

# Responsible Management of Pesticide Packaging

## CMS Collection data 2018

ECPA  
Packaging Expert Group

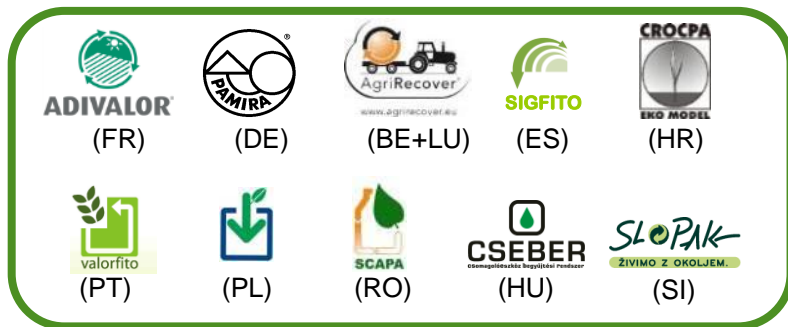
November 2019



# Container Management Strategies

## Overview of CMS in Europe

### Nationwide industry run CMS (“EU11”)



### Industry run pilot CMS

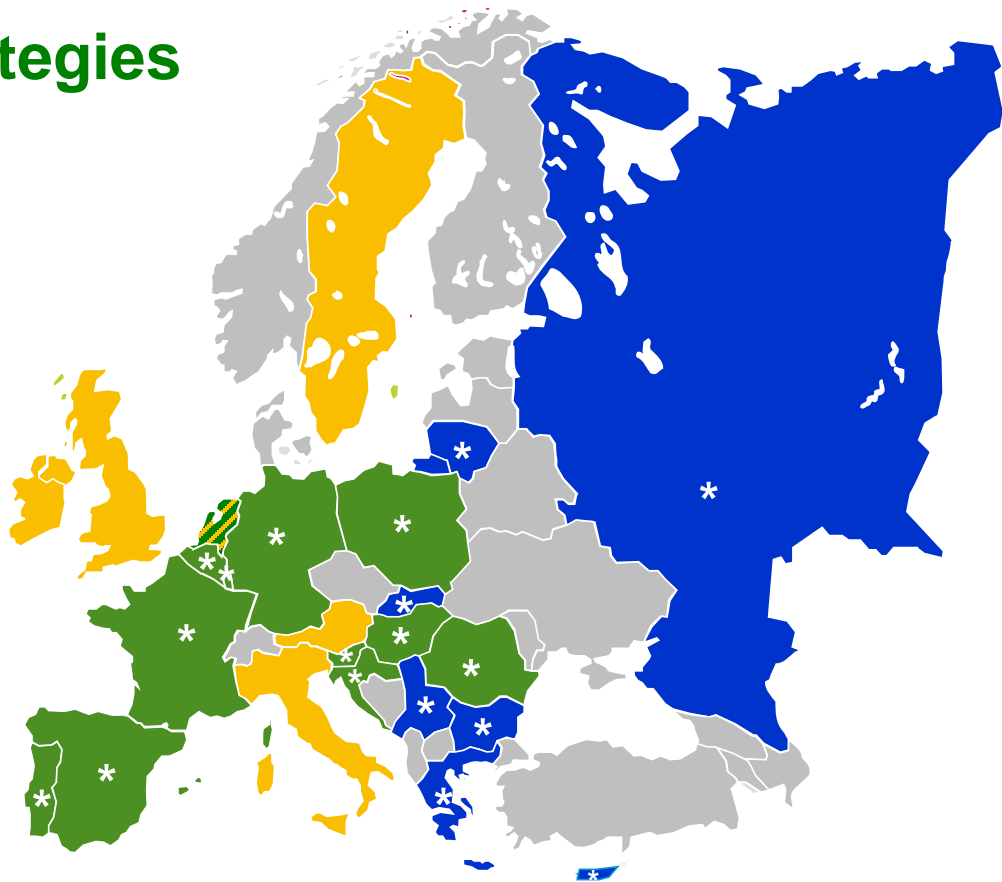


### Countries with independent collection programme(s), joint by industry. E.g.:



Countries with no (known) dedicated CMS. Pesticide packaging waste are collected via collection systems for domestic or special / industrial wastes (tbc!)

\* “EU18” countries covered by annual ECPA statistics (=EU11 + 7 pilots). In addition, Italy, Sweden and Netherland also provided partial collection data.



# Container Management Project

## Aims and Overall Objectives

### KPIs and Timeframe (Plastics)

	By 2015	From 2020
European collection rate	> 60%	> 75%
% country CMS coverage		100%
Ecological footprint (recycling rate)	> 60%	> 75%
Cost/kg		< 0,70€



## KPIs of benchmarked CM Systems



# CMS Statistic

## General comments and warnings

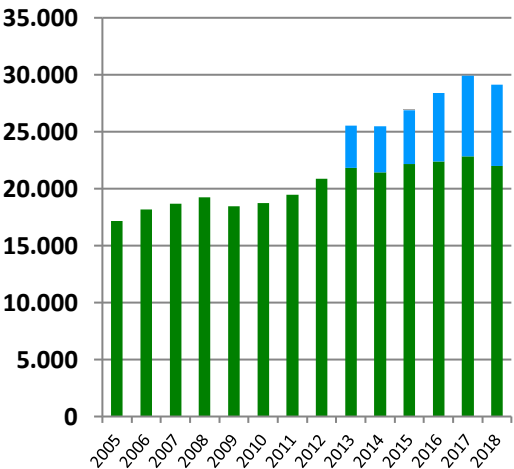


- These figures are still in preliminary stage as some information from countries are still not complete/clarified. This is especially true for cost figures.
- Figures originate from information provided by benchmarked countries or studies (e.g. Italy)
- Reference data changes due to inclusion of new countries (e.g. Romania in 2007; 6 pilot countries in 2013-2015), new studies, etc.
- Quality of data varies and data harmonization between countries is sometimes difficult (e.g. definition of total cost; not all can provide data specific to rigid plastics containers – the reference pack for our KPIs) and requires in-depth review work.
- There are other routes of disposal (e. g. municipal schemes)
- Thus, the benchmark figures cover a subset of systems and the overall coverage is probably higher
- The data illustrate trends!**

