



# Responsible Management of Pesticide Packaging

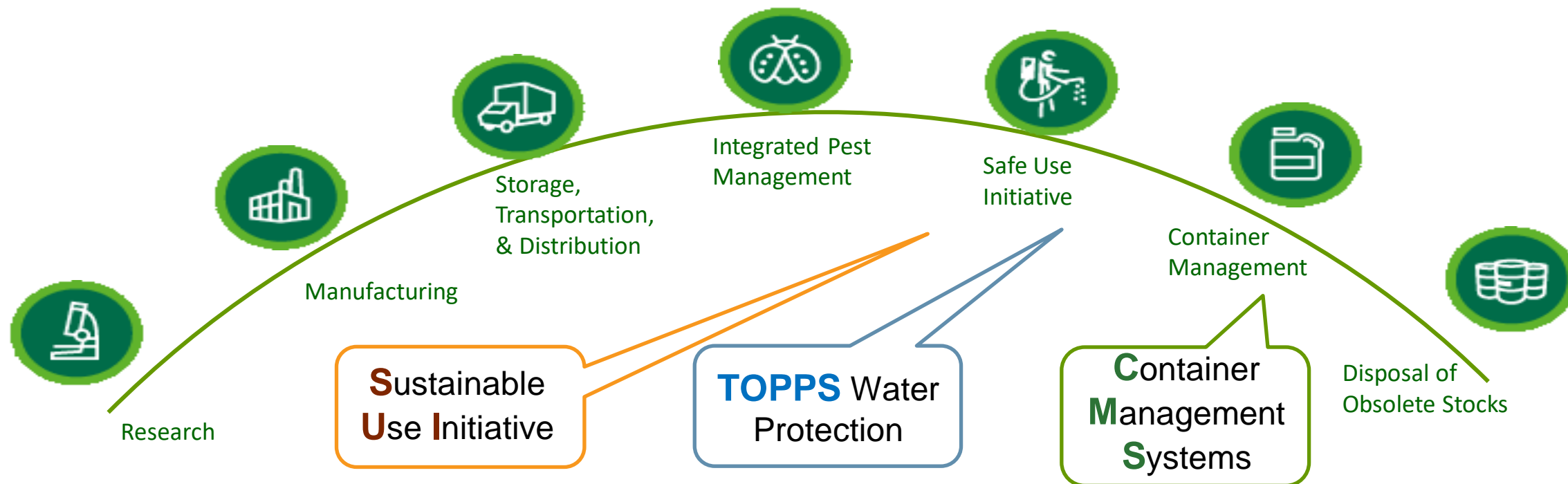
## CMS Collection report 2022

CLE Packaging Expert Group (PTSG)  
October 2023



# Industry initiatives for Container Management

Stewardship Lifecycle for Crop Protection Chemicals



*from* Discovery

*to* Recovery

Company Activities




Association Activities

# Industry initiatives for Container Management




## Objectives & Activities



### Objectives

-  Prevent the production of hazardous waste and the residues exposure for humans and the environment
-  Maximise the collection of empty packaging
-  Contribute to circular economy by promoting safe recycling of high value material

### Key Activities

-  Promote proper container rinsing to minimize residues & risks
-  Retrieve empty pesticide packaging from farms via build up of country-specific collection system
-  Achieve suitable disposal or recycling end-use



# Container Management Programmes

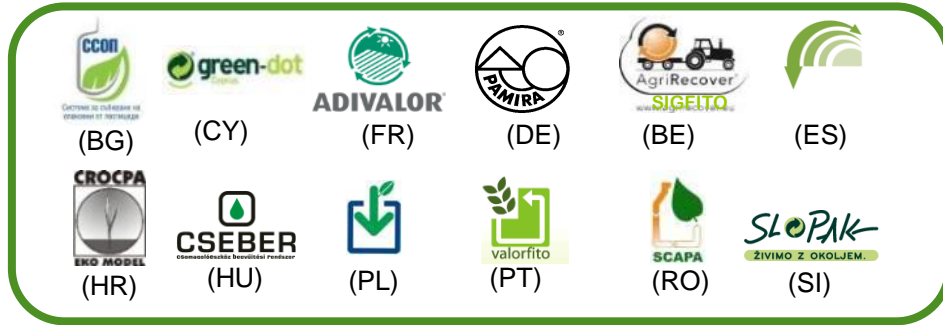
## KPIs of benchmarked CM Systems in Europe



# Industry initiatives for Container Management

## Overview of CMS in Europe (2022)

### Nationwide industry run CMS (Mature)



### Industry run pilot CMS



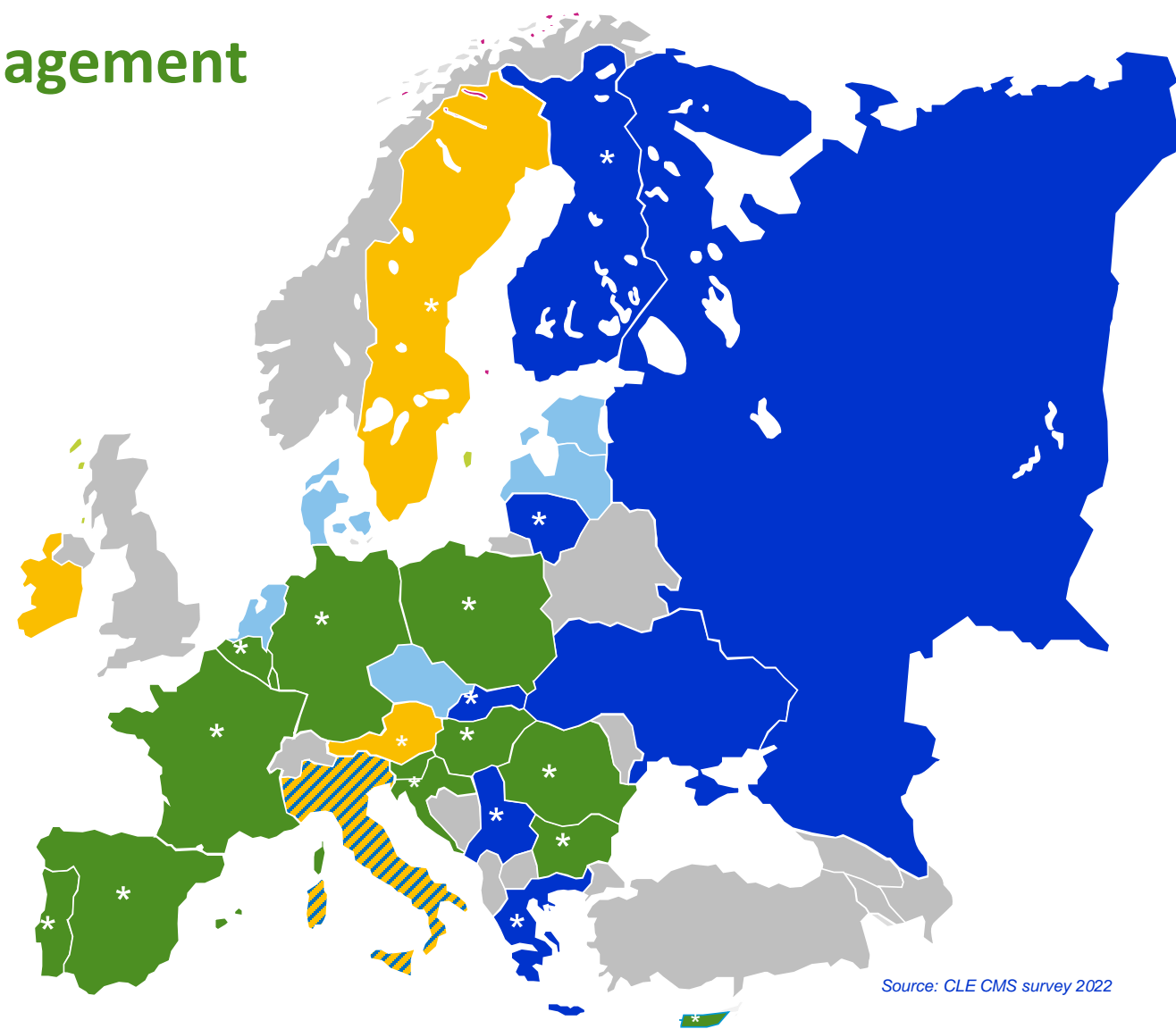
### Countries with independent collection programme(s), some of them joint by industry. E.g.:



