



# **EU policy on organic resources and biowaste recycling in Europe – Challenges by implementing the Waste Framework Directive and the target review process**

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# Outline

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1. Existing European legislation on bio-waste
2. Support to implementation
3. Target Review - Background, Objectives, Method
4. Adaptation of the targets



# EU waste Legislation

# Thematic Strategy on Waste Prevention and Recycling

## Waste Framework Directive

(Includes Municipal and Construction Demolition waste)

## Waste Shipment Regulation

Incineration Directive

Landfill Directive

Recycling Standards  
(future)

Packaging

Batteries

WEEE &  
Restriction  
of use

Vehicles

Mining  
waste

Sewage  
Sludge

PCB/  
PCT

Framework

Treatment

Streams

*In Brown : with targets*

# Definitions

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## Bio-waste: (Waste Framework Directive)

*The "bio-waste" means:*

- *biodegradable garden and park waste,*
- *food and kitchen waste from households, restaurants, caterers and retail premises and*
- *comparable waste from food processing plants;*

## Biodegradable waste: (Landfill Directive)

*any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food and garden waste, and paper and paperboard;*

*Differences: Paper, Agri-waste, Forestry waste, Sewage sludge*

## Existing targets

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### Landfill diversion targets for biodegradable waste (compared to 1995 data)

- -25% in 2010
- -50% in 2013
- -65% in 2020

4 year derogation provided to 14 MS

### Municipal waste

- 50 % minimum recycling by 2020
- 4 calculation methods

# Separate Collection

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## Waste Framework Directive – Article 11

- Member States shall set up separate collection to ensure high quality recycling
- By 2015 separate collection should be set up at least for paper, metal, plastic and glass

## Separate collection of bio-waste (art. 22)

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*Member States shall take measures, as appropriate, and in accordance with Articles 4 and 13, to encourage:*

- the separate collection of bio-waste with a view to the composting and digestion of bio-waste;*
- the treatment of bio-waste in a way that fulfils a high level of environmental protection;*
- the use of environmentally safe materials produced from bio-waste.*





# Fertilizing requirements (including proposed changes)

# Compost standards for organic farming and standards for eco-label

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- Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91
- 2006/799/EC: Commission Decision of 3 November 2006 establishing revised ecological criteria and the related assessment and verification requirements for the award of the Community eco-label to soil improvers
- 2007/64/EC: Commission Decision of 15 December 2006 establishing revised ecological criteria and the related assessment and verification requirements for the award of the Community eco-label to growing media

## End of waste standards for bio-waste

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- The technical report is being prepared by Technical Working Group run by DG JRC/IPTS in Seville and is expected to be ready by the end of 2013. Last working document is available here:

<http://susproc.jrc.ec.europa.eu/activities/waste/documents>

- Based on this report the Commission will assess preparation of regulatory proposal, which could be adopted by Member States in 2014 (in comitology process).

# EoW proposal – draft

| Parameter | (1)<br>Minimum<br>organic<br>matter<br>content: | (2)<br>minimum<br>stability | (3) content of<br>pathogens                      |  | (4)<br>viable<br>weeds                 | (5)<br>macroscopic<br>impurities ><br>2mm (dry<br>sieving)          | (6) limits of heavy metals and organic pollutants: |     |    |     |     |    |     |                   |
|-----------|---|-----------------------------|--|--|--|---|--|-----|----|-----|-----|----|-----|-------------------|
|           |   |                             |  |  |  |   | Zn   | Cu  | Ni | Cd  | Pb  | Hg | Cr  | PAH <sub>16</sub> |
| Value     | 15% on dry<br>matter<br>weight                  | several<br>methods          | No<br><i>Salmonella</i><br>sp. in 25 g<br>sample | 1000<br>CFU/g<br>fresh<br>mass<br>for <i>E.</i><br><i>Coli</i> | 2 viable<br>weed<br>seeds<br>per litre | 0.5% on dry<br>matter weight<br>for glass,<br>metal and<br>plastics | 600  | 200 | 50 | 1.5 | 120 | 1  | 100 | 6                 |

## Revision of regulation 2003/2003/EC on fertilizers

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- ❑ The current Regulation deals with mineral fertilizers only and do not address environmental issues – the revised one is planned to introduce limit of contaminants and widen its scope also on following product groups (often made from waste):
  - Organic fertilisers
  - Soil improvers
  - Growing media
  
- ❑ Link to End of Waste – either inclusion (e.g. as Annex) or reference if EoW is ready before.
  
