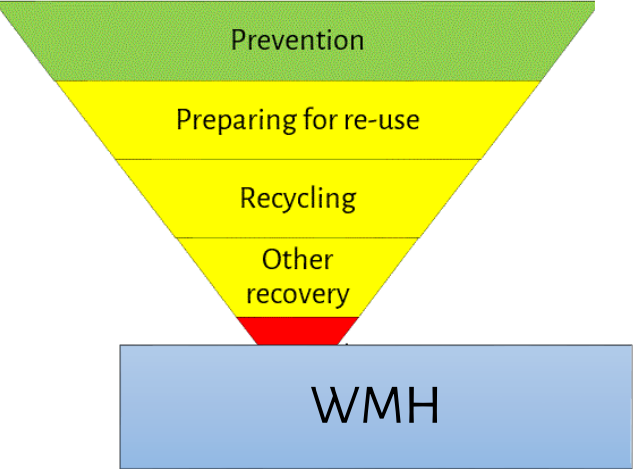




Waste management

Jakub Hanák

Outline



Aims of waste legislation

- *proper waste management*

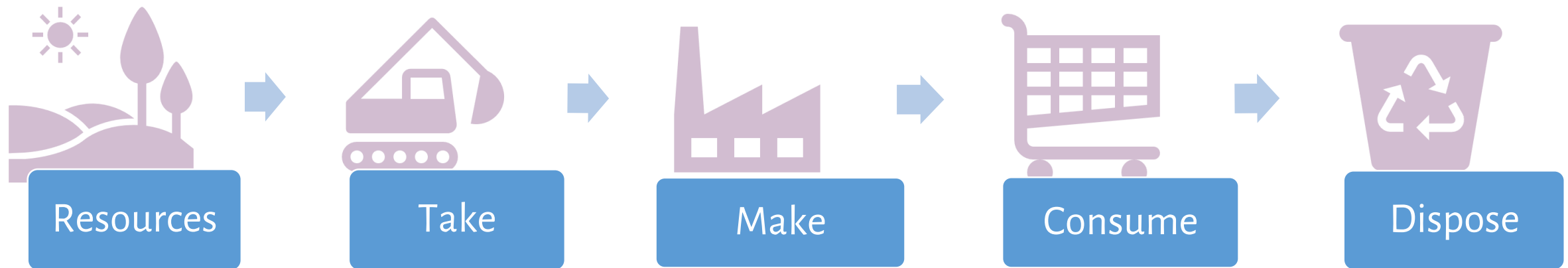
⇒ *without adverse impacts on environment and human health*



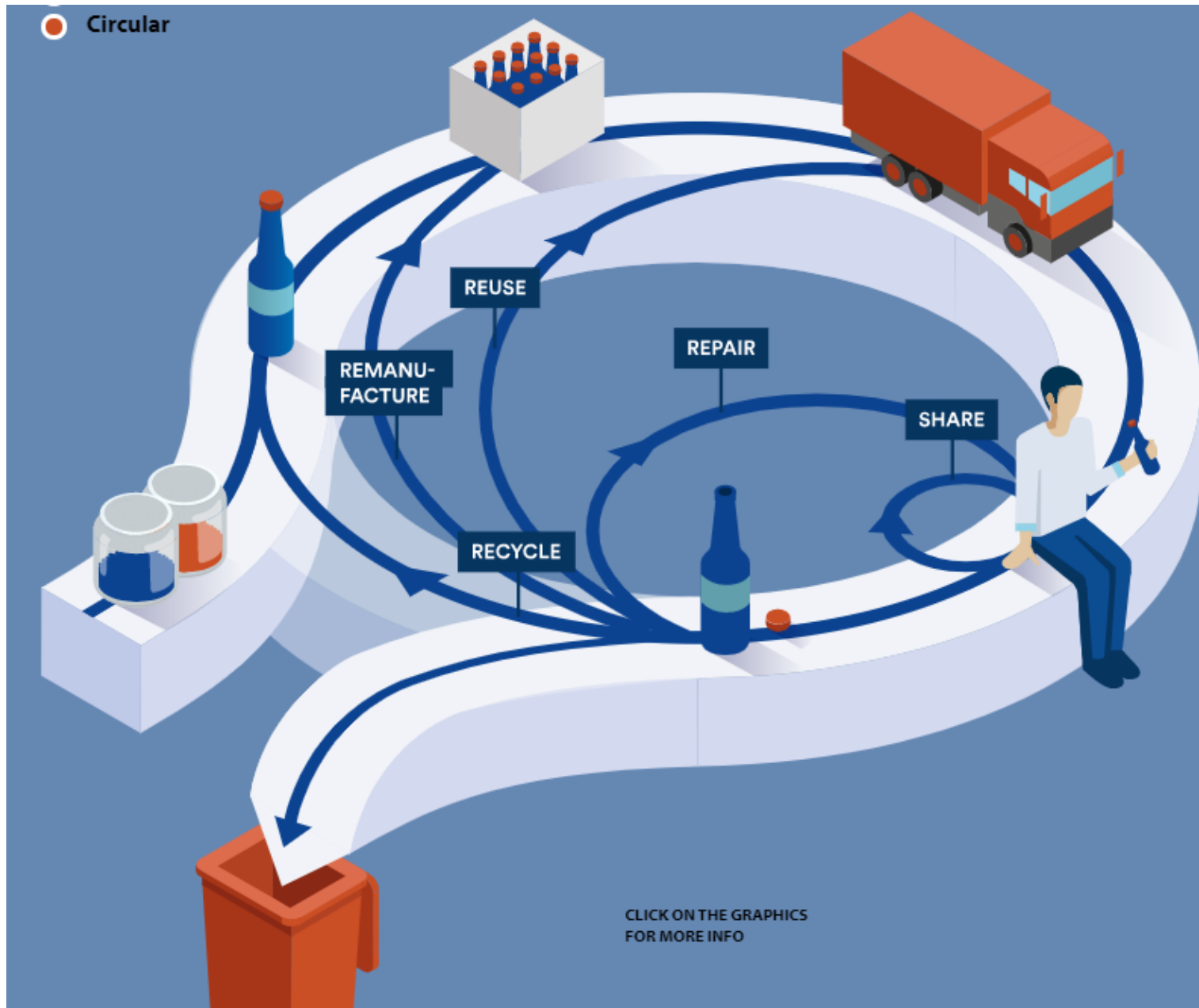
C-297/08 : failing to ensure that, Campania region has sufficient installations enabling it to dispose of its urban waste close to the place where that waste is produced, the Italian Republic **has failed to meet its obligation** to establish an integrated and adequate network of disposal installations (see 88)