### Projects in assessment / design phase

 Countries with no (known) dedicated CMS. Pesticide packaging waste are collected via other collection routes

\* "Countries providing annual CLE statistics are the Mature, Pilots + Austria, Ireland and Sweden. In addition, Italy and the Netherlands have occasionally provided partial collection data. CMS in Luxembourg has been managed by a new EPR since 2019, with no data provided so far. Since 2022, no data are available for Russia and Ukraine



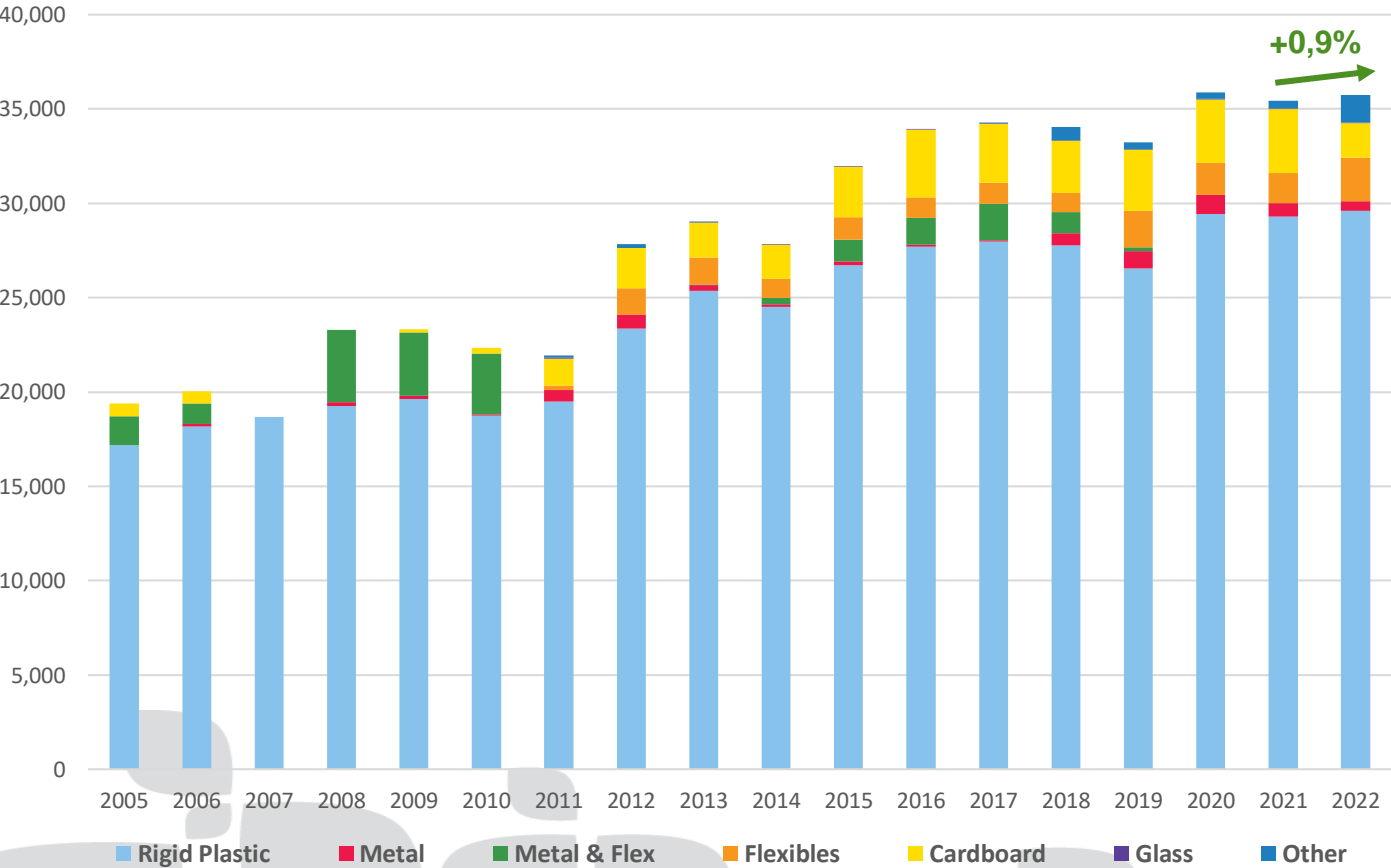
Source: CLE CMS survey 2022

# Container Management Europe

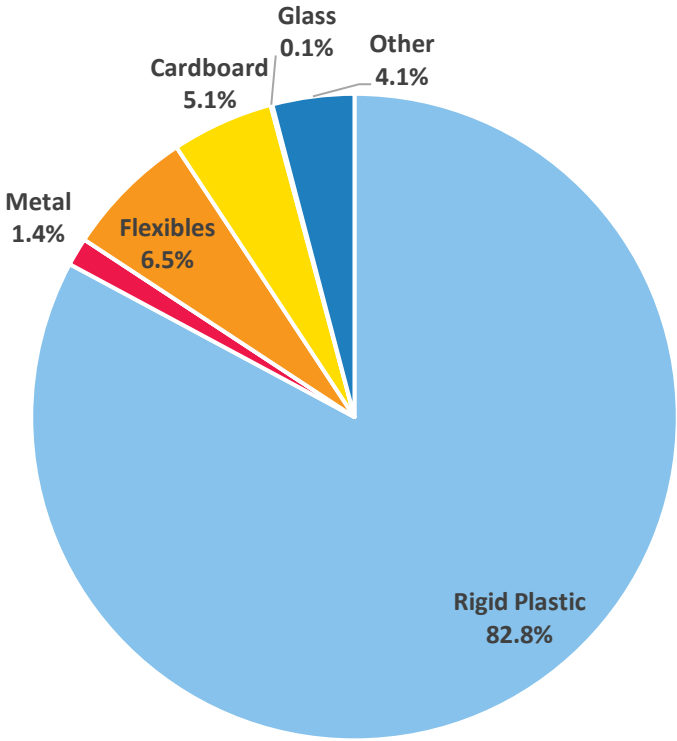
Synopsis 2005 – 2022 (benchmarked countries): Packaging placed on the market



**Shipped**  
(Tonnes; declared by benchmark countries)



**Primary packaging placed on the market**  
(2022; Declared by benchmarked countries)



Total shipped: 35 744 T

**\*) Monitored countries**

**Matures (13):**

- Belgium
- Bulgaria
- Cyprus
- Croatia
- France
- Germany
- Hungary
- Luxembourg (<2019)
- Poland
- Portugal
- Romania
- Spain
- Slovenia

