

Biowaste - Sofia 2013

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**"Implementation of Organic Waste Management in Southern and Eastern European Countries"**  
 Country report – Estonia

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**Estonia**



- Area: 45,228 km<sup>2</sup>
- Inhabitants: 1,3 million
- EU member since 1 May 2004
- Currency: EURO
- Total amount of waste: 19,5 million t
  - Municipal waste 3% of the total
- Municipal waste: 350-500 000 t/y
  - 400 kg/pers
  - Municipal waste = household waste + similar waste from offices (50:50)

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**Drivers in waste management**

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- In 1999 Estonia had **350** municipal landfills.
  - National policy – we close them all! DONE by now!
- Today – 5 compliant MSW landfills + 1 Hazwaste LF
  - Transportation distance increases!
  - Landfill tax 20 euro/t now, 30 euro/t in 2015!
  - Gate fee (incl tax) approx 60 euro/t?
- Conclusions: landfill is not cheap any more!

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**Organics to landfill?**

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- Organics to landfill no more than:
  - 45 % by 2010;
  - 30 % by 2013;
  - 20 % by 2020.
- Biowaste recycling is good, but ... barriers!

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**How to promote biowaste recycling – arguments that sell?**

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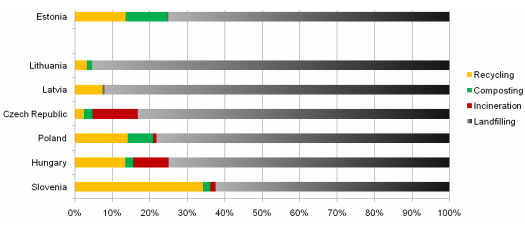
<b>Good arguments</b>	<b>Inadequate arguments</b>
<ul style="list-style-type: none"> <li>• Must do as law says so</li> <li>• Landfills are in panic</li> <li>• Securing a waste stream</li> <li>• Less transportation</li> <li>• Easy technology</li> <li>• Some sales are possible</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction of GHG</li> <li>• Carbon storage</li> <li>• CO<sub>2</sub> equivalents</li> <li>• Soil protection</li> <li>• Marketable nutrients</li> <li>• Separate collection of biowaste reduces cost for restwaste collection</li> </ul>

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**Waste treatment methods**




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### Companies promote recycling

- Waste collection, composting and recycling are private.
- **Estonian Waste Management Association** is leading a Waste Recycling Cluster 2011-2014
- Cluster is a co-operation between the companies of similar sectors, and research & educational institutions
  - co-financed by the European Regional Development Fund through 'Enterprise Estonia'
  - 21 members
    - 3 Objectives: composting, waste fuels, C&D waste

### Activities in Compost Workgroup

- Inventory of compost sites
- Inventory of compost quality (analytical data)
- Plant response tests
- Hands-in 'cress-test' for producers
- International site visits
- Great help from ECN
- Demo certification
- Marketing strategy under development

### In short

- 50 composting sites
- Dominating method is open windrows.
- Total area of sites is 105 hectares.
- Annual production is 200 000 tonnes.
- By volume, ¾ of composting takes place in WWTPs.
- A few companies occupy remarkable share.
- Mostly small scale.
- Built within 10 last years.
- Sales is possible, but marketing is poor.

### Technology



### Legislation

- Biowaste ordinance: created in 2010-2011
- Agreed with member states in 2012
- Active since last week
- 'Requirements for production of compost from biodegradable waste'
- Notification Number: 2012/458/EE

### Conclusions

- Some experience in composting exist.
  - Technically doable, but there is space for improvements!
  - Waterworks are the leaders by volume! Do not ignore sludge!
- Bottleneck.
  - Collection! Authorities have no courage to go for composting!
  - Climate! Winter and rain.
- Incineration is main competitor, MBT has lost positions
- Market does not exist. Develop the market!
  - Quality of a composts is not stable (winter and rain)
- Next step: certification!

### Remarks

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- Composting is the only waste management method, that:
  - Can be implemented anywhere, also locally;
  - Can be done by everyone, and in any scale;
  - Gives some freedom from large waste companies.
- ... but requires some effort.
- Are you willing to take this effort?

Благодаря!

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