Aims of waste legislation (2)

- **reduce generation of waste**
 - *improve resource efficiency*
- limit hazardous substances in waste
- waste can be a resource



○ Circular



Life without waste

10 zero waste bloggers you should know



Katherine Martinko

feistyredhair

March 2, 2017



The amount of trash created by Kathryn Kellogg in one year

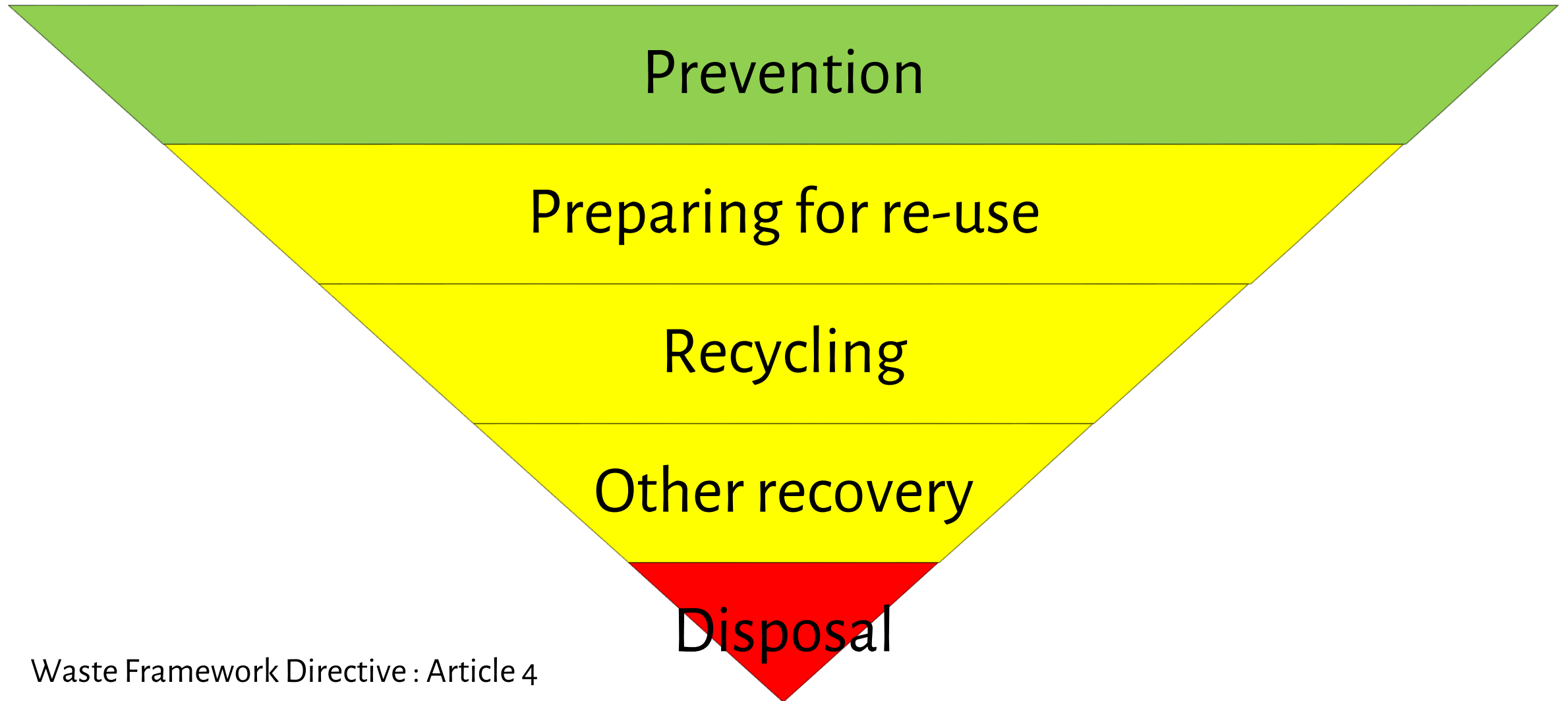
European Commission
Directorate-General Environment