**Pilots (5):**

- Finland
- Greece
- Lithuania
- (Russia)
- Serbia
- Slovakia
- (Ukraine)

**Independent (4):**

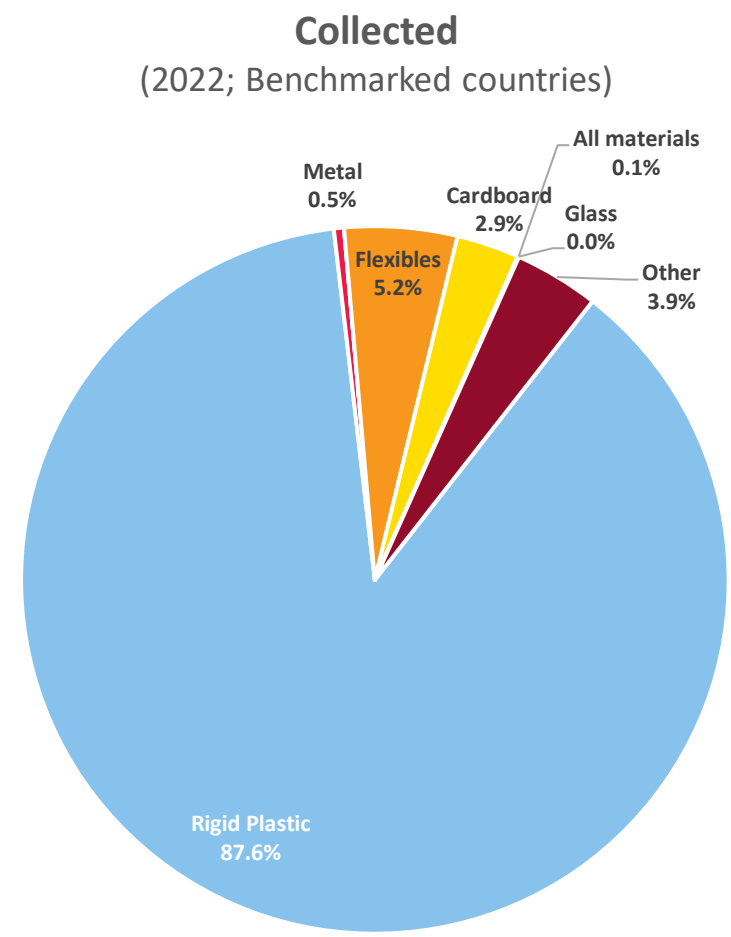
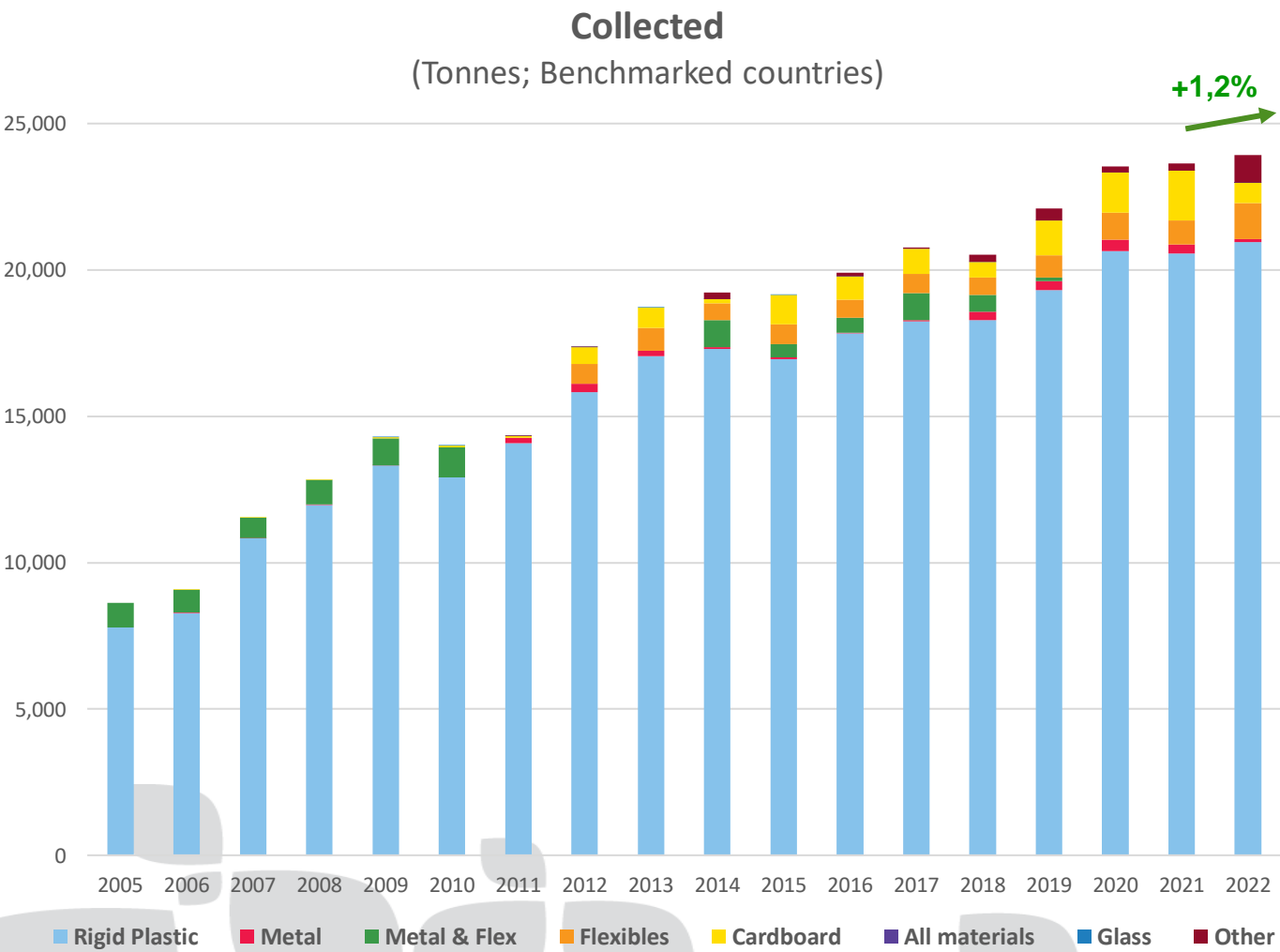
- Austria
- Ireland (>2020)
- Italy (2013-2018)
- Sweden
- Netherlands (2013-2018)

Based on data provided by the industry in the benchmarked countries (**except RU & UA**).  
The total market in these countries and in Europe might be bigger because some programmes declared only the data about rigid plastic containers.



