
Diversion of waste streams and selection of waste treatment facilities in Finland

The Association of Environmental Enterprises
Pia Vilenius

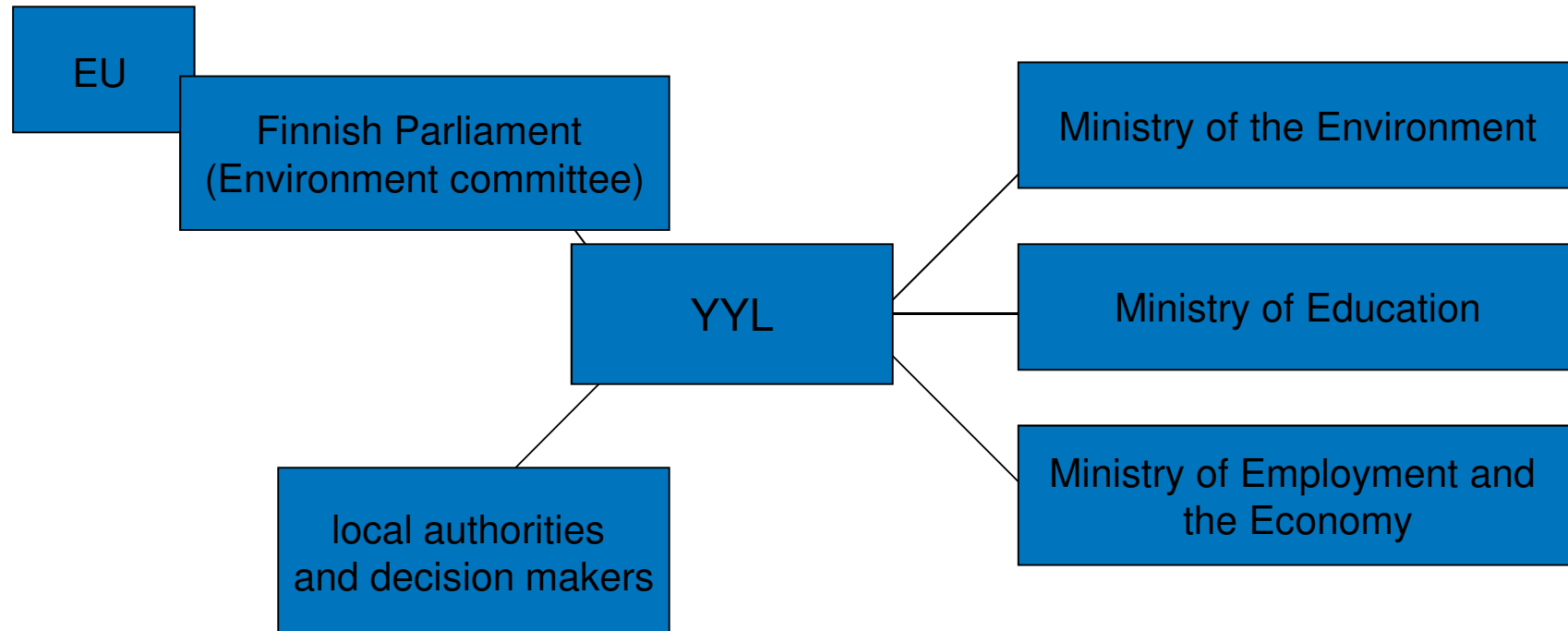
Waste Day, Tallinn, 25.11.2010

The Association of Environmental Enterprises

- was established in 1995, when five smaller environmental associations established together a new association > The Association of Environmental Enterprises, YYL
- 102 member companies of different branches of environmental management, eg. Lassila & Tikanoja Oyj, SITA Finland Oy Ab, Ekokem Oy Ab, Lohja Rudus, Envor Group Oy, Puzair Oy
- Members are committed to strict ethical principles

YYL Network

- YYL works in close connection with the Finnish Parliament, the Finnish ministries and local authorities



