



ECONOMIC INSTRUMENTS USED TO SUPPORT ACHIEVEMENT OF WASTE MANAGEMENT TARGETS: Lithuanian experience

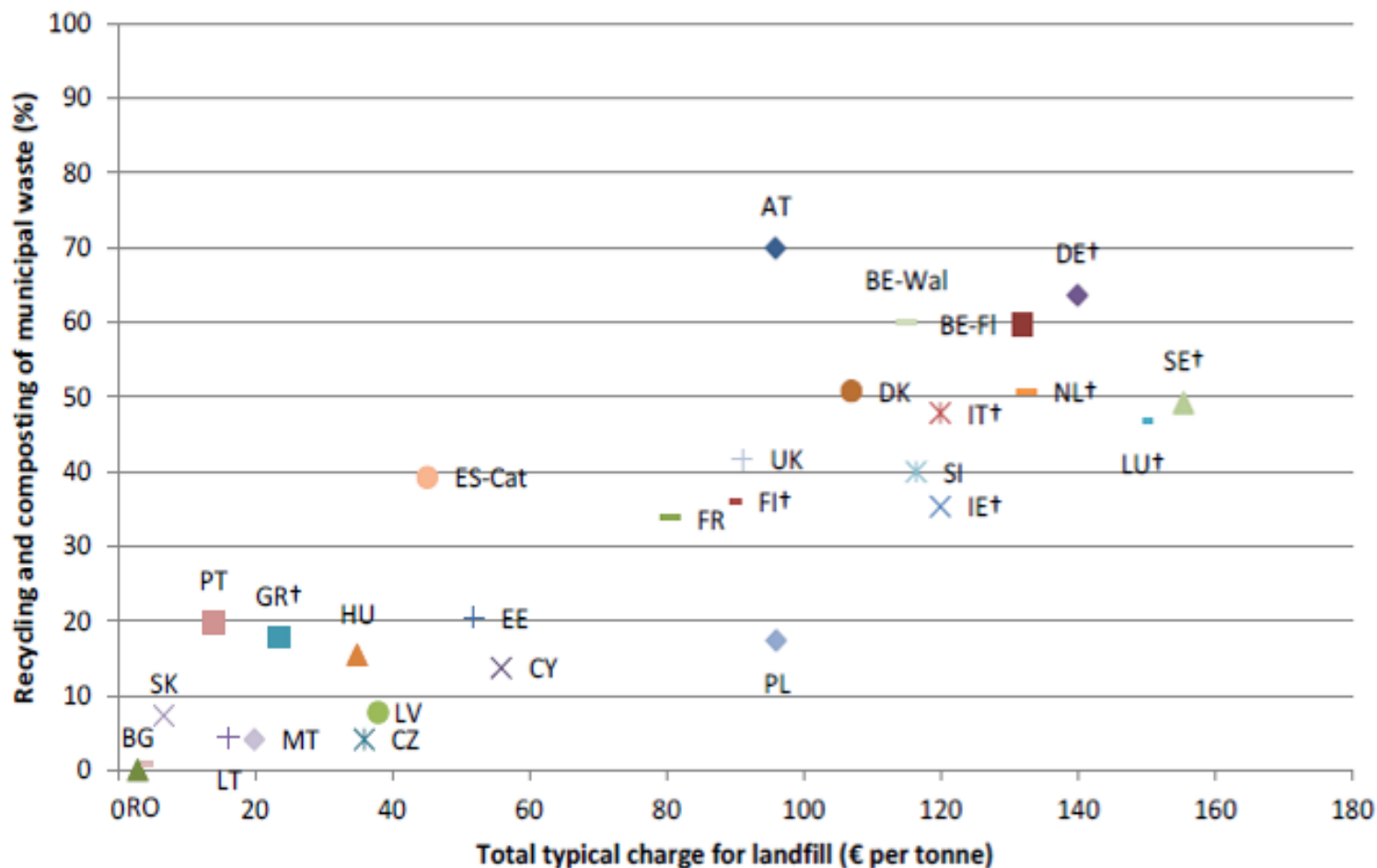
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European Union Support Administration Department
European Union Funds Management Division*