# Container Management Europe

Synopsis 2005 – 2022 (benchmarked countries): Packaging collected



Total collected: 23 920 T

**\*) Monitored countries**

- Matures (13):**
- Belgium
  - Bulgaria
  - Cyprus
  - Croatia
  - France
  - Germany
  - Hungary
  - Luxemburg (<2019)
  - Poland
  - Portugal
  - Romania
  - Spain
  - Slovenia

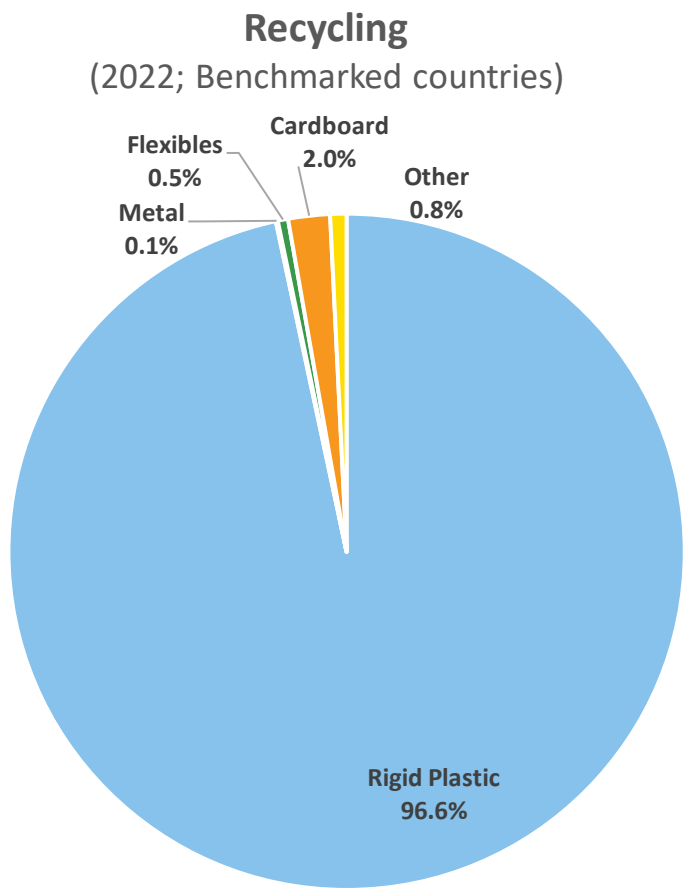
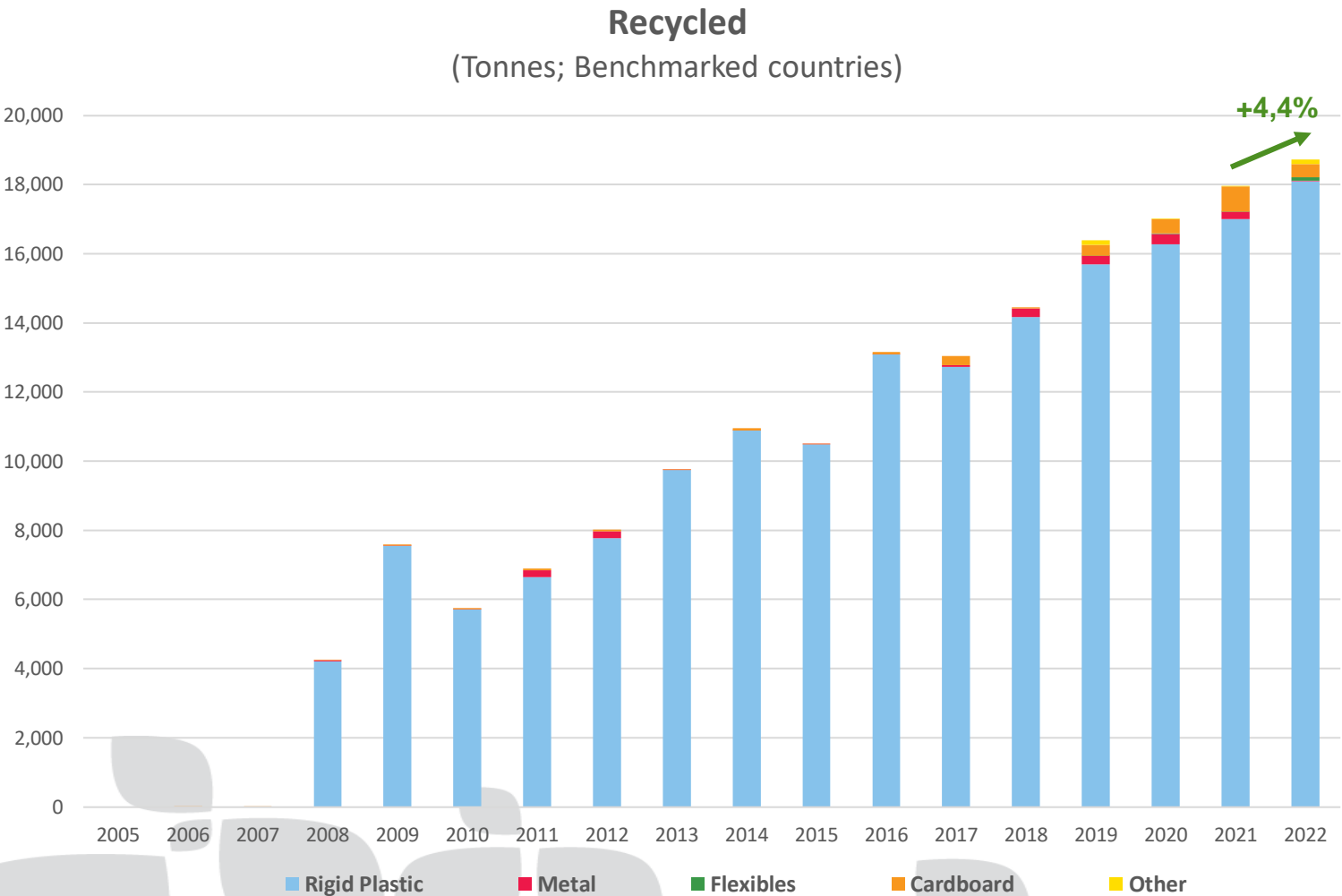
- Pilots (5):**
- Finland
  - Greece
  - Lithuania
  - (Russia)
  - Serbia
  - Slovakia
  - (Ukraine)

- Independent (4):**
- Austria
  - Ireland (>2020)
  - Italy (2013-2018)
  - Sweden
  - Netherlands (2013-2018)

Based on data provided by the industry in the benchmarked countries (**except RU & UA**)  
the real quantity in these countries and in Europe might be bigger due to other collection routes

# Container Management Europe

Synopsis 2005 – 2022 (benchmarked countries): Packaging Recycled



Total recycled: 18 732 T

**\*) Monitored countries**

- Matures (13):**
  - Belgium
  - Bulgaria
  - Cyprus
  - Croatia
  - France
  - Germany
  - Hungary
  - Luxembourg (<2019)
  - Poland
  - Portugal
  - Romania
  - Spain
  - Slovenia
- Pilots (5):**
  - Finland
  - Greece
  - Lithuania
  - (Russia)
  - Serbia
  - Slovakia
  - (Ukraine)
- Independent (4):**
  - Austria
  - Ireland (>2020)
  - Italy (2013-2018)
  - Sweden
  - Netherlands (2013-2018)

Based on data provided by the industry in the benchmarked countries (except RU & UA)  
the real quantity in these countries and in Europe might be bigger due to other collection routes



