

➤ Recycling and Recovery in Eschweiler Value chains and composting



Digestion and
composting plant



Recycling station



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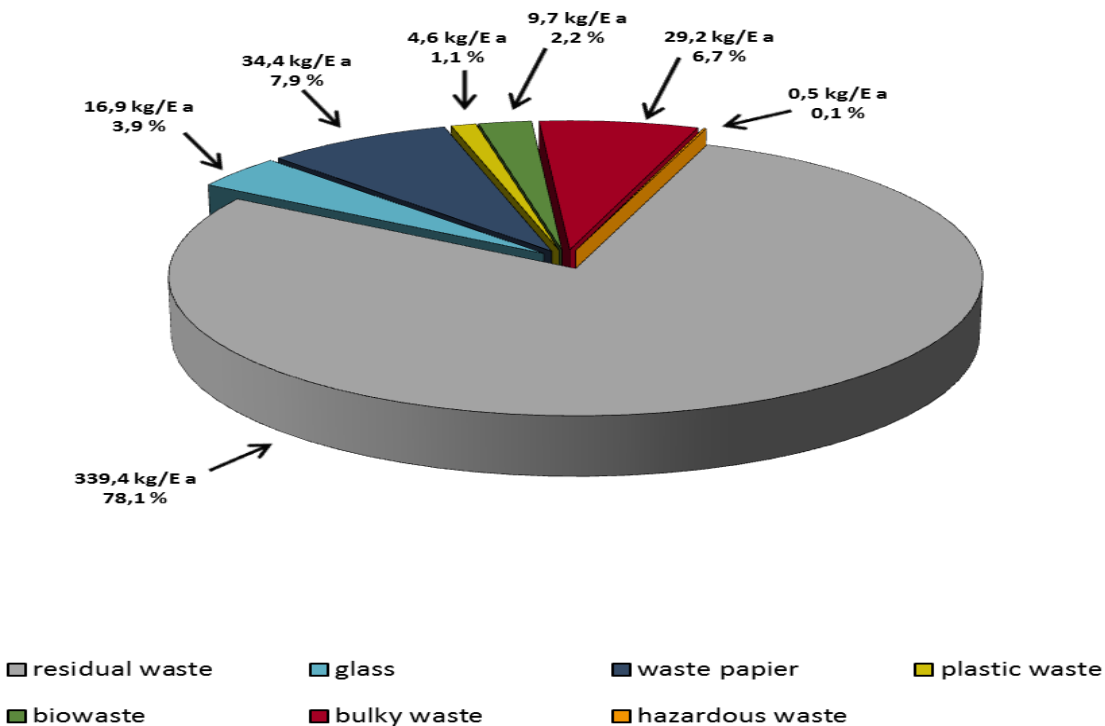
› Starting point

In 1991:

- End of the volume at landfill site expected
- Increasing amounts of waste from private households
- No acceptance of new landfill site in our densely populated area
- Beginning of separation of waste
- Municipal plants: 1 Landfill site – ca. 600.000 t/a
 4 small composting plants



Waste composition in 1991



Quelle: Abfallwirtschaftskonzept Kreis und Stadt Aachen 1991

› Institutional setting

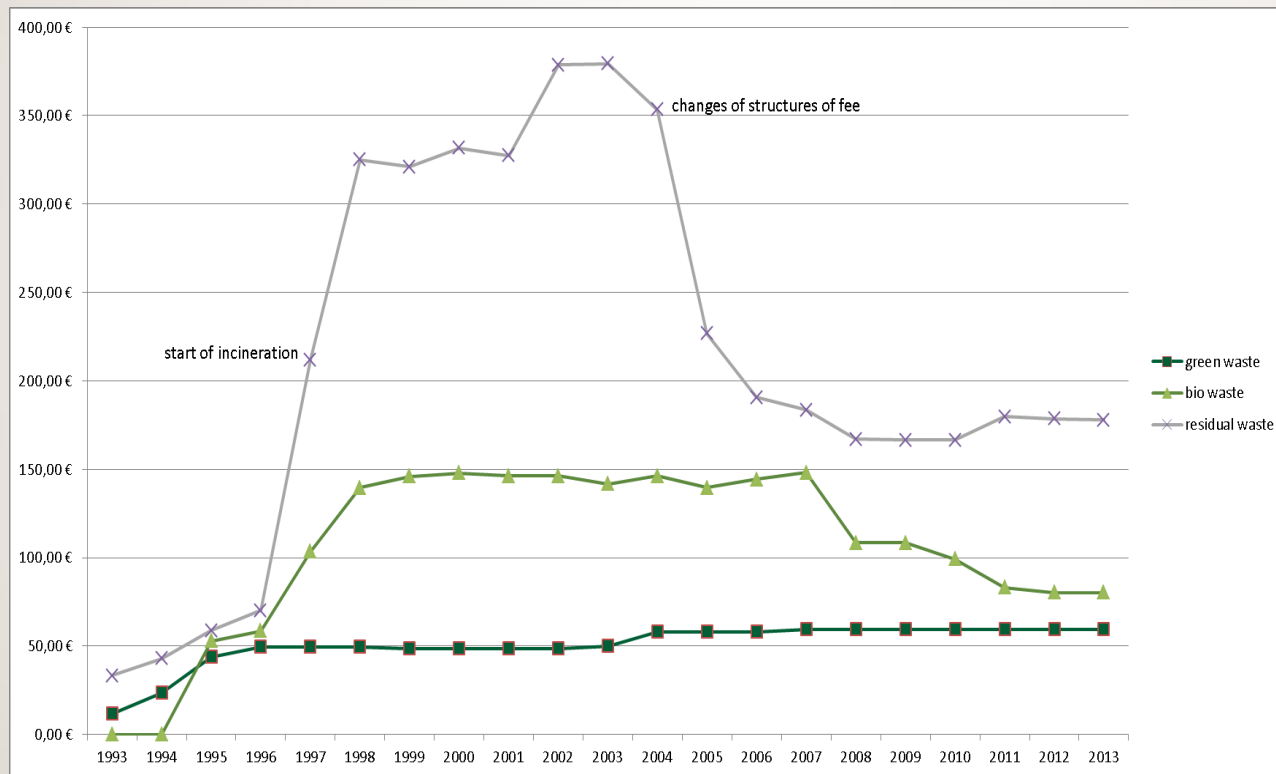
- “Circular economy and waste management act” 1994/96
hierarchy: avoidance – recycling – disposal
- Landfill ban for organic waste (01.06.2005)
- Waste management concept for the region of Aachen
- Great influence of ecological policy in our region
(City of Aachen has the title: ecological city for the future)
- Expansion of waste separation because of the rising costs
- Decision for incineration