Tirana, 19 March, 2015



Landfill charge and MSW recycling rate





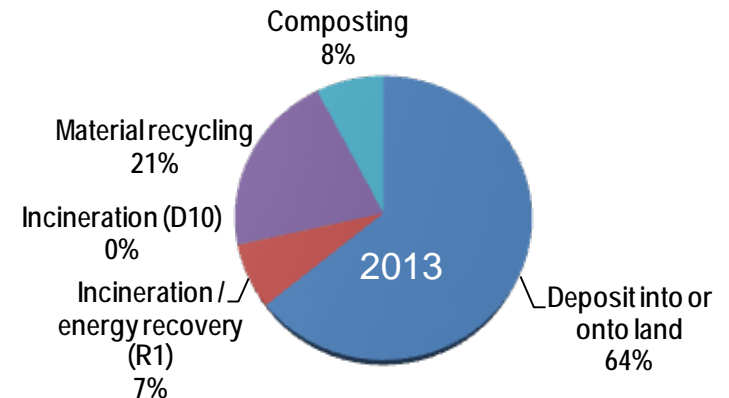
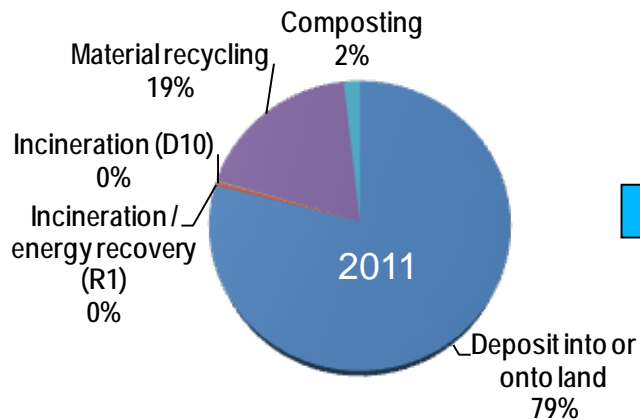
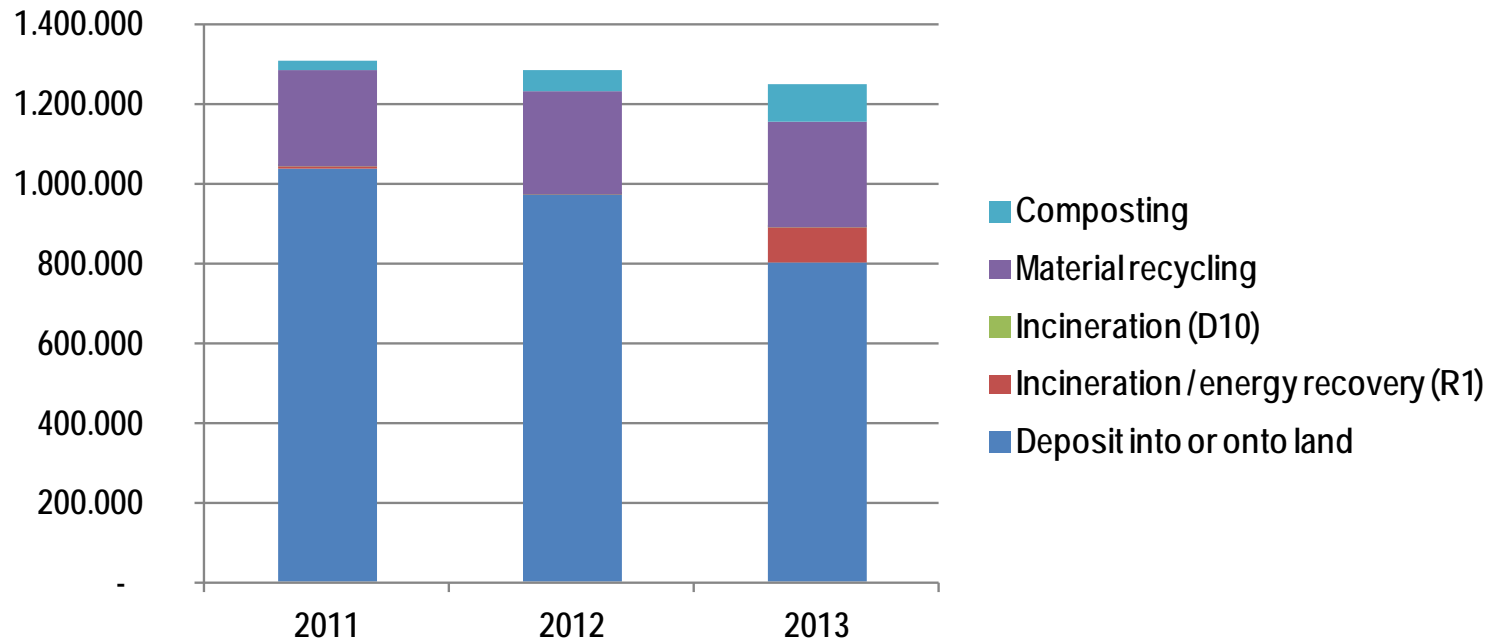
Costs of municipal waste management in Lithuanian regions (2014)

| Region | Total costs (Eur/t) | Treatment costs (Eur/t) | Collection costs (Eur/t) |
|-------------|---------------------|-------------------------|--------------------------|
| Alytus | 94,50 | 41,70 | 52,80 |
| Kaunas | 86,98 | 17,21 | 69,77 |
| Klaipėda | 76,48 | 35,04 | 41,44 |
| Marijampolė | 92,48 | 28,69 | 63,79 |
| Panevėžys | 81,99 | 24,07 | 57,92 |
| Šiauliai | 77,93 | 32,24 | 45,69 |
| Tauragė | 99,49 | 33,29 | 66,20 |
| Telšiai | 83,46 | 26,44 | 57,02 |
| Utena | 115,19 | 41,00 | 74,19 |
| Vilnius | 106,64 | 37,64 | 69,00 |

Source: Association of Lithuanian Regional Waste Management Centres



Municipal waste generation and treatment, tones





Economic instruments in Lithuania

- Economic instruments used already:
 - Taxes on environmental pollution by products and packaging waste
 - Producer's responsibility
 - Deposit scheme for reusable beverage packaging functioning since 2006
 - Administrative liability
 - Subsidies from EU and national funds
- Management of generated revenue:
 - Products and packaging waste management programme



Economic instruments planned to be introduced in 2016

- **Landfill tax:**

Environmental Pollution Taxes Act adopted on November 2014

| Waste | 2016 | 2017 | 2018 | 2019 | From 2020 |
|---------------------|-------|-------|-------|-------|-----------|
| Non hazardous waste | 21,72 | 27,51 | 33,31 | 39,10 | 44,89 |
| Inert waste | 7,24 | 13,03 | 18,83 | 24,62 | 30,41 |
| Hazardous waste | 47,79 | 53,58 | 59,37 | 65,16 | 70,96 |

- **Deposit scheme for single use beverage packaging:**

Packaging and Packaging Waste Act adopted March 2014

- **PAYT schemes:**

Methodology for setting taxes or other tariffs for municipal waste collection from waste holders and waste management, resolution of the Government adopted in July 2013



