

amsterdam economic board

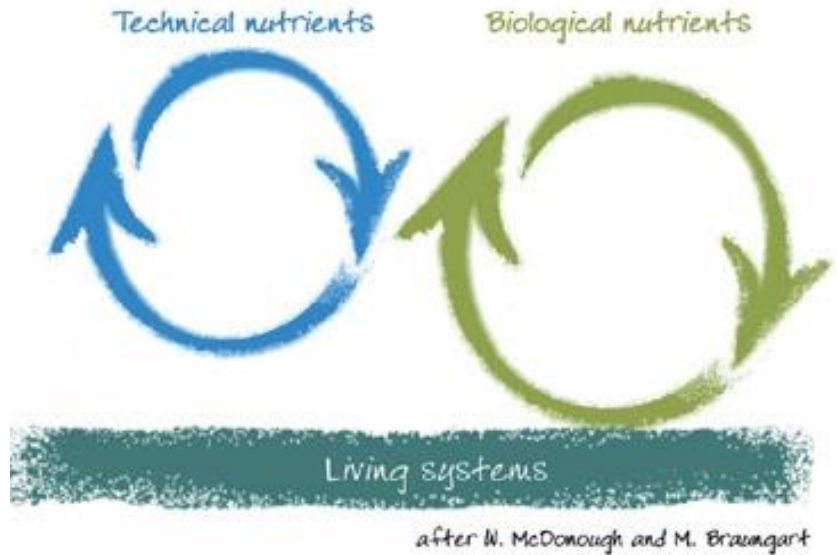
Experiences in Moving towards a Circular Economy in the