

Twinning Project

PHARE RO/06/IB/EN/06

Romania - North Eastern Region

Successful strategies for prevention and source separation of household waste in the Netherlands

Waste Management Department,
SenterNovem, The Netherlands

Contents

- General information on the Netherlands
- Development in waste management
- Economic and Financial Instruments:
 - polluter pays principle: producers responsibility and variable charging household waste
 - environmental taxes: tariffs in accordance with waste hierarchy
 - subsidies to stimulate companies, municipalities,
 - benchmarking
- Instruments to enhance participation of citizens

General information on the Netherlands

- 16.3 million inhabitants
- 450 inhabitants per km²
- 12 provinces; 467 municipalities
- 61 Mtons waste/year, excluding manure, dredging sludge



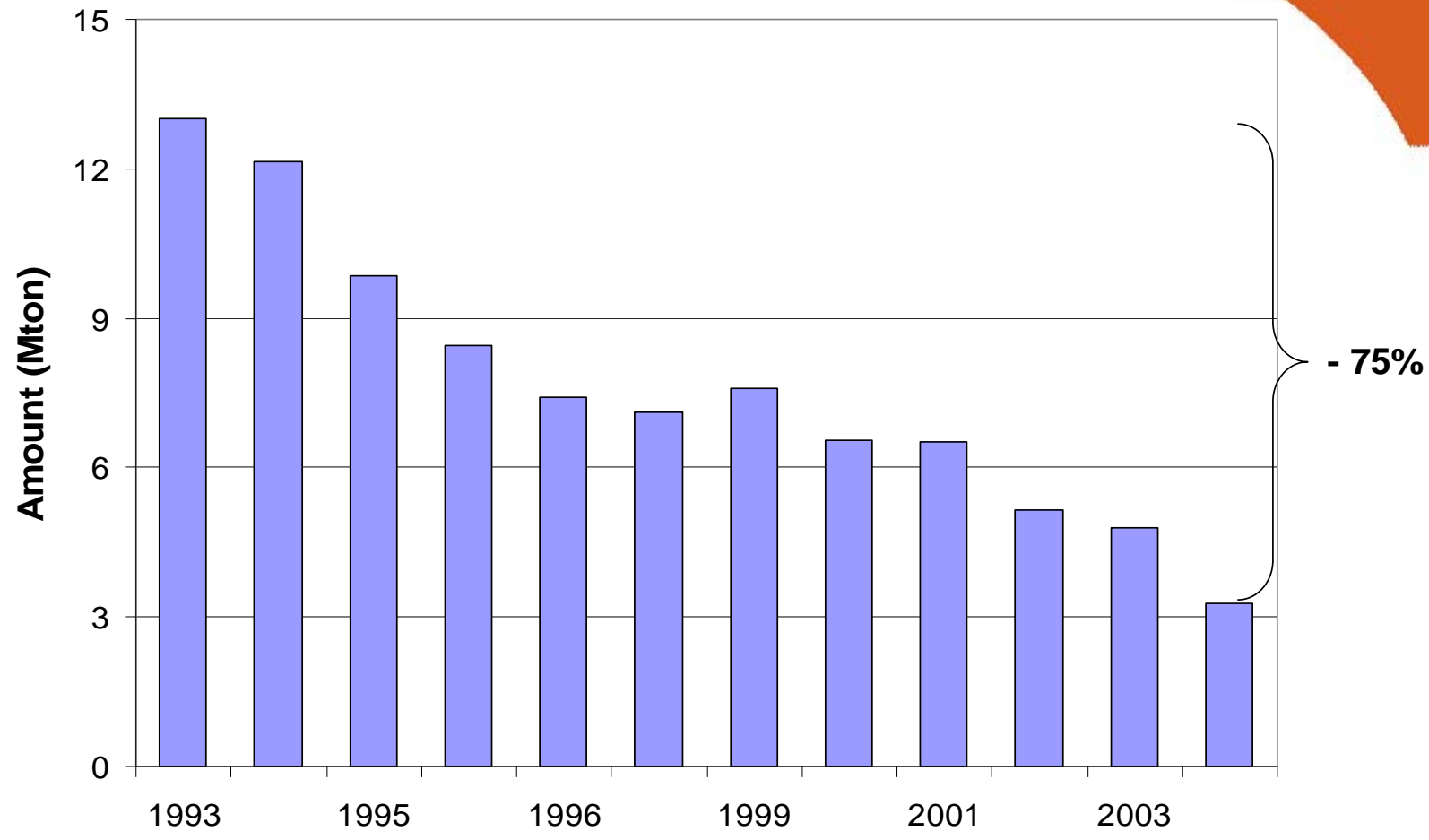
General information on the Netherlands environmental pressures

- high level groundwater: special care to prevent soil/water pollution by landfills
- flat country, many roads + waterways > low transport costs
- Downstream large European rivers (Rhine, Meuse)
- Surrounded by highly industrialized area's in Belgium and Germany

