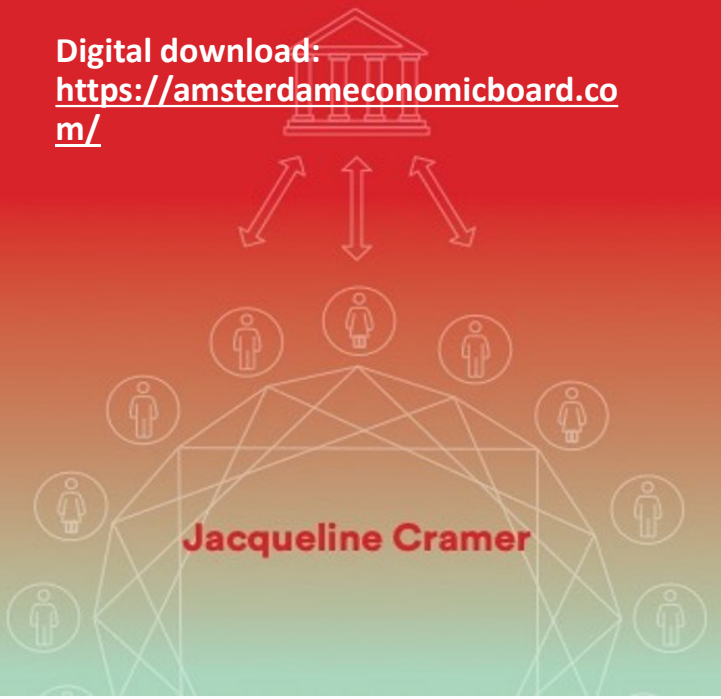
How Network Governance Powers the Circular Economy

Jacqueline Cramer

How Network Governance Powers the Circular Economy

Ten Guiding Principles for Building a Circular Economy, Based on Dutch Experiences

Digital download: https://amsterdameconomicboard.com/



Jacqueline Cramer

I have gained experiences in numerous circular economy initiatives in the Netherlands

Regional circular economy programme coordinated by the Amsterdam Economic Board in:

Metropolitan Region Amsterdam

- **Two main strategies**
- Circular procurement
- High-value recycling and reuse of major resource streams

Initiatives of product chains

- Redesign and recycling of mattresses

- Sustainable concrete and sustainable steel in the building sector

- Sustainable fashion (circular design, reuse and high value recycling)

Metropolitan Region Amsterdam : 1. Circular procurement as key driver to stimulate circular products and services

Targeted approach

- 3 Communities of Practice (32 organisations)
- Introduction of circular procurement requirements for each product category
- Every organization: own focus
- Scaling the approach to as many organisations as possible in the Amsterdam region

Definition of circular procurement

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Circular procurement is “the process in which a product, a service or a project is purchased according to the principles of a circular economy. In this process the **technical aspects** of the product are as circular as possible, taking maintenance and return policies at the end of the use period into account, as well as including **financial incentives** to guarantee circular use.

To encourage circular use, it is also important to agree upon conditions of use, as well as the application and remanufacturing of products or components during and after their first technical lifecycle. This has consequences for **how the procurement process is organized** and the roles of the procurement officer, internal departments, suppliers, and the entire value chain” (Circular Procurement in 8 steps, Van Oppen et al., Copper 8, 2018, p.20).

Difference with green or sustainable procurement

- Sustainable Procurement (SP) has a broader scope, encompassing the economic and social dimensions of sustainability in addition to the environmental dimension

- SP and Green Procurement (GP) primarily consider environmental benefits in terms of reducing environmental impacts without taking circularity into account.

- SP and GP are more product- and technology-oriented [6], while CP aims to incorporate complex networks and ecosystems (with focus on other contract forms, collaboration, new business models).

Scope of circular procurement

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Four focal areas:

- Procurement of improved products and services by adding circular criteria for products and services, such as recyclability, reuse of materials, and use of recycled materials.
- Procurement of services and new business concepts;
- Procurement of new and innovative products, services, and materials promoting circular economy-based business;
- Procurement promoting industrial symbiosis and circular ecosystems, which requires significant investments, as well as cooperation and commitments from various stakeholders to support closed-loop systems.