Netherlands: Theory and Practice

Prof. dr. Jacqueline Cramer
Utrecht University

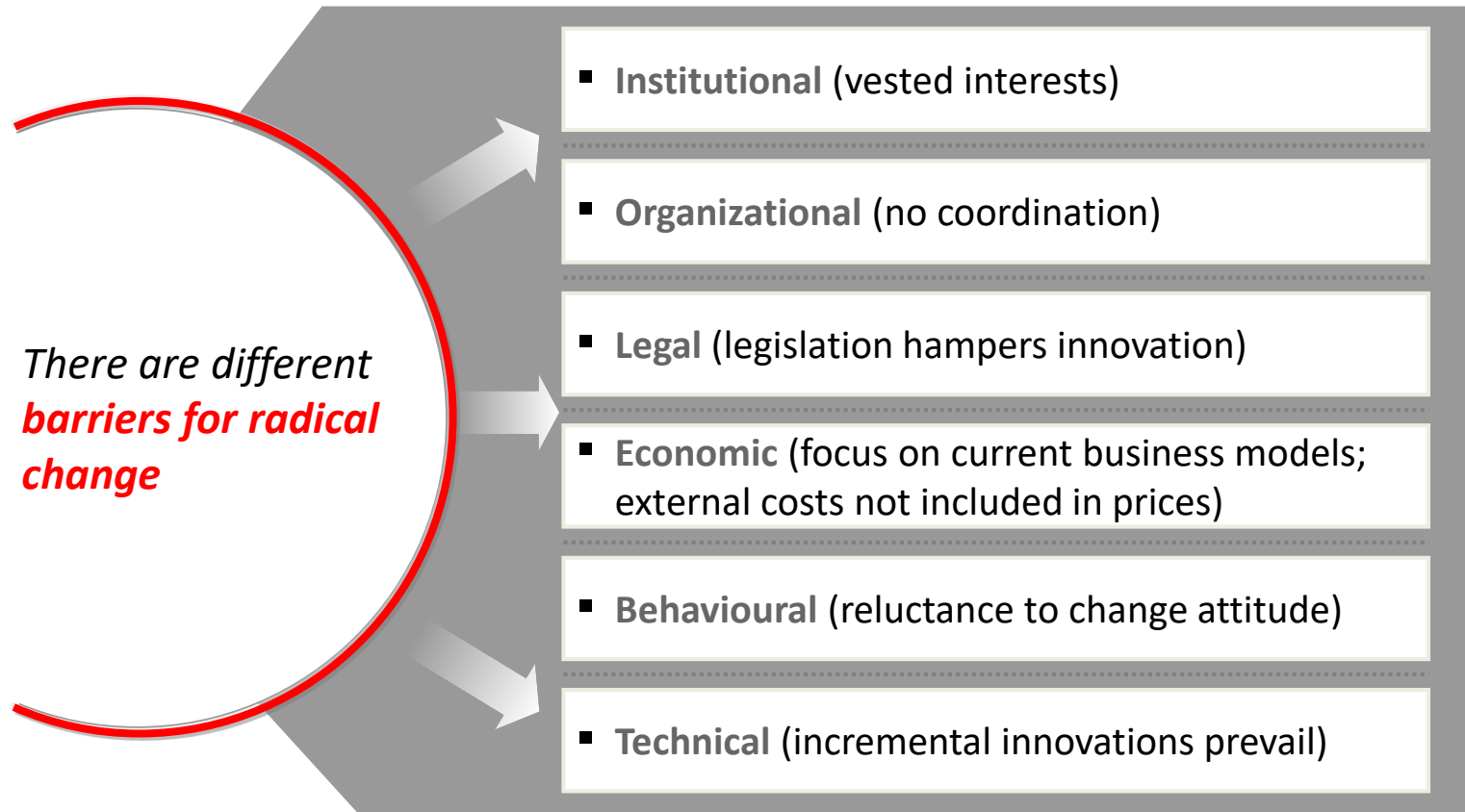
I amsterdam.