- ❑ Time planning: Legislative proposal in Autumn 2014  
further info at:  
<http://ec.europa.eu/enterprise/sectors/chemicals/documents/specific-chemicals/fertilisers/>



# Other related legislation



# Emission standards: Industrial Emissions Directive (2010/75/EC) replacing IPPC Directive

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Covers management and emissions from large composting and digestion plants dealing with waste.

Requirements: Integrated permit taking into account Best Available Techniques (BAT).

- **Best Available Technique Reference Document (BREF) – "Waste Treatment" - ....**

When biological treatment is covered?

- *Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day*
- *Recovery, or a mix of recovery and disposal, of non-hazardous waste with a capacity exceeding 75 tonnes per day*
- *When the only waste treatment activity carried out is anaerobic digestion, the capacity threshold for this activity shall be 100 tonnes per day.*



# Renewable energy

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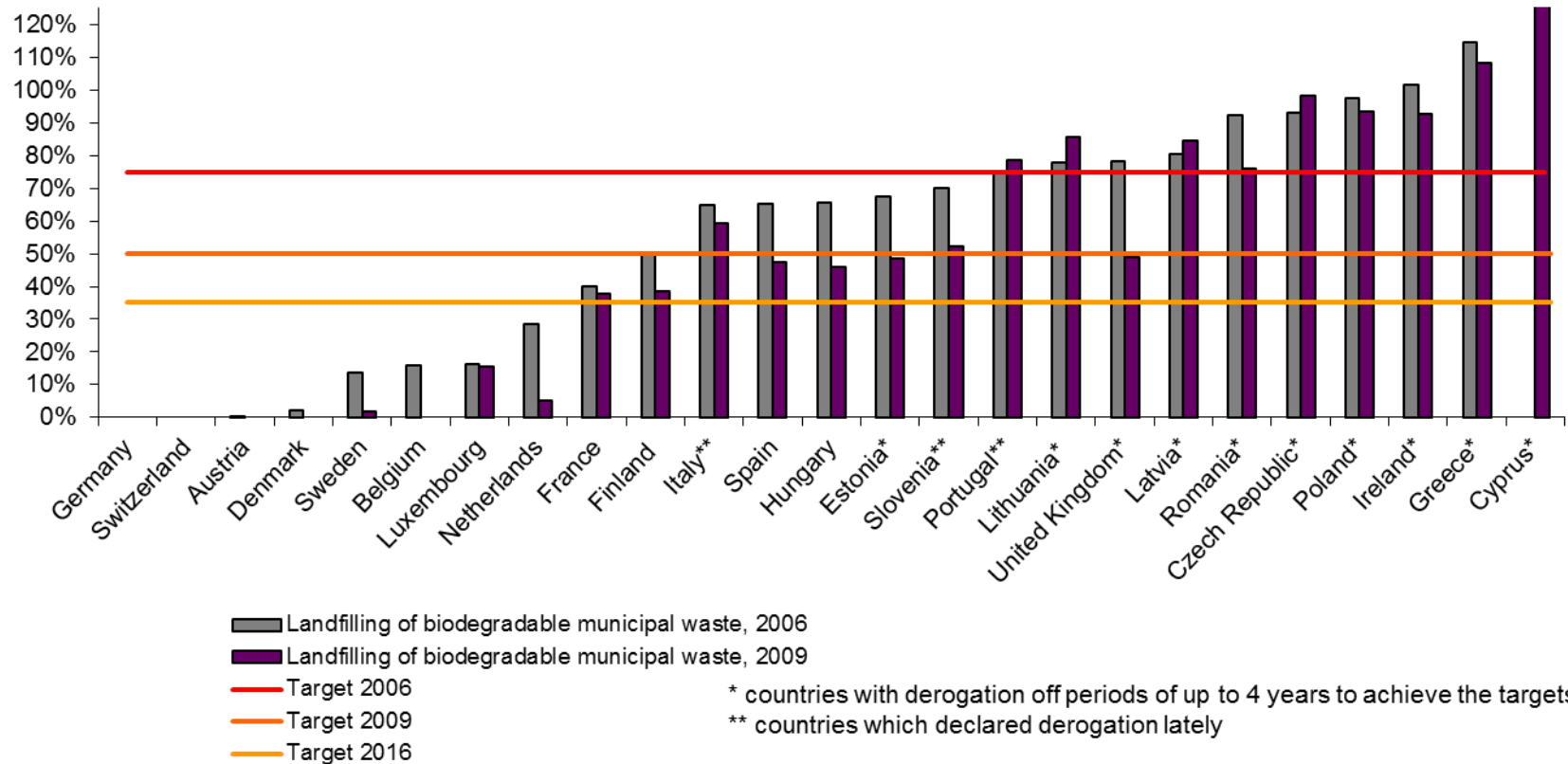
Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC.