Contractual methods

Does the contract involve traditional procurement, where the purchaser obtains ownership of the product (“product ownership”), or

Does it involve “retained ownership” (e.g., operational leasing, renting, or selling results instead of goods) to ensure the return of the product after each cycle and extend the product’s service life through adopting new business models?

Public procurement regulations

- Public contractors are subject to public procurement regulations for purchases above a certain amount.
- Four general principles of public procurement: non-discrimination; equal treatment; transparency; proportionality.
- Commercial organizations have a greater degree of freedom.

Two additional principles for circular procurement

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1. ***Collaboration between buyer and supplier or between different value chain partners***

- Initial market consultation or formal dialogue helpful
- Divide procedure into a selection phase (parties or consortia) and award phase (restricted procedure; competitive dialogue or innovation partnership)

2. ***Innovation***

- Starting point: innovative project brief
- Leave room to stimulate innovation (multi yr contract)

Different levels of execution

1. Micro-level—focusing on the procurer's internal organization. This includes strategic aspects (strategy formulation, top management awareness, and commitment, including finance) and executional practices (buying power, company procurement processes, skills and knowledge, operational tools, internal coordination, and organizational culture)

2. Meso-level—dealing with factors related to the entities with which and how the procurer interacts in the supply chain or eco-industrial parks

3. Macro-level—encompassing various types of political support, such as legislation, procurement specifications, or financial incentives, along with social obligations

Barriers to implementing CP

1. Lack of a coordinated sourcing strategy
2. Complexity in material specifications and requirements
3. Insufficient coordination in material need identification within the organization
4. Absence of a reverse logistic system
5. Resource constraints
6. Deficiency in skills, knowledge, and expertise
7. Lack of prioritization by top management
8. Resistance to change within the organizational culture
9. Lack of alignment among stakeholders
10. An unreceptive external environment

Objective and design Community of Practice

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- Mutual exchange of knowledge
- Discuss bad and good experiences
- Carry out initiatives in own organisation
- Join forces to create market power in order to get more circular products and sevices on the market and give business more certainty about demand

- Every community of practice: 6 sessions
- Participants: local government, business and educational institutions

Technical aspects

- The book Circular Procurement in 8 Steps served as a significant source of inspiration for addressing the multifaceted aspects of the CP endeavour.
- The national expertise center for Sustainable Procurement (PIANOo) provided the basic technical data (open source), but circularity was not yet fully integrated in their guidelines.
- First decision: whether and what to buy
- The five product categories most frequently selected: demolition/construction, office furniture, traffic signs, catering, and IT business equipment.

Main focus of CoPs

- The scope of the CP initiatives primarily focused on the following areas: procuring improved products and services by adding circular criteria and procuring services and new business concepts.
- Their main ambition was to integrate circularity into existing procurement processes.
- Both contractual methods (product and retained ownership) were applied.
- Most CP initiatives were directed at higher levels within the R-ladder of circularity. However, the procurers were generally reluctant to take significant risks and therefore focused on proven solutions.

Main learnings
Learning 1: Integrate SP and CP

Circular procurement fits within Sustainable Public Procurement (SPP), which focuses on finding a responsible balance between People, Planet, and Profit (PPP) – both locally and globally. Circular procurement emphasizes preserving materials and resources to ensure their continued usability.

For each project, the aspects of PPP that take priority in light of circularity are assessed. Experimenting with new ways of collaboration and new business models is a crucial part of this process, as innovation often doesn't take off otherwise.

Learning 2: Set requirements for each product group

- The performance requirements for circular procurement vary by product group. A distinction must be made between requirements and criteria (which allow market parties to differentiate themselves). Additionally, the balance between price and quality plays a role, as well as the method of evaluating various aspects.

- Clients are (often) not experts in the market from which they are sourcing a product. Therefore, contact with the market (to understand what is possible) is desirable so that joint ambitions can be determined based on this. For examples of circular procurement, the Dutch Pianoo website is helpful.