Preparing a Waste Prevention Programme

Guidance document

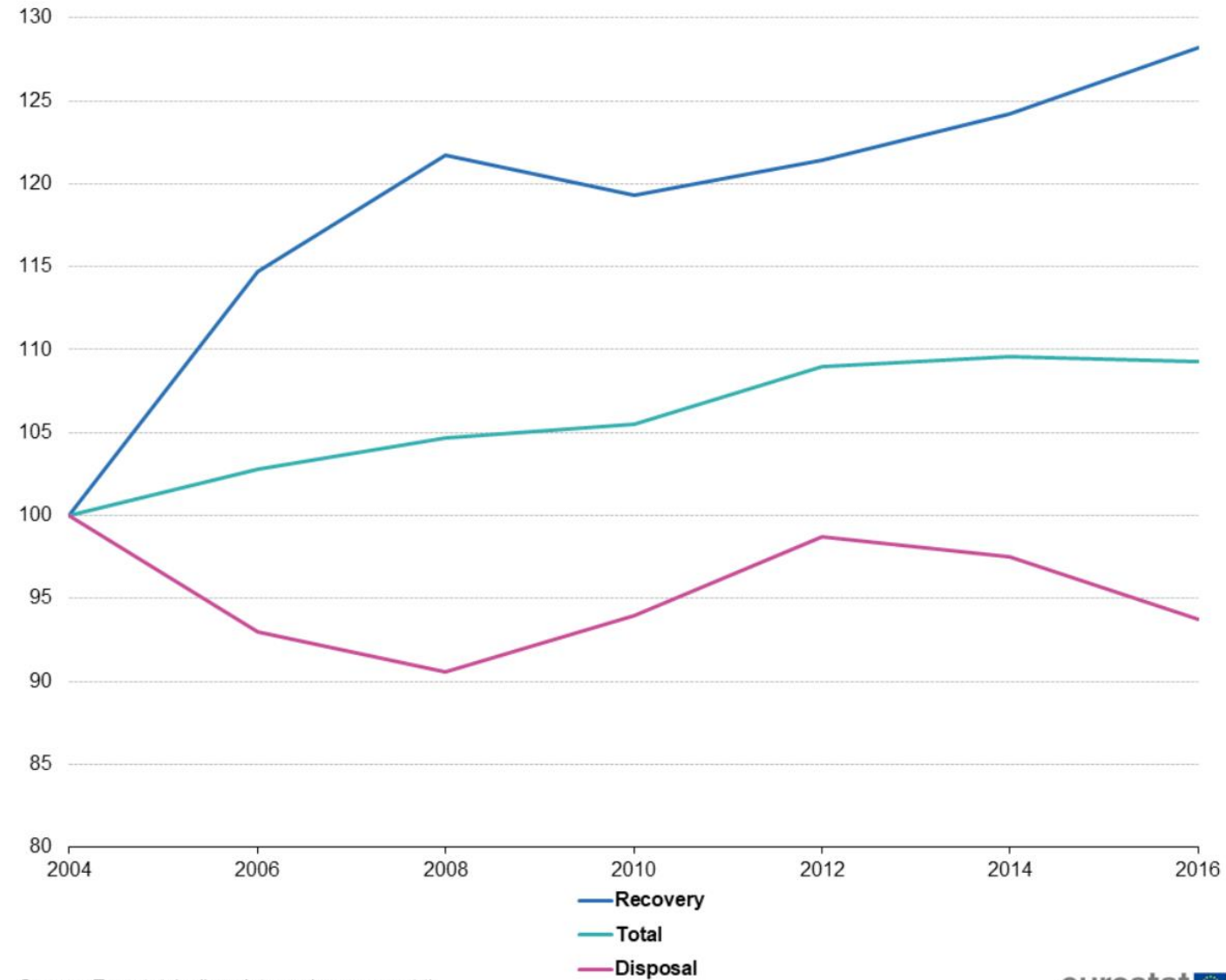
Waste management hierarchy



Waste Framework Directive : Article 4

Waste treatment, EU-28, 2004-2016

(Index 2004 = 100)



Source: Eurostat (online data code: env_wastrt)

eurostat 

EU waste legislation: system

- **general framework**
 - [Directive 2008/98/EC on waste](#) (WFD)
 - *Regulation (EC) 1013/2006 on shipments of waste (WSR)*
- **waste management operations**
 - *Directive 99/31/EC on the landfill of waste*
 - *Directive 2010/75/EU on industrial emissions: for waste incineration*
- **specific waste streams (e.g.)**
 - *Directive 94/62/EC on packaging and packaging waste*
 - *Directive 2000/53/EC on end-of-life vehicles (ELV)*
 - *Directive 2006/66/EC on batteries and accumulators*
 - *Directive 2012/19/EU on waste electrical and electronic equipment (WEEE)*

Definition of waste

- „any object which the holder discards or intends or is required to discard“
- these types of waste are **excluded**:
 - *e.g. gaseous effluents emitted into the atmosphere*
 - *land (in situ) including unexcavated contaminated soil and buildings permanently connected with land (see case C-1/03 Van de Walle)*
 - *radioactive waste*
- **excluded to the extent** that they are covered by other Community legislation
 - *waste waters*
 - *waste from extractive industries (Directive 2006/21/EC)*