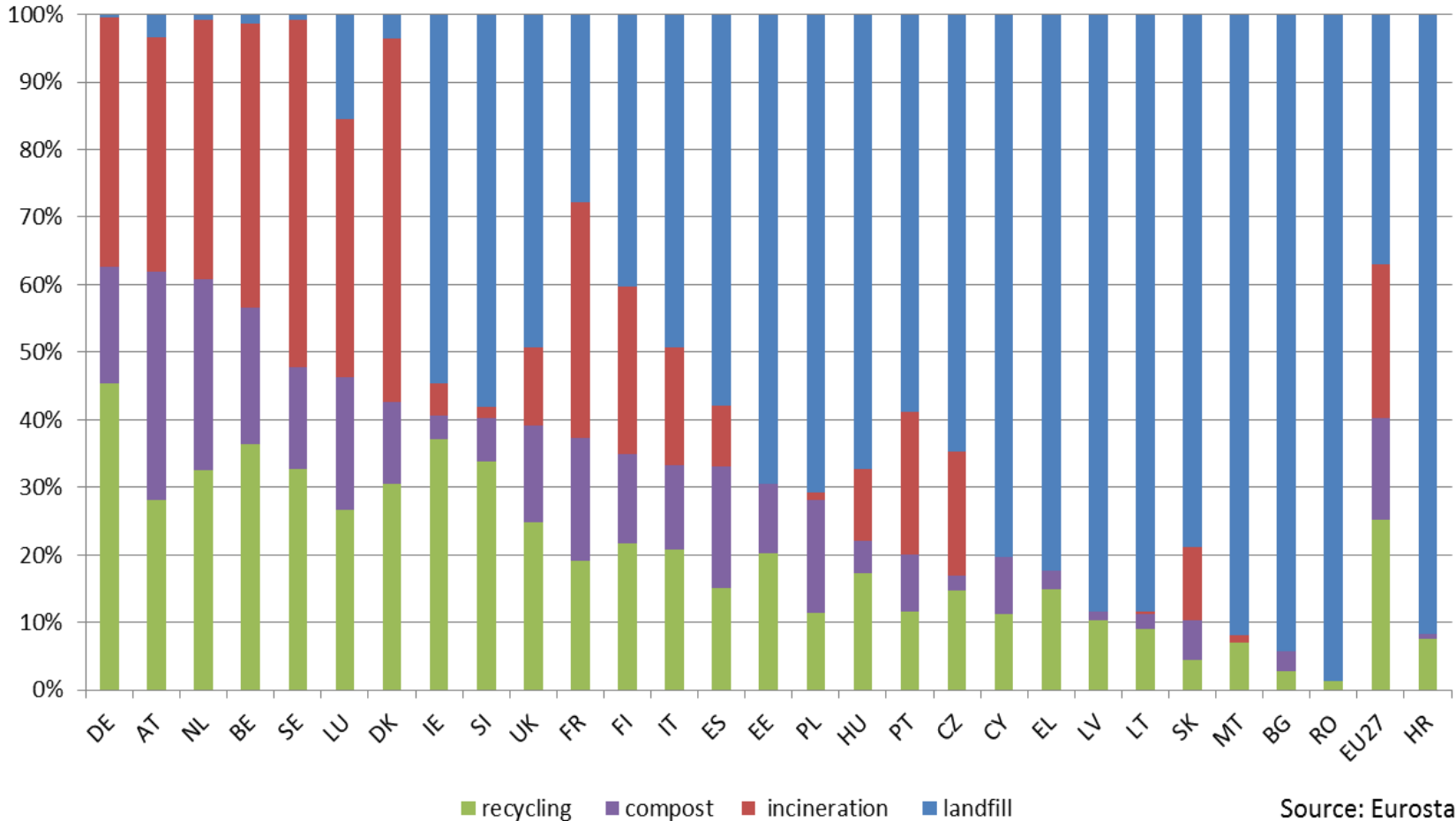


# Implementation

# Landfilling evolution – 2006-2009



## Municipal Waste Treatment (2011)



Source: Eurostat

## Things (slowly) moving in the right direction:

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- Over the past 10 years recycling + composting increased by 13% for the whole EU –from 27% to 40%
- During the same period, 13 % reduction of the landfilling rate – from 50% to 37%
- But still a long way to go – EEA report on municipal waste management: Extraordinary effort needed in a majority of MS to achieve the 50% recycling target
  - 9 MS: 2-4% increase per year
  - 7 MS: more than 4% per year

## What the statistics tell us:

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- Sharp differences amongst MS
- Recycling rate beyond or very close to the 50% target in some MS; in others, close to zero
- Landfilling virtually phased out in some MS; others still heavily relying on landfilling
- Problems persist everywhere: Incineration overcapacity in several MS with low landfilling and high recycling rates

# How to address implementation gap?

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*Compliance promotion initiative launched last year – focusing on:*

- Selected MS where distance to targets is bigger – and waste management not in line with the waste hierarchy
- Municipal waste (500 Kg of waste generated per capita/y)

Starting point: publication of a waste management scoreboard last summer assessing MS' performance against 18 criteria

|    | EU MS   |   | Criterion |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    | Overall score |
|----|---|---|-----------|-----|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---------------|
|    |   |   |           |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    |               |
|    | 1.1 Decoupling  |   |           |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    |               |
|    | 1.2 WPP   |   |           |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    |               |
|    | 1.3 Amount of municipal waste recycled  |   |           |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    |               |
|    | 1.4 Amount of municipal waste recovered (energy recovery)                                 |   |           |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    |               |
|    | 1.5 Amount of municipal waste disposed  |   |           |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    |               |
|    | 1.6 Development of municipal waste recycling  |   |           |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    |               |
|    | 2.1 Existence of ban/restrictions for the disposal of municipal waste into landfills      |   |           |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    |               |
|    | 2.2 Total typical charge for the disposal of municipal waste in a landfill                |   |           |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    |               |
|    | 2.3 Existence of pay-as-you-throw (PAYT) systems for municipal waste                      |   |           |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    |               |