We move from a linear economy...

... To a circular economy



There are different barriers for radical change



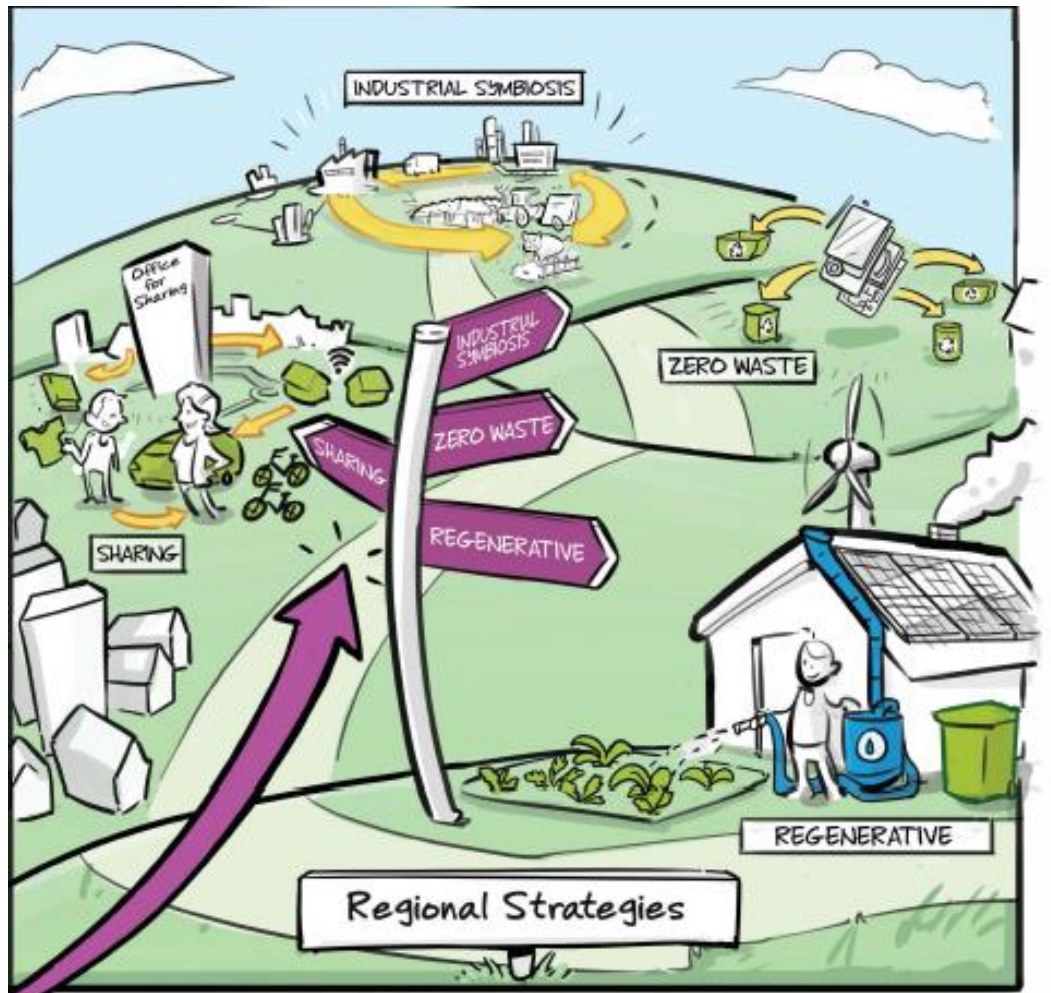


Transition management

(Geels, 2002; Loorbach & Rotmans, 2006)

- **All relevant actors should be included**
- **Multi-level perspective (niche; regime)**
- **Involvement of frontrunners**
- **Long term objectives attuned to short term actions**
- **Room for experimenting and learning**
- **Joint, coordinated effort to build a new, circular economy**

Change-processes at local, regional, national, European and global scale





Netherlands: One of the frontrunners

2016: Nationaal programme Circular Economy: The Netherlands circular in 2050

- Cooperation; chain/sector approach
- Interventions
- Biomass/food; building sector; plastics, consumption goods and manufacturing industry

CASE: The Metropolitan Area Amsterdam

The mission is to be frontrunner in finding smart solutions for the limited availability and overconsumption of resources. At the same time we realize employment, innovation and new businesses.

Scale: action required at the scale of the Metropole region Amsterdam

1

Synergy: action relevant for companies, regional governments, knowledge institutes

2

Densely populated area (2.33 million people)

Levels of circularity: 10 R's

Order of priority

High



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

Low

Recover: incinerate waste with energy recovery

What are the main challenges?