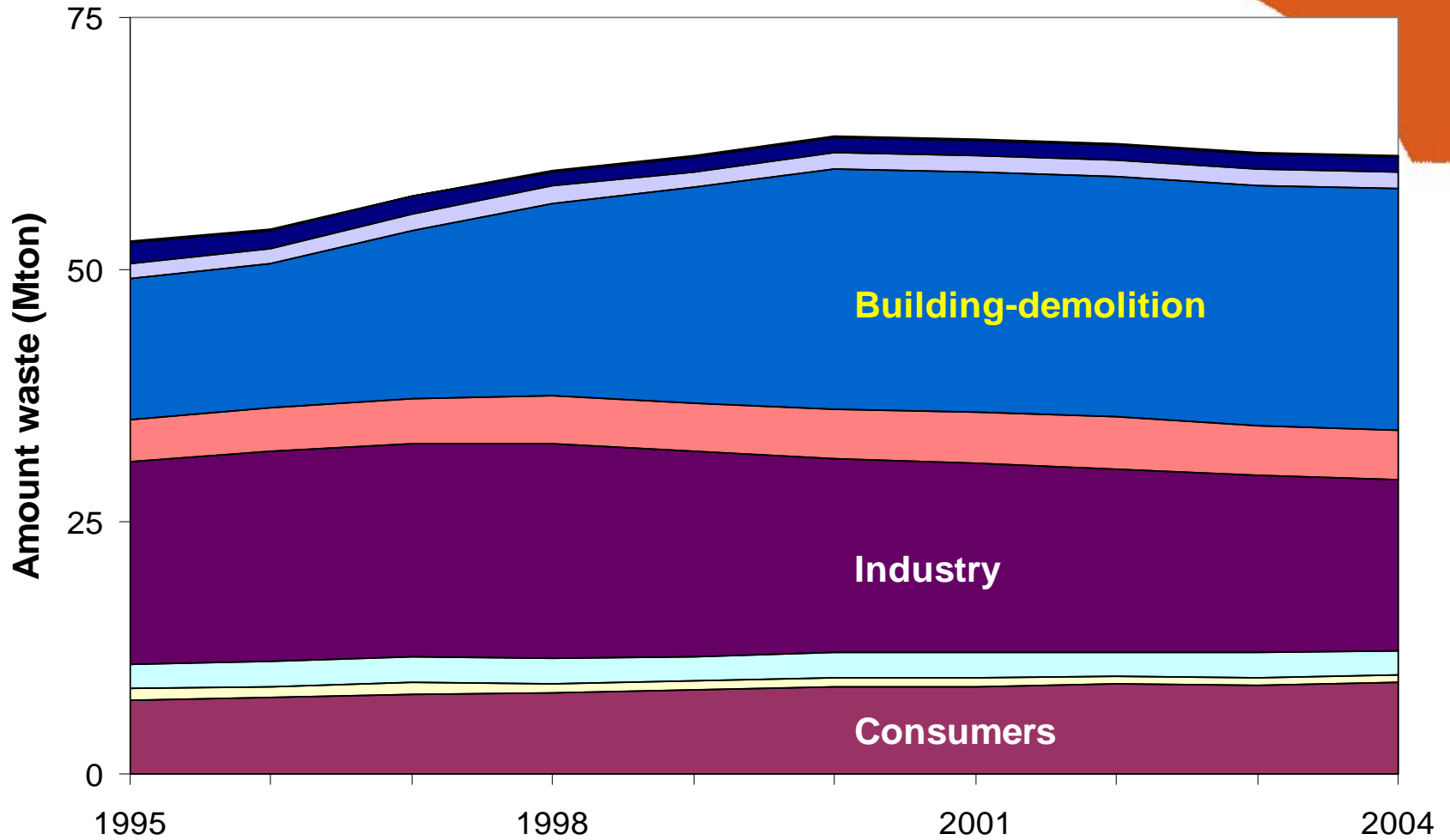
Responsibilities in waste management

- Municipalities have duty of care for household waste:
 - Weekly door to door collection of municipal waste and financing with municipal waste tax
 - Offer facilities for delivery of bulky domestic waste
- Provinces:
 - Licensing facilities and enforcement, physical planning
- State government:
 - Legislation, Waste shipment directive, Enforcement, National Waste Management Plan
- SenterNovem- Waste management department:
 - Implementation, administration, monitoring