|    | 3.1 Collection coverage for municipal waste   |   |           |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    |               |
|    | 3.2 Available treatment capacity for municipal waste                                      |   |           |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    |               |
|    | 3.3 Forecast of municipal waste generation and treatment capacity in the WMP              |   |           |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    |               |
|    | 3.4 Existence and quality of projection of municipal waste generation and treatment       |   |           |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    |               |
|    | 3.5 Compliance of existing landfills for non-hazardous waste                              |   |           |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    |               |
|    | 4.1 Fulfilment of the targets related to biodegradable municipal waste going to landfills |   |           |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    |               |
|    | 4.2 Rate of biodegradable municipal waste going to landfills                              |   |           |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    |               |
|    | 5.1 Number of infringement procedures – WFD and Landfill Directives                       |   |           |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    |               |
|    | 5.2 Number of court cases – WFD and Landfill Directives                                   |   |           |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |    |               |
| CZ | 2   | 0 | 0 D       | 1 D | 1 D | 2 | 0 | 1 | 1 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 18 |               |
| PL | 1   | 2 | 1 D       | 0 D | 1 D | 2 | 1 | 1 | 1 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 18 |               |
| EE | 2   | 0 | 1 D       | 0 D | 0 D | 0 | 1 | 1 | 1 | 0 | 2 | 0 | 1 | 2 | 2 | 1 | 1 | 1 | 17 |               |
| SK | 2   | 0 | 0 D       | 1 D | 0 D | 1 | 1 | 0 | 1 | 2 | 2 | 0 | 0 | 1 | 2 | 1 | 1 | 1 | 17 |               |
| IT | 0   | 0 | 1 D       | 1 D | 1 D | 0 | 1 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 15 |               |
| LV | 2   | 0 | 0 D       | 0 D | 0 D | 1 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 2 | 0 | 0 | 2 | 2 | 14 |               |
| CY | 0   | 0 | 1 D       | 0 D | 0 D | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 2 | 11 |               |
| RO | 2   | 0 | 0 D       | 0 D | 0 D | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 2 | 2 | 11 |               |
| LT | 2   | 0 | 0 D       | 0 D | 0 D | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 9  |               |
| MT | 0   | 0 | 0 D       | 0 D | 0 D | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 2 | 9  |               |
| BG | 2   | 0 | 0 D       | 0 D | 0 D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 2 | 8  |               |
| GR | 1   | 0 | 0 D       | 0 D | 0 D | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3  |               |

