How to create a (bio-based) circular economy: From political goals to actions

Hanna Helander, Machteld Simoens, Anran Luo, Anna Petit-Boix, Sina Leipold
Chair of Societal Transition & Circular Economy, University of Freiburg
www.transition.uni-freiburg.de, twitter @SinaLeipold
The Circulus Team
The Circulus Team
Workshop Content

Block 1: Prioritizing for a Circular Economy
Hanna Helander, Machteld Simoens

Block 2: Global Circularity Visions and Strategies
Anran Luo
BLOCK 1

Prioritizing for a Circular Economy

Hanna Helander, Machteld Simoens

Chair of Societal Transition & Circular Economy, University of Freiburg
www.transition.uni-freiburg.de, twitter @SinaLeipold
Prioritizing for a Circular Economy

Setting the Scene
- What is circular economy’s objective?
- What are the strategies?

Findings
- Packaging waste management regulation
- Food waste reduction as priority area

Conclusions feeding the Discussion

• What is circular economy’s objective?
• What are the strategies?
Prioritizing for a Circular Economy

Setting the Scene

- What is circular economy’s objective?
- What are the Strategies?

Findings

- Packaging waste management regulation
- Food waste reduction as priority area

Conclusions feeding the Discussion
Circular Economy Objectives

“protect business against resource scarcity”

“Boost competitiveness”

“Save energy”

“create jobs”

“green growth”

“Avoid irreversible damages by using up resources [...] in terms of climate, biodiversity, air, soil and water pollution”
Circular Economy Objectives

An environmental conceptual perspective

Decrease environmental pressures
Circular Economy Objectives
Circular Economy Objectives

SOCIETY

ENVIRONMENT

Regeneration
Circular Economy Objectives

SOCIETY

Production → Use → Recycling

Raw material extraction → Production

ENVIRONMENT

Regeneration
Circular Economy Objectives

SOCIETY

Production → Use → Recycling

Raw material extraction → Production

ENVIRONMENT

Regeneration
Circular Economy Objectives

Circular Economy Strategies


In order to transition towards a Circular Economy...

...WHAT STRATEGIES DO WE PRIORITIZE?
Circular Economy Strategies

In order to transition towards a Circular Economy...

...WHAT STRATEGIES DO WE PRIORITIZE?

> DEPENDS ON NARRATIVES <
Prioritizing for a Circular Economy

Setting the Scene

• What circular economy’s objective?
• What are the strategies?

Findings

• Packaging waste management regulation
• Food waste reduction as priority area

Conclusions feeding the Discussion
Prioritizing for a Circular Economy

Setting the Scene

• What circular economy’s objective?
• What are the strategies?

Findings

• Packaging waste management regulation
• Food waste reduction as priority area

Conclusions feeding the Discussion
Packaging Waste Management

INDUSTRIES → MUNICIPAL ACTORS → NGOs → REGIONAL LEVEL POLITICS → GERMAN RECYCLABLES ACT → CE OBJECTIVE
Packaging Waste Management

Narratives

INDUSTRIES
EFFICIENT & CHEAP

MUNICIPAL ACTORS
SIMPLE & EFFECTIVE

NGOs

REGIONAL LEVEL POLITICS
TRANSPARENT & ENFORCEABLE

GERMAN RECYCLABLES ACT

CE OBJECTIVE
Packaging Waste Management

Industries

Efficient & Cheap

Municipal Actors

Simple & Effective

NGOs

Regional Level Politics

Transparent & Enforceable

German Recyclables

Packaging Act

CE Objective

Narratives
Packaging Waste Management

Different **narratives** with competing problem definitions and strategies

Problems of **prioritization**

An **unambitious outcome** that no actors fully supports
Prioritizing for a Circular Economy

Setting the Scene

• What circular economy’s objective?
• What are the strategies?

Findings

• Packaging waste management regulation
• Food waste reduction as priority area

Conclusions feeding the Discussion
Food waste reduction is one of five “Priority areas” in the EU Action Plan for a Circular Economy

Germany adopted a national strategy for food waste reduction 2019, following the EU & the SDG 12

Goal: halving food waste in distribution and consumption steps.

Is this an effective strategy to decrease footprints?

Footprint comparison with dietary change.
Food waste reduction: a priority area

Biomass footprint (kg/person and year)

- Status Quo
- Halving food waste
- Healthy & sustainable diet
- Changed diet & halving food waste

Food waste reduction: a priority area
The policy focuses on one waste flow, which does not determine the environmental pressures of food systems.
Prioritizing for a Circular Economy

Setting the Scene

• What is the Circular Economy Objective?
• What are the Strategies?

Findings

• Packaging waste management regulation
• Food waste reduction as priority area

Conclusions feeding the Discussion
Conclusions

• Different narratives and problem definitions are a major set-back for priority-setting towards a Circular Economy.

• When a dominant narrative (e.g. food waste reduction) steers policy priorities, it is not necessarily the “best” priority.
From your experience...

1. Which strategies are prioritized?
Discussion

From your experience...

2. Are there tensions between these strategies?
BLOCK 2

Global Circularity Visions and Strategies

Anran Luo

Chair of Societal Transition & Circular Economy, University of Freiburg
www.transition.uni-freiburg.de, twitter @SinaLeipold
Zooming out
Zooming out
Zooming out
Circular Economy in the EU
Circular Economy in the EU
Circular Economy in the EU
EU’s Global Vision for Circular Economy
EU’s Global Vision for Circular Economy
EU’s Global Vision for Circular Economy
EU’s Global Vision for Circular Economy
EU’s Global Vision for Circular Economy
...meanwhile in China...
...meanwhile in China...
...meanwhile in China...
...meanwhile in China...
...meanwhile in China...
EU Strategies for Global Circular Economy Promotion

- Scale and market
- Green technology transfer
- Standard harmonization
Trade Strategies to Increase EU Exports and Competitiveness

- Scale and market
- Green technology transfer
- Standard harmonization
Trade Strategies to Increase EU Exports and Competitiveness

- Scale and market
- Green technology transfer
- Standard harmonization
Challenges to Global Circular Economy Promotion

- Scale and market
Challenges to Global Circular Economy Promotion

• Scale and market
Challenges to Global Circular Economy Promotion

- Green technology transfer
Challenges to Global Circular Economy Promotion

- Green technology transfer

INCREASE OF CIRCULARITY

Refuse
Rethink
Reduce
Reuse
Repair
Refurbish
Remanufacture
Repurpose
Recycle
Recover
Challenges to Global Circular Economy Promotion

- Standard harmonization
Summary

• EU is promoting circular economy to China (and globally) via trade strategies

• Although China understands circular economy differently from the EU, it is receptive to EU’s promotional efforts for its own development purposes
Discussion

From your perspective...

3. How effective do you think current prioritized trade strategies are for a transition to a circular economy?
4. What other strategies should be employed to promote circular economy globally?
Summary & Wrap up

Chair of Societal Transition & Circular Economy, University of Freiburg
www.transition.uni-freiburg.de, twitter @SinaLeipold
Thank you for coming!