

Report of landfill mining in Latvia

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MINING the
EUROPEAN
ANTHROPOSPHERE



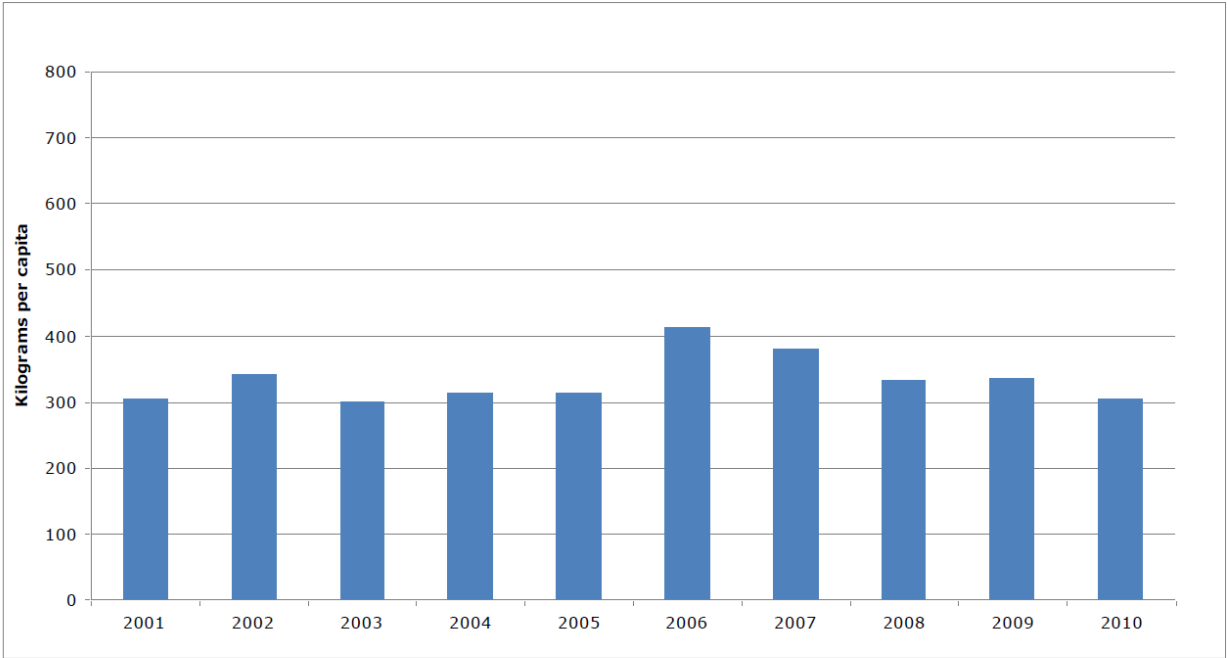
MSW generation

In 2008: 650 000 t/year;
In 2010: 304 kg/year/inhabitant
In 2016: Household waste generation - average
1,5 m³/inhabitant/year