Taxes on environmental pollution by products and packaging waste



National legislation on packaging and packaging waste

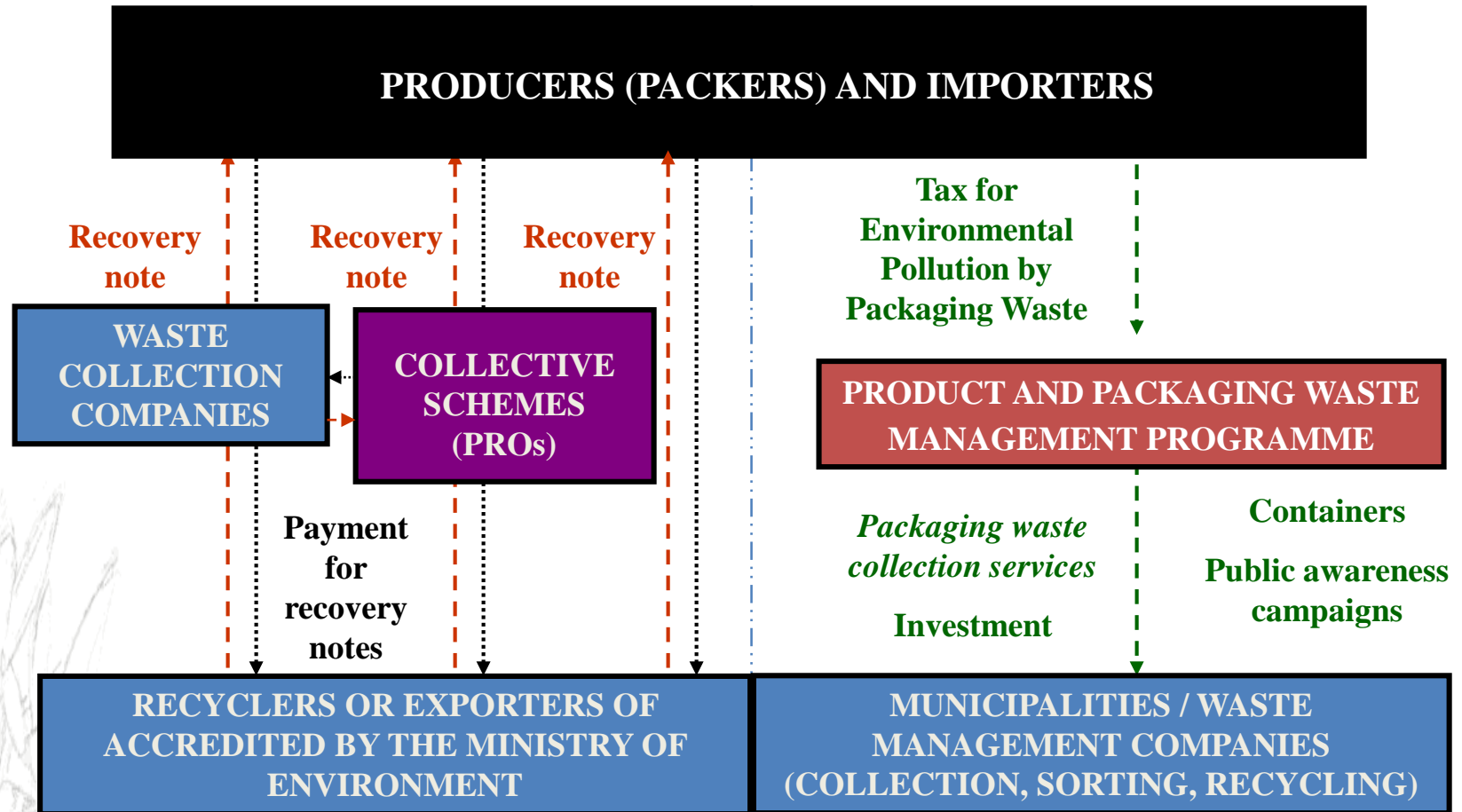
- **Waste Management Act**, first passed in 1998:
 - introduces producer responsibility principle and obliges producers (packers) and importers to organise packaging waste management individually or collectively
- **Packaging and Packaging Waste Management Act**, first passed in 2001:
 - obliges producers (packers) and importers to meet packaging waste recovery targets and provide evidence notes or to pay a Tax for Environmental Pollution by Packaging Waste.
- **Environmental Pollution Taxes Act**, first passed in 1999:
 - introduces the Tax on Environmental Pollution by Packaging Waste in 2003
- **Regulations No 348 on Packaging and Packaging Waste Management**, first passed in 2002 by the Minister of Environment (last updated in 2010):
 - specify obligations (e.g. accounting, labelling, metals concentration limits) of producers (packers) and importers as well as producer responsibility organisations (PROs) in more detail.