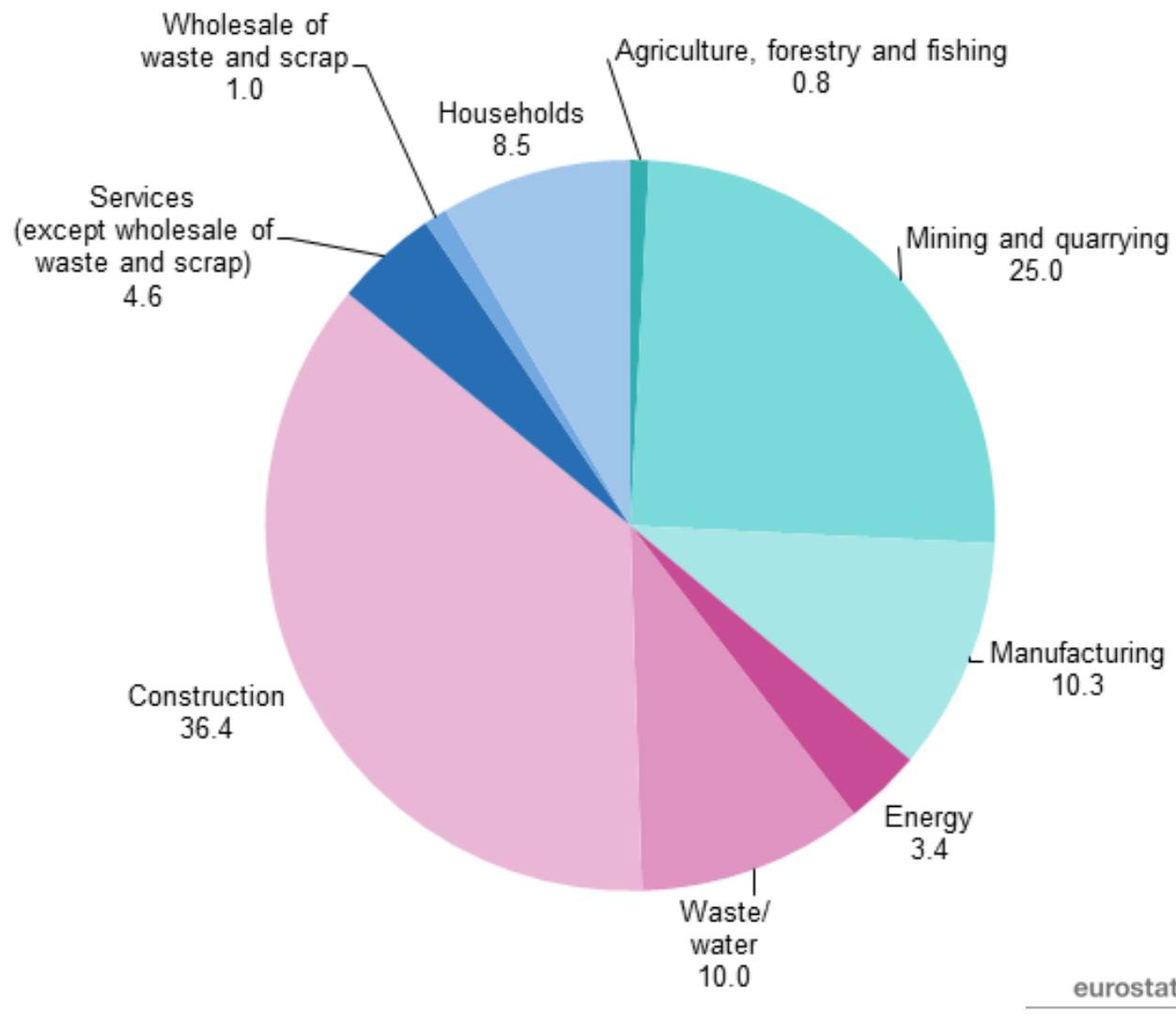
Definition of waste (2)

- **European List of Waste:** Commission Decision 2000/532/EC

20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01	separately collected fractions (except 15 01)
20 01 01	paper and cardboard
20 01 02	glass
20 01 08	biodegradable kitchen and canteen waste
20 01 10	clothes
20 01 11	textiles
20 01 13*	solvents
20 01 14*	acids
20 01 15*	alkalines
20 01 17*	photochemicals
20 01 19*	pesticides

Waste generation by economic activities and households, EU-28, 2016

(%)



Definition of waste: interpretation (3)

- *definition: „any object which the holder discards or intends or is required to discard“*
- restrictive interpretation is forbidden - high level of protection
- classification as ‘waste’ is **to be inferred primarily from the holder’s actions**
 - *→ only the holder of the products can prove that he intends not to discard those products (C-113/12; 38, 64 – burden of proof)*
- it is necessary to **consider all circumstances** → see 14

Definition of waste: indications (4)

- **the object is produced intentionally** \Rightarrow product!
- (-) the object is a production residue
- (?) substances which are **capable of economic reutilization** (recovery) are not excluded
 - *but – significant commercial value (C-241/12)*
- (-) the object holder accepts that it is waste (description of the substance)
- (-) the object cannot be used for the original purpose (C-9/00)
- (-) the method of production indicates that the object is **unwanted**
- (?) no danger to environment

Is it waste?



Source:<https://www.flat4.org/forum/viewtopic.php?t=72&start=680>

Is it waste?



<http://sitn.hms.harvard.edu/wp-content/uploads/2014/12/Sawdust.jpg>



By-products

- substance (object) is **result from production process**
 - *but primary aim is not the production of the substance*
- conditions:
 - *the substance is produced as an **integral part of a production process***
 - *the substance **can be used directly** without any further processing other than normal industrial practice*
 - *further use is **lawful***
 - i.e. the substance fulfils all relevant product, environmental and health protection requirements for the specific use
 - will not lead to overall adverse environmental or human health impact
 - *further **use of the substance is certain***

End-of-waste criteria

- **waste has undergone a recovery** and complies with specific criteria based on these conditions:
 - *the substance is commonly used for specific purposes*
 - *a market or demand exists for such a substance*
 - *the substance fulfils the technical requirements for the specific purposes and meets the existing legislation and standards applicable to products*
 - *the use of the substance will not lead to overall adverse environmental or human health impacts*

- Commission Regulation (EU) No 1179/2012 **establishing criteria** determining when glass cullet ceases to be waste
- Commission Regulation (EU) No 333/2011 establishing criteria determining when certain types of scrap metal cease to be waste



Waste



Product from
waste



New bottle

- 'recovery' means any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function

Hazardous waste

- is mentioned in the List of waste (*)
- displays one or more of the **properties listed in Annex III** of WFD; Regulation (EU) No 1357/2014
- packaging and **labelling** requirements
- **traceability** from production to final destination
- **ban on the mixing** of hazardous waste with other waste or substances
- C-358/11 (Lapin) – products from waste

Proper waste management

- MS shall take the necessary measures to ensure that waste management is carried out without endangering human health and the environment
- hand waste over to **persons licensed to handle waste**
- **permits** for waste treatment facilities
 - *may be granted for a specified period*
 - *shall contain*
 - the types and quantities of waste that may be treated
 - the method to be used for each type of operation
- new facility: EIA, IPPC, planning and building acts