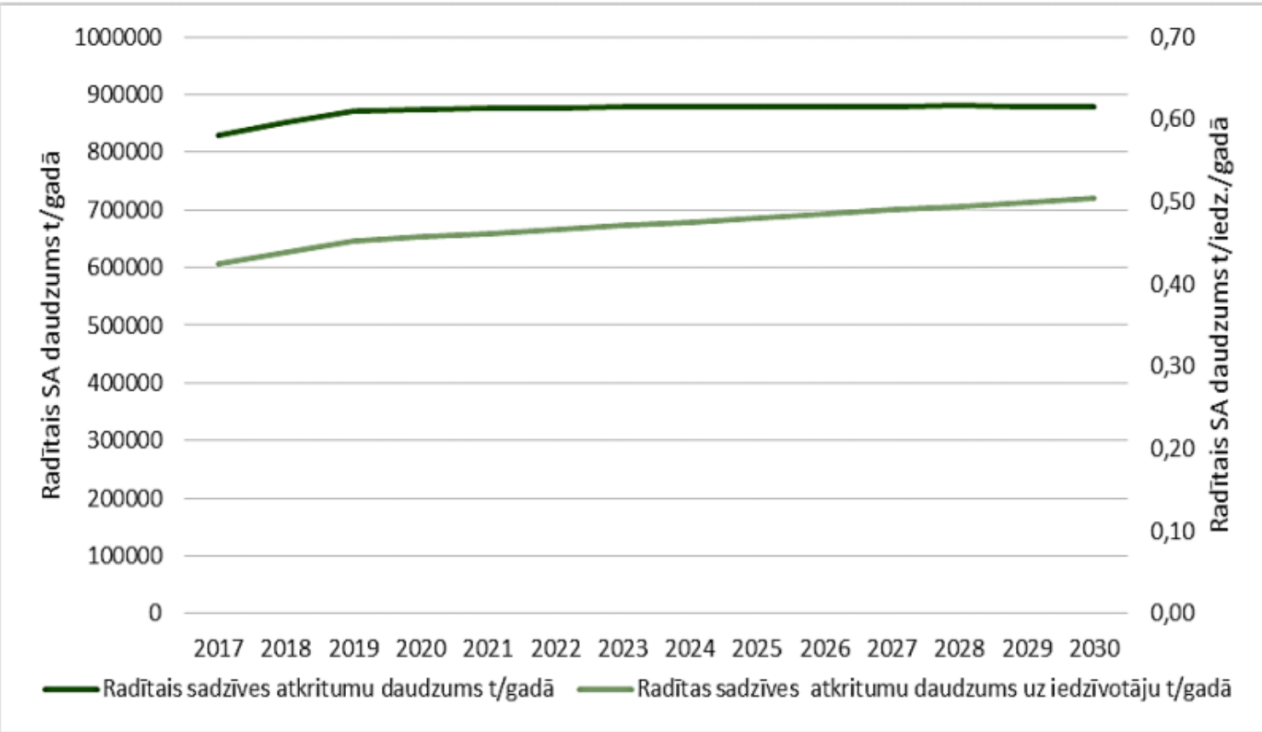
Prognosis 2017-2030 (400 kg/inhabitant/year in 2015)

Data: Ministry of Environmental Protection and Regional Development of the Republic of Latvia