Ways to comply before 2013

I. PURCHASING OF PACKAGING RECOVERY NOTES

II. PAYMENT OF TAX FOR ENVIRONMENTAL POLLUTION BY PACKAGING WASTE





Packaging tax and prices of recovery notes

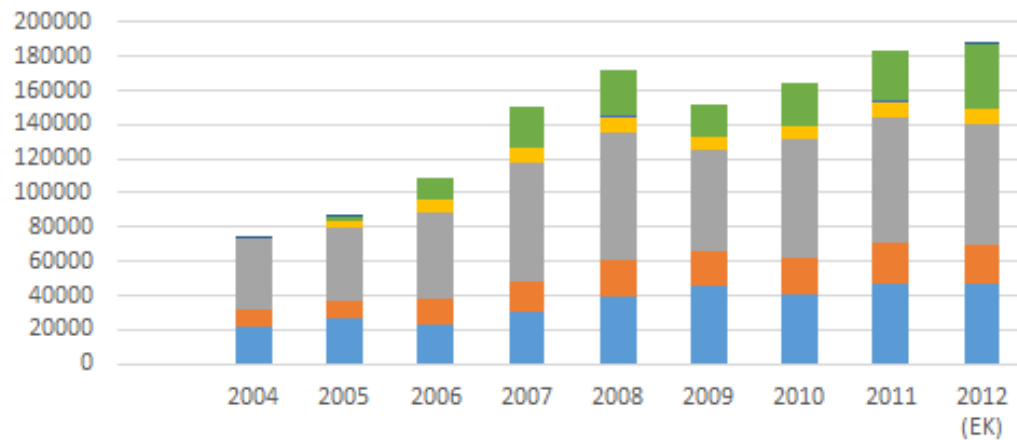
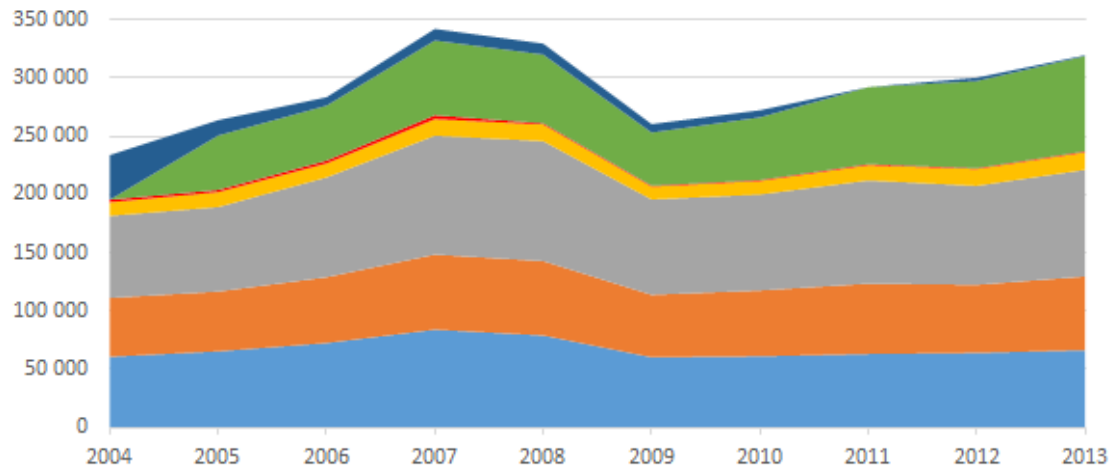
| Material | Tax rate per tonne, € | 2011 (index 1,393) | 2014 (index 1,434) |
|---------------------|-----------------------|--------------------|--------------------|
| Paper | 29 € | 40,40 € | 41,59 € |
| Glass | 58 € | 80,80 € | 83,18 € |
| Metal | 753 € | 1048,93 € | 1079,81 € |
| Plastic, except PET | 521 € | 725,76 € | 747,12 € |
| PET | 579 € | 806,55 € | 830,29 € |
| Combined | 579 € | 806,55 € | 830,29 € |
| Other | 58 € | 80,80 € | 83,18 € |

| Material | Producer responsibility organisation | 2009 | 2010 | 2011 | 2015 |
|-----------------------|---------------------------------------|-------|-------|-------|-------|
| Paper | VšĮ Žaliasis taškas | - | 18 € | - | 26 € |
| | Gamintojų ir Importuotojų Asociacija* | 23 € | | 15 € | 22 € |
| Glass | VšĮ Žaliasis taškas | - | 87 € | - | 64 € |
| | Gamintojų ir Importuotojų Asociacija* | 87 € | | 89 € | 54 € |
| Metal | VšĮ Žaliasis taškas | - | 52 € | - | 40 € |
| | Gamintojų ir Importuotojų Asociacija* | 93 € | | 45 € | 35 € |
| Plastic | VšĮ Žaliasis taškas | - | 87 € | - | 56 € |
| | Gamintojų ir Importuotojų Asociacija* | 120 € | | 73 € | 52 € |
| PET | VšĮ Žaliasis taškas | - | 309 € | - | 64 € |
| | Gamintojų ir Importuotojų Asociacija* | 416 € | | 259 € | 59 € |
| Combined | VšĮ Žaliasis taškas | - | 232 € | - | 129 € |
| | Gamintojų ir Importuotojų Asociacija* | 216 € | | 223 € | 127 € |
| Other, including Wood | VšĮ Žaliasis taškas | - | 33 € | - | 41 € |
| | Gamintojų ir Importuotojų Asociacija* | 70 € | | 28 € | 37 € |

