BRUCETRA

Brussels Circular Economy Transition
(2016-2020)
Project Team

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Project Team

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Context

BCR is confronted with several waste and materials’ policy dilemmas
- Lack of a clear overview of current performance
- A multitude of negative environmental externalities
- At which level to organize waste valorization?

⇒ General question Innoviris: What and How to valorize?
## General Aim

**Analyze** the economic and environmental potential of the waste streams for a **transition** towards a circular economy model of materials’ management in the Brussels Capital Region.

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Project Structure

State Analysis

- WP1
- WP2
- WP3
- WP4
- WP5
- WP6

Evaluation

- Data mining
- Benchmarking
- Waste Metabolism
- Stream selection
- Life cycle evaluation
- Optimization & Recommendation

Synthesis

- Optimization & Recommendation

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# Planning

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WP1 Current situation

Goal
• Mapping the recycling landscape in BCR
• Gathering existing data on recycling flows in BCR from contacts and existing studies

Steps
• T1.1 Actor landscape
• T1.2 Which data should be collected?
• T1.3 Data mining
• T1.4 Data relevance & accuracy?
WP 2 Benchmarking

Goal

• Assess the current waste/recycling/material policies and processing infrastructure in the BCR by benchmarking the region against the top performing cities/regions in the EU

• Quantify the effect (direction and relative magnitude) of the background conditions on the regions’ overall efficiency scores
WP 2 Benchmarking

• Output so far:
  • Technical paper with focus on the methodology and the background conditions
  • Considerable differences in the aggregate performance of the regions, even within Member States.
  • Some differences in the operating environment of the regions, such as the number of tourist overnight stays, are related to the aggregate performance of the regions, other conditions are not significantly related

• More applied paper
  • Focus on Brussels
  • Possibility to use data on EU City level: “Urban Audit” by Eurostat
  • Additional in-depth comparison with selected peers
WP3 Material Flow & Metabolism

Based on the *System of environmental economic accounting (2012)*

Data:
- Physical flow accounts for Belgium: 2008-2011

Models:
- For Brussels: Métabolisme de la Région de Bruxelles-Capitale (Ecores sprl, ICEDD, BATir (ULB) 2015)
- Multiregional EEIOT (ULB)
Following years

Waste Streams
- Domestic
- Industrial

STATE
- WP4

EVALUATE
- WP5
- Treatment techniques?
  - Public – private?
  - Regional – Interregional?
  - Scenario’s

OUT OF PROJECT

WP6
Optimization & Recommendations

SYNTHESIS
WP 6 Optimization

Goal

- Develop and apply a numerical optimization and simulation
- Formulate policy recommendations

Steps

- Objective 6.1: capacity location cooperation
- Objective 6.2: capacity location cooperation
- Objective 6.3: capacity location

Flexible:
- Strategy
- Cross-region coordination

Fixed:
- Long-term
- Medium-term
- Short-term
WP 6 Optimization

Progress

• A first simulation model has been constructed to simulate collection routes of the collection trucks starting at one or more depot locations (objective 6.1)

• Tested for residual household waste in the BCR

• Next step: more realistic data
Thank you for your attention

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