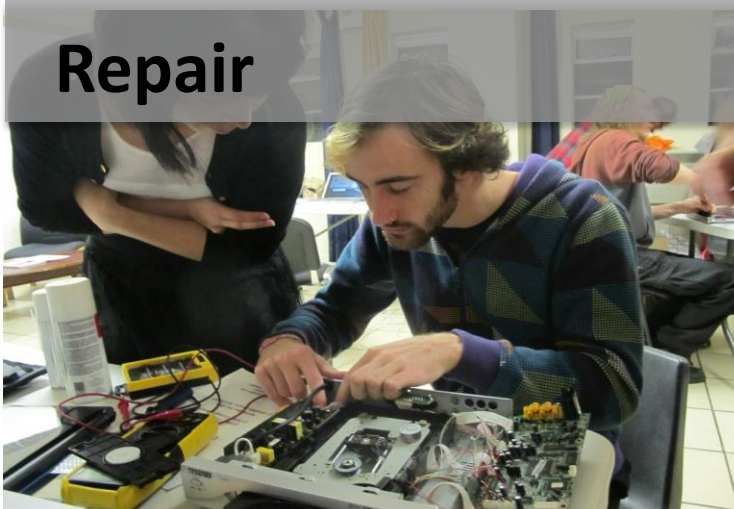
Redesign and
reuse of
products

High value
recycling/reuse
of resource
streams

*Cross cutting initiative:
circular entrepreneurship*

Many ways to reintroduce a product in the economy and to redesign product chains

Repair



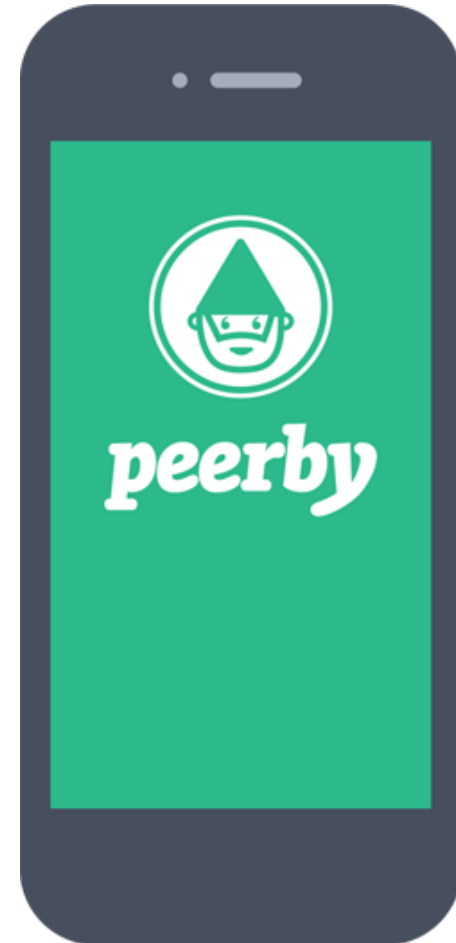
Redesign/reuse



Repurpose



**New business models are also being developed:
sharing and leasing redefine product ownership**

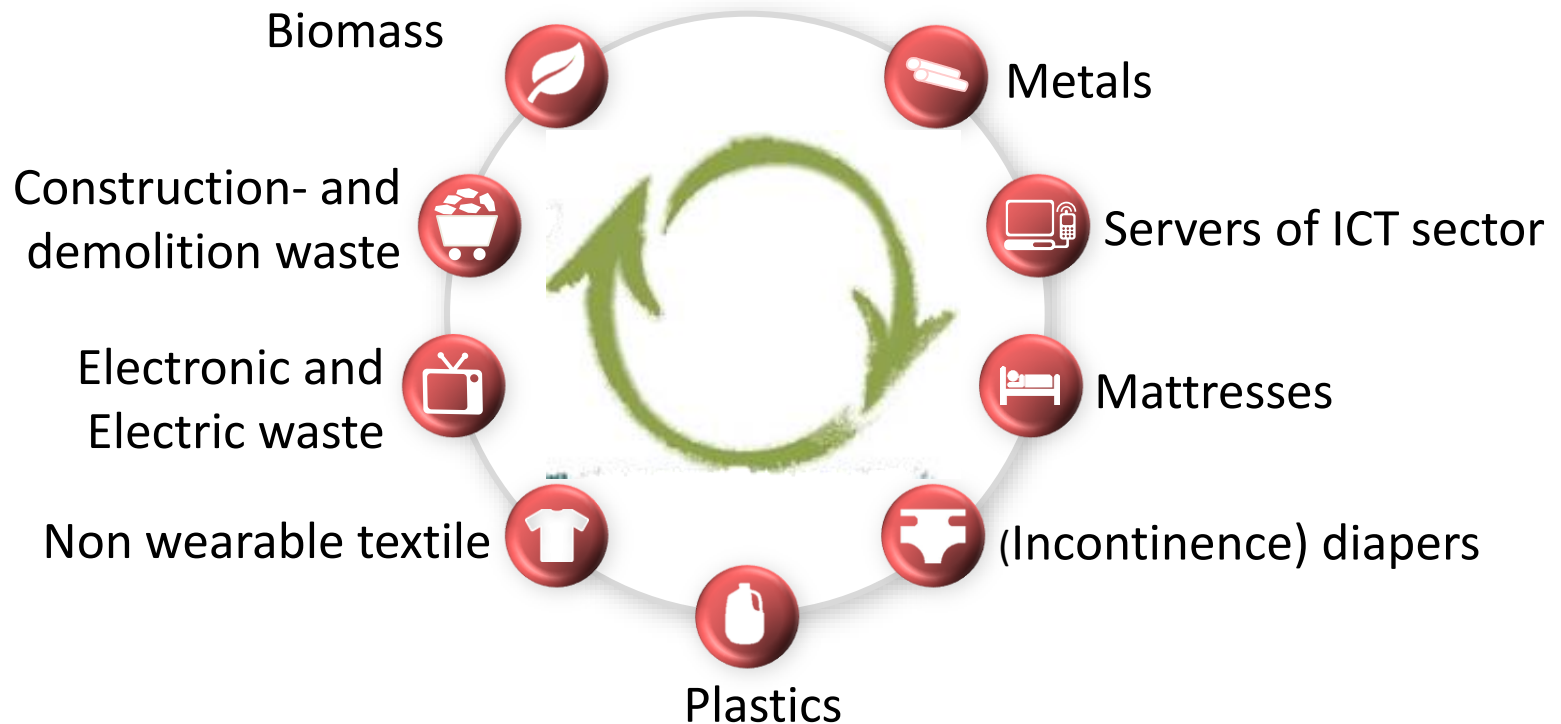


1. Circular procurement to stimulate circular products



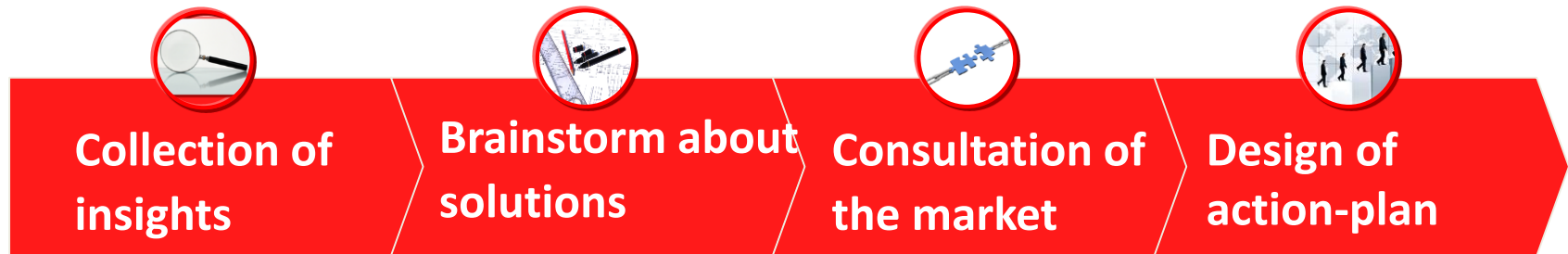
Key-Results: 150 million circular procurement; manifest signed by 32 municipalities/2 provinces: 50% circular in 2025

2. Closing the loop of resource streams (9 priority resource streams: 2015-18)



Key-Results in 2015-2018: High value recycling and product-reuse/redesign of 21 sub-resource streams

The approach of material streams is tailor-made



Insight in current situation on the basis of meetings with experts and documentation

Brainstorming-sessions about high value recycling/reuse of material stream

Market consultation about business interest and (if needed) support of government and other parties

Design of action-plan aimed at implementation



Case 1: Biomass examples



a. Closing the loop of organic waste from public green space

Production of resources: insulation material and chemicals



b. High value recycling of waste streams from the food industry (multipurpose biorefinery): sub-regional



Case 2: Circular demolition/construction; Example: Amsterdam of 470 houses based on the Circle City approach