* Pakuočių tvarkymo organizacija from 2012



Packaging put on the market and recovered, 2004-2013

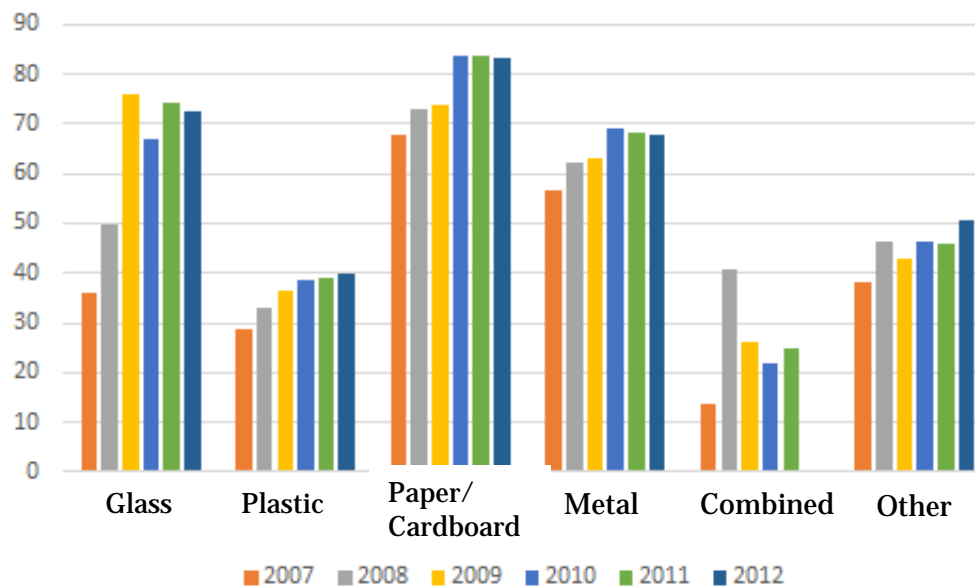
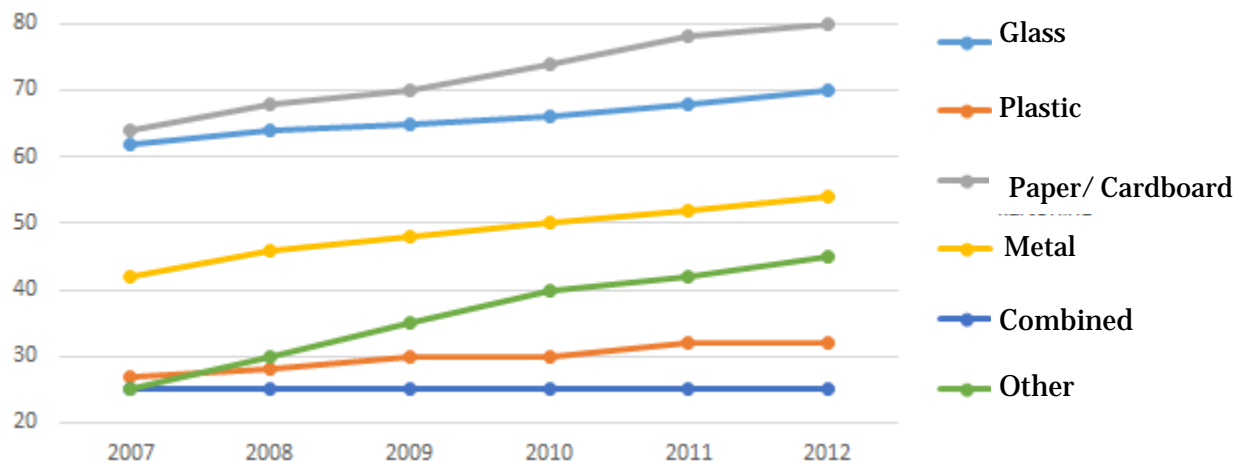


■ Glass ■ Plastic ■ Paper/ Card-board ■ Metal ■ Combined ■ Wood ■ Other

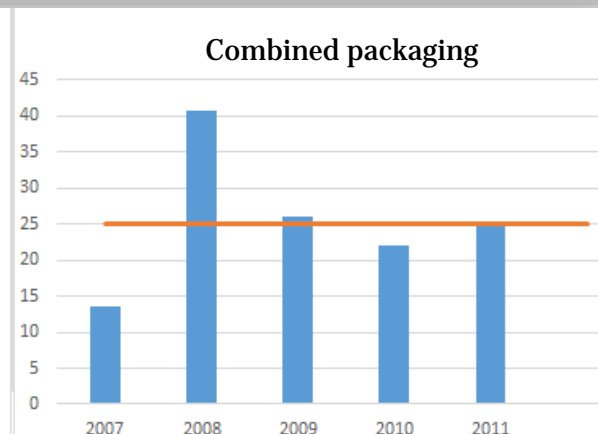
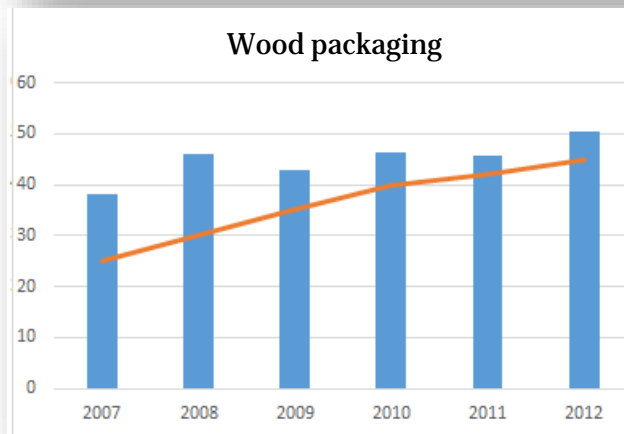
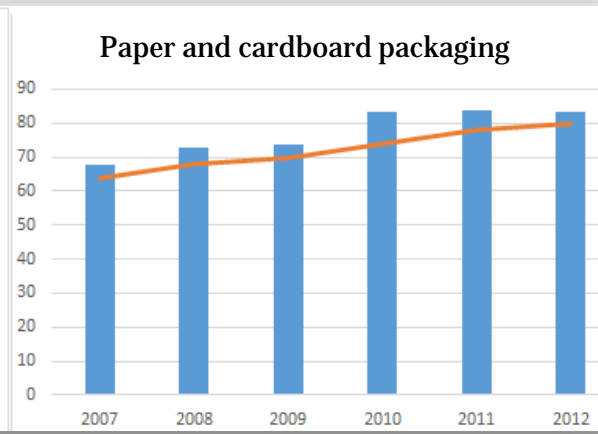
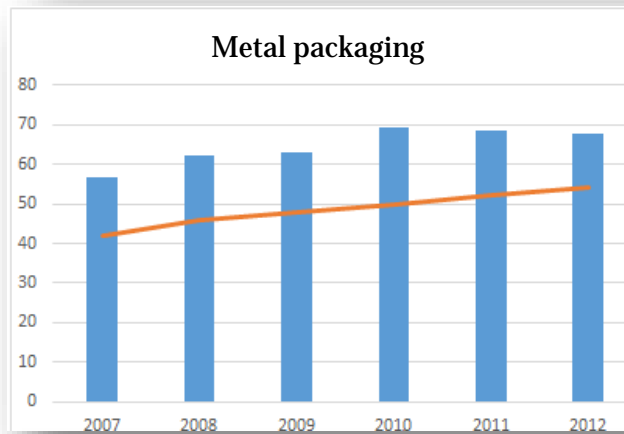
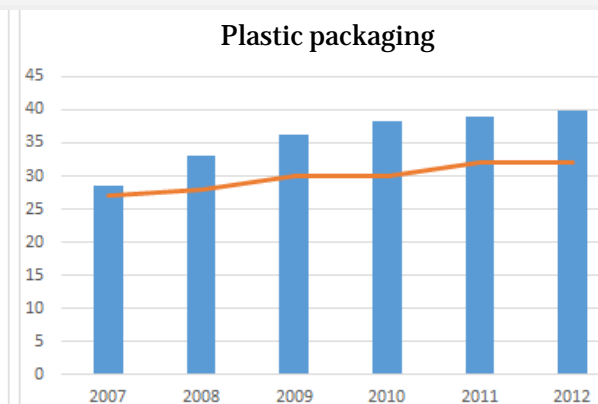
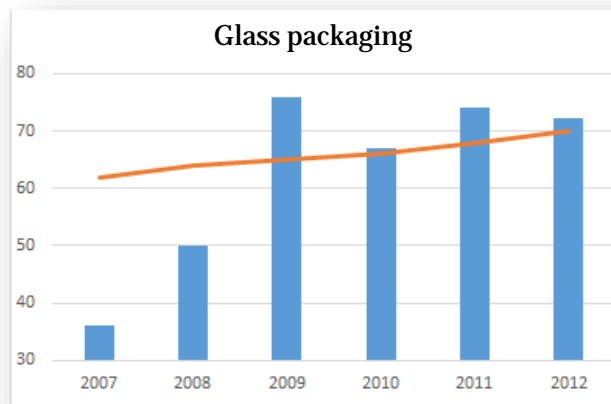
Source: Environmental Protection Agency



