

# Presentation of optical sorting of bio waste

# Southeast municipal association

#### 8 Municipalities

Kalmar, Oskarshamn, Vetlanda, Nybro, Mörbylånga, Sävsjö, Uppvidinge, Torsås

#### 178 00 inhabitant

Housing	Households
Villa	34 081
Apartments	31 302
Cottages	7 567
Total	72 950

#### Waste management:

- Household waste
- Recycling
- Bulky waste
- Production of combustible waste to cement plants 2021-06-02



# How does it works?





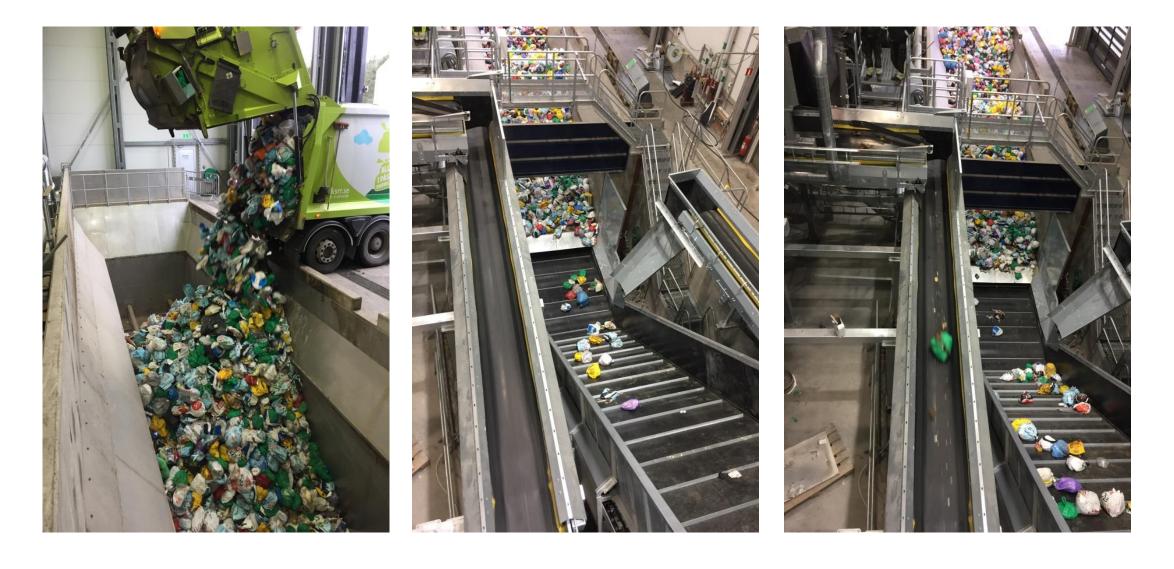
# Moskogens sorting facility



- Optical sorting of waste
- Slurry production from food waste, to be used for production of biofertilizer and biogas
- Production fuel from combustible waste

# Moskogen sorting facility

- Built 2016
- Full operation since Mars 2017
- Approx. 110 tons of incoming household waste per day
- Total capacity of 18 tons an hour
- Capacity production of substrate food waste (slurry) - 10 tons per hour
- Speed conveyor four meters per second
- Speed paddle four hits every second



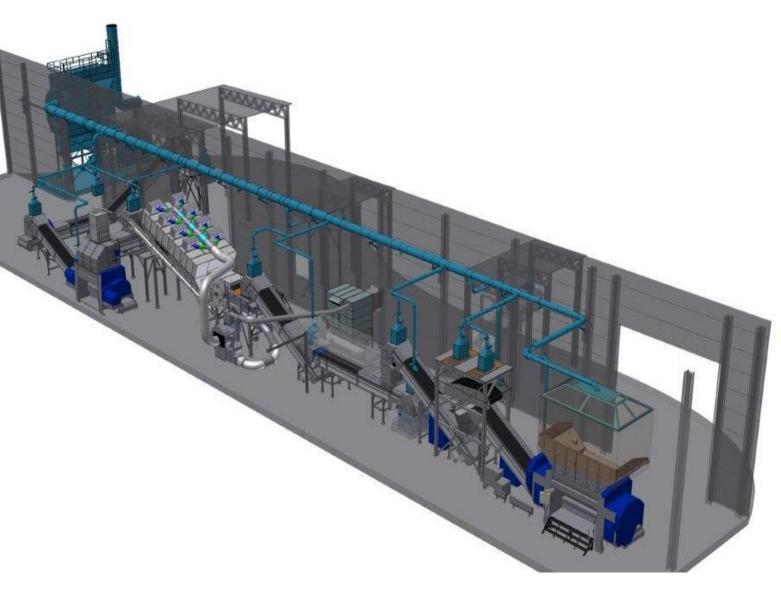
### Partners – for production of biofertilizer and biogas