Note: Scores for the criteria 1.3, 1.4 and 1.5 (marked with 'D') are doubled for overall scoring

# What is the Commission doing?

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- *Seminars held in the 10 selected MS and final seminar in Brussels in March*
- *For each MS, 'Roadmap' with specific recommendations to improve waste management:*
  - More separate collection (especially of bio-waste)
  - Increase use of economic instruments (landfill taxes, PAYT schemes)
  - Extend and improve the cost-effectiveness of EPR schemes
  - Address institutional obstacles (co-operation with and among municipalities)
  - Improve data collection statistics and analysis of impacts, as a basis for the development of WMPs



## What is the Commission doing (part 2)?

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This compliance-promotion initiative not one-off shot – planned follow-up:

- Assessment of Waste Management (and Prevention) Plans;
- Monitoring of developments in the 10 MS;
- Extension to other MS with poor performance levels.
  
- Finally – stronger financial link - better link of EU cohesion funds to country performance (conditionality criteria) and waste hierarchy. No more financing of landfills, problematic financing of non-recycling operations.



# Target Review

Background and objectives,

# Target Review

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## **Legal background**

- Review clauses in 3 Directives by 2014 (Waste Framework Directive (art 11.4), Landfill Directive (art 5.2) and Packaging Directive (art 6.5))

## **Strategic documents:**

- Roadmap on Resource Efficiency
- 7<sup>th</sup> EAP (strategic targets for 2020)

# Roadmap on Resource Efficiency

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## 2020 "aspirational" objectives

- Full implementation of the EU waste acquis
- Waste generation per capita in decline
- Recycling and reuse are economically attractive and at 'max feasible level'
- Energy recovery limited to non-recyclable materials
- Landfilling virtually eliminated

## 7<sup>th</sup> EAP – 2020 objectives

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- Absolute waste generation and waste generated per capita in decline;
- Strategy to combat food waste and increase composting/biomethanisation;
- Energy recovery limited to non-recyclable materials;
- Phasing out landfilling (limited to non-recyclable and non-recoverable) waste, taking into account existing time derogations
- Use of market based instruments, full implementation of the legislation