Learning 3: Tailor-made approach needed

Each organization has its own 'hook' in its vision/mission/strategy to anchor circularity.

Examples:

- The Port Authority wants to align with the necessity of transitioning from fossil-based to circular operations.
- Rabobank aims to illustrate its mission through concrete examples (e.g., City Farm).
- AM seeks to take responsibility by building with minimal environmental impact.

The starting point depends on the corporate culture. Highly procedural organizations want to first establish things in policies and procedures, while more action-oriented organizations begin with concrete examples. The latter category was overrepresented.

Learning 4: Create internal support

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- Involve people who are willing to collaborate: co-champions.
- Involve management, procurement, and the budget holder.
- Start the implementation process pragmatically and set priorities.
- Begin within the organization where there is already energy around the theme and where the importance can be demonstrated through examples.
- Communicate the results transparently, both internally and externally, preferably through the (co)champions in the organization.
- Seek connection and collaboration with other organizations that want to prioritize circular procurement on similar themes. By creating volume, it becomes attractive for a producer to innovate.

Learning 5: Selection of contractual method is key

- A performance-based contract is preferred. It provides opportunities to explore innovations together with the market.
- Best value procurement offers enough openings to set performance requirements for circularity.
- You can hold a non-binding market consultation through innovative procurement first. This is useful for gathering knowledge, and it also ensures that the market takes the process more seriously.
- Individual discussions with market parties are much more informative than a group conversation.
- If you lack the expertise to evaluate the proposals yourself, ask for assistance.

Learning 6: Legal aspects should be taken into account

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- New contract form is needed, particularly in case of product as a service.
- Legal costs are therefore higher.
- Building lease is important for fixed products (e.g., an elevator); this ensures that the ownership of the product remains with the owner.
- Tax-related aspects must also be considered, such as depreciation rules.
- Delivery agreement should be formulated including viz. verification method, cost overview and residual value table, technical description of the product-service and discount table.

Learning 7: Newcomers' engagement favourable

- Startups can contribute to circular procurement through innovative initiatives.
- These can be either new or existing companies.
- By adopting startups, organizations can act as launching customers, giving new developments a chance to enter the market.
- Startups can also complement the development of an innovative procurement process alongside existing companies.
- Procurers are hesitant to involve newcomers due to a lack of track record and volume/guarantee of supply.

Establishing a coordinated Circular Procurement execution plan in the Amsterdam region

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- This activity focused on establishing a coordinated CP execution plan. The aim was to collectively create a market for circular products and services by developing a standardized CP approach with shared contract requirements.
- Public procurers (31 municipalities and 2 provinces) joined forces. With a purchasing power of €4 billion per year, the participants expected to have impact. They gained success, although slower than planned.
- Businesses and educational institutions could not agree upon a common approach. Each had their own strategy.

Preconditions

1. Leadership
2. Sense of urgency
3. Knowledge and competencies
4. Trustworthy cooperation with suppliers

Key enablers

Micro level

- Internal resources (time, personnel and money)
- Commitment of key actors (viz. CEOs/directors and middle management)
- Accountable targets
- Adaptation of accountancy rules
- Successful showcases

Meso level

- Coordination of circular supply chain initiative(s)
- Coalition of willing, innovative stakeholders
- Collective understanding of circular opportunities
- Application of circular procurement requirements
- Execution of significant pilots
- Removal of key barriers

Macro level

- Orchestration of the supply chain(s) to be transformed from linear to circular
- Creation of national network of innovative stakeholders (including the government)
- Implementation of appropriate government incentives
- Execution of the necessary tasks to be performed by the industry itself

Building circular supply chain initiatives

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1. Prioritize 1-3 supply chains as a start
2. Build a coalition of innovative stakeholders willing to transform their chain from linear to circular
3. Develop a collective understanding of circular opportunities
4. Formulate and apply circular procurement requirements based on those opportunities
5. Establish significant pilots
6. Remove key barriers, if possible, with the coalition of willing stakeholders