Landfilling of waste

- landfilling is **the worst waste management option**
 - greenhouse gas – loss of resources – soil and water pollution
- landfill: „*waste disposal site for the deposit of the waste onto or into land (i.e. underground)*“
- landfill **classes**
 - *for hazardous – non-hazardous – inert waste*
- **closing and after-care**
 - *closed after final on site inspection carried out by competent authority*
 - *operator remains responsible for maintenance and control of the site*

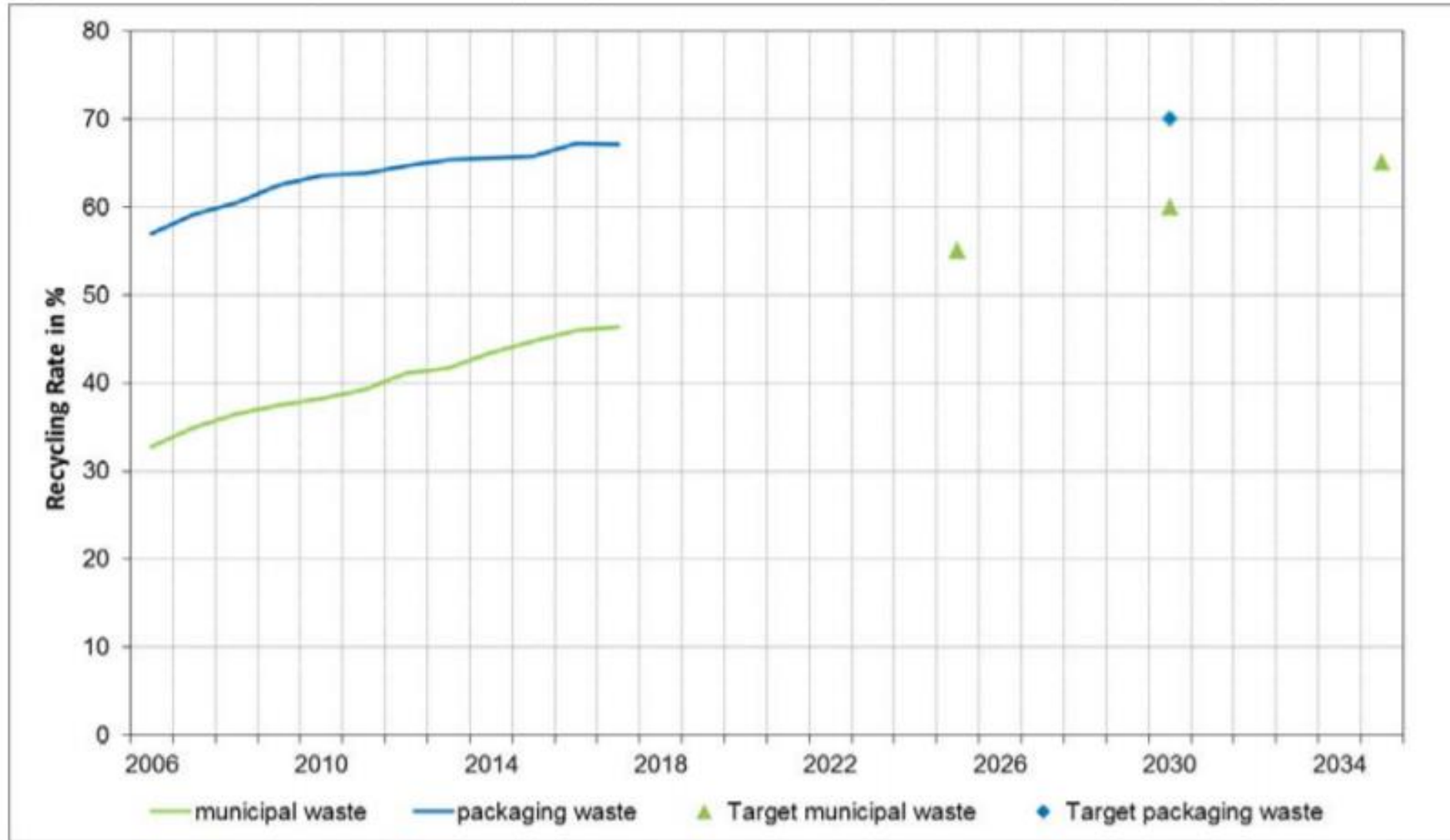
Targets (e.g.)

- by 2016/2020 - **biodegradable municipal waste going to landfills** must be reduced to 35 % of the total amount (by weight) of biodegradable municipal waste produced in 1995 (art. 5 Landfill directive)
- by 2020 - the **preparing for re-use** and the recycling of waste materials such as at least paper, metal, plastic and glass **from households** and possibly from other origins as far as these waste streams are similar to waste from households, shall be increased to a minimum of overall **50 % by weight** (art. 11 WFD)