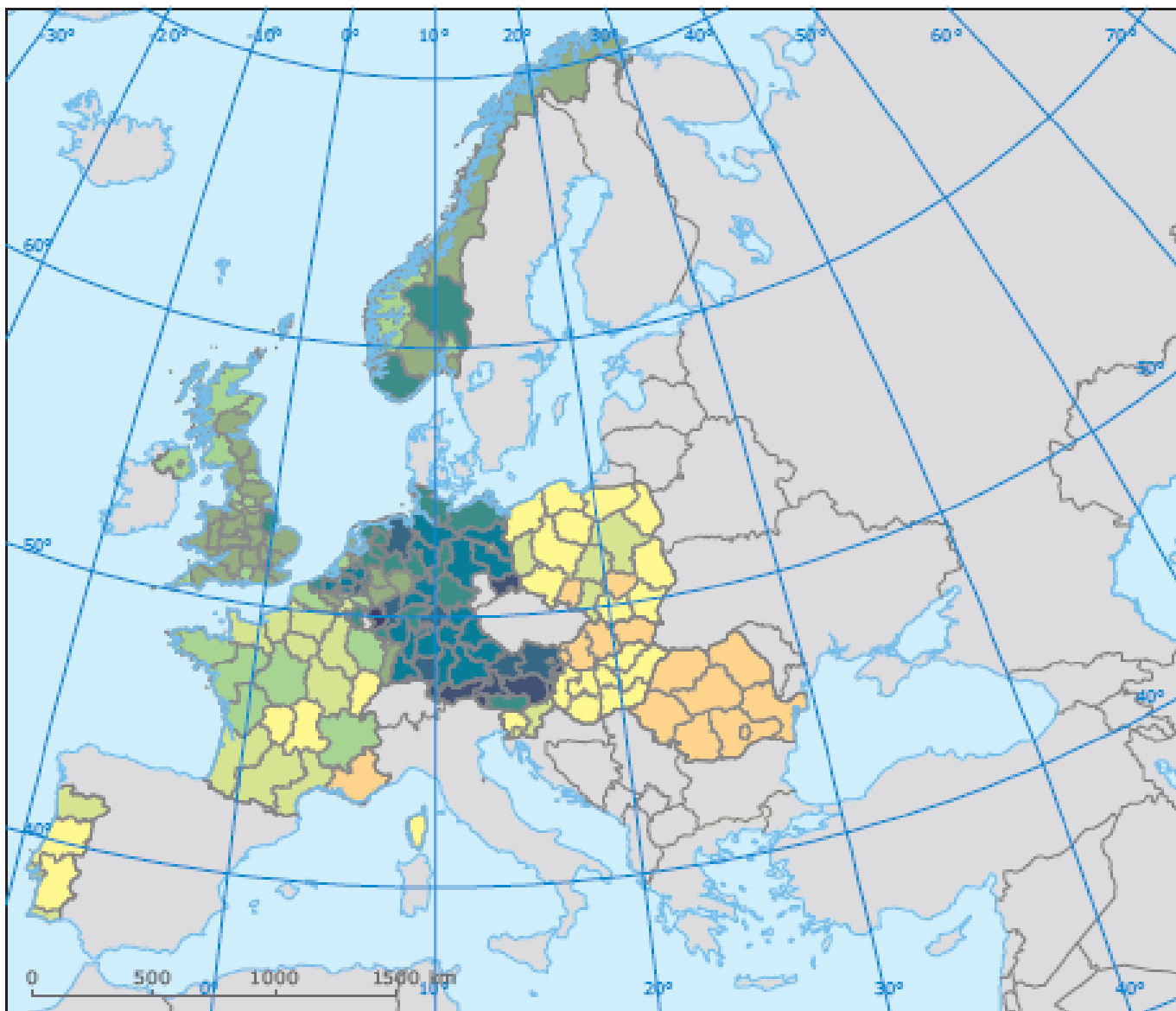
# Target adaptation

|   | <b>Municipal Solid Waste<br/>(MSW)</b> |
|---|--|
| <b>EU 2020 Target (4 methods)</b>   | 50 %                                   |
| <b>EU Average (2011)<br/>(method: all MSW)</b>  | 38 % (EU28)                            |
| <b>EU Top 3 (2011)<br/>(method: all MSW)</b>  | 59 %                                   |
| <b>MS &gt; 50% target (2011)<br/>(method: all MSW)</b>                                | 4                                      |
| <b>MS &gt; 50% target in 2020<br/>(method: all MSW, based on<br/>EEA projections)</b> | 9 to 16                                |

|         | <b>% in the past<br/>(and when)</b> | <b>current %<br/>(and when)</b> | <b>Average per year</b>      | <b>Source</b>                  |
|---------|-------------------------------------|---------------------------------|------------------------------|--------------------------------|
| Austria | 62 %<br>(1989)                      | 3 %<br>(2009)                   | 2,95 %<br>(-59% in 20 years) | Study on economic instruments  |
| NL      | 30 %<br>(2001)                      | 3 %<br>(2005)                   | 1,35 %<br>(-27% in 20 years) | Eurostat 2010                  |
| Sweden  | 63 %<br>(1975)                      | 5 %<br>(2005)                   | 1,93 %<br>(58 % in 30 years) | SE sources<br>Eurostat 2010    |
| Denmark | 39 %<br>(1985)                      | 6 %<br>(2005)                   | 1,65 %<br>(33 % in 20 years) | ETC/SCP,<br>2012,Eurostat 2010 |
| Germany | 39 %<br>(1995)                      | 1 %<br>(2006)                   | 3,45 %<br>(38 % in 11 years) | Eurostat 2010                  |
| Belgium | 44 %<br>(1995)                      | 5 %<br>(2006)                   | 3,55<br>(39 % in 11 years)   | Eurostat 2010                  |