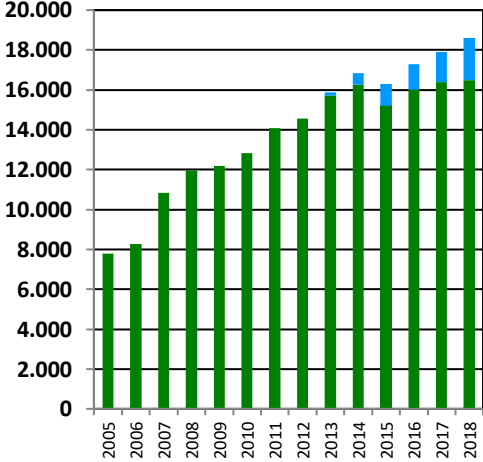
# Container Management EU18\*

## Synopsis 2005 – 2018

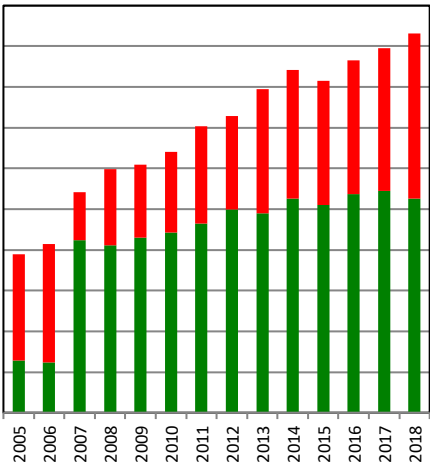
Quantity shipped  
**Mature / Pilots**  
[Plastics; To]



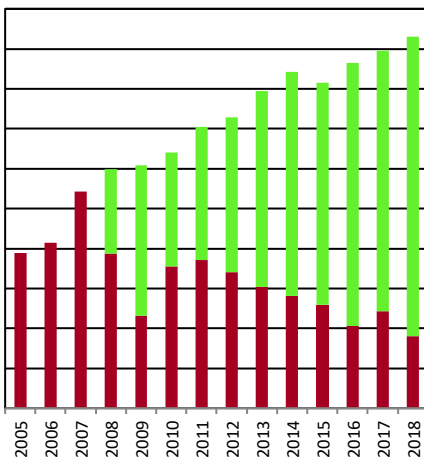
Quantity collected **Mature / Pilots**  
[Plastics; To]



Waste classification  
**Non-hazardous / Hazardous**

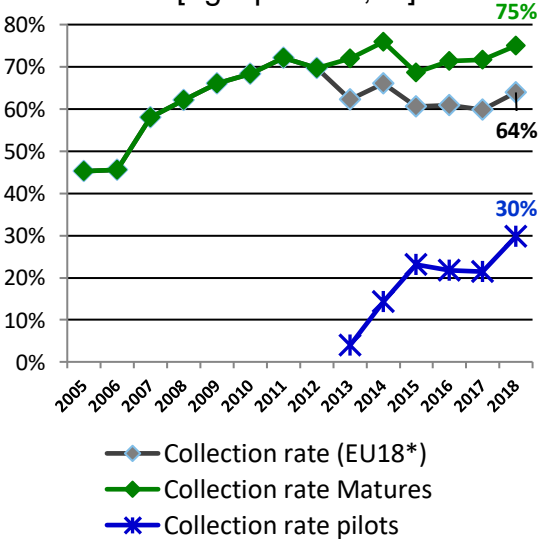


Treatment:  
**Recycled / Not recycled**

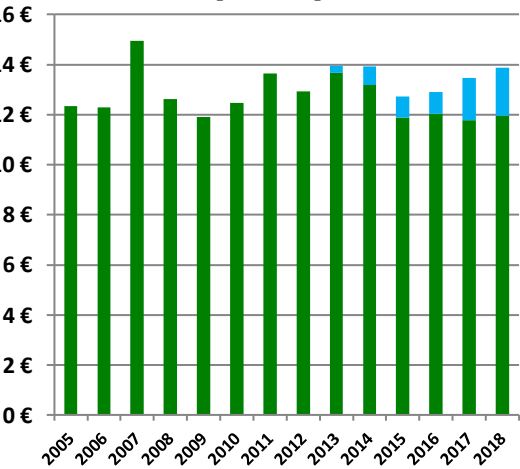


\*EU18 monitored countries

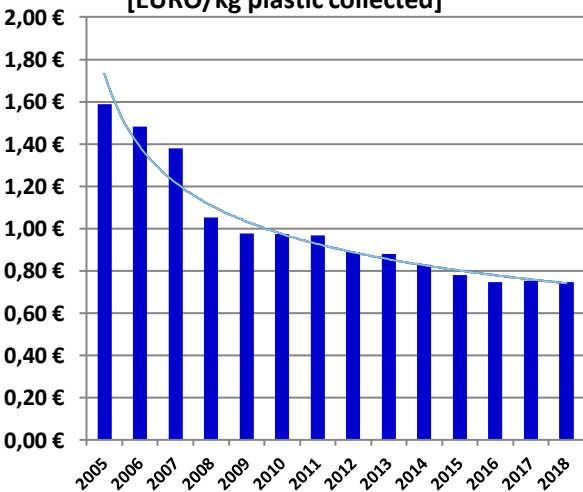
Collection rate  
[rigid plastics; %]



TOTAL CMS COST  
(**Mature & Pilots**)  
[MEuro]



Unit cost plastics  
(Matures + Pilots)  
[EURO/kg plastic collected]



**Pilots:**  
Bulgaria  
Cyprus  
Greece  
Lithuania  
Russia  
Serbia  
Slovakia

**Matures:**  
Belgium  
Croatia  
France  
Germany  
Hungary  
Luxembourg  
Poland  
Portugal  
Romania  
Spain  
Slovenia