MSW generation per capita in Latvia

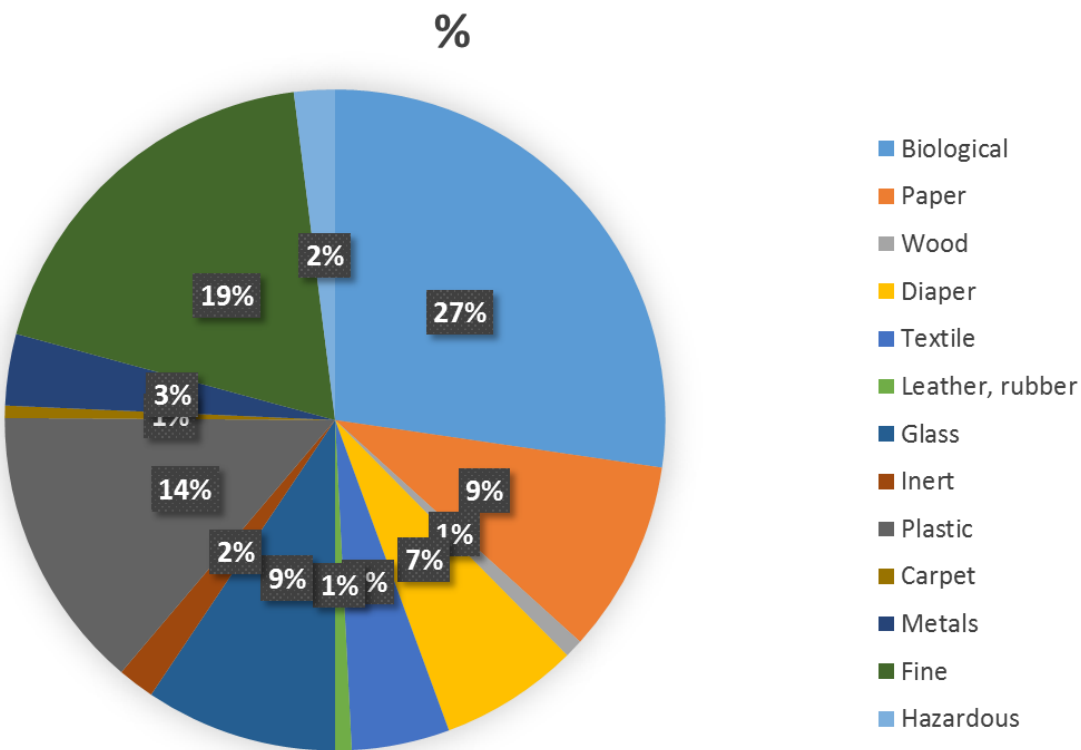


Source: Eurostat, 2012.

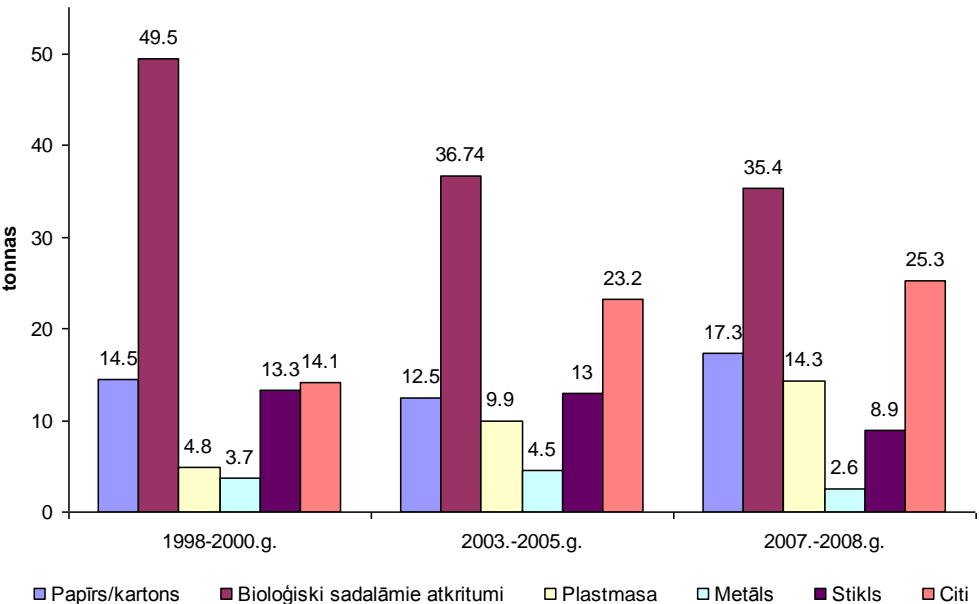


MSW generation - current and historical MSW compositions

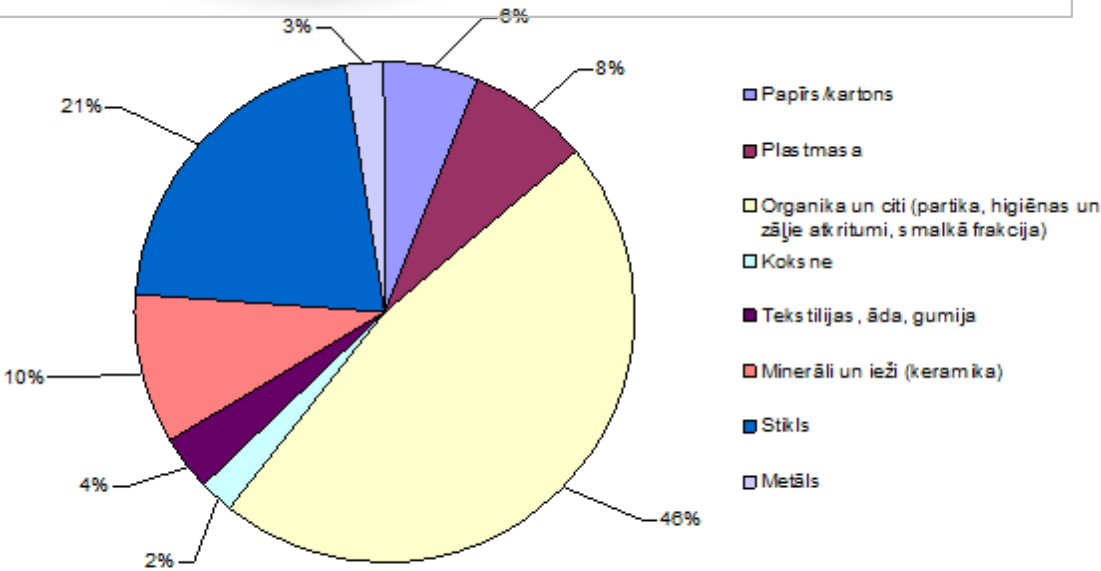
2016 (%)