Case 1: Closing the loop of organic waste from public green space

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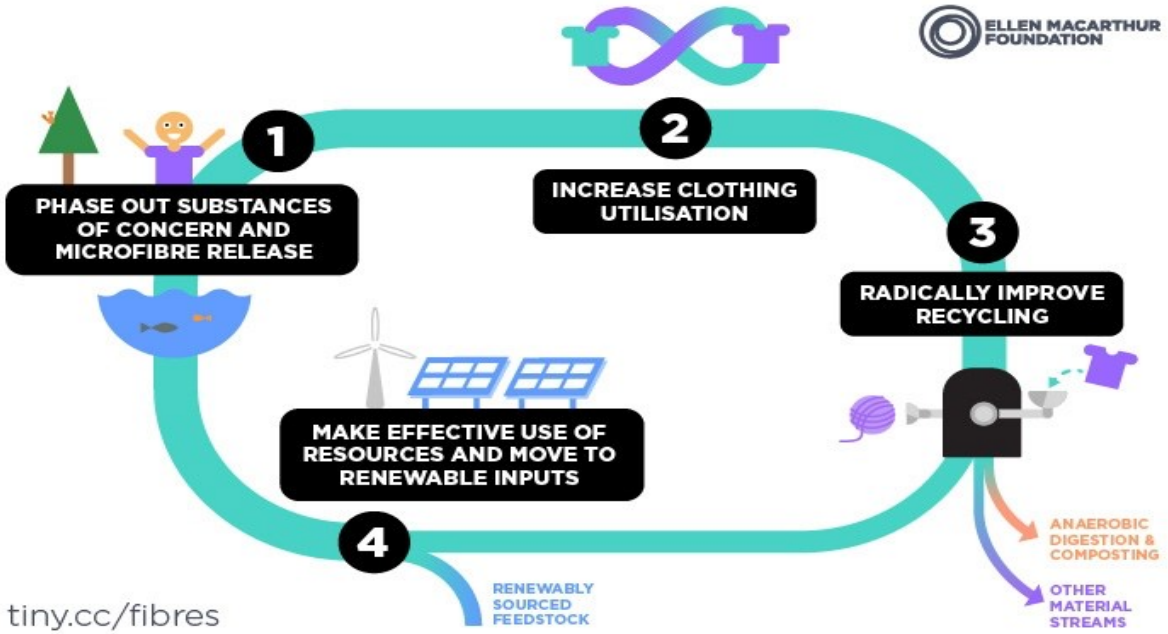
Case 2: Closing the loop of mattresses

Case 3: Recycling of textiles fibers



Joint textile initiative in Amsterdam region:actors

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Municipalities	Collectors of used textile	Sorter of used textile
Processor of textile fibers	Textile companies using textile fibers in their production	Consumers

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FIBERSORT – TEXTILE SORTING

Automatically sorting of mixed post-consumer textiles solves a major bottleneck in textile recycling