# Container Management EU18

Synopsis 2005 – 2018: Trends



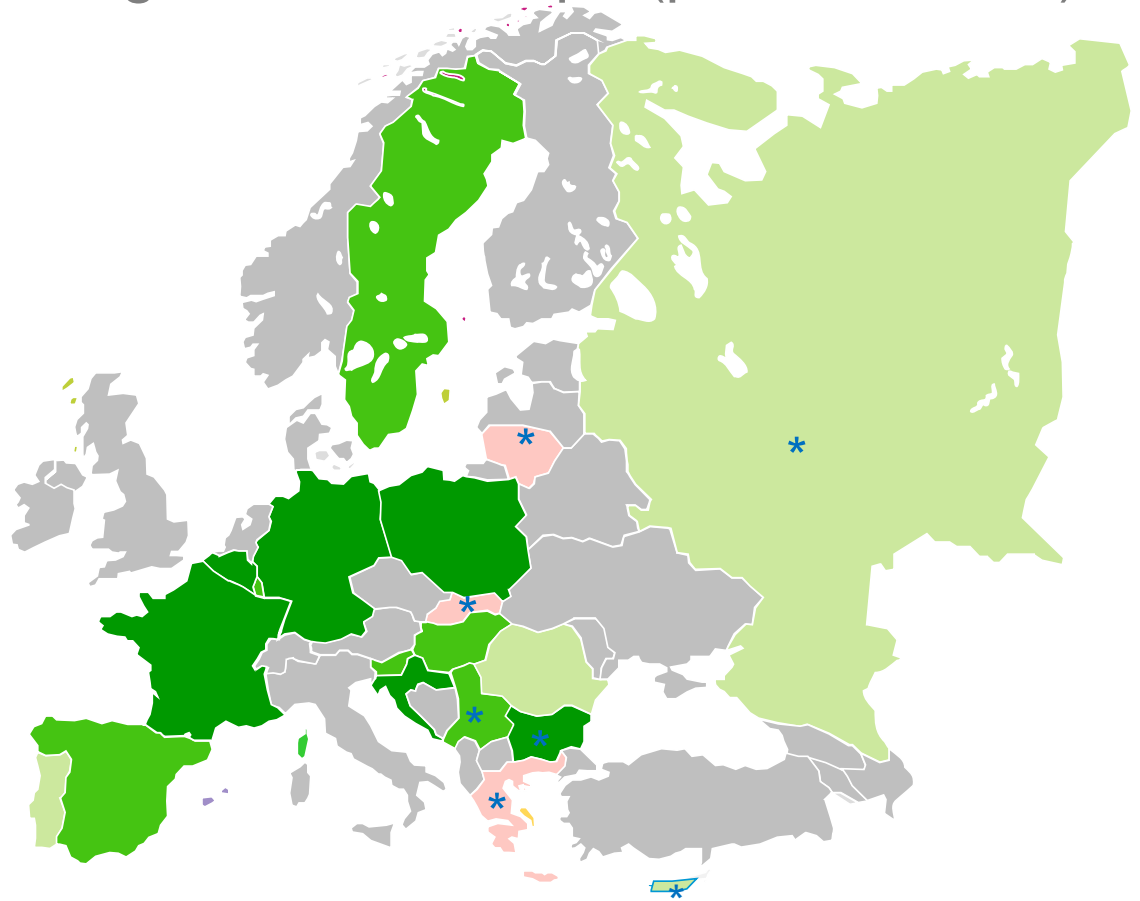
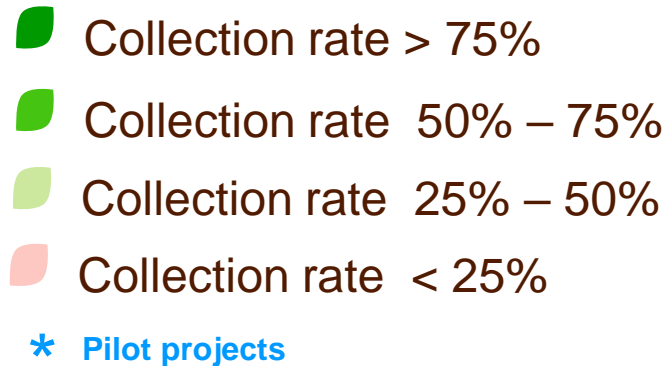
## Trends EU18 (2018; plastics)

- Increase of total **quantity of plastics collected**  
**18,6 kto** (PY: 17.9 kto)
- Increase of **collection rate**  
**63.9%** (PY: 59,1%)
- Sharp increase of quantity of **recyclates** and of **recycling rate**  
**15.0 kto; 80.6%** (PY: 13.0 kto; 72.9%)
- Increase of **overall cost**  
**13.8 M€** (PY: 13.5 M€)
- Similar **unit CMS cost (€/kg collected)**  
**0.75 €/kg** (PY: 0.75 €/kg)

Data 2018 (rigid plastics!) (vs. 2017)	Matures ("EU11")	Pilots (7)		EU18
Tonnes rigid <b>plastics shipped</b> to market	22 018 (-3,6 %)	7 119 (+0.3%)		<b>29 137 (-2.7%)</b>
Tonnes <b>plastics collected</b>	16 507 (+0.8 %)	2 118 (+39.1%)		<b>18 624 (+4,0%)</b>
Tonnes <b>plastic recycled</b>	13 087 (+11.7 %)	1 928 (+43.8%)		<b>15 010 (+15.0%)</b>
Overall <b>collection rate</b>	75.0% (+4.6%)	29.7 % (+38.7%)	+	<b>63.9% (6.9%)</b>
Overall <b>recycling rate</b>	79.3% (10.8%)	91,0% (+3,4%)	=	<b>80.6% (10.5%)</b>
k€ <b>Total cost (plastics!)</b>	11 948 (+1.4%)	1 940 (+16%)		<b>13.888 (+3.2%)</b>
€/kg average <b>cost per kg plastics collected</b>	0.72 (+0.6%)	0.92 (-17%)		<b>0.75 (-0,8%)</b>

# Container Management EU18

Overview of Container Management in Europe (plastics; 2018)



