

# **Ascending the Waste Hierarchy: Re-use potential in Swedish recycling centres**

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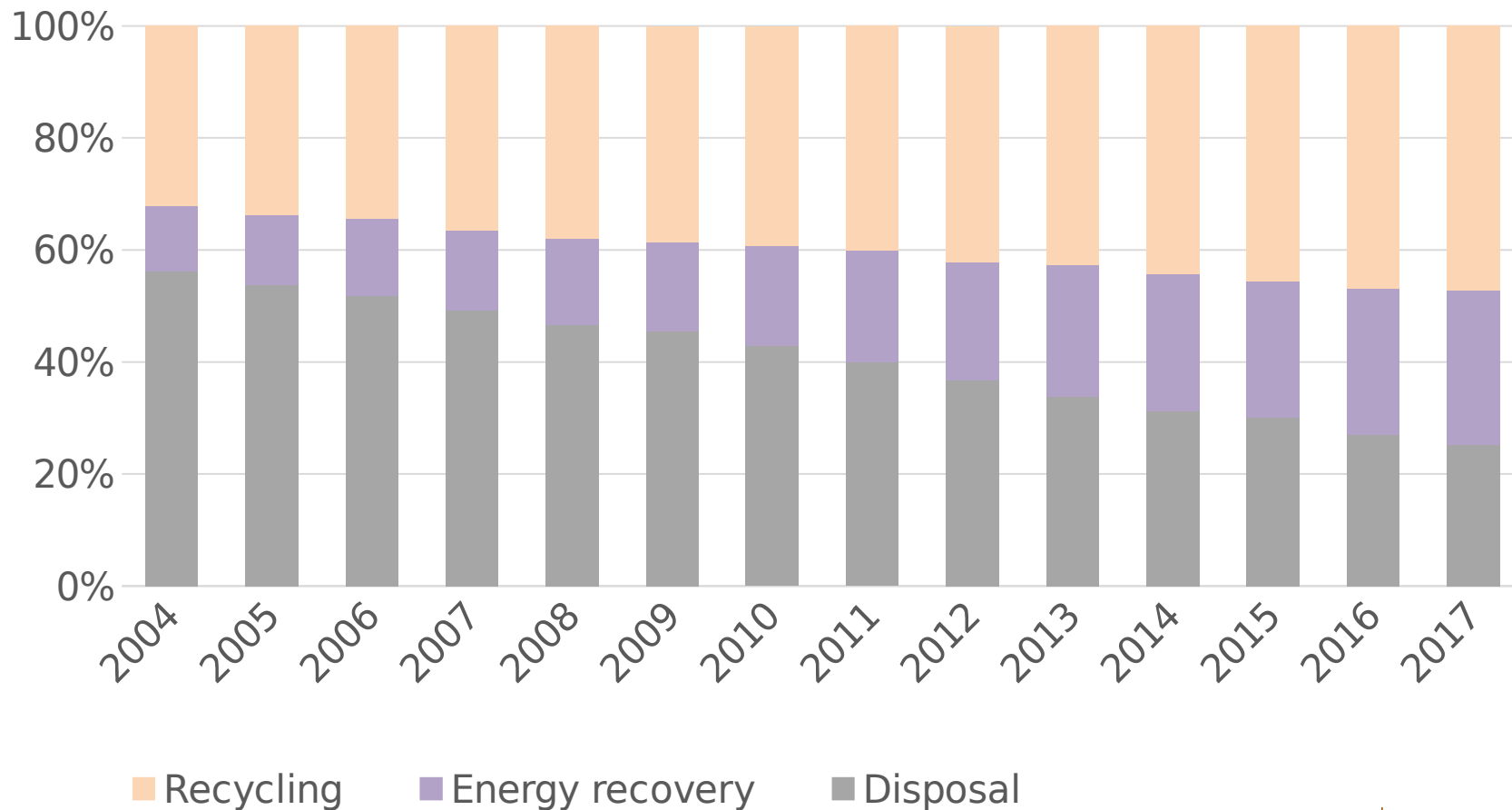
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# EU Waste Hierarchy