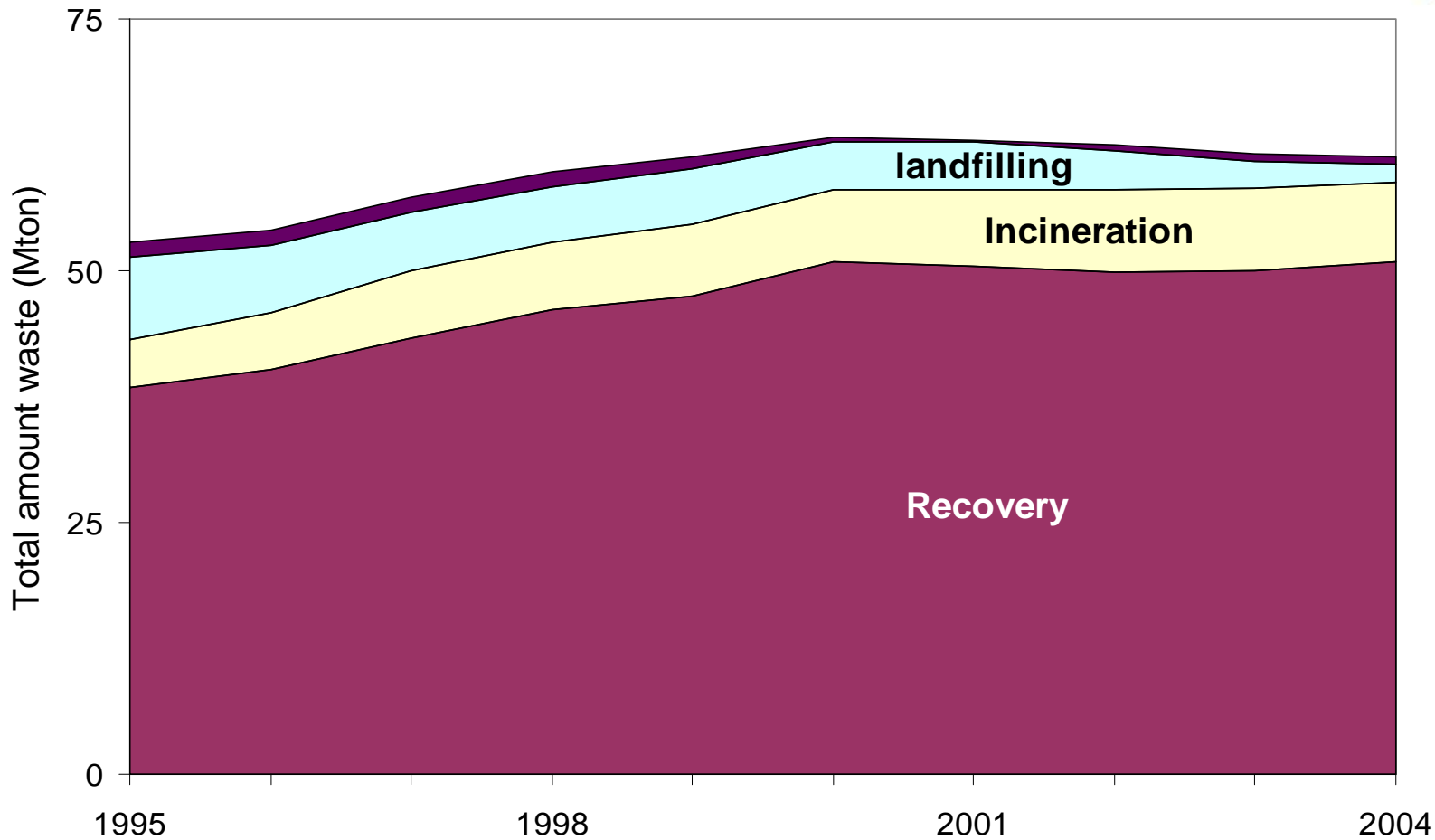
Decline of landfilling



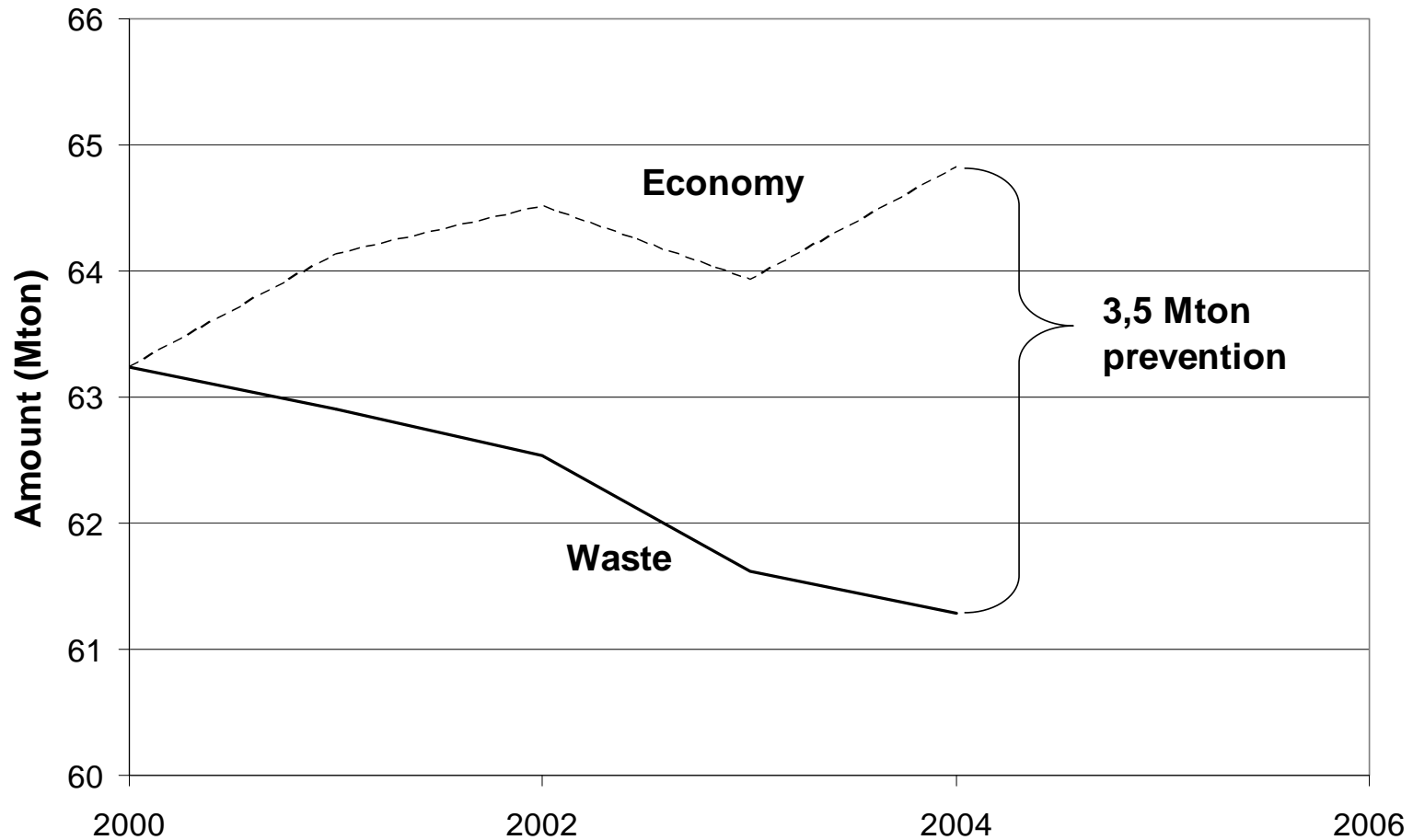
Total waste production



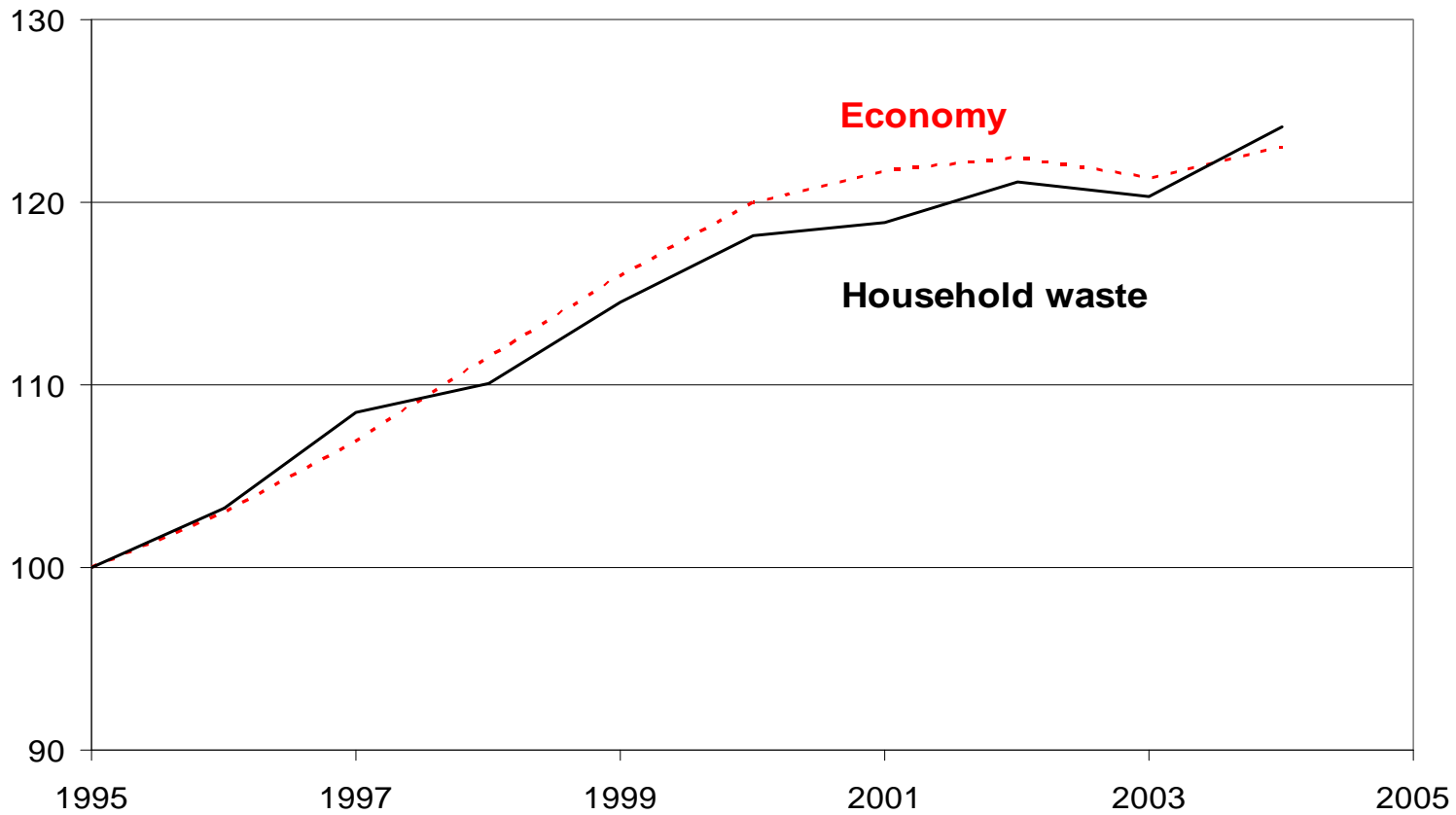
Waste treatment options



Decoupling of economy and waste production



No decoupling of household waste and GDP