## Contributions to the Circular Economy and the EU Plastics Strategy:

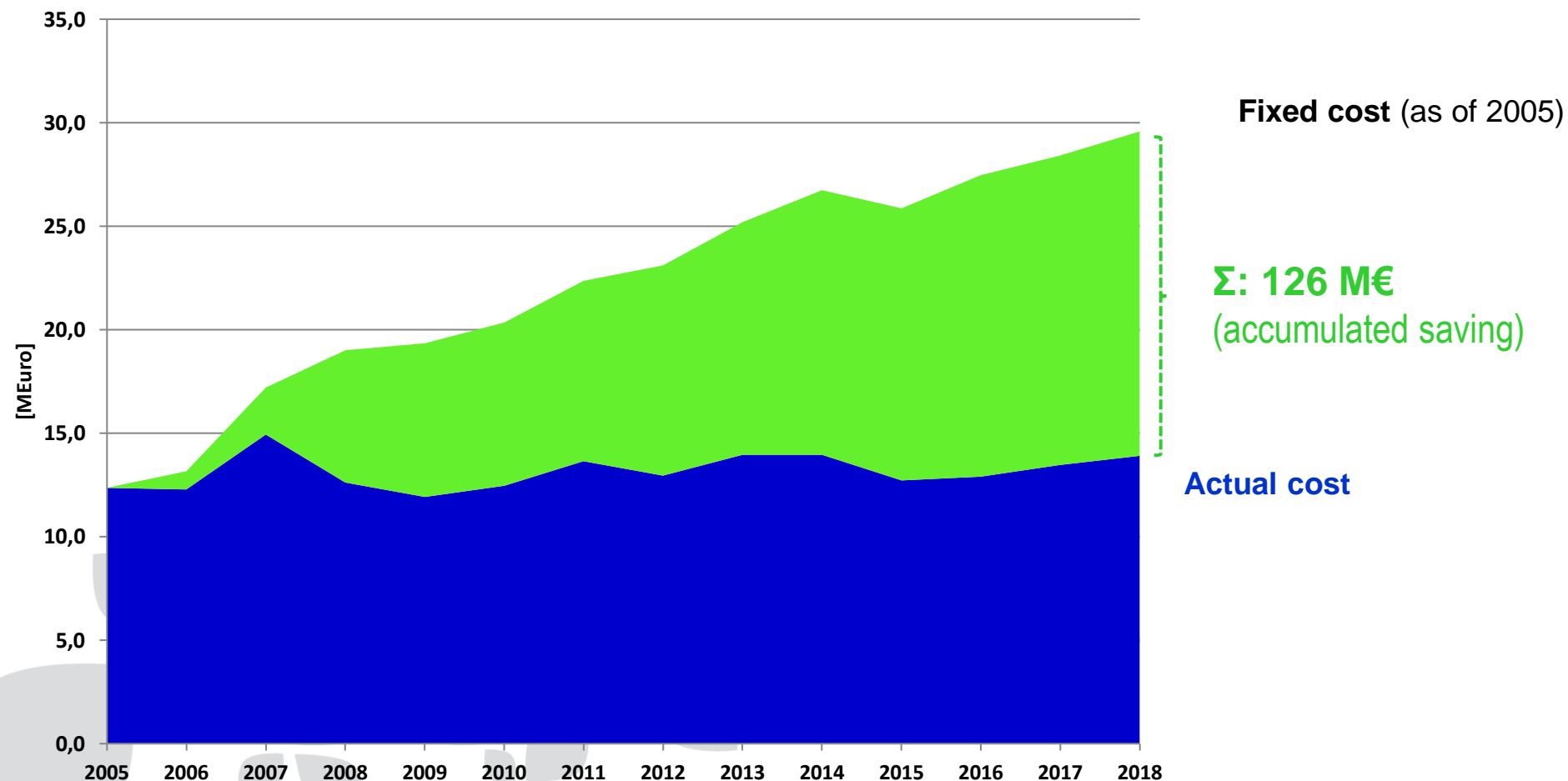
- Reduction of risks at the source (packaging design; rinsing; separate collection)
- Collected over 200,000 metric tonnes of packaging since 2005
- Recycled over 100,000 metric tonnes of high valuable plastics in safe applications since 2005



# CMS Europe EU18: Cost reduction

Actual cost vs. cost development with fixed specific cost of 2005 (1,59€/kg)