“Business” targets and recovery level achieved, 2007-2012



Source: Environmental Protection Agency



Source: Environmental Protection Agency



Packaging waste management scheme until 2013

Advantages

- The revenues from producers payments for recovery notes supports the price of recyclables, thus lowering the costs to local authorities and waste management companies.
- Low costs for producers.
- Producers can be in compliance with their obligations to recycle a certain quantity of waste packaging without having any knowledge of how or where their waste is recycled, or the standards to which the recycling has been undertaken. Acquiring the required number of the recovery notes is all that is required to be in compliance with its obligations.

Disadvantages

- High transaction costs of trades (no internet platform for recovery notes).
- Collection of lowest cost waste streams (these being the bulk commercial ones rather than household) are encouraged.
- There is no direct support from producers into municipal waste management system.
- PROs play little role, because they need to be competitive in the market of the recovery notes.
- Lack of transparency / possible “drawing of recovery notes” / need for control.



Amendments coming into force in 2013

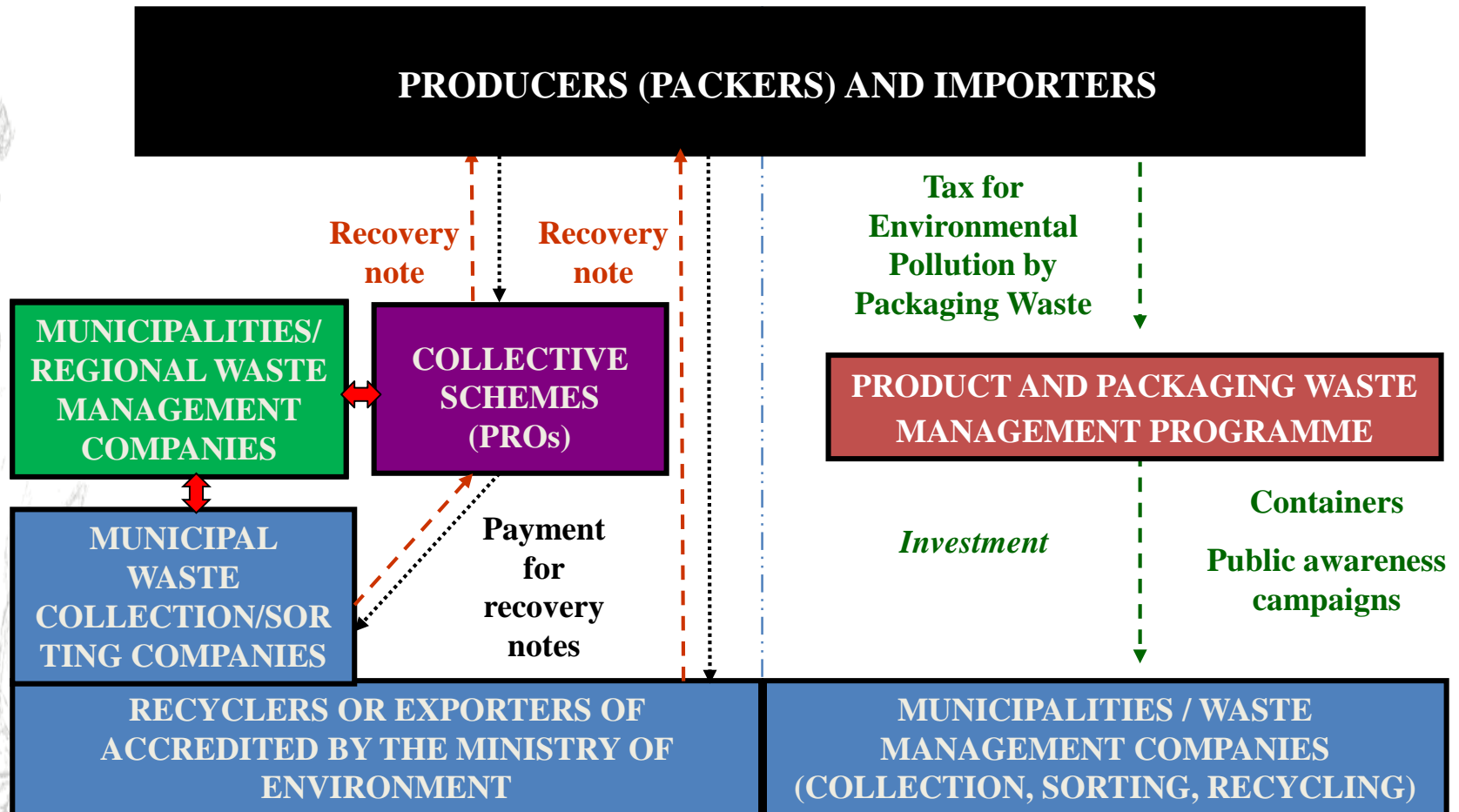
- **Packaging and Packaging Waste Management Act, amendment of 22/12/2011:**
 - obliges producers to organise packaging waste management collectively by joining licensed producer responsibility organizations (PROs), except when packaging is for own use (individually) .
 - PROs must sign:
 - cooperation agreement with all municipalities (or regional waste management centres);
 - contracts with municipalities (or regional waste management centres) and companies collecting municipal waste;
 - contracts with companies collecting non-municipal waste.
 - Costs for collection of municipal waste should be shared between PROs based on market share, calculated by the EPA.
 - PROs must have at least 10% of market share to get a licence (from 2014)
- **Waste Management Act, amendment of 22/12/2011:**
 - PROs may be established by producers only.
 - one PRO can have only one license (e.g. only for packaging) with some exception (e.g. for WEEE and batteries).
 - Provisions regarding accreditation of recyclers/exporters and issuing evidence notes.

