The multiple market-exposure of Swedish municipally owned waste management companies

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The business model of Swedish MSW

Swedish municipal waste companies are responsible for a large share of waste collection and waste processing. Their business model include three activities:

1. MSW companies organize collection and treatment of waste and from households within the jurisdiction of their owners. (partly also for recycled waste). Also often waste management services to companies.

2. MSW companies have developed processing activities that transform parts of the waste into re-useable raw materials, products or energy (biogas, landfill gas, thermal energy).

3. Swedish MSW companies organize marketing activities for recycled products and energy (market research, product development, service innovation, pricing, market communication and distribution).
Three types of revenues

• Waste management fees – Municipal monopoly on MSW from households

• Waste management income – Competition for handling industrial and commercial waste

• Income from sales (material, energy, material and consulting)
Public Service activities

Processing activities

Marketing activities

Landfill

Waste management fees

Incomes from sales

Waste

Products and recycled materials

Organization’s boundaries

Waste management income
Active on different markets

1. A political market *(Swedish municipalities have a legal responsibility for household waste)*

2. A waste-as-material market *(subjected to market-based competition)*

3. A technical market *(to choose between different techniques which partly compete with each other)*

4. A commercial market *(compete for waste in flow, selling of products and consulting)*
Active on different markets

- Political market
- Municipal Waste Company
- Waste market
- Processing techniques market
- Products and recycled material market
Research project: Organizing Critical Infrastructure Services - The case of Waste Management

- Approaching waste management as a critical infrastructure service
- Analysing the value creating processes of waste management
- Two case studies (company 1 and 2)
- Financed by Vinnova - the Swedish Governmental Agency for Innovation Systems
The Waste Management situation in Sweden

• Legal demands on recycling targets (laid on waste companies)

• Producer responsibility for a number of waste fractions. Often source separation systems. Food waste collected separately in 53 % of the communities.

• 73 % of the waste is collected by entrepreneurs and 27 % by the cities.
The Waste Management situation in Sweden

• All house owners pay a waste fee.

• Landfill and incineration tax

• Ban on landfilling of organic or combustible waste.

• A moratorium for new incinerators in the 1990`s due to hard public opposition. Hard to effect the situation due to legislation.
Characteristics of the two investigated companies
Company 1

- Incineration with energy recovery as a major activity

- Limited biogas production (only pre-treatment of food waste being sent to another company for fermentation)

- Relatively low rate of material recycling and composting in comparison to the total amount of incinerated waste.

- Limited landfill gas production due to a low organic content in landfilled waste.

- Composting of garden waste and for treatment of contaminated soils.

- Collection of MSW performed by entrepreneurs.
Company 2 (1/2)

- Extensive biogas production (reactors, bioreactor cells and landfill gas)
- Upgrading of biogas to motor fuel, local tanking stations and transportation to the grid.
- Liquified biogas production.
- Biggest plant in Europe for up-grading landfill gas (after Paris).
- In the forefront in Sweden for material recycling. Source separation in all housing areas.
Company 2 (2/2)

• Developed composting (both for soil improvement production and for stabilization of contaminated soils).

• Long tradition in source separation and manual separation from mixed commercial and industrial wastes (including building debris).

• Recirculation of landfill leachates as fertilizer in energy plantations (willow, grass plantations, etc).

• Responsible also for collection of MSW.
Conclusions

Municipally owned waste management companies in Sweden combine three main related activities:

- *Public service activities* that collect solid waste from households, commercial establishments, and industry.

- *Processing activities* that transform this waste.

- *Marketing activities* that enable products and recycled material to re-enter the economy. This involves even providing *information to customers* and some external *consulting*. 
Thank you for your attention

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