## Total estimated cost reduction 2015 - 2018



# Container Management Project

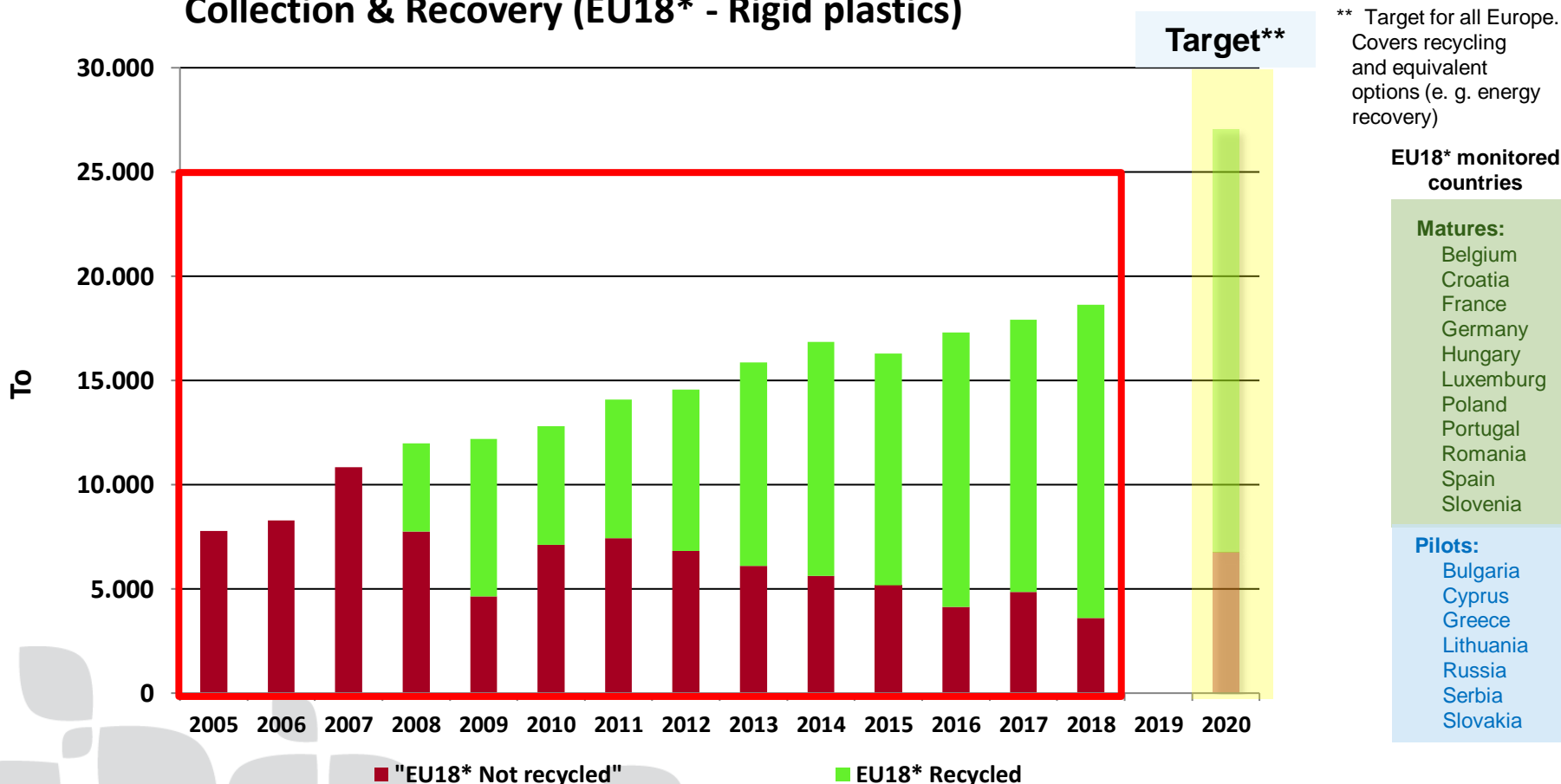
## CM Project - Roadmap



# Container Management Project

## Aims and Overall Objectives

### Collection & Recovery (EU18\* - Rigid plastics)



#### Note:

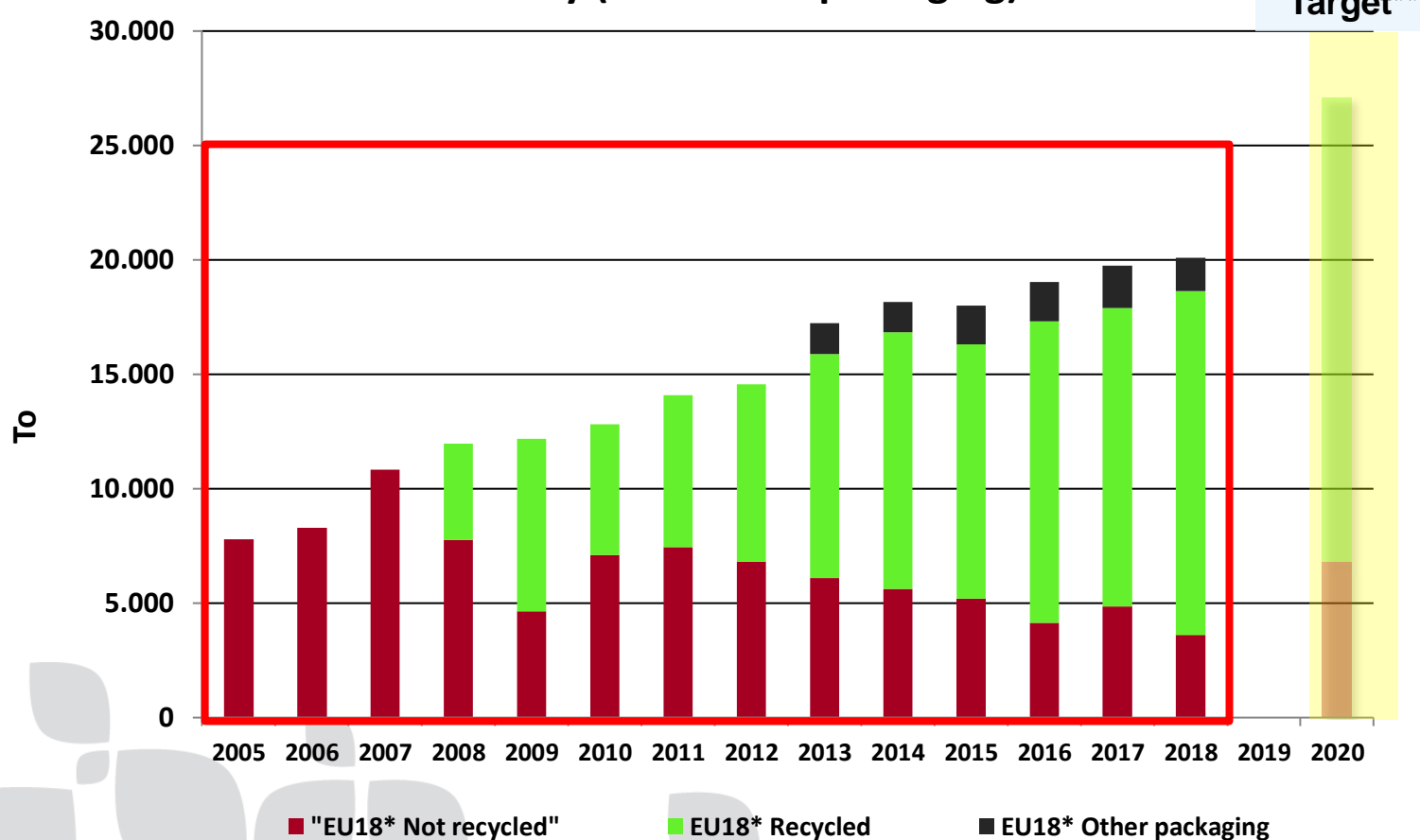
- Figures cover benchmarked countries (EU18\*) only
- Only plastic containers
- The total amount of collected material may be higher due to other routes of collection