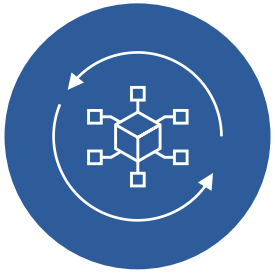
www.circle-economy.com/case/fibersort

High value recycling of jeans

Salvation army involved in collection and logistics

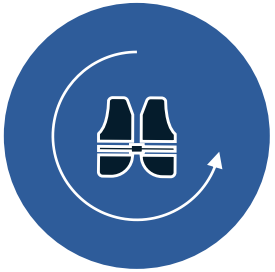
Denim Deal

Dutch Circular Textile Valley: 4 regional hubs



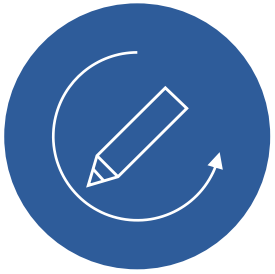
Hub Twente

High-value recycling technology



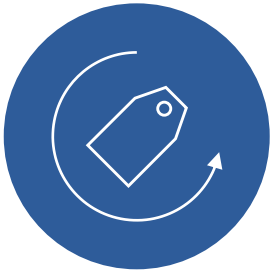
Hub Tilburg

Circular workwear



Hub Arnhem-Wageningen

Circular design and new (bio-based) materials



Hub Amsterdam Metropolitan Area

Circular esthetics

High value recycling

Case 4: Closing the loop of ICT

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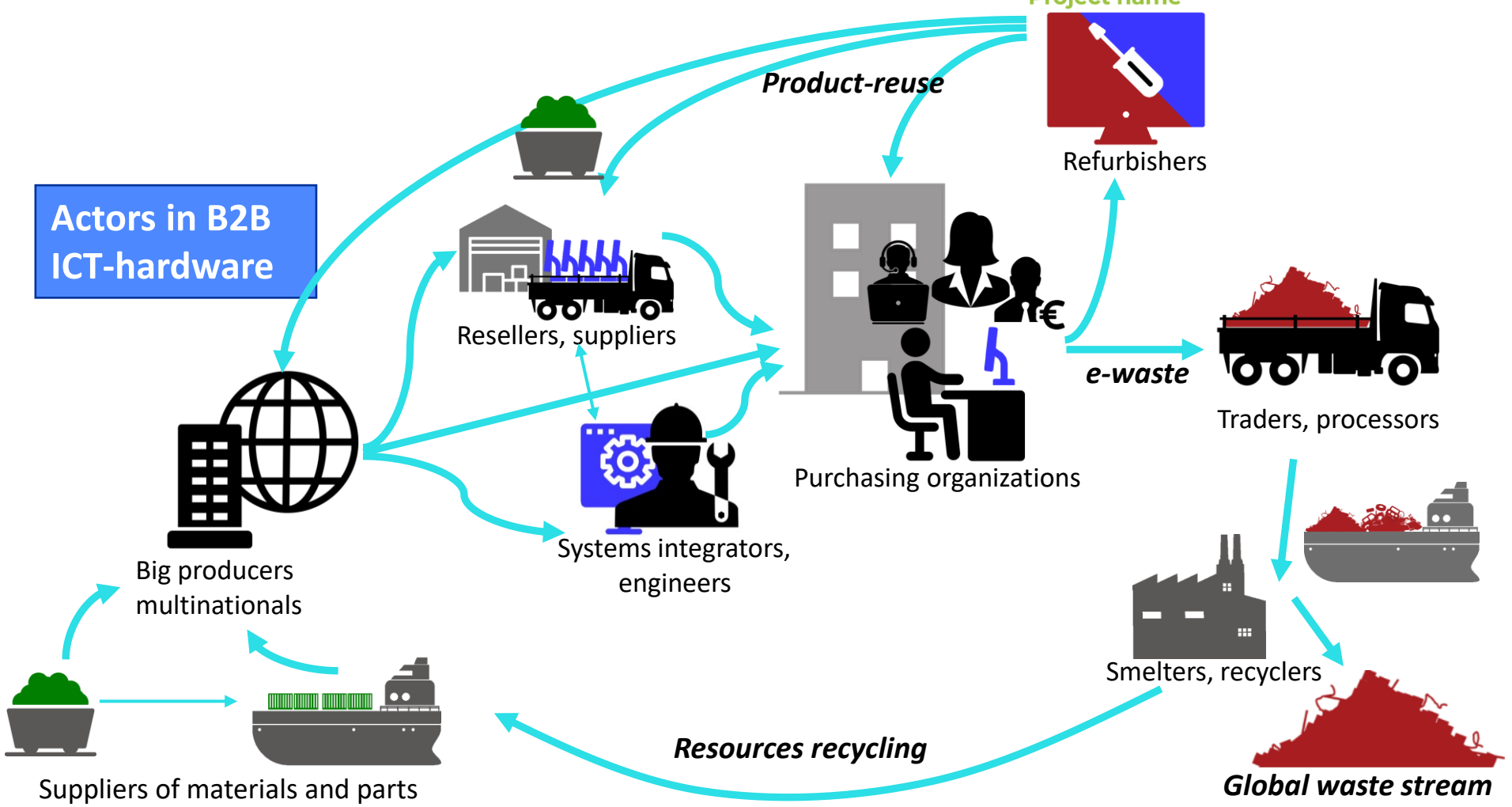