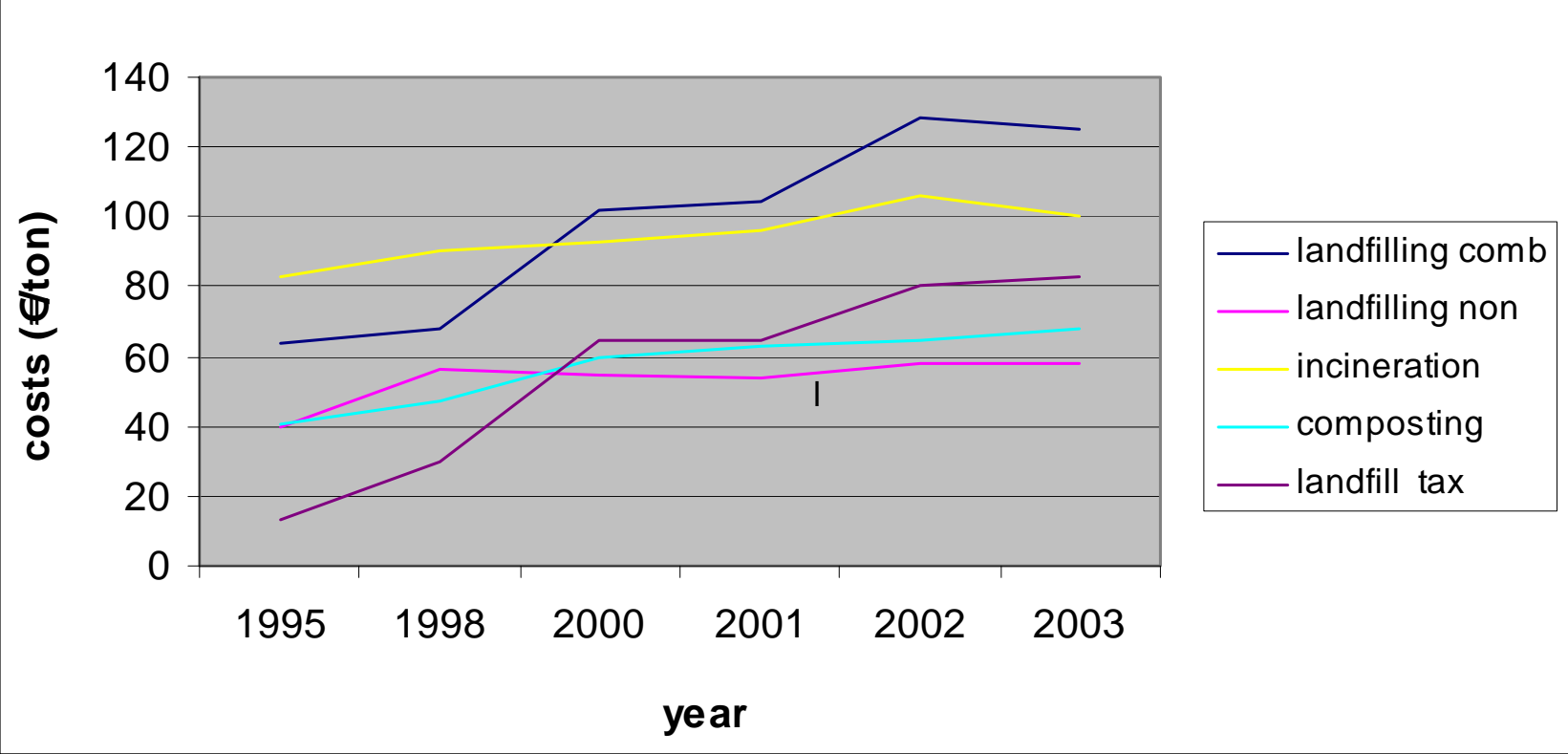
Economic and financial instruments

- Instruments to restrict and discourage landfilling
 - Landfill decree (technical requirements and standards; financial covering of post-closure costs)
 - Landfill ban: (35 waste streams)
 - Landfill tax (85 euro/ton): land filling more expensive than recycling and incineration
- Environmental taxes: tariffs in accordance with waste hierarchy
- Producers responsibility
- Variable charging of municipal waste
- Economic incentives: competition, benchmarking, transparency