# Container Management Project

## Aims and Overall Objectives



### Collection & Recovery (EU18\* - all packaging)



\*\* Target for all Europe. Covers recycling and equivalent options (e. g. energy recovery)

#### EU18\* monitored countries

##### Matures:

Belgium  
Croatia  
France  
Germany  
Hungary  
Luxembourg  
Poland  
Portugal  
Romania  
Spain  
Slovenia

##### Pilots:

Bulgaria  
Cyprus  
Greece  
Lithuania  
Russia  
Serbia  
Slovakia

#### Note:

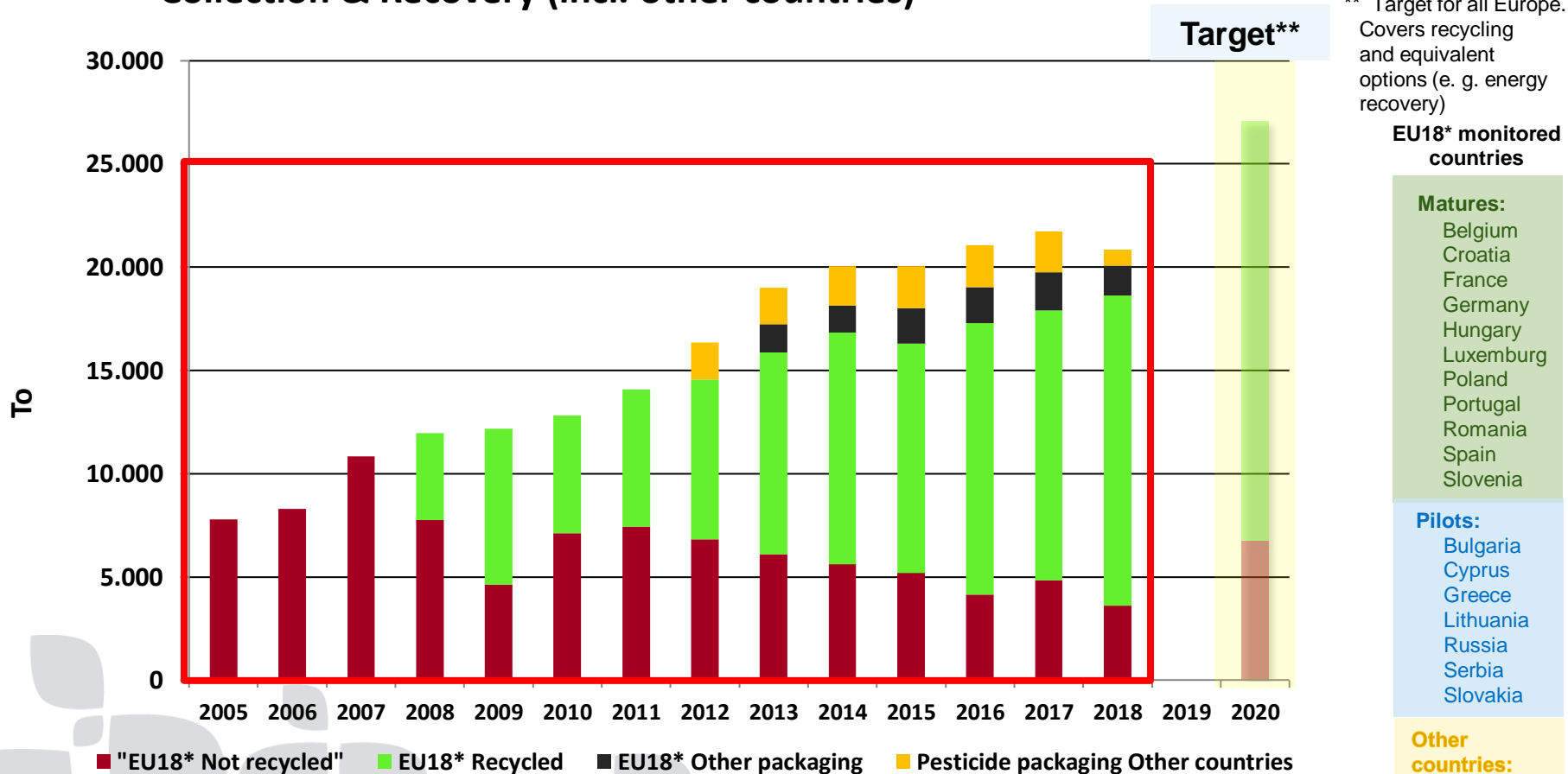
- Figures cover benchmarked countries (EU18\*) only
- The total amount of collected material may be higher due to other routes of collection