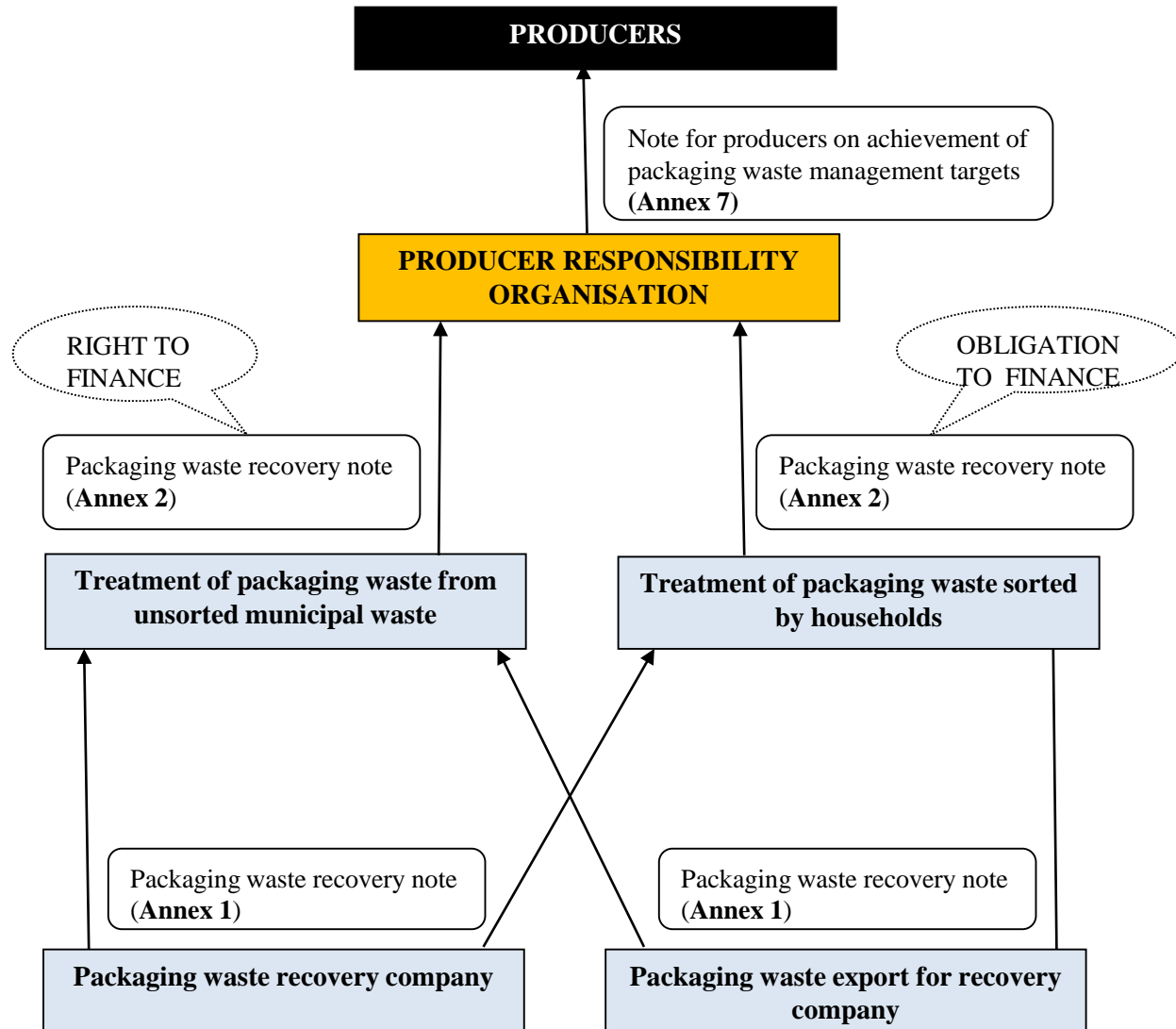


Ways to comply from 2013

I. PURCHASING PACKAGING RECOVERY NOTES

II. PAYMENT OF TAX FOR ENVIRONMENTAL POLLUTION BY PACKAGING WASTE







Packaging waste management scheme from 2013

Advantages

- Better implementation of polluter pays and producer responsibility principles.
- Involvement of municipalities (responsible for organisation of municipal waste management system).
- The revenues from producers payments for recovery notes supports the separate collection of packaging waste from municipal waste (operational costs).

Disadvantages

- Still valid old contracts between municipalities and waste collection companies.
- Contracts with municipalities and waste collection companies are signed for one year only.
- PROs do not want to invest into infrastructure for separate collection system: who has a stronger power to negotiate?
- Lack of transparency.