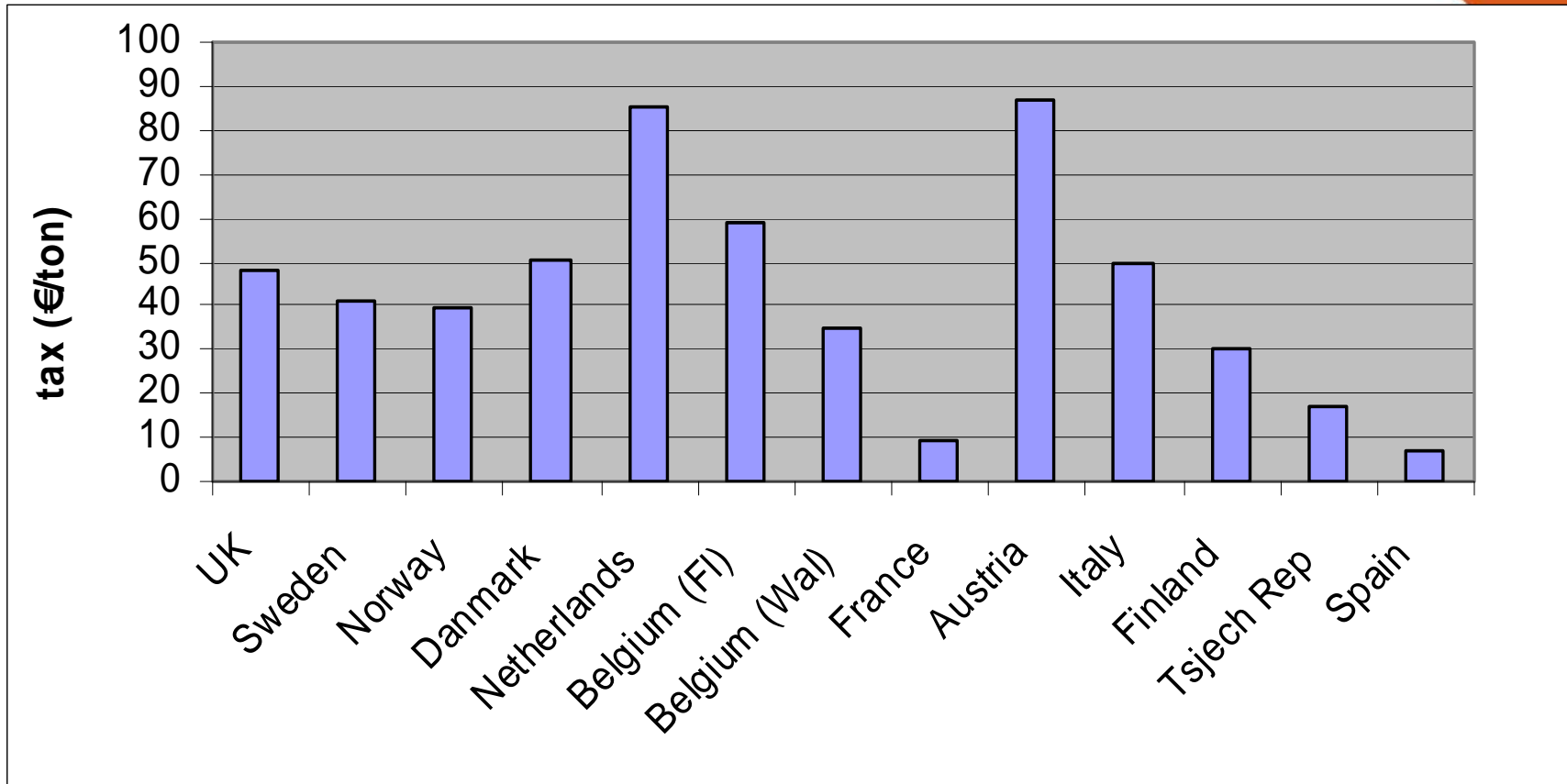
Landfill tax

- Goals
 - restrict and discourage landfilling
 - waste processing tariffs in accordance with waste hierarchy
 - stimulate recycling and incineration with energy recovery
- Tax income for Treasury department (greening of taxation)
- Introduced in 1995: 13 €/ton. Increased in 3 steps till 86 € in 2006
- Very effective instrument to steer waste

Tariffs for waste processing



Landfill tax in 13 EU countries



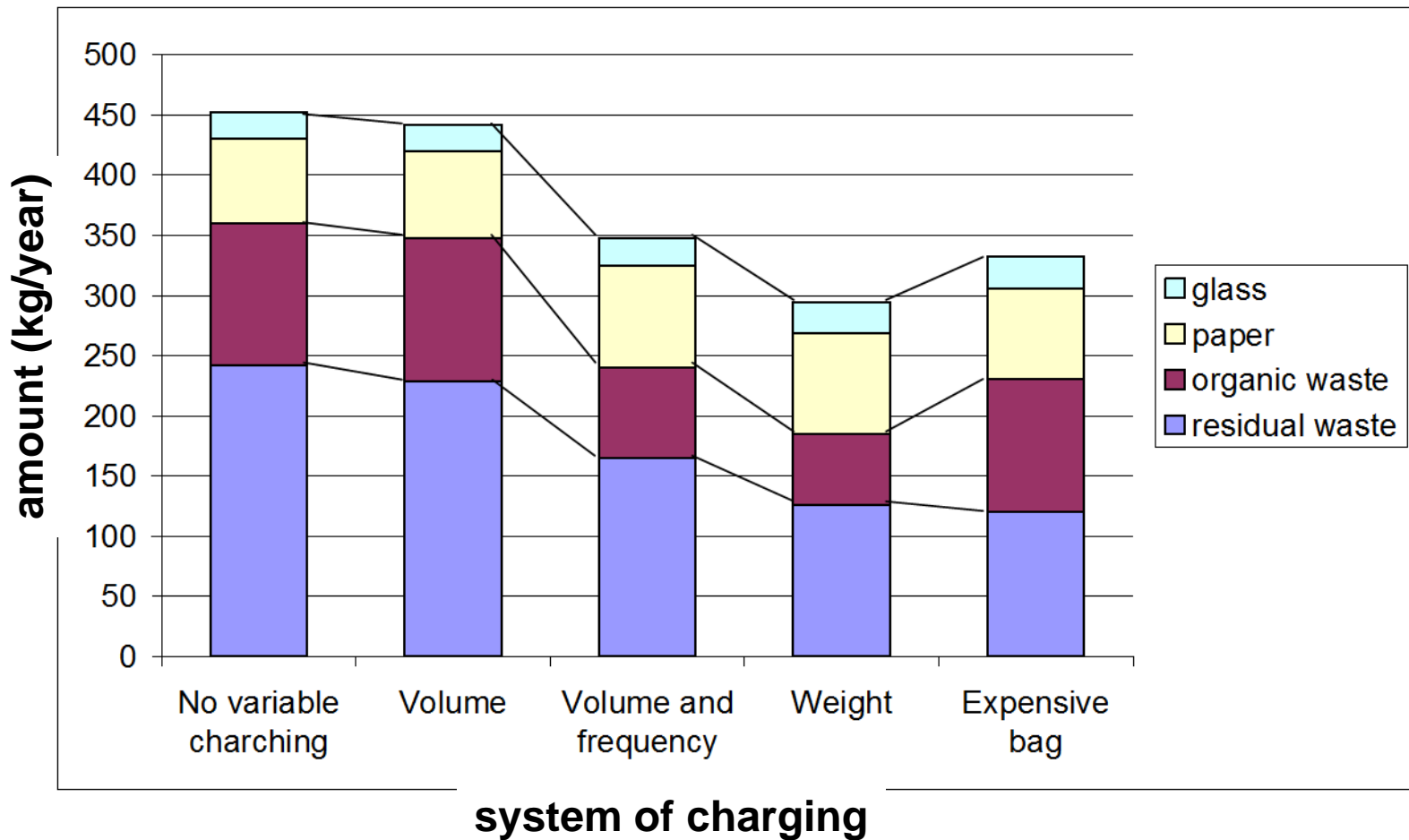
Variable charging - goals

- financial incentive to reduce volume residual waste
- stimulate recycling
- impose a fair and equitable tax system based on polluter pays principle