Circular economy package: new targets

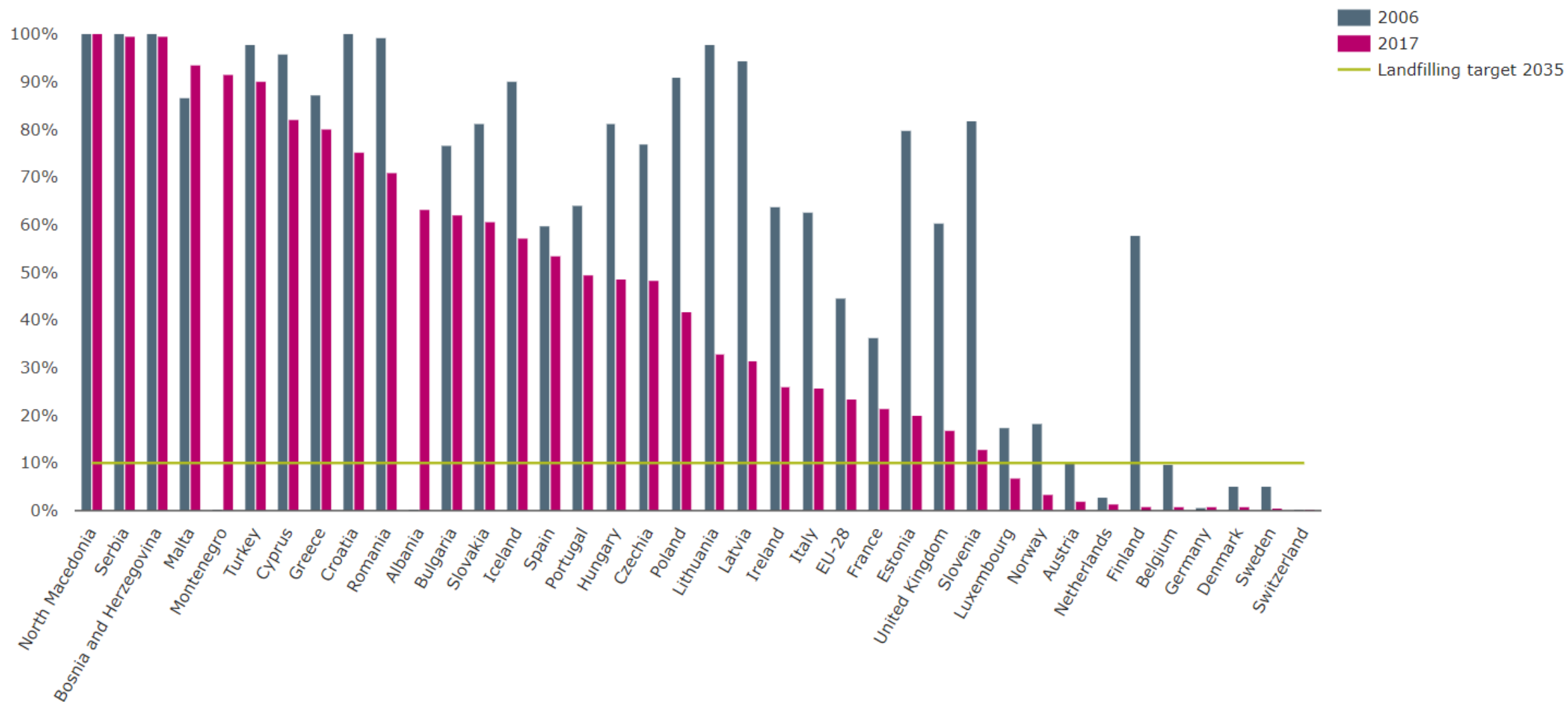
- four directives (2018/849-852), **implementation by 5 July 2020**
- the main elements of the amendments are:
 - *increase of the preparing for re-use and **recycling target** for municipal waste to 55 % by 2025; 60 % by 2030; 65 % by 2035*
 - *gradual **limitation of the landfilling** of municipal waste to 10% by 2035*
 - ***food waste** should be reduced by 30% by 2025; 50% by 2030*

Figure 5-1: Development of recycling rates for municipal waste and packaging waste