YYL takes part in waste legislation work

- Member of the Finnish Waste legislation renewal work group (started in 2007, completed in 2010)
- Member of the work group for the National Waste Plan (work completed in 2007)
- Participation in different work groups for the Regional Waste Plans (work started in 2008)
- Participation in the work group for Producer Responsibility (work completed in 2005)

Environmental Business in Finland

- Environmental Technology
 - approx. 4 billion euros, 800 companies
- Waste and Waste Water Management
 - 1,9 billion euros (incl. metal recycling)
 - Waste management 1,66 billion euros, 5 400 employees
- YYL members
 - 700 million euros
- Municipal Waste Management companies
 - 300 million euros

YYL members operate in several business areas

- Resource recovery and treatment
- Secondary raw materials
- Environmental technology
- Energy recovery
- Metal recycling
- Sewage & technical cleansing
- Environmental logistics
- Hazardous waste

Waste legislation

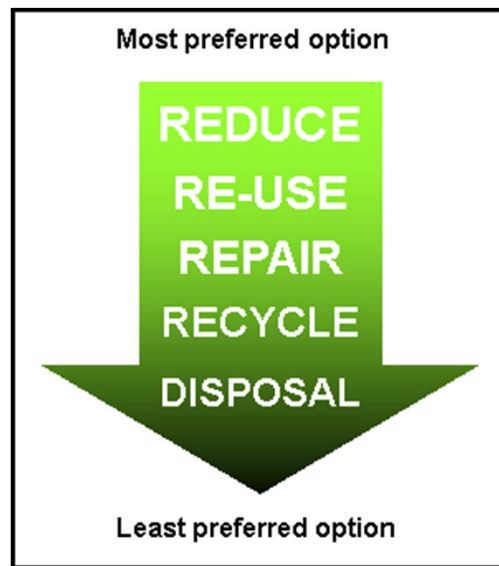
- Current Finnish waste legislation given in 1993 changed in 1997, 2000 and 2007
- Complete renewal of Finnish waste legislation: Working group 2007-2010 (YYL is member of this group)

Government decree currently in the Parliament,
new legislation expected to be given in March 2011
-> into force in March 2012