Products and packaging waste management programme



Waste Management Act

- **Article 34 “Product and packaging waste management programme”**

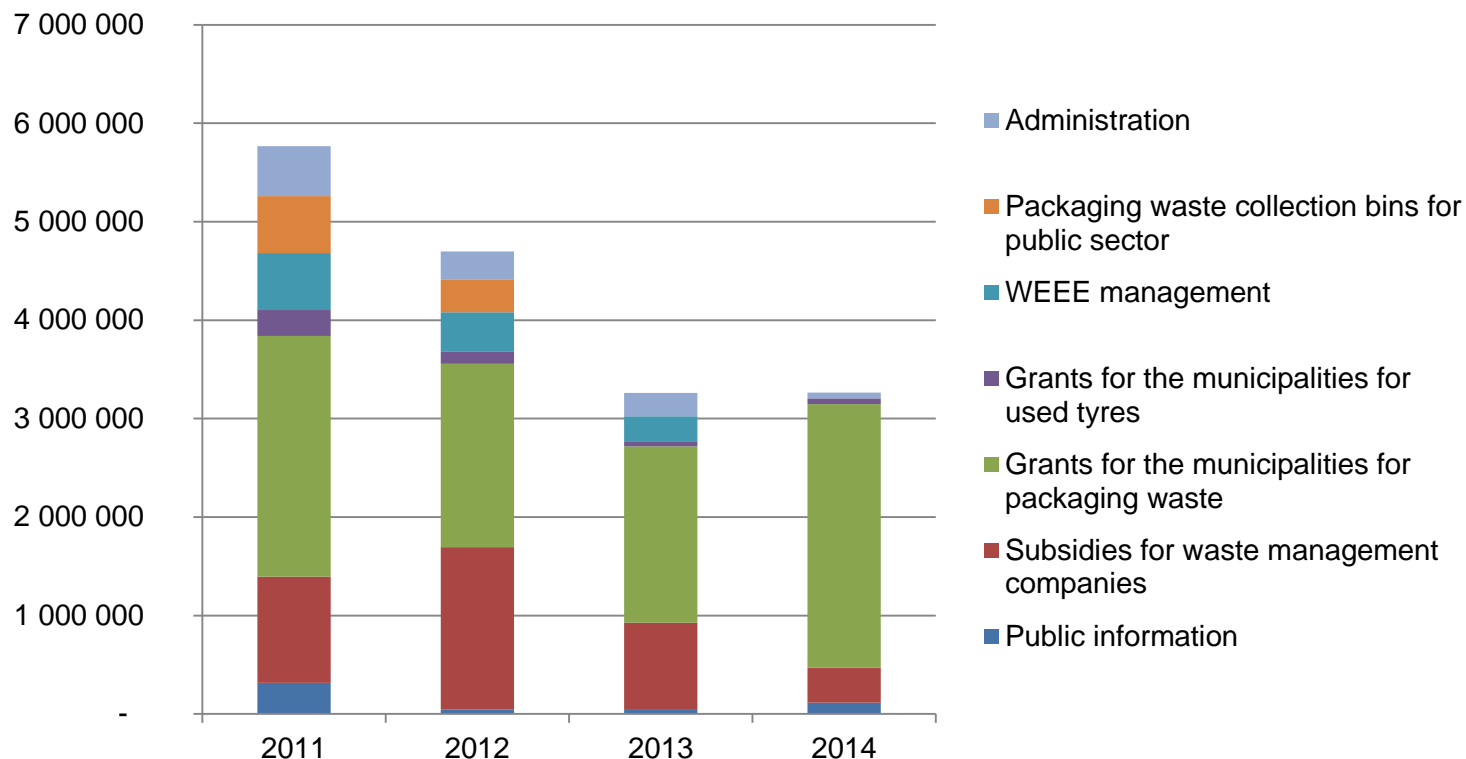
Revenues are used for :

- 1) Development and operation of electrical and electronic equipment, taxable products and packaging waste management systems, including the implementation of investment projects;
- 2) public education and information and municipal staff training on electrical and electronic equipment, taxable products and packaging and waste management issues - not more than 5 per cent of the annual revenue of the program;
- 3) providing grants to municipalities and subsidies to operators for operation and development of electrical and electronic equipment, taxable products and packaging waste management systems;
- 4) Administration of the programme and the environmental pollution tax.

Programme is administrated by the Ministry of Environment
(*Procedure for the use of funds of Products or packaging waste management program*, Regulation Nr. D1-94 of the MoE, 2004)



Use of revenues in 2011-2014, Eur





Subsidies for waste management companies

- Subsidies for investment projects under the following conditions:
 - **60 %** of the subsidy (*the first part*) shall be paid when the applicant purchased, installed and starts to operate facilities. The first part of the subsidy can not be paid earlier than the responsible authority approves the technical implementation report;
 - **40 %** of the subsidy (*the second part*) shall be paid when the applicant presents report on the environmental performance of the project after the first year of operation.
- The amount of subsidy cannot exceed EUR 200 000 (*de minimis*) and cannot be more than 80% of eligible costs.





Key issues and lessons learned



Key issues and lessons learned

- Application of economic instruments is essential to start shifting waste from landfills.
- Introduction of packaging waste tax encouraged a rapid development of packaging recycling sector.
- Failures of trade market of recovery notes for packaging waste:
 - There is a risk that there could be insufficient number of potential buyers and sellers in environmental trading market (e. g. packaging evidence notes) for the market to be fully competitive.
 - High transaction costs of trades if there is no internet platform (e.g. like provided by the broker Environmental Exchange in UK).
 - Lack of transparency (need for control).
 - Collection of lowest cost waste streams only (commercial packaging).
 - Low cost solutions do not ensure meeting environmental targets in long term perspective.
- Generated revenue from environmental taxes is an additional source for financing environmental projects.



Thank for Your attention!