Sources: Eurostat 2019d, 2019e

Chart – Municipal waste landfill rates in Europe by country



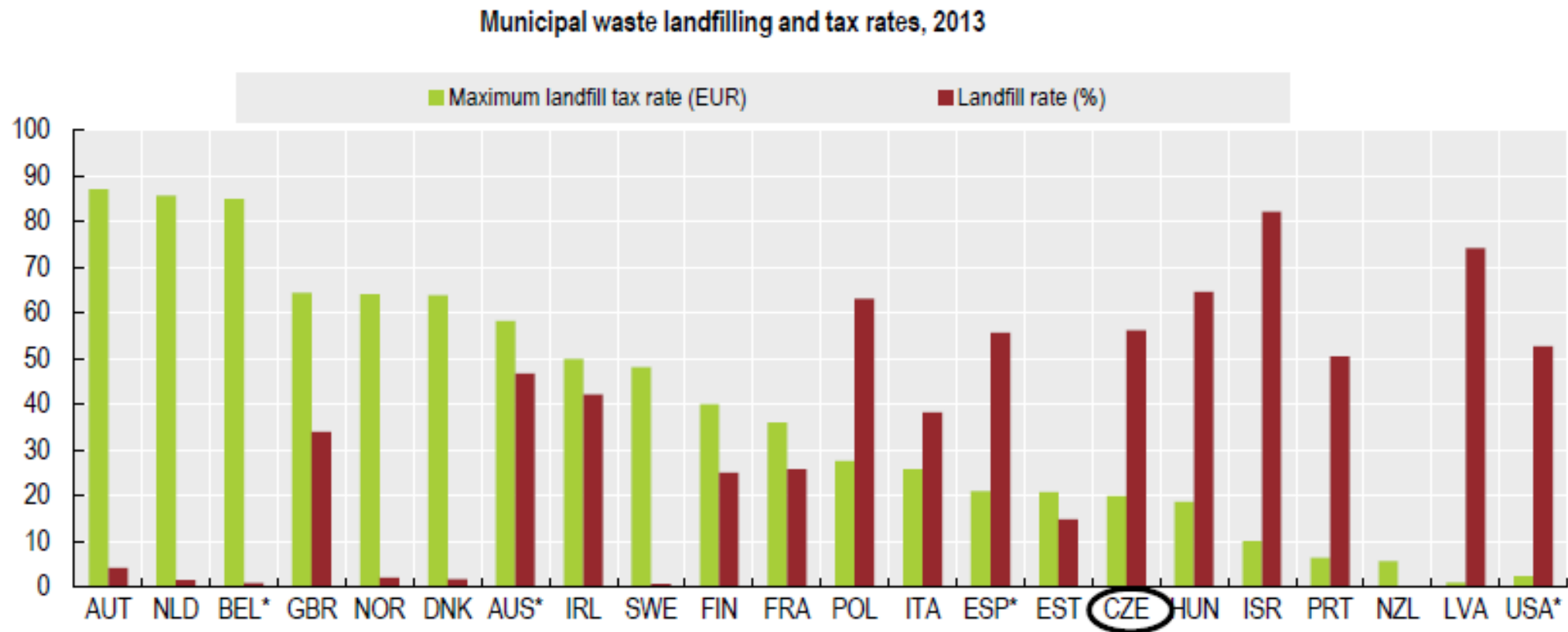
Economic instruments

- Art. 14 WFD – *„In accordance with the polluter-pays principle, the costs of waste management shall be borne by the original waste producer or by the current or previous waste holders.“*
- **broad discretion by MS**
 - *landfilling fee*
 - *incineration fee*
 - *local fee for handling of household waste*
 - *payment for recovery and recycling of packaging waste*

Costs of landfill disposal

- ... whatever the national **rules** may be governing landfill sites, they **must ensure that all the operating costs of such a site is actually borne by the holders of the waste deposited in the landfill for disposal.**
 - *C-172/08 – Pontina Ambiente*

Figure 4.4. Landfilling of municipal waste is encouraged through low landfill taxes



Notes: *tax rates refer to Flanders for Belgium, to New South Wales for Australia, to Catalonia for Spain, and to New Jersey, North Carolina, Mississippi and Indiana for the United States. Landfill rate: Australia are 2015 data, Ireland are 2012 data.

Source: OECD (2017), "Municipal waste", *OECD Environment Statistics* (database); OECD (2017), "Environmental policy instruments", *OECD Environment Statistics* (database).



[Home](#) > [Student from Abroad](#) > [International Student Guide](#) > Waste Collection Fee

Waste Collection Fee

Masaryk University is not responsible for this waste collection fee and is not able to provide further information. If you have any queries, please use the contact details below.

WHO PAYS

From 1 January 2013, the local fees for Brno municipal waste collection shall be paid by all foreign nationals (EU and non-EU) staying in Brno for **more than 3 months** (a detailed description is also available at [the City of Brno web pages](#)). The aforesaid are obliged to 1) pay the fee for the respective number of months and 2) report this fact to the fee administrator (read on).

This is only an informative list of details, the description in full is available at [the web pages of the City of Brno](#).




ACADEMIC CALENDAR

EXPLORE IT

PPP: guiding principle

'Pay as you throw' cuts waste and encourages recycling, French report finds

By Marine Jobert | Journal de l'environnement | translated by Samuel White  9. 3. 2016



Recycling habits improve with "pay as you throw" schemes. [KaliAntye/Shutterstock]

C-335/16 (VG Čistoća d.o.o. v Vladika)

- financing an urban waste management and disposal service
- the competent national authorities have a **wide discretion** with regard to determining how prices are calculated
- the price charged shall not result in the imposition on certain ‘holders’ of costs that are **manifestly disproportionate to the volume** or to the type of waste that they are liable to produce
- criteria relating to the type of property that the users occupy, its surface area and use, the productive capacity of the waste ‘holders’, **the volume of the containers provided to the users, and the frequency of collection**, in so far as those parameters are liable to have a direct impact on the amount of the costs of waste management and disposal.

Extended producer responsibility (EPR)

- duties of producers of **products from which the waste came**
 - *an acceptance of returned products*
 - *subsequent management of the waste and financial responsibility for such activities*
 - costs of waste management could be borne partly or wholly by the producer of the product
- **e.g.** packaging waste, end of life vehicles, batteries, electric and electronic equipment

Packaging waste

- packaging: „all products made of any materials of any nature to be used for the containment, protection, handling, delivery and presentation of goods“
- **technical requirements**
 - standards – concentration levels of heavy metals
- **recycling targets** for materials contained in packaging waste
 - collection systems - producer responsibility organisations
 - now: separate collection shall be set up for at least the following: paper, metal, plastic and glass (art. 11 WFD)
 - future: mandatory separate collection of bio-waste by 2024, textiles by 2025
 - obligation to offer re-usable packaging



Making bins more convenient boosts recycling and composting rates

Date: April 21, 2017

Source: University of British Columbia

Summary: Want to recycle or compost more? Try moving the bins closer, new research suggests. The study shows that placing bins 1.5 meters away from suite doors drastically boosts recycling and composting rates by 141 per cent. The findings highlight how small changes in convenience can have a big impact on performance.

Share: [f](#) [twitter](#) [G+](#) [p](#) [in](#) [✉](#)

RELATED TOPICS

Earth & Climate

- > Recycling and Waste
- > Environmental Issues
- > Sustainability
- > Environmental Science

Science & Society

- > Environmental Policies
- > Ocean Policy
- > Resource Shortage
- > World Development

FULL STORY

Placing bins 1.5 metres away from suite doors boosts recycling and composting rates by

141%



Placing bins 1.5 metres away from suite doors drastically boosts recycling and composting rates by 141 per cent.