1998-2008 (t)

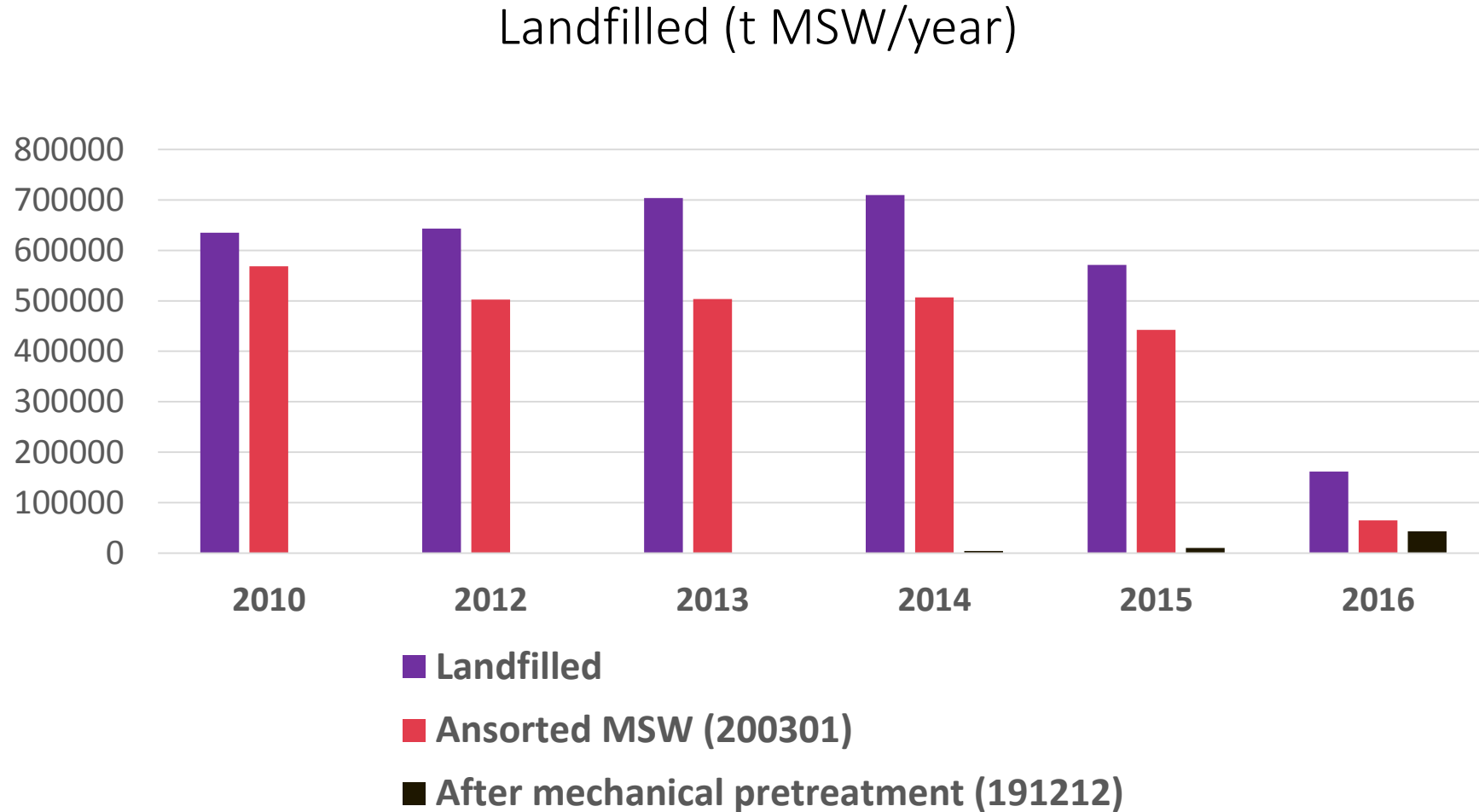


2011 (%)



MSW treatment

- Landfilling – ~ 90% of MSW in 2012
- 10 operational MBT facilities – production RDF and SRF (from 2012 in 1 waste pre-treatment centre)
- no infrastructure for waste incineration
- Co-incineration – 1 cement production facility Ltd.CEMEX and ~16 co-generation.
- Composting – open windrow (sewage sludge and green waste).
Outputs: the compost and the «technical compost»
- Recycle – packaging, demolition waste



Waste policy and regulatory

- All landfills are compliant with the requirements of the Landfill Directive.
- Policy instruments: Waste management fee; landfill tax (natural resource tax); gate fees; producers' responsibility; administrative penalty (for individual and legal entity); «environmental management system»; «green purchase»; «eco-labelling».

Overview of available data on landfills

Municipalities are responsible for MSW management in their administrative territories

- National database in State Ltd «Latvian Environment, Geology and Meteorology Centre» - national report «3-Waste» (operations of waste management in sanitary landfill - income and outcome; EU waste classification codes). All sanitary landfills and all waste management enterprises fulfil this statistical report.
- Data about dumpsites and landfills is collected in The State Environmental Service of the Republic of Latvia (Register of Polluted Places) – data not complete.
- Specific investigation on landfills – Customer: Ministry of Environmental Protection and Regional Development of the Republic of Latvia; Performer: Waste Management Association of Latvia and waste testing laboratory Ltd.»Virsmā». Content: Landfills and dumpsites characteristics (recultivation type), determination of emission gases (CH_4 ; N_2O) of landfills; dumpsites grouping. Groups:
 - 1) The small waste dumps, the characteristics of which comply with Class I, which has been compacted and covered with 0,5 m thick insulating clay layer and ~20 cm soil layer, without gas collection opportunity.
 - 2) The small waste dumps, the characteristics of which comply with the Class I, which are closed, but not re-cultivated.
 - 3) The medium volume waste dumps, the characteristics of which comply with Class II, which has been compacted and covered with 0,5 m thick insulating clay layer and ~20 cm soil layer, without gas collection opportunity.
 - 4) The medium volume waste dumps, the characteristics of which comply with Class II, which has been compacted and covered with insulating geotextile layer and ~20 cm soil layer, without gas collection opportunity.
 - 5) The medium volume waste dumps, the characteristics of which comply with Class II, which not re-cultivated.
 - 6) The large waste dumps, the characteristics of which comply with class III, whose re-cultivation is carried out in accordance with the Regulations of the Cabinet of Ministers, which includes gas collection requirements.
 - 7) The large waste dumps, the characteristics of which comply with class III, the re-cultivation thereof have not been performed.

Landfill situation

- Closed sanitary MSW landfills - 0
- Closed non-sanitary MSW landfills (dumpsites) – 558
- Closed but not re-cultivated - 3

Landfill situation – Waste Management Regions (10) and operational sanitary landfills in Latvia

Red spots - 11 sanitary landfills of municipal solid waste – MSW total 521079 t/year (data: 2014); Total planned: 16210932 t.

Violet spot – 1 sanitary landfill of hazardous waste;

Azure spot – 1 sanitary landfill of asbest