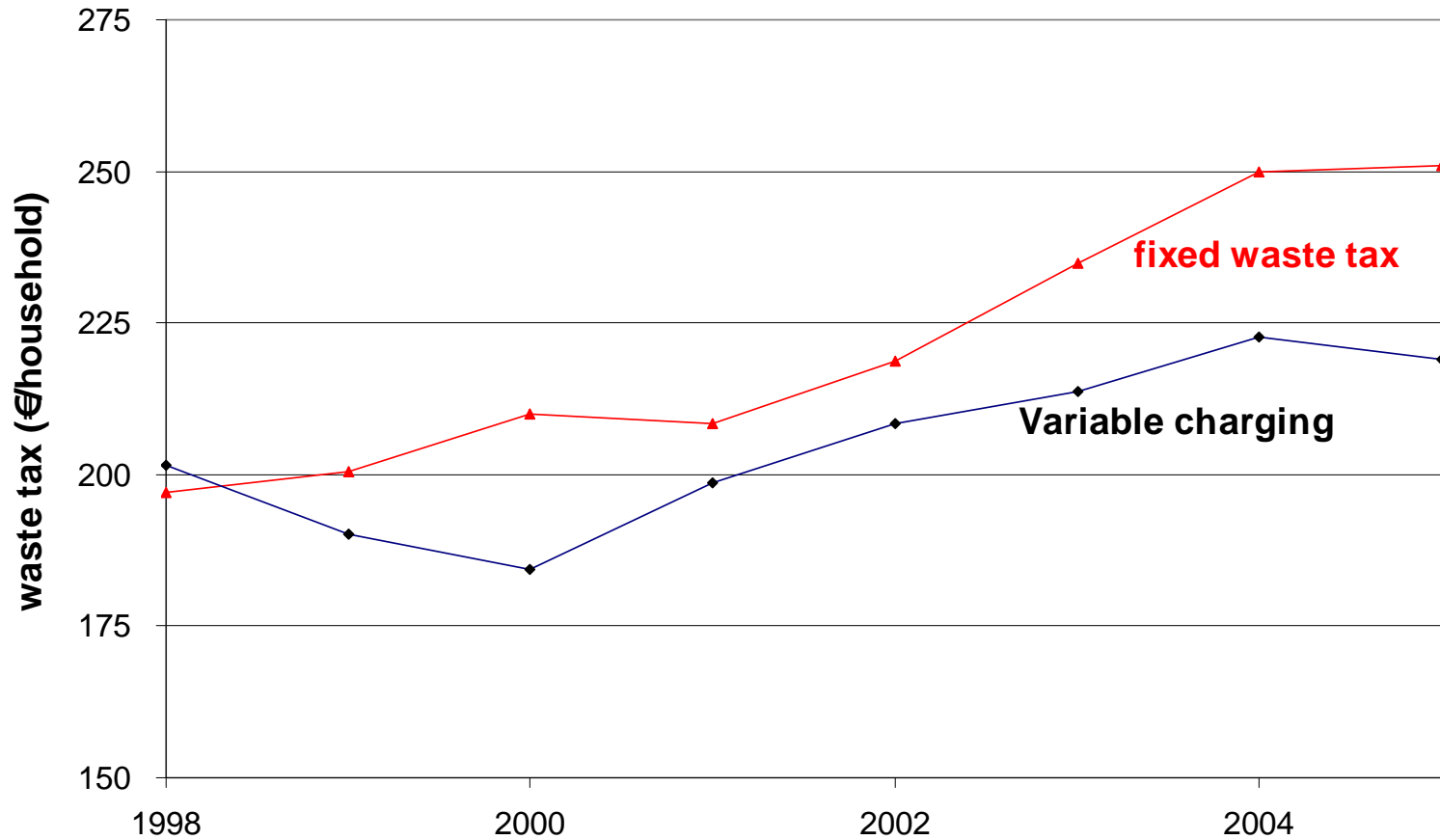
Variable charging - systems

- Volume
Tariff based on the volume of the container (39 municipalities)
- Weight
Tariff based on weight of the waste (19 municipalities)
- Frequency
Tariff based on how often the container was put on the curb side to be emptied (always in combination with the volume or weight of the container)
- Expensive bag
Only special waste bags are accepted which are sold by the municipality (20 municipalities)