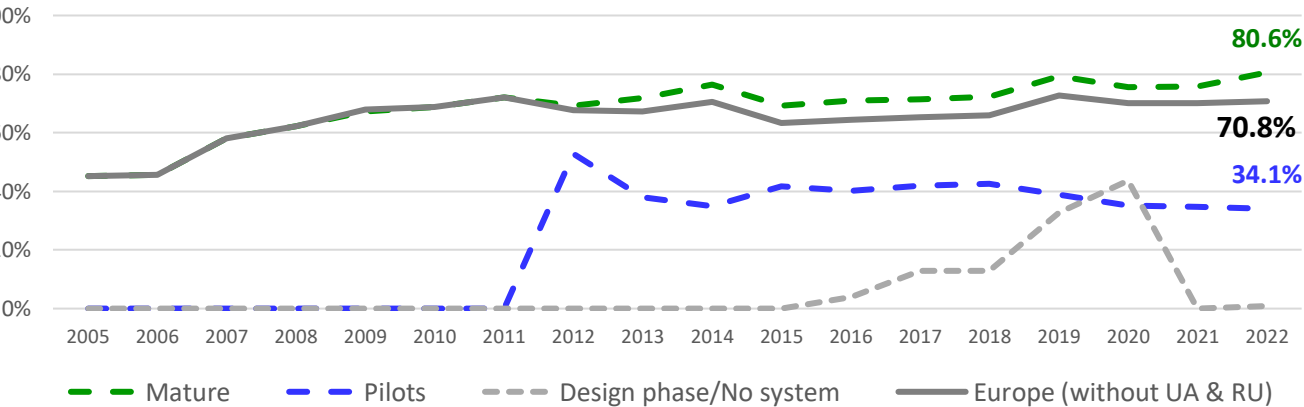
# Container Management Europe

Performance overview (collection rate; benchmarked countries)



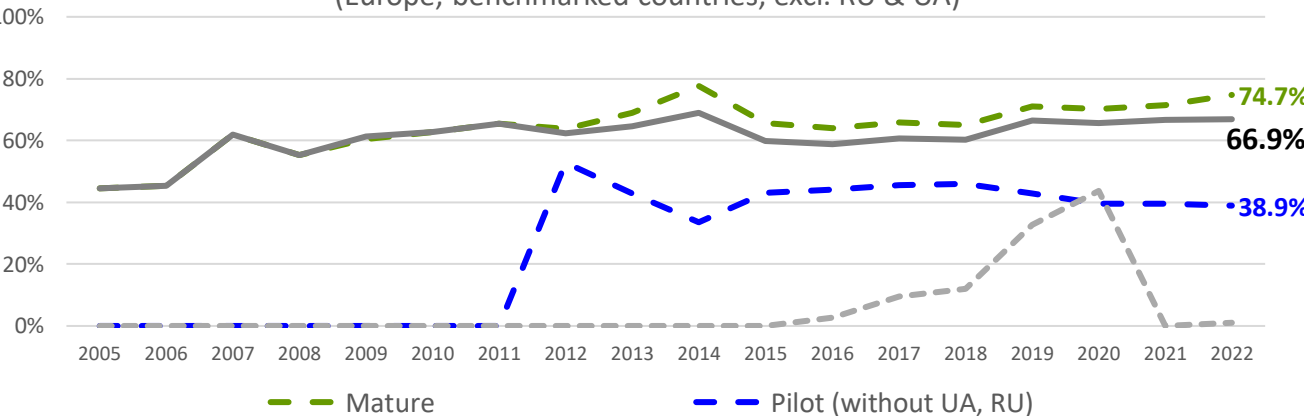
## Collection rate Rigid Plastics

(Europe, benchmarked countries, excl. RU & UA)



## Collection rate All primary packaging

(Europe, benchmarked countries, excl. RU & UA)

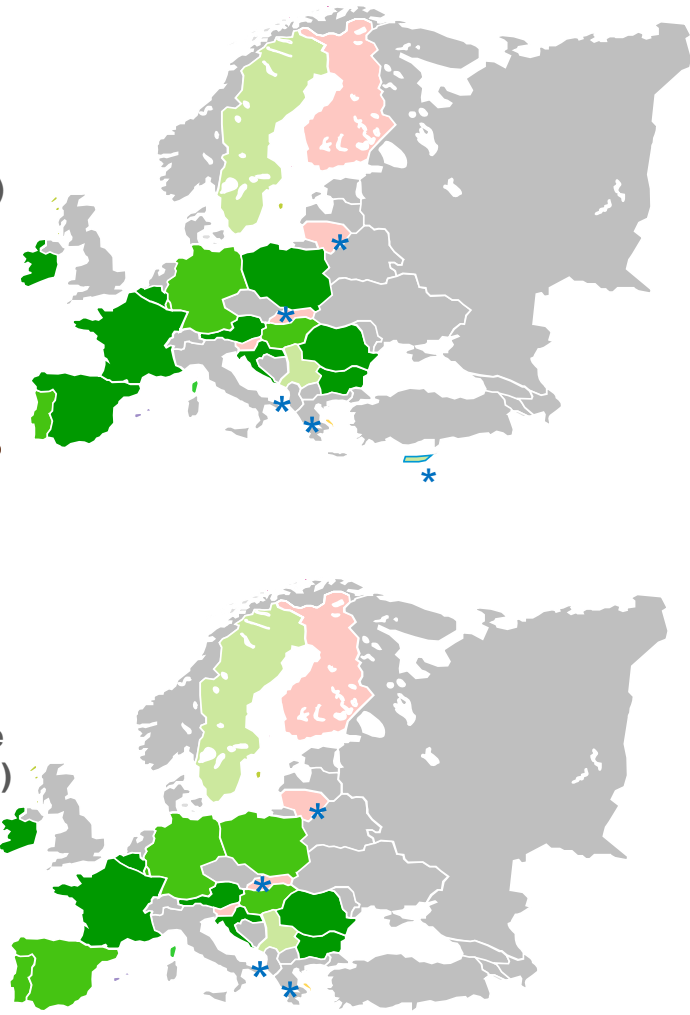


## Collection rate Plastics (2022)

- Collection rate > 75%
- Collection rate 50% – 75%
- Collection rate 25% – 50%
- Collection rate < 25%

\* Pilot projects

## Collection rate All primary packaging (2022)



Source: CLE CMS survey 2022

\*) Benchmarked countries (Europe, except RU & UA)

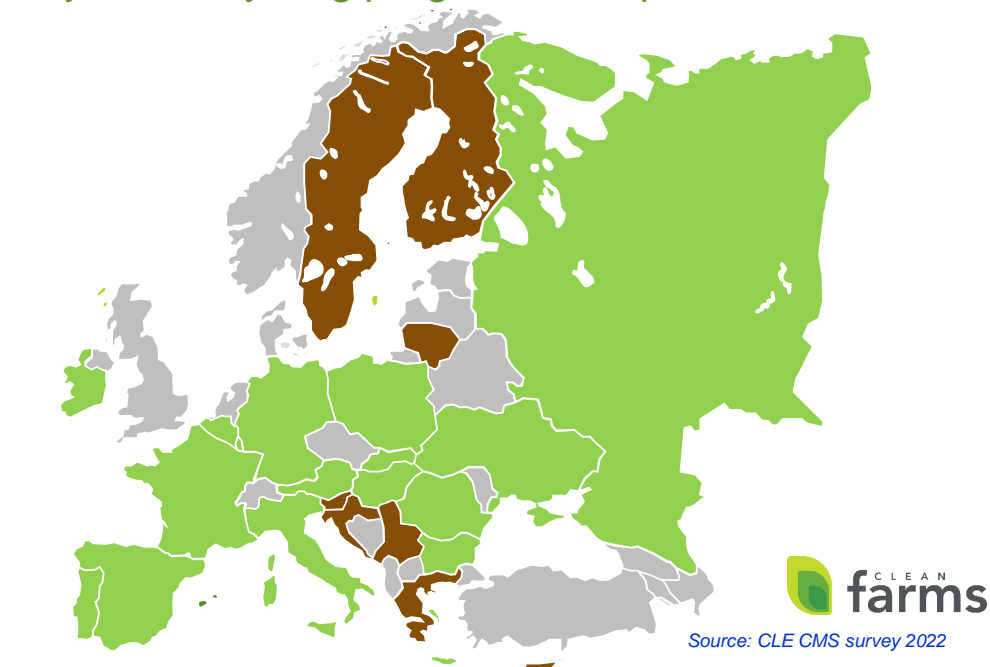


The trends are affected by the aggregation of new data from countries with new monitored systems (e.g. several pilot projects in 2012-2014) and by the maturity of systems (e.g. Bulgaria moved from Pilot to Mature in 2020, same for Cyprus in 2022; Ireland moved from Design Phase to Pilot in 2021)