# Container Management Project

## Aims and Overall Objectives



### Collection & Recovery (incl. other countries)



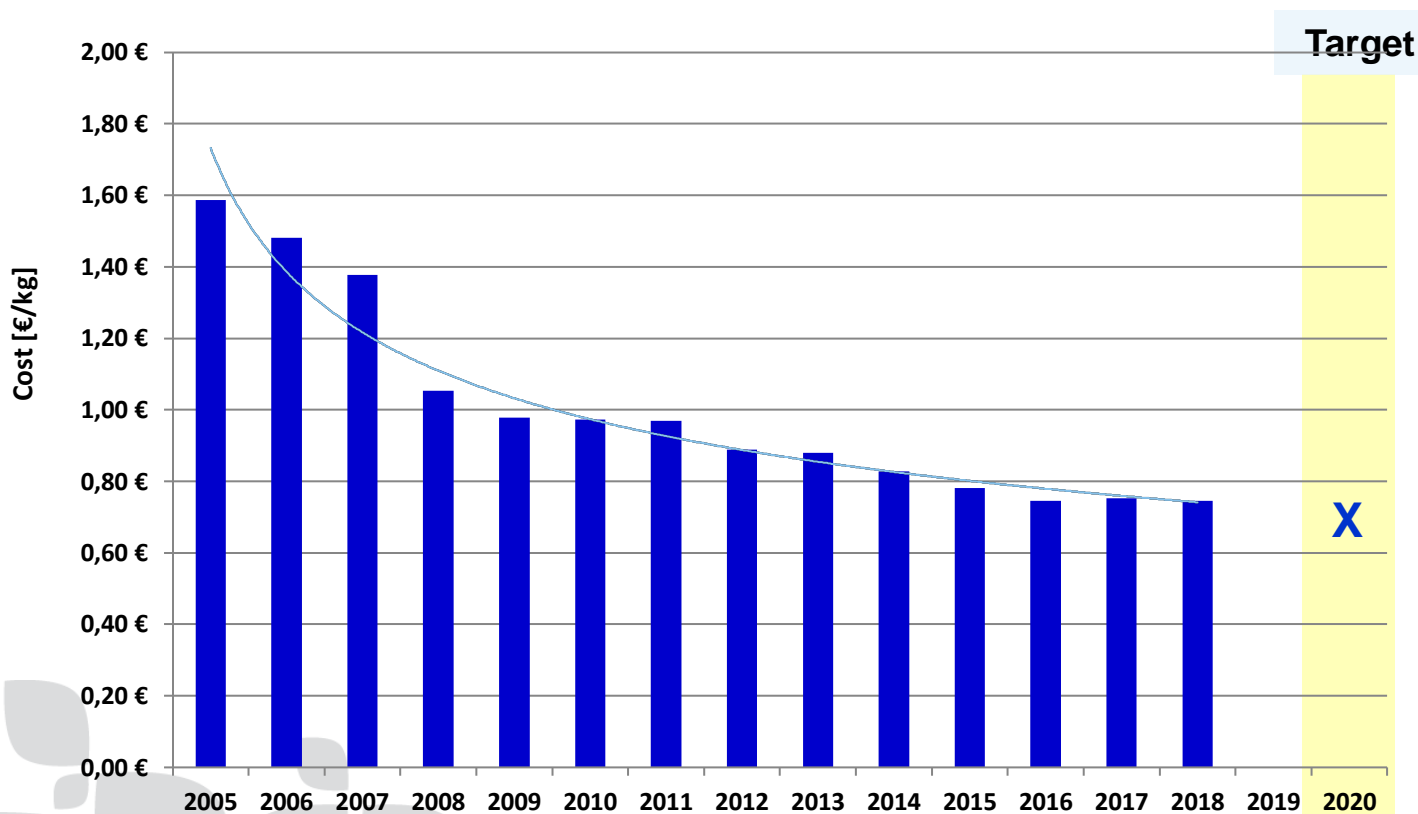
#### Note:

- Data from "Other countries" are very limited and inhomogeneous. It might only consider some packaging types (e.g. from most toxic products in NL)
- The total amount of collected material may be higher due to other routes of collection.

# Container Management Project

## Aims and Overall Objectives

Unit cost (EU18\*, rigid plastics))  
[€/kg plastic collected]



**\*EU18 monitored countries**

**Matures:**

Belgium  
Croatia  
France  
Germany  
Hungary  
Luxemburg  
Poland  
Portugal  
Romania  
Spain  
Slovenia

**Pilots:**

Bulgaria  
Cyprus  
Greece  
Lithuania  
Russia  
Serbia  
Slovakia  
(since 2013)

**Note:**

- Figures cover benchmarked countries (EU18\*) only
- Only plastic containers
- The total amount of collected material may be higher due to other routes of collection

# Survey: impact of waste classification



# Container Management Project

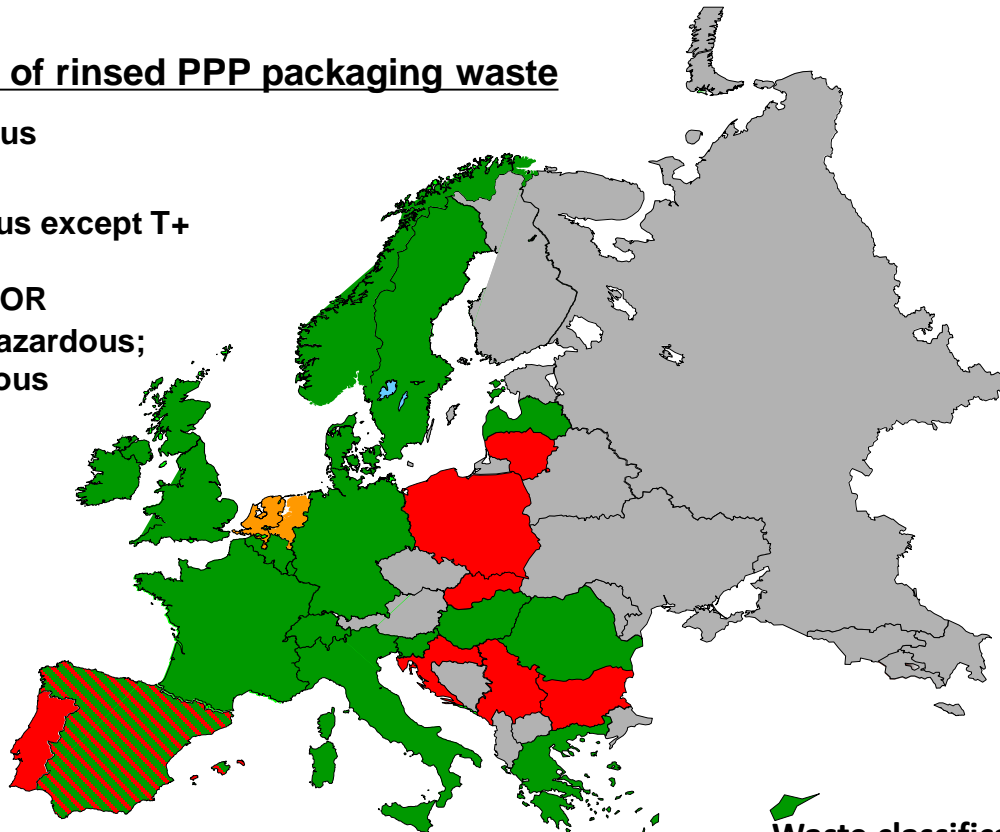
## Classification of rinsed PCR in Europe