ICT: global chain

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Production – Use - Discarding as waste

We associate ICT hardware with the use phase, but it also includes production and discarding as waste

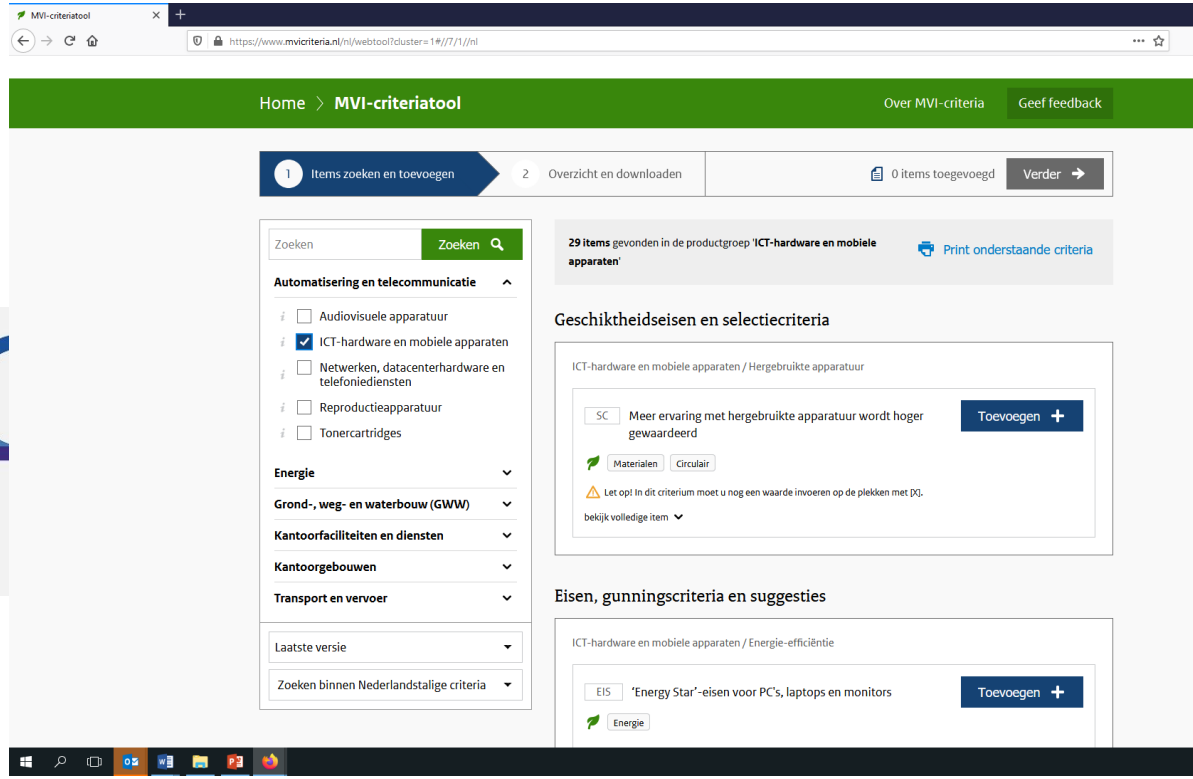
Performance criteria

Cooperation in ICT chain focused on procurement requirements

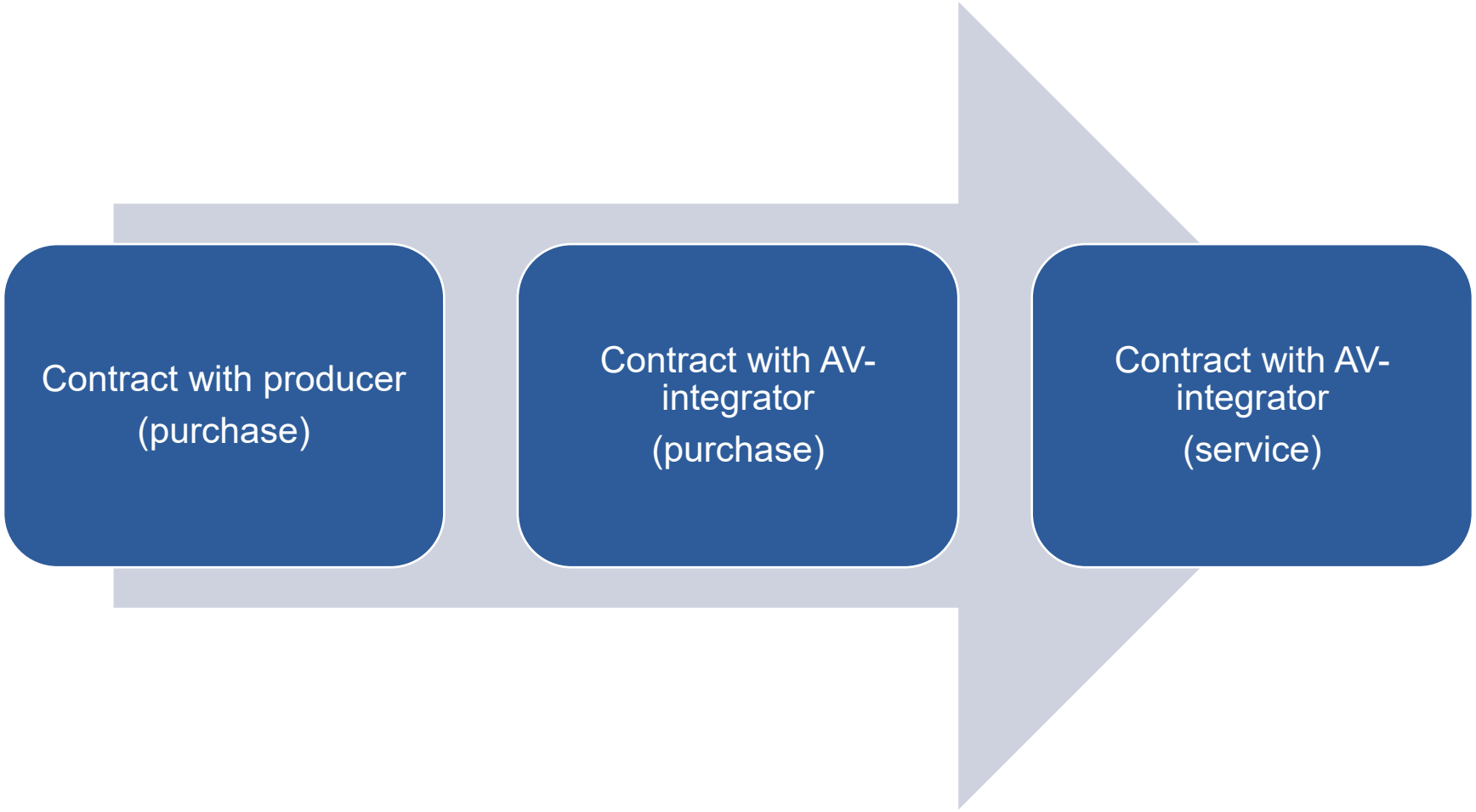
ICT, focus on:

- Energy
- Circular
- International social

- Aligning criteria with market, labels and other countries



Display-as-a-Service: example Schiphol airport



Display-as-a-Service: How?

- Supplier translates the functional need of Schiphol to a display solution and offers this as a service
- Ownership of displays remains with the supplier. Schiphol pays for the use.
- Supplier provides display as a service in accordance with the functional specifications.
- Responsiblities of supplier: Advising, realising, maintaining, discarding and reporting

Displays as a service: critical success factors

- Top level commitment
- Internal support of business partners
- Integration of circular principles in project goals
- Formulating definitions in early stage
- Taking into account impact on internal budgets (IFRS 16 standard)
- But first of all: act!

Macro-level initiatives

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1. Orchestration of the supply chain(s) to be transformed from linear to circular
2. Creation of national network of innovative stakeholders (including the government): solar panels and ICT/servers
3. Implementation of appropriate government incentives
4. Execution of the necessary tasks to be performed by the industry itself