# Implementation of Container Management Strategies

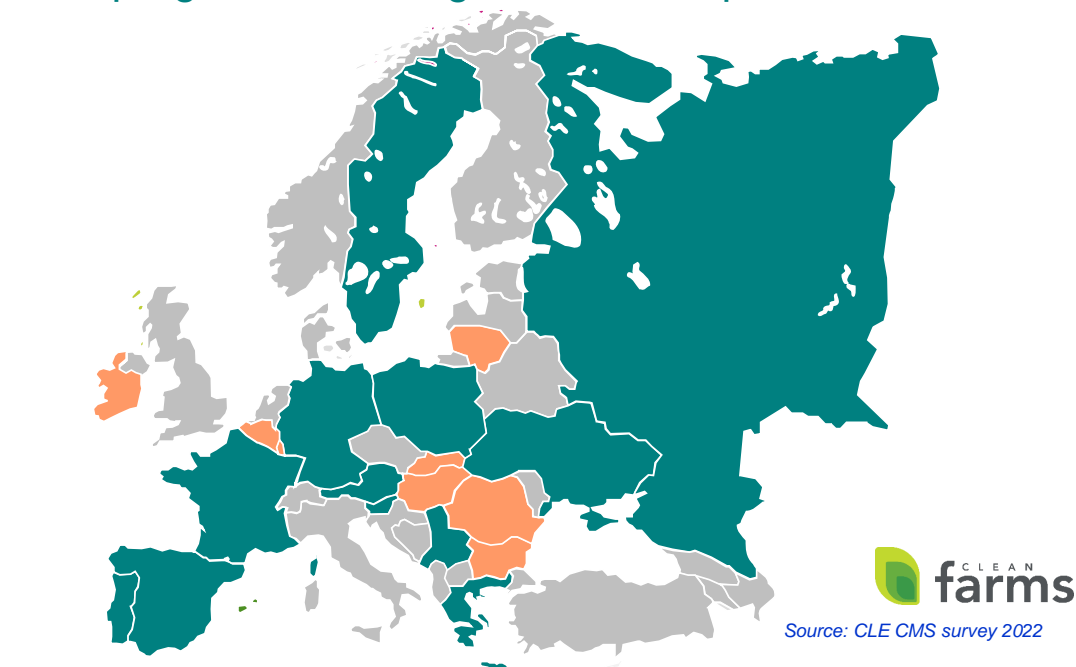
CMS with recycling programmes; CMS recognised as compliance EPR programme

Country with recycling programme in place



- Recycling programme in place for rigid plastics (HDPE)
- Incineration with energy recovery
- No info available

CMS programmes recognised as compliant EPR scheme



- Accredited EPR scheme (i.e. in principle, subject to EPR regulations and targets)
- Independent/voluntary collection and recovery programme, i.e. members must also declare their packaging to a recognised local Producer Responsibility Organisation (PRO) to fulfil their legal EPR obligations. In some countries, CMS costs are partly covered by an agreement with the PRO (e.g. BE, IE)
- No EPR obligation on PPP packaging or information not available

## Remarks:












- For the EU legal targets for 2025/2030, only the packaging that has been “prepared for reuse or recycling”\* will be recognised.
- CMS programmes that are recognised as EPR scheme will have to comply with EU legal targets 2025/2030; i.e. to have recycling programme in place, unless regulated differently by the local laws








\*) waste which, having undergone all necessary checking, sorting and other preliminary operations to remove waste materials that are not targeted by the subsequent reprocessing and to ensure high-quality recycling, enters the recycling operation whereby waste materials are actually reprocessed into products, materials or substances (PPWD 94/62EC, Art.6a)

# Container Management Strategies

## CMS performance for industry-run CMS programmes in Europe (2022)

- Primary objective for pesticide container management strategies (CMS) is to reduce risks at the source by promoting thorough rinsing of empty containers and by maximising the return of packaging wastes. **Collection rate** is the key performance indicators for collection and recovery programmes for pesticide containers.
- Safe and controlled recycling of the plastic material is an important contribution to the sustainability of these programmes and to the Circular Economy.

Trademark CMS programmes (year of collection start)			Collection rate 2022 [Plastics; Trend last 3y]	Final treatment (% of quantity collected)
BE (1997)	AgriRecover <a href="http://www.agrirecover.eu">www.agrirecover.eu</a>		80% ↗	Recycling (98%)
BG (2014)	SCPP (CCOP) <a href="http://www.bgcpa.eu">www.bgcpa.eu</a>		87% ↘	Recycling (100%)
CY (2015)	Green-dot Cyprus <a href="http://www.greendot.com.cy">www.greendot.com.cy</a>		46% ↗	Energy Recovery (100%)
DE (1996)	PAMIRA <a href="http://www.pamira.de">www.pamira.de</a>		71% ↘	Recycling (97%) Energy Recovery (4%)
ES (2002)	SGIFITO <a href="http://www.sigfито.es">www.sigfито.es</a>		80%* ↗	Recycling (100%)
FR (2002)	ADIVALOR <a href="http://www.adivalor.fr">www.adivalor.fr</a>		88% ↗	Recycling (97%) Energy Recovery (3%)
HR (2008)	CROCPA EKO MODEL <a href="http://www.crocpa.hr">www.crocpa.hr</a>		97% →	Energy Recovery (100%)
HU (2003)	CSEBER <a href="http://www.cseber.hu">www.cseber.hu</a>		69% ↗	Recycling (50%) Energy Recovery (45%) Incineration (5%)
PL (2004)	System PSOR <a href="http://www.systempsor.pl">www.systempsor.pl</a>		77%* ↗	Recycling (80%) Energy Recovery (20%)
PT (2006)	Valorfito <a href="http://www.valorfito.com">www.valorfito.com</a>		64% ↗	Recycling (99%) Landfilled (1%)
RO (2007)	SCAPA <a href="http://www.aimprom.ro">www.aimprom.ro</a>		107% ↗	Recycling (56%) Energy Recovery (42%) Incineration (2%)

Trademark CMS programmes (year of collection start)			Collection rate 2022 [Plastics; Trend last 3y]	Final treatment (% of quantity collected)
SI (2010)	SloPak <a href="http://www.slopak.si">www.slopak.si</a>		14% ↘	Energy Recovery (100%)
AT	Various collection programmes		85% →	Recycling (75%) Energy Recovery
IE	Farm Plastics Recycling CLG		80% ↗	Recycling (100%)
SE	SvepRetur <a href="http://www.svepretur.se">www.svepretur.se</a>		45% ↘	Energy Recovery (100%)
EL (2014)	CYCLOS (from 2023) <a href="http://www.esyf.gr">www.esyf.gr</a>		0% ↘	(no collection in 2022)
LT (2016)	LT Crop Life Lithuania (CLL) <a href="http://www.augaluapsauga.lt">www.augaluapsauga.lt</a>		4% ↗	Energy Recovery (100%)
SK (2014)	ZORA <a href="http://www.agrozora.sk">www.agrozora.sk</a>		7% ↗	Recycling (100%)
SR (2013)	SECPA EKO MODEL <a href="http://www.secpa.rs">www.secpa.rs</a>		46% ↘	Energy Recovery (100%)
UA (2021)	AGRO VARTA <a href="http://www.agrovarta.org">www.agrovarta.org</a>		On hold	Recycling (100%)
FI	Various collection programmes (distributors)		8%	Energy Recovery

\*) Estimates; full data not available

# Container Management Programmes

## CLE Commitment for Circular Economy

Monitoring of the Commitments  
implementation in EU MS



# CLE Commitments for the Circular Economy

## Aims and Overall Objectives

## 2030 Commitments For the Future of #Ag

### Circular Economy



**III** Establish an average **75% collection rate** of plastic pesticide and biopesticide containers across EU Member States by 2025.