### Classification of rinsed PPP packaging waste

- non hazardous
- hazardous
- non hazardous except T+
- unclear

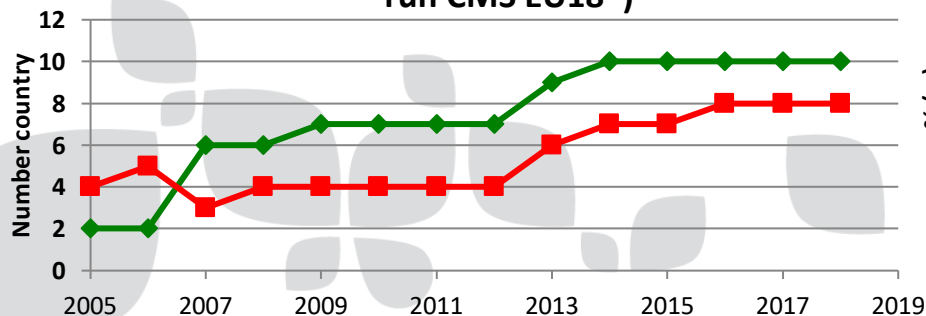
France: ADIVALOR

- ≤20 t non hazardous;
- >20 t hazardous



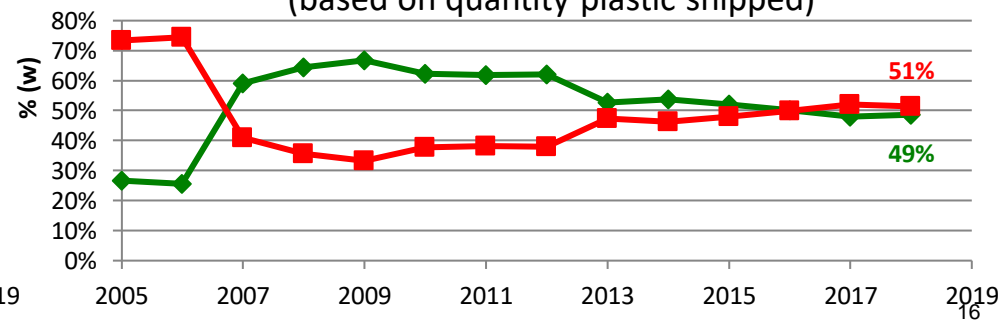
Source: ECPA CMS survey 2019

Waste classification in countries with industry-run CMS (EU18\*)



Waste classification in countries with industry-run CMS (EU18\*)

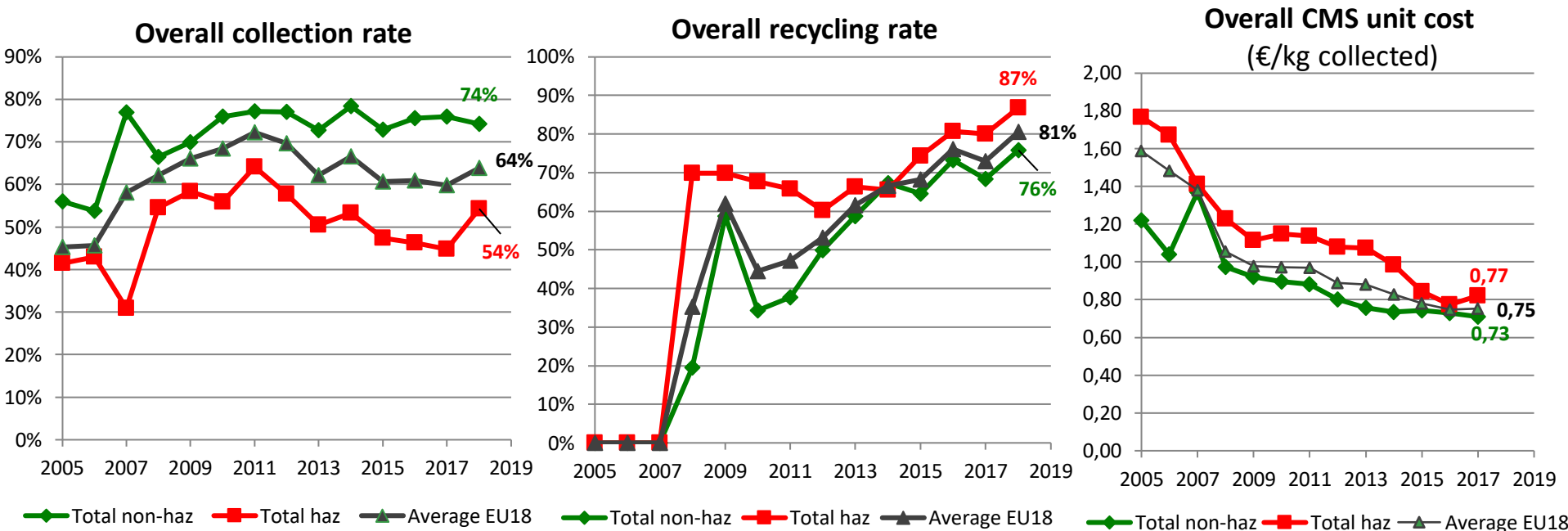
(based on quantity plastic shipped)





# Container Management Project

Benchmark of the impact of classification on CMS performance (EU18)



## Trends EU18 (plastics, 2018):

- Statistically appropriate to benchmark countries with **hazardous** / **non-hazardous** classification because similar number of country (8/10) and market size (51%/49% quantity packaging shipped)
- Overall, **collection rate is higher** when the classification is **non-hazardous**:  
**Non-hazardous CMS: 74%;**      **Hazardous CMS: 54%**
- Overall, **recycling rate is higher** in systems with **hazardous classification**:  
**Non-hazardous CMS: 76%;**      **Hazardous CMS: 87%**
- Overall, **unit cost (€/kg collected) is lower** with **non-hazardous** classification (3-60% lower over the last 15 years)
- At country level, these trends can show very different pattern.

# Container Management Project



# Thanks