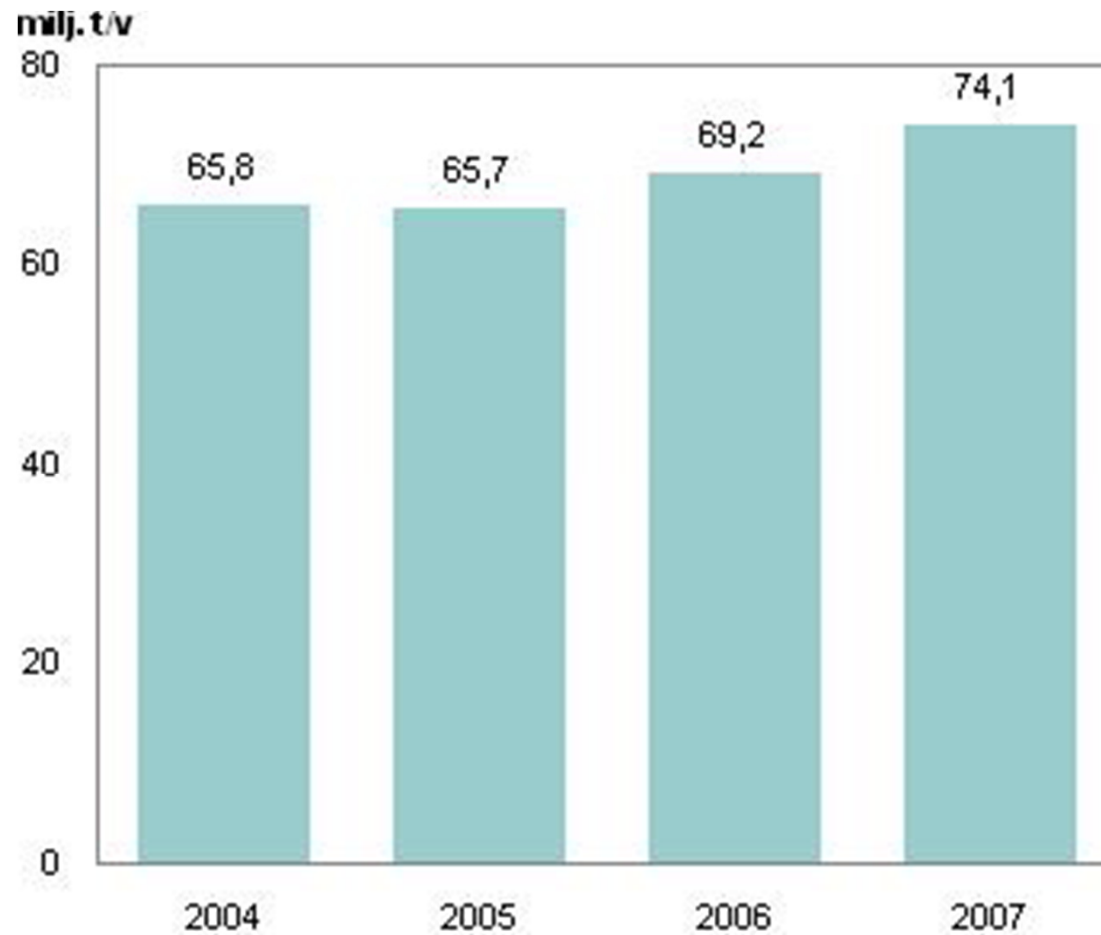


Waste streams and treatment options