Credit: University of British Columbia

Plastic carrier bags

- directive (EU) 2015/720 of 29 April 2015
- aim: **sustained reduction in the consumption of lightweight plastic carrier bags** (wall thickness below 50 micron)
 - *annual consumption level does not exceed 90 lightweight plastic carrier bags per person by 31 December 2019*
 - *or by 31 December 2018, lightweight plastic carrier bags are not provided free of charge at the point of sale of goods*

Experiences

England's plastic bag usage drops 85% since 5p charge introduced

Number of single-use bags handed out dropped to 500m in first six months since charge, compared with 7bn the previous year



EU Plastic strategy

- [directive \(EU\) 2019/904](#) on the reduction of the impact of certain plastic products on the environment



Consumption
reduction



Restrictions on
placing on the
market



Product
requirements



Marking
requirements



Separate collection

- re-usable alternatives
- payments

- 25 % recycled plastics

WMP&WPP

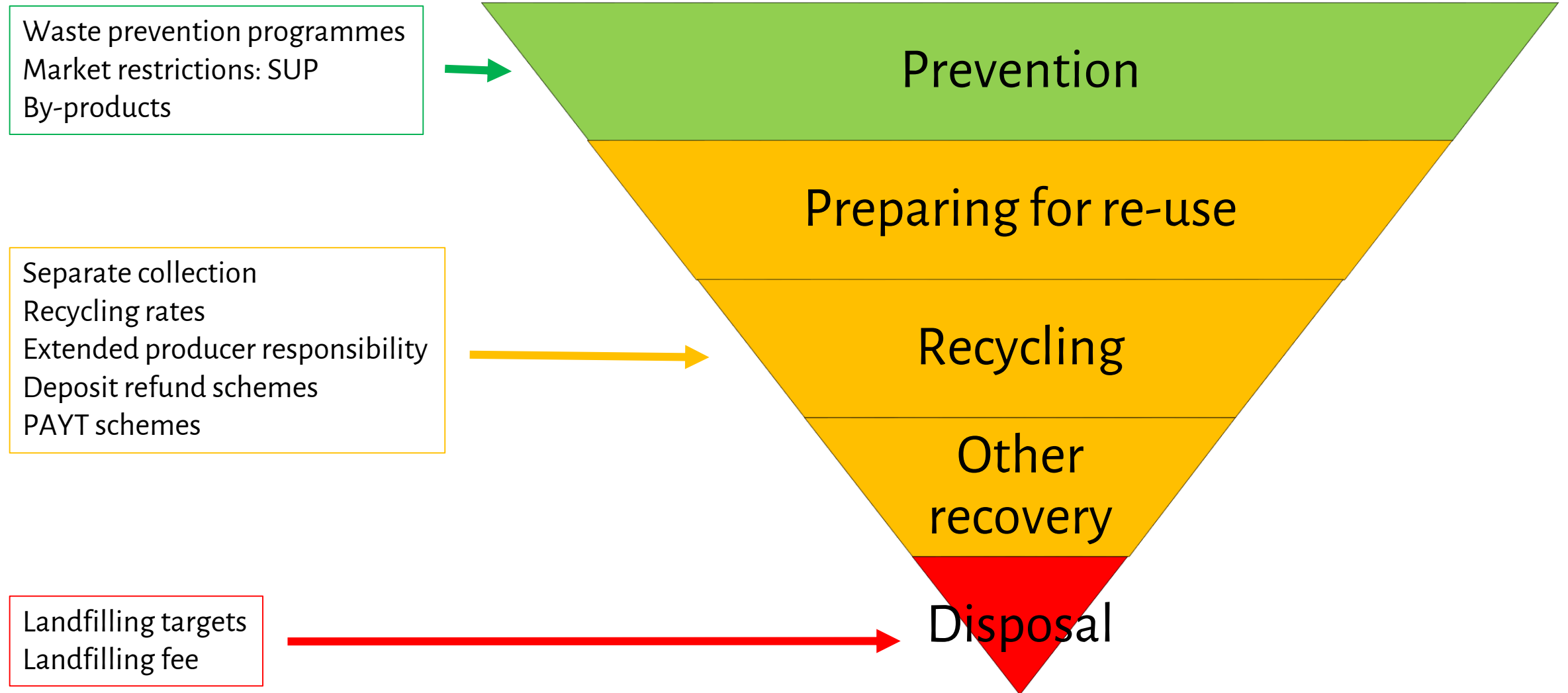
- **Waste management plans**

- *obligation of MS*
- *WMP shall cover the whole territory of the MS*
- *evaluation at least every sixth year ⇒ review*
- *targets&measures*

- **Waste prevention programmes**

- *separate document, integral part of WMP or other environmental policy programme*
- *description and evaluation of prevention measures*
 - *see Annex IV WFD: examples of waste prevention measures*

Summary



Shipment of waste

- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
- Basel Ban: no export of hazardous waste and waste for disposal to non-OECD countries
- **information procedure**
 - *waste has to be accompanied by documents signed by exporter and recovery facility*
 - *contract*
- ***notification procedure***

Notification procedure

- all waste for disposal
 - *including mixed municipal waste collected from private households*
- waste listed in certain Annexes
- notification through competent authority of dispatch
- prior consent of the authority of destination
 - *reasoned objection on the following reasons*
 - *disposal (art. 11) – bad record of notifier, such shipments would result in national waste having to be disposed; proximity principle*
 - *recovery (art. 12)*

Proximity principle

- C-292/12 (Ragn-Sells AS)
- *(63) Accordingly, in the case of waste destined for disposal operations and mixed municipal waste collected from private households and, as applicable, other producers, a Member State may confer on local authorities, on the geographical scale it deems appropriate, powers to manage the waste produced on their territory in order to ensure compliance with its obligations under Article 16 of Directive 2008/98. Those authorities may, as part of the powers conferred upon them, provide that those types of waste will be treated in the nearest appropriate facility.*

Other issues

- **enforcement**

- *penalties*
- *take-back obligation (art. 22-25)*
 - the shipment is illegal or cannot be completed
- *financial guarantee*
- *checks on shipment (art. 50)*
 - during the shipment – at frontiers – at the destination

- **shipment within MS**

- *appropriate system for supervision and control of shipment of waste*