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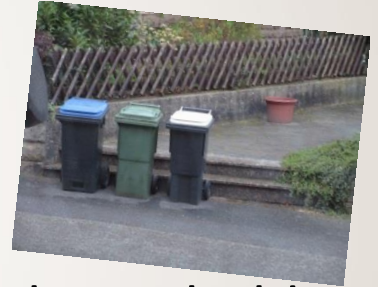
Disposal fees for 1 ton of residual, green and bio waste



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➤ Approach

- gain experience with composting of organic waste
 - exclusively organic waste from public parks + cemeteries
- collection of green waste from households
 - first exclusive container (bring)
 - collection by waste trucks in the streets
- pilot project: collecting bio waste (kitchen) from households
- bio waste composting plant Würselen 1995



➤ Approach

- Next step: digestion plant
- Install of several recycling stations
collection of organic waste (containers)
- Separate collection of Christmas trees



➤ Output

- Reduction of the waste for incineration
- Increase of the recycling

Bio waste:

- Energy production (heat & electricity)
- Replace scarce resources (peat, mineral, fertilizers and fossil fuels)
- Compost have long-term beneficial effects on soil
- Creating job at local level
- CO₂ - reduction



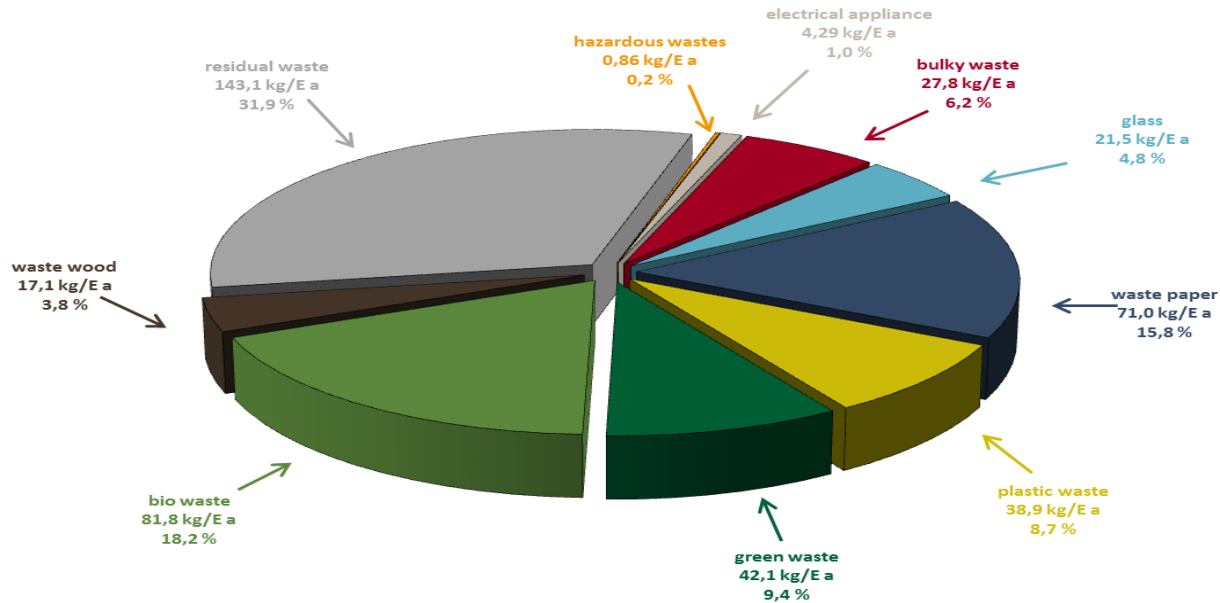
Quelle: VHE

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› Outputs



Ø 448,5 kg/Ea



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› Lessons

- Change of consciousness in the handling of waste in the population: From waste to resource!
- Public relation / waste consulting very important:
for example: Introduction of separate collection: letters to each households, flyers, sorting posters, information desks, phone consulting, internet, app, movies
- Waste education in preschool and schools (quiz, competitions)
- Consulting as a permanent process



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› Transfer

- Pre conditions:



- Policy framework / political will
- Readiness for the change to a circular economy / impact for changing
- Equipment: collection -> plant
- Market for recycled material

- First step:

- Waste management concept
- Pilot project



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