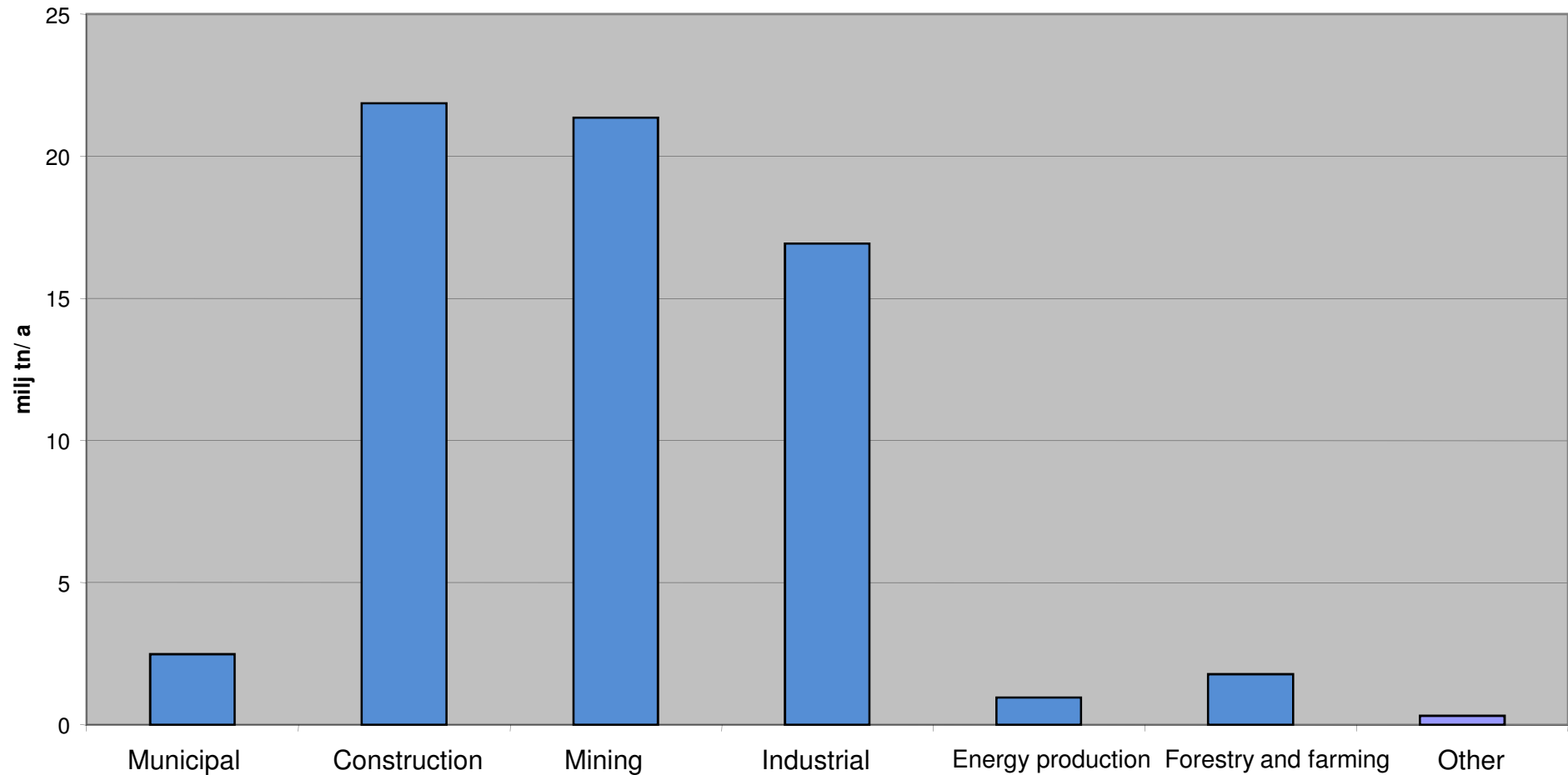
- The Waste Hierarchy is fully implemented into Finnish legislation, 5 steps