## **Evolution of landfilling of municipal waste in leading MS**



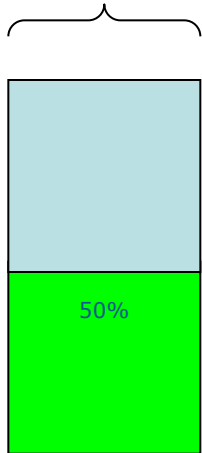


Sources:  
EEA on  
the  
basis of  
Estat,  
2010

**Recycling of municipal waste, 2008/2009**

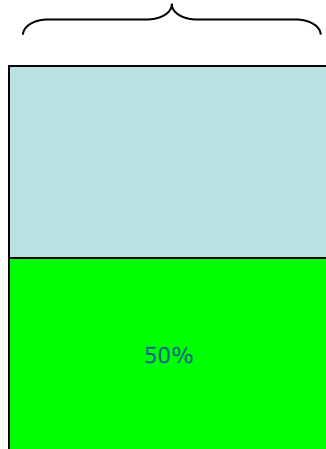


**minimum  
of overall**



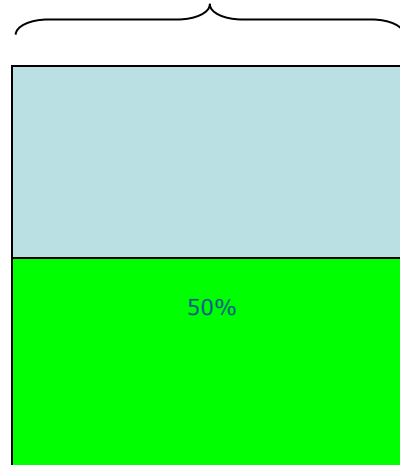
**paper,  
glass,  
metal,  
plastic**

**minimum  
of overall**



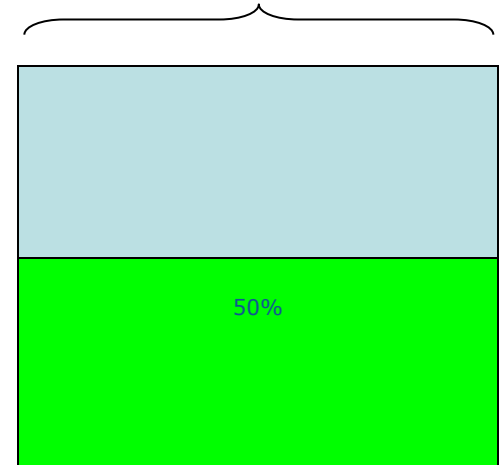
**paper,  
glass,  
metal,  
plastic  
+  
other  
household  
or similar  
waste  
streams**

**minimum  
of overall**



**all household  
waste**

**minimum  
of overall**



**All waste from  
households +  
all similar waste  
streams =  
all municipal waste**

## MS options to calculate the 50% target

*(2011/753/EU: Commission Decision of 18 November 2011 establishing rules and calculation methods for verifying compliance with the targets set in Article 11(2) of Directive 2008/98/EC )*

## Open questions:

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- Are existing targets appropriate? Is it necessary to clarify/adjust/strengthen them?
- Need for additional targets on prevention, limits on energy recovery or landfilling?
- Need for targets for other waste streams or for other categories of waste?
- Overlaps and scope for simplification? E.g. one target instead of 3.

# Open questions – details:

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- Targets on recycling or maybe on residual waste?
- Targets calculation methods - 1 method/4 methods?
- Time horizon – 2020, 2025, 2030?
- Same target for all MS or relative targets?

# Target Review - timeline

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- On-going public consultation (closed on 10/9)
  - List of options to be considered – end of 2013
  - Impact assessment – early 2014
  - Legislative proposal in 2014
- 
- ❑ Supporting action: Modelling of waste generation (in cooperation with EEA)
  - ❑ Additional supporting actions: Fitness Check, study on Extended Producer Responsibility, Green paper on plastics, Marine litter study

# Thank you for your attention !

## **Additional sources of information:**

DG ENV "waste" website:

<http://ec.europa.eu/environment//waste/index.htm>

Study on Economic Instruments:

<http://ec.europa.eu/environment/waste/use.htm>

Additional study on EPR: <http://epr.eu-smr.eu/>

Public consultation on target review:

[http://ec.europa.eu/environment/consultations/waste\\_targets\\_en.htm](http://ec.europa.eu/environment/consultations/waste_targets_en.htm)