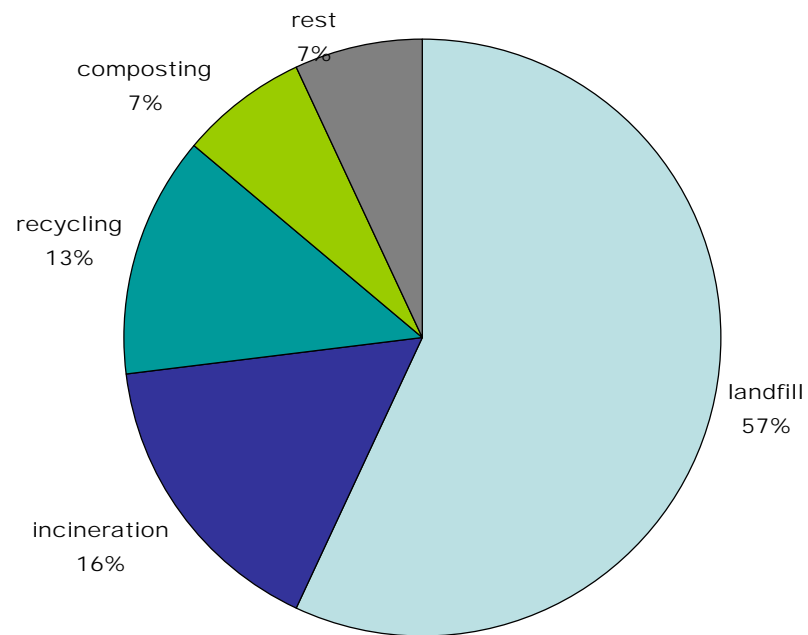
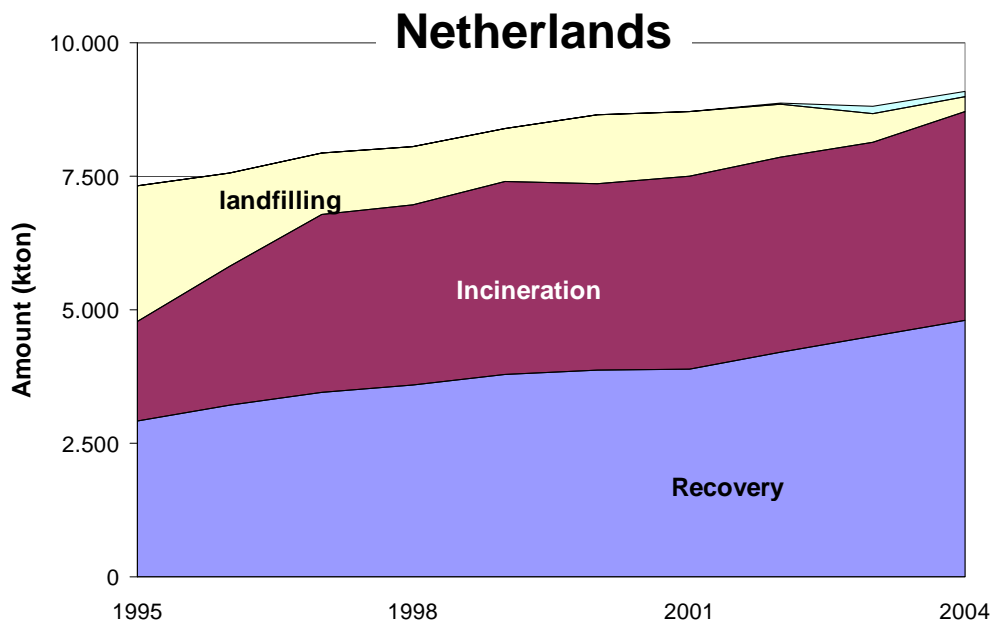
Variable charging – results for separate collection



Variable charging - municipal waste tax



Treatment of household waste



EU average

Emphasis on improving behavior of households

- WHY?
 - Continuous growth of volume of household waste
 - Increasing costs and thus increasing municipal tax
 - Post-separation of household waste has poor results
- Therefore participation of citizens is indispensable
- Neglecting the aspects prevention and separate collection for recycling could lead to less support by households AND offices/shops/industries
- Education of young people (= new waste generators) necessary

How to improve waste behavior of households - 1

- Specific mix of instruments: sticks, carrots, marketing, education
- Sticks:
 - variable charging of municipal waste tax
 - risks: tax evasion (waste tourism), contaminated streams for recycling, litter, illegal dumping, municipalities are free to choose: no national obligation
- Carrots:
 - lowering the barriers
 - providing positive incentives
 - create facilities
 - reward good behaviour

Program for stimulation of prevention and separate collection

- Program for household waste started in 2002
- Goal: a new impulse to separate collection to reach 60% recycling and recovery
- Subsidy scheme for municipalities to start projects
- Municipalities:
 - start with collection of data: sorting out residual waste, comparing actual data with policy targets
 - draw up plan for action
 - choose the most promising waste fractions: e.g. paper/cardboard, biowaste

Instruments to enhance public participation - 1

- Supply Information:
 - continuous publicity
 - promotion and education campaigns (waste is everyone's responsibility)
 - communicate (positive) results
 - regular consultation
 - waste calendar

Instruments to enhance public participation - 2

- Create Facilities:
 - curbside collection
 - recycling centers
 - municipal depots (bulky domestic waste)
 - banks for bottles/paper
 - refund systems
 - sweeping/cleaning
 - one size doesn't fit all

Instruments to enhance public participation - 3

- Enforcement:
 - inspections
 - tagging
 - warning letters
 - penalize and reward
 - face to face contact

Changing attitude of citizens

- Social instruments used to change attitude of citizens
 - Constant & large scale awareness campaigns begin 1990's; “a better environment starts with your own behaviour”
 - Specific campaigns for separate collection of : glass, paper, hazardous waste, bio waste, WEEE, textile, batteries
- Teaching programs on primary schools
- Positive reaction: full cooperation in households AND in business (coherent behaviour !)
- But: financial “drive” for waste reduction in business much larger than in households

Improvement of local knowledge and expertise

- Agency SenterNovem (SN) carries out tasks for Ministry:
 - organises networks of municipal experts for: bulky household waste, variable charging, waste paper/cardboard, benchmarking waste separation
 - publishes a periodical with appealing examples of municipal actions
 - supports benchmark (learning to improve within the triangle of service, costs, environment)
- Tools: cost models available (costs & profits) for municipalities for collection of waste paper and glass

Better offers and marketing

- **Offers**

- Additional curb side collection of paper/cardboard
- Municipal depots for bulky household waste open on Saturday

- **Marketing**

- Improve internet selling of used articles
- Second hand shops offer citizens to sell articles in consignment

- **Producer-responsibility**

- Organizations (e.g. batteries) tempt people to bring batteries: much more collection points, lotteries for travel when 10 batteries are delivered, education projects, etc.

Concluding remarks

- An important barrier towards higher recycling rates is a cheap alternative
- Cooperation of citizens is indispensable to improve prevention and source separation



This document does not necessarily represent the official position of the European Commission.
For PHARE projects information and comments: cfcu.phare@mfinante.ro