Total waste in Finland 2004-2007



Waste in Finland 2008 approx 70 million tonnes

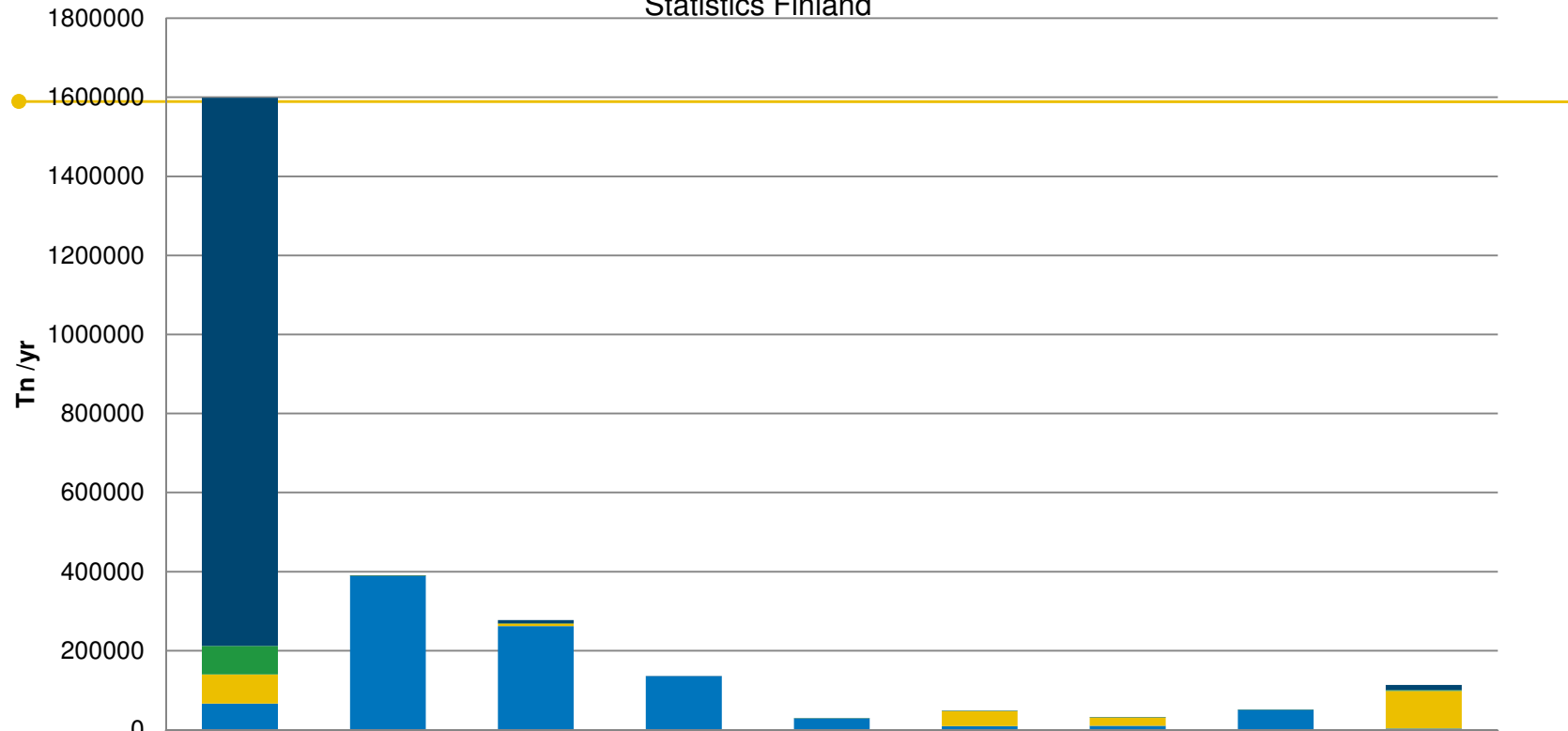




YMPÄRISTÖYRITYSTEN LIITTO

Municipal Waste 2007 (total 2,675 million tn)

Statistics Finland



	Municipal Solid Waste	Paper and cardboard	Biowaste	Glass	Metals	Wood	Plastics	WEEE	Other
■ Landfill	1387292	56	8201	1074	5	1302	450	121	12793
■ Incineration	72149	108	13	0	8	30	11	26	2104
■ Energy recovery	73602	72	7339	0	0	38574	21426	0	94888
■ Material Recycling	65991	389500	261873	135322	28441	8905	9698	50381	3163

