COLLECTORS outputs

Supporting decision-makers in shifting to better performing waste collection systems

COLLECTORS Final conference
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Hanna Pihkola
VTT Technical Research
Centre of Finland

COLLECTORS aimed at supporting decision-makers in shifting to better-performing waste collection systems

- By studying the applicability of different methods for multicriteria decision-making and organising opportunities for learning & knowledge exchange

- Producing practical implementation guidelines targeted to local & regional actors

- Preparing policy recommendations

Supporting decision-makers

Aim of the multicriteria decision-making (MCDM)

- MCDM methods are structured, quantitative methods that can be used for prioritising alternatives when conflicting objectives are involved

- We applied different MCDM methods in a series of expert workshops that were attended by public authorities, regional waste management companies and PRO representatives

- The aim of the MCDM exercises was to create discussion among the expert participants and to learn from their views and experiences in waste collection

- MCDM was applied for benchmarking cities and regions, contesting between potential ideas to improve collection and selecting regional strategy for collection

- Focus of the study was to consider, how MCDM could be applied to support the decision-process related to waste collection, rather than merely taking a specific decision

Decision-making challenges related to improving waste collection

- Decision-making related to waste collection is **a social process** that may involve many stages and many stakeholders

- Challenges were related to different phases of the decision-making process
  - **Understanding and defining the problem**
    - How the problem should be addressed, what kind of options are available and where/how to find all necessary information
  - **Coordinating activities**
    - Reaching consensus and 'speaking the same language' with different actors
  - **Engaging with citizens and others actors related to the process**
  - **Implementing the decisions in practice**
    - Finding practical ways for organising and monitoring performance

Recommendations to improve decision-making

- Good performance can be achieved with different kinds of collection strategies, but detailed knowledge about the existing system and its functioning is necessary, in order to identify best solutions

- Decision-making is often affected by lack of precise or comparable data. Filling in existing data gaps requires systematic efforts, implementing monitoring activities and cooperation between actors in the recycling value chain.

- MCDM methods (or other decision support tools) could be useful already in the early phases of the decision-process: problem definition and idea generation phases, and for collecting input and reaching consensus between different actors.

| Definition of the problem | Definition of the decision alternatives | Definition of the evaluation criteria | Data collection | Decision-making | Monitoring | Stakeholder engagement! |

- In future, improving monitoring and reporting practices and increasing transparency are essential. Public reporting makes also the benchmarking between systems easier
→ Important for identifying good practices and for enabling systematic use of decision-support methods like LCA, CBA and MCDM

- In benchmarking, the criteria need to be comparable between regions that may have different amount of inhabitants, varying area sizes and large differences in generated amounts of waste, etc.
  - The criteria applied in COLLECTORS aim to make at least partial comparison between different systems and collection strategies possible, even if the results have to be considered taking into account relevant regional characteristics, and uncertainties in applied background data.

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Criteria to support decision-making

Important clusters of criteria

- Capture and recycling rates

- Degree of separation and quality

- Convenience & coverage

- Engagement & participation

- Environment, health & safety

- Socio-economic impacts

Recommendations

- The clusters represent multiple objectives that constitute a well performing waste collection system

- It is recommended that at least one criterion from each cluster should be included in decision-making

- Efforts should be made in order to eventually increase the number of criteria within each cluster

- Both quantitative and qualitative data should be considered

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Practical guidelines and examples of good practices

Practical info for local & regional decision-makers and PRO's

Implementation guidelines

- Recommendations for local waste collection systems to better assess their situation and improve their performances.

- Concrete examples on how local players succeeded in tackling local challenges and improving their performances

- Focus on PPW, WEEE & CDW

Main recommendations

1. Follow the waste hierarchy

2. Align the waste collection system with the recycling value chain

3. Secure the participation of citizens

4. Improve decision-making through the use of MCDM (or other decision-support tools)

Additional information

- Results and recommendations from the MCDM excercises
  - https://www.collectors2020.eu/tools/multi-criteria-decision-making/
- Implementation guidelines
  - https://www.collectors2020.eu/results/guidelines-for-implementation/
- COLLECTORS web portal for finding benchmarks and learning what kind of data is available
  - https://www.collectors2020.eu/tools/wcs-database/

Thank you!

Contacts

Hanna Pihkola & Lauri Kujanpää
VTT Technical Research Centre of Finland
hanna.pihkola@vtt.fi; lauri.kujanpaa@vtt.fi

Jean-Benoît Bel
ACR+
jbb@acrplus.org

For more info about the project visit the COLLECTORS website at www.collectors2020.eu