95% resource reuse; climate neutral, green



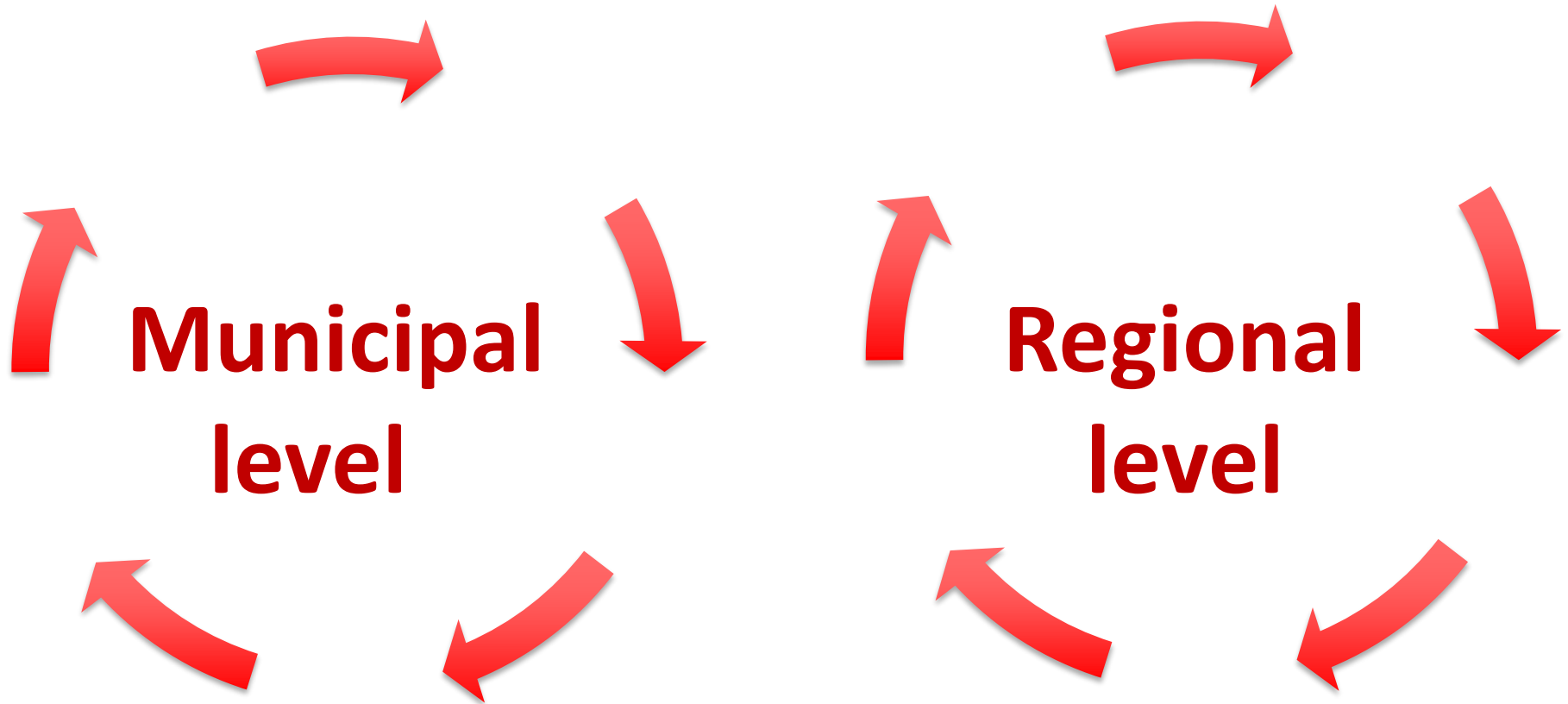
Case 3: Diapers recycling



Case 4: Closing the loop of mattresses: national initiative



High value recycling/reuse needs the appropriate scale



Towards a circular economy
Conditions for success:

**1. Initiators
with guts and
support**

**2. Cooperation
in product
chain and
(supra) regional**

**3. New
financial
arrangements**

**4. Additional tailor-made incentives,
including circular procurement policies**

Key objectives for 2025

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- **Improving security of supply of resources** by reducing the import of raw materials with 20%
 - **Redesigning min. 20 product-/material chains**
 - **High value recycling** of at least 40 priority resource streams (on average: recycling rate of 90%)
 - **Creating at least 2000 new jobs** and supporting 150 niche actors (start-ups and grown-ups)
 - **Decreasing environmental burden** by 35% average
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Think global, act local



More information?



Jacqueline Cramer



j.m.cramer@uu.nl