Waste Treatment in Finland, 2007

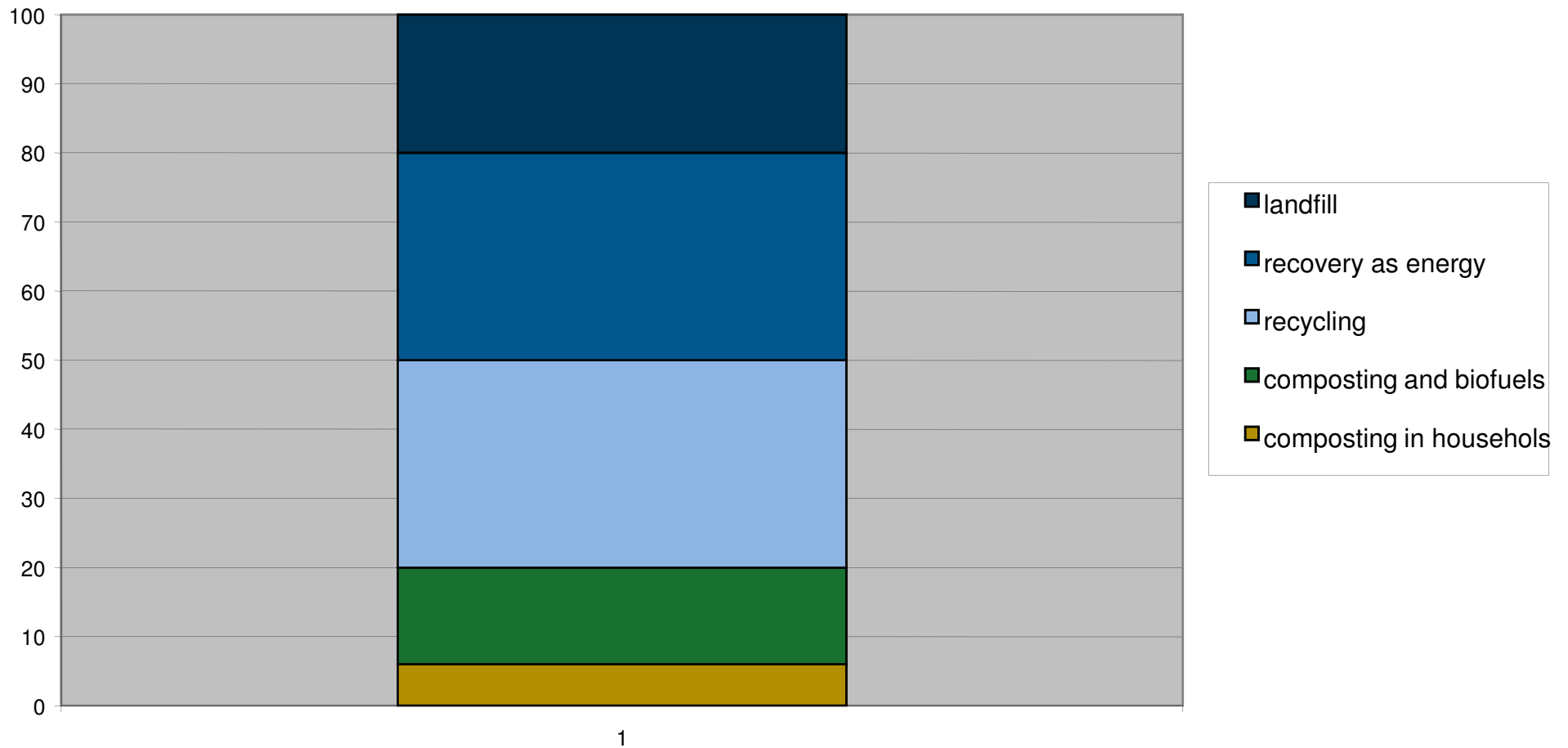
- Total 74 million tonnes
- Landfilled 43 million tonnes (60 % of total)
- Recycling 20 million tonnes (27 %)
- Energy recovery 9 million tonnes (12 %)

Figures for 2008 will be published in December 2010

- estimated increase in recycling and energy recovery, approximately 54 % of municipal waste
- landfilled 46 % of municipal waste



Municipal Waste Treatment, scenario in 2016 (2,5 milj tn) (according to Finnish National Waste Plan)



Packaging waste in Finland in 2008

Material	Total use (in tonnes)	Reuse (in tonnes)	Quantity placed on the market (in tonnes)	Reuse rate (%)
GLASS	175 440	114 795	60 645	65
PLASTICS	367 150	251 778	115 373	69
PAPER, BOARD AND CORRUGATED BOARD	266 175	10 101	256 074	4
METALS	704 835	654 028	50 807	93
WOOD	906 549	689 344	217 205	76
OTHERS	1 804	1 109	695	62
TOTAL	2 421 953	1 721 155	700 799	71

3 types of waste streams and responsibilities

- Municipal waste (household waste, public services)
 - responsibility of the municipalities
 - mostly handled by municipal waste management companies
 - collection of waste can be handled in 2 different ways: public tender or private agreements between waste management companies and households
 - treatment in most cases handled by the municipal waste management companies (landfill), recycling also by private operators
 - some well functioning exceptions with private companies operating the whole chain

Responsibilities continued

- Wastes under Producer Responsibility
 - packaging, paper, tyres, WEEE, batteries and accumulators, end of life vehicles
 - producer organisations organise collection and recycling using private companies or municipal waste collection systems

Waste responsibilities continued

- Commercial Waste
 - responsibility of the holder of the waste
 - companies organise the waste management themselves together with private companies (or municipal waste management companies)
 - quite often complete waste management contracts covering the whole waste management chain: collection, treatment, advice on separation etc.