**IV** Ensure that a container **scheme is available in all EU Member States by 2025**, expanding the programme in two additional Member States each year.

**More recovery and plastic container recycling, with less plastics waste.**

With new CMS projects in:

- Czech Republic; Estonia;
- Denmark; Latvia; Finland;
- Ireland; Malta & The Netherlands

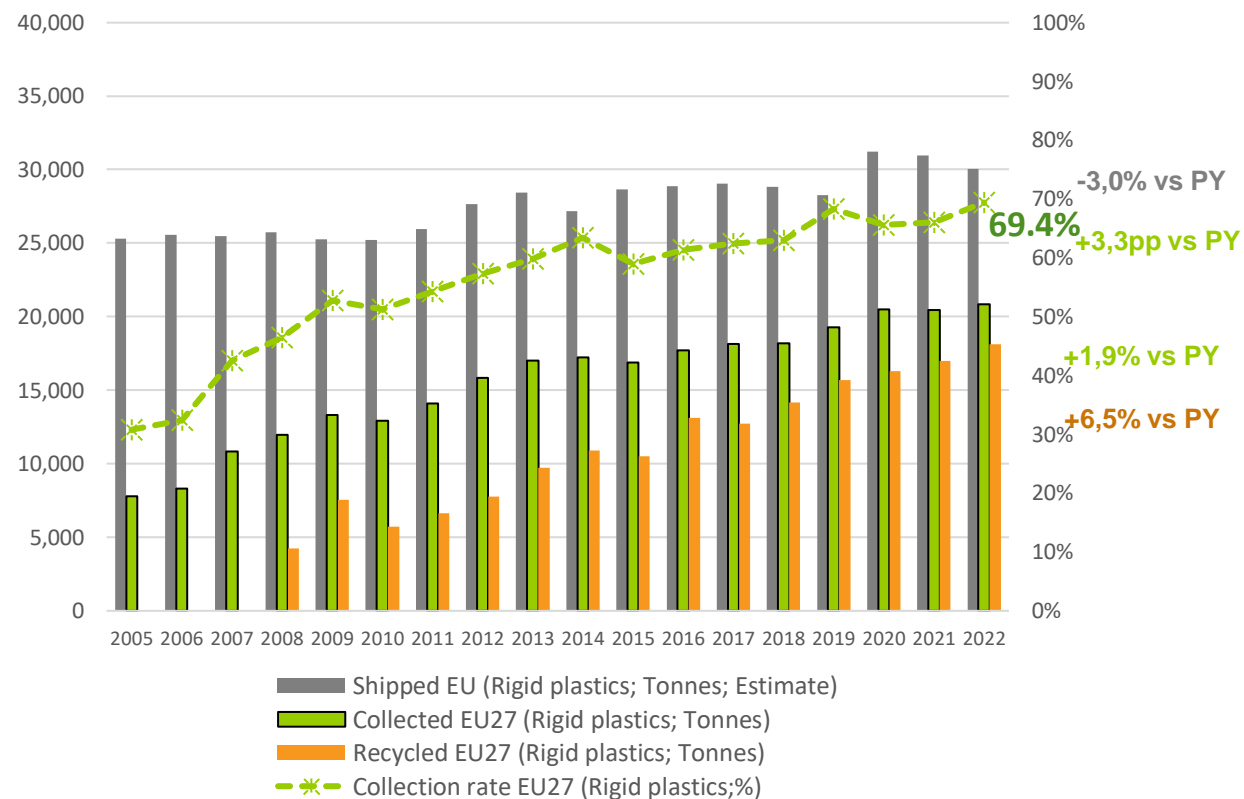


# CLE Commitments for the Circular Economy

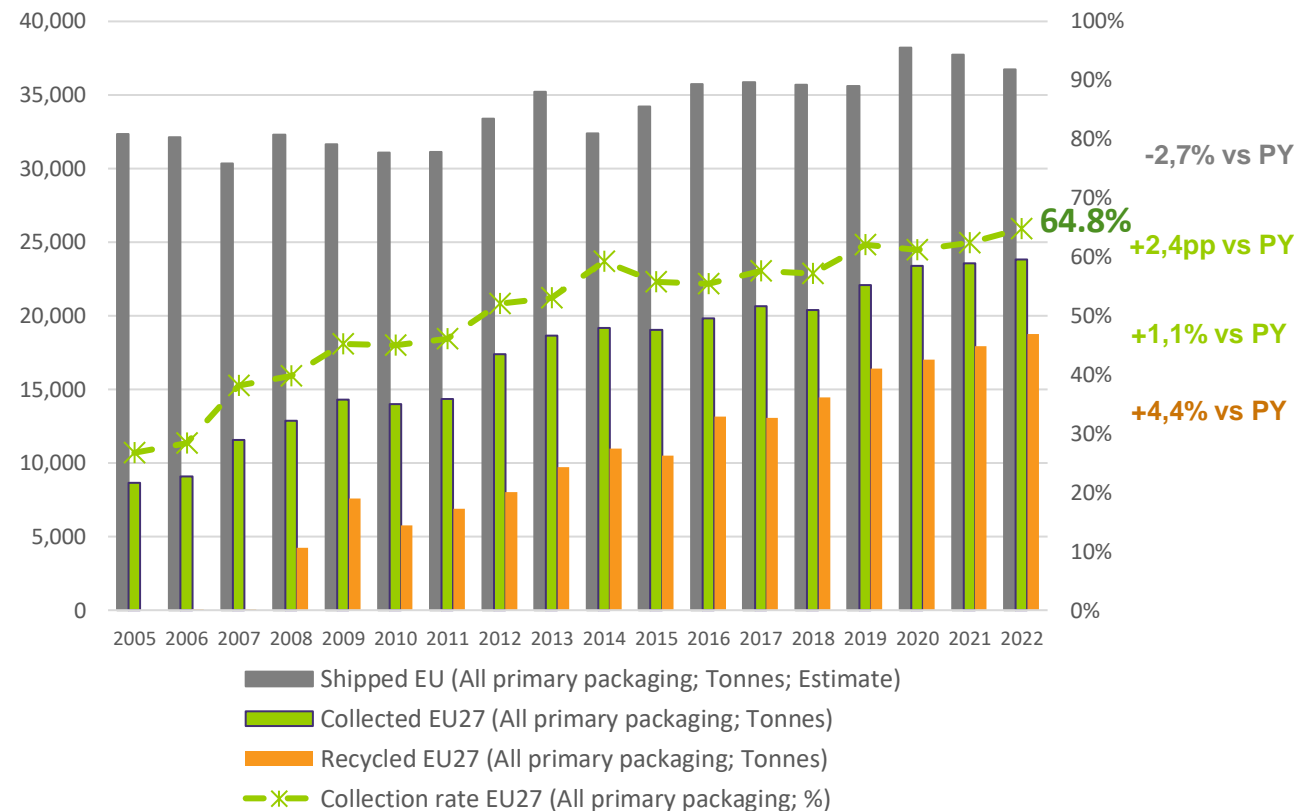
Overview of Container Management progresses in Europe (all EU27 MS)



Overall EU27 (Rigid plastics)



Overall EU27 (All primary packaging)



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

- 🌱 Risks reduction at the source (packaging design; rinsing; separate collection; minimized production of hazardous waste)
- 🌱 Collected over 312,450 metric tonnes of packaging since 2005 (EU)
- 🌱 Recycled over 170,000 metric tonnes of high valuable plastics in safe applications since 2005 (EU)

\*) Quantities shipped are based on data provided by countries for those who have this data and on estimates for countries that don't have this data available. Quantities collected and recycled are only based on data provided by the monitored countries with dedicated collection schemes for packaging wastes from pesticide products or other inputs for agricultural production.