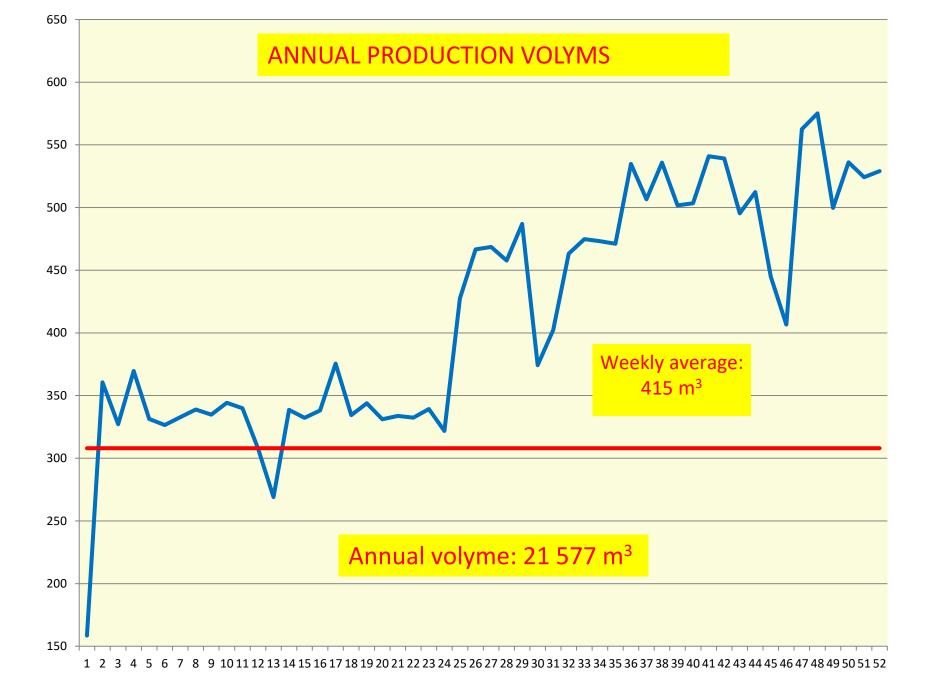




2021-06-02









# Green bag

- Introduced 2015
- Average household, three bags per week
- Only for food waste
- Discard together with residual waste in one bin
- Bags are made of recycled plastic, separated from the food waste in the sorting plant





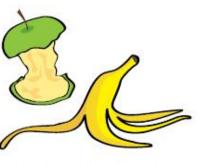
# KSAR

Kaffe och te Kaffesump, filter och tepåsar.

### Lägg detta i den gröna påsen

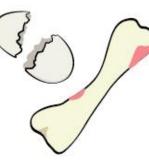


Matrester Det som blir över på tallriken.



#### Frukt och grönsaker

Rester och skal samt frukt och grönt som blivit dåligt.



Skal och ben Kött- och fiskben, skal från skaldjur och ägg.



Matfett Smör, margarin, olja och annat matfett.

#### Environmental objectives

Biowaste

Sorted food waste	50 %	2020			
	75 %	2023			
Reduction of food waste per capita					
Food waste reduction	20 %	2020 – 202	5		

- Biofertilizer is local used and reducing the agriculture use of dietary fertilizer
- Biogas is used by the collection vehicles and local buses dietary fertilizer
- All garbage trucks runs on biofuel









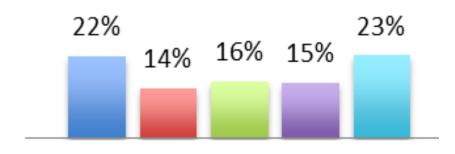
#### Communication

Is a success factor, you have to explain the environmental benefits and you have to repeat it over and over again. A plan is needed.



#### Negatives

#### Not sorted food waste in the bins





If the driving force is not environment, money definitely is.

Less food waste lower food expenses.

During the pandemic a public debate has been a eye opener



# Some distribution costs

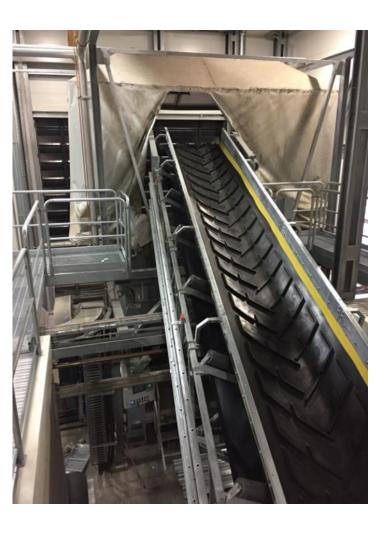
- Investment in machinery and building estimates at EUR 3,7 millions
- No additional collection costs
- Annual cost for food waste bags estimates to EUR 247 000
- Collection bags is made by recycled plastic, degradable options are available

### <u>Key figures</u>

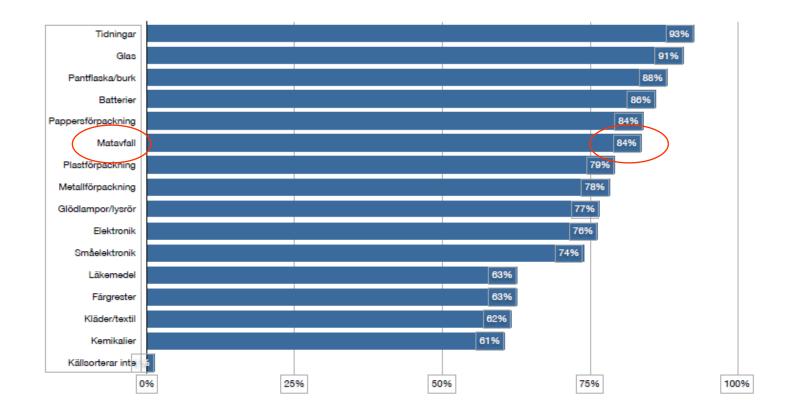
	<u>Goal</u>	<u>Result</u>
Sorting rate	50 %	61,5
Food in residual waste	<20 %	27,3
Degree of purity	>98 %	98,5
Not packaged waste	<10 %	5,6

#### Challange:

Food waste in the residual waste consists of packaged food waste. The challange is to reduce food waste.



#### **Customer survey**



84 % of the households sorting out food waste



## **QUESTIONS?**



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