*(EU, 2010)*

# Waste treatment in EU28



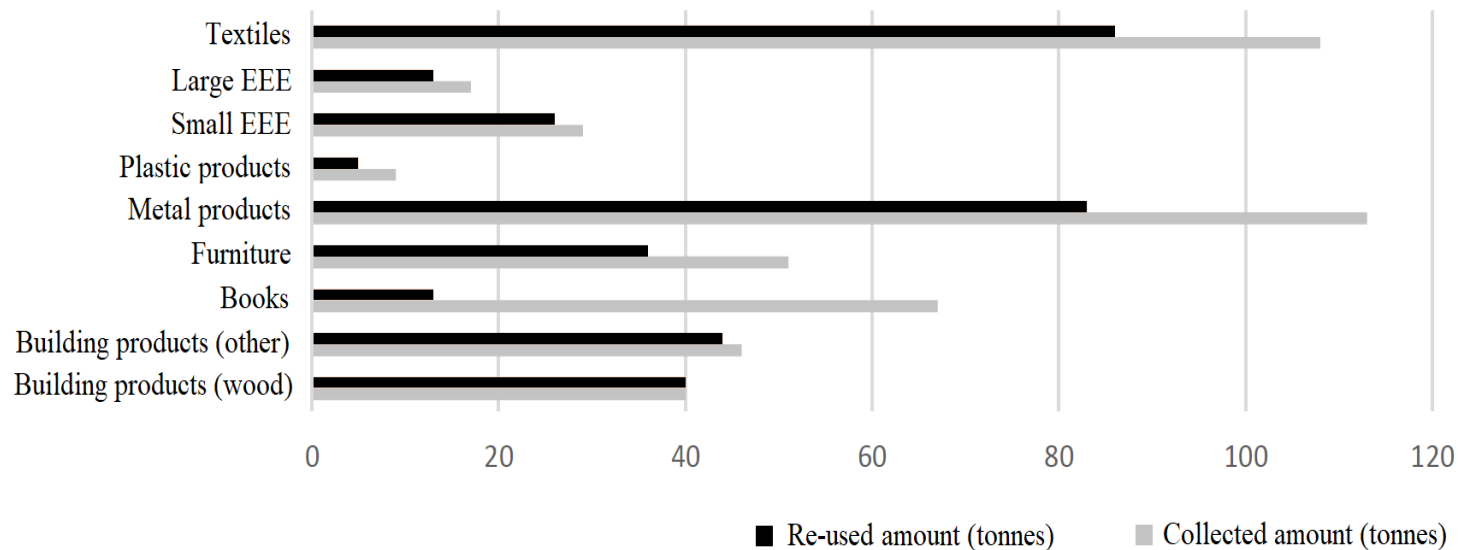
(Eurostat,  
2019)

# Alelyckan recycling centre



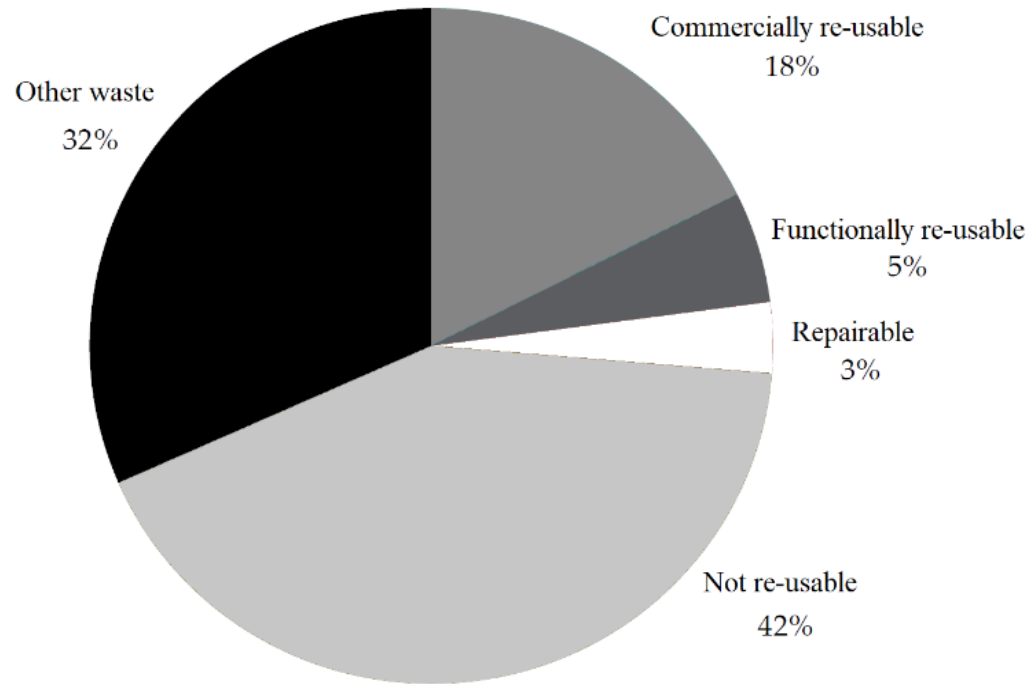
(Göteborgs Stad, 2010)

# Collected and re-used amounts of waste at Alelyckan recycling centre in 2010



- 358 tonnes of waste prevented – 5.6 % of the total weighted waste received at the centre
- 1 300 tonnes of CO<sub>2</sub>-eq. avoided (Ljunggren Söderman et al., 2011)

# Composition analysis of waste at two recycling centres



15.5 tonnes of waste was examined through composition analysis, and the re-use potential of nearly 17 000 products was assessed (Hultén et al., 2018)

# Re-use potential in recycling centres (private enterprises)

- Identify what product groups can be effectively re-used
- Identify challenges in re-use operations
- Identify potential solutions to overcome the existing



(Stena Recycling  
AB)



# Product groups with high potential for re-use



(Malmö  
återbyggdepå)



(Designboom  
)



(El-kretsen)



# Common challenges to re-use in recycling centres

- Waste classification
- Product design – difficult to disassemble
- Damage during transportation
- Scalable volume of products (by type)
- Extensive storage (warehousing) needed
- Efficient process for preparation for re-use
- Negative attitude of consumer due to uncertainty

# Actions for increasing re-use in private recycling centres

- Prioritise well-defined waste from industrial partners (B2B)
- Focus on product groups with higher re-use potential
- Cooperation with actors having direct access to second-hand markets
- Salvage components if not possible to re-use the product
- Adapt business model to accommodate more re-use than recycling (future trend)



**Thank you**