# CLE Commitments for the Circular Economy (EU MS)

Implementation monitoring: status 2022



ALL EU MS (EU27)	Rigid plastics collected: Tonnage & Collection rate										All primary collected: Tonnage & Collection rate									
	2020	2021	2022	Trend (past 3Y)	2020	2021	2022	Δ 3y Achieved (2022-2020)	2025 (Target)	Δ 3y To do (2025-2022)	2020	2021	2022	Trend (past 3Y)	2020	2021	2022	Δ 3y Achieved (2022-2020)	2025 (Target)	Δ 3y To do (2025-2022)
Austria	167	192	173	➡	73.9%	94.3%	83.0%	9.1 pp	88%	5 pp	330	342	313	⬇️	78.3%	90.5%	84.0%	5.7 pp	88%	4.0 pp
Belgium	444	531	431	➡	72.9%	89.6%	79.7%	6.8 pp	>90%	>11 pp	506	640	530	⬆️	72.7%	86.4%	74.9%	2.1 pp	>90%	>15 pp
Bulgaria	479	441	410	⬇️	95.1%	93.9%	86.8%	-8.3 pp	>90%	>6 pp	479	441	410	⬇️	86.8%	85.1%	78.8%	-8.0 pp	>90%	>11%
Croatia	275	276	225	⬇️	96.7%	97.2%	93.0%	-3.7 pp	>90%	!!	275	276	291	⬆️	79.8%	80.2%	99.4%	19.6 pp	>90%	!!
Cyprus	15	18	18	➡	28.7%	46.0%	48.0%	19.3 pp	65%	17 pp	15	18	18	➡	25.0%	42.7%	40.1%	15.1 pp	60%	21 pp
Czechia	0	0	0	-	0.0%	0.0%	0.0%	.	25%	25 pp	0	0	0	-	0.0%	0.0%	0.0%	-	25%	25 pp
Denmark	0	0	0	-	0.0%	0.0%	0.0%	-	20%	20 pp	0	0	0	-	0.0%	0.0%	0.0%	-	20%	10 pp
Estonia	0	0	0	-	0.0%	0.0%	0.0%	-	15%	15 pp	0	0	0	-	0.0%	0.0%	0.0%	-	15%	15 pp
Finland	0	0	12	⬆️	0.0%	0.0%	8.0%	8 pp	30%	22 pp	0	0	12	⬆️	0.0%	0.0%	7.3%	7.3 pp	30%	23 pp
France	5,343	5,214	5,573	⬆️	86.4%	88.6%	87.6%	1.2 pp	>90%	>2 pp	5,803	5,895	6,027	⬆️	82.9%	88.0%	85.3%	2.4 pp	>90%	5 pp
Germany	2,902	2,955	2,935	➡	80.6%	76.4%	70.7%	-9.9 pp	75%	4 pp	2,983	3,005	3,000	➡	78.8%	73.7%	69.1%	-9.8 pp	75%	6 pp
Greece	12	15	0	⬇️	1.4%	1.7%	0.0%	-1.4 pp	35%	35 pp	12	15	0	⬇️	1.2%	1.6%	0.0%	-1.2 pp	35%	35 pp
Hungary	1,057	1,033	1,018	⬇️	65.3%	68.1%	69.4%	4.1 pp	77%	4 pp	1,516	1,563	1,554	⬆️	64.3%	67.4%	68.7%	4.4 pp	77%	8 pp
Ireland	129	152	187	⬆️	43.6%	47.9%	79.8%	36.1 pp	65%	!!	129	152	187	⬆️	39.7%	43.6%	72.5%	32.9 pp	60%	!!
Italy*	1,110	1,063	1,063	?	58.0%	58.0%	58.0%	?	65%	7 pp	1,762	1,688	1,688	?	58.0%	58.0%	58.0%	-	65%	7 pp
Latvia	0	0	0	-	0.0%	0.0%	0.0%	-	30%	30 pp	0	0	0	-	0.0%	0.0%	0.0%	-	20%	20 pp
Lithuania	12	19	21	⬆️	2.7%	4.7%	4.6%	1.9 pp	50%	45 pp	12	19	21	⬆️	2.7%	4.6%	4.5%	1.8 pp	50%	45 pp
Luxembourg*	9	9	9	?	63.3%	63.3%	63.3%	?	75%	12 pp	13	13	13	?	64.9%	64.9%	64.9%	-	70%	6 pp
Malta	0	0	0	-	0.0%	0.0%	0.0%	-	10%	10 pp	0	0	0	-	0.0%	0.0%	0.0%	-	10%	10 pp
Netherlands	0	0	0	-	0.0%	0.0%	0.0%	-	35%	35 pp	0	0	0	-	0.0%	0.0%	0.0%	-	30%	30 pp
Poland	2,091	2,001	2,161	⬆️	69.9%	63.6%	77.1%	7.2 pp	77%	!!	2,201	2,106	2,402	⬆️	67.2%	61.0%	73.1%	5.8 pp	75%	3 pp
Portugal	328	396	403	⬆️	36.1%	54.8%	64.1%	28.0 pp	65%	!!	454	480	459	➡	40.9%	51.6%	57.7%	16.8 pp	67%	9 pp
Romania	1,336	1,533	1,963	⬆️	73.7%	93.5%	106.8%	33.1 pp	93%	!!	1,559	1,738	2,180	⬆️	57.3%	68.0%	77.2%	19.8 pp	80%	3 pp
Slovakia	13	20	26	⬆️	4.6%	6.6%	9.1%	4.5 pp	50%	41 pp	13	20	26	⬆️	4.2%	6.0%	8.3%	4.1 pp	50%	40 pp
Slovenia	70	71	(0)	⬇️	81.9%	82.0%	(0.0%)	(-81.9 pp)	85%	(85 pp)	90	87	15	⬇️	76.5%	77.8%	14.4%	(-62.1 pp)	80%	68 pp
Spain	4,498	4,373	4,081	⬇️	72.3%	67.2%	79.7%	7.4 pp	78%	!!	5,012	4,899	4,534	⬇️	63.0%	61.6%	70.9%	7.9 pp	75%	4 pp
Sweden	198	141	135	⬇️	57.7%	46.4%	45.0%	-12.7 pp	70%	25 pp	198	141	135	⬇️	52.4%	42.2%	40.9%	-11.5 pp	70%	27 pp
27	20,488	20,453	20,832	⬆️	65.6%	66.0%	69.4%	3.7 pp	>75%	>6 pp	23,364	23,539	23,802	⬆️	61.2%	62.4%	64.8%	3.7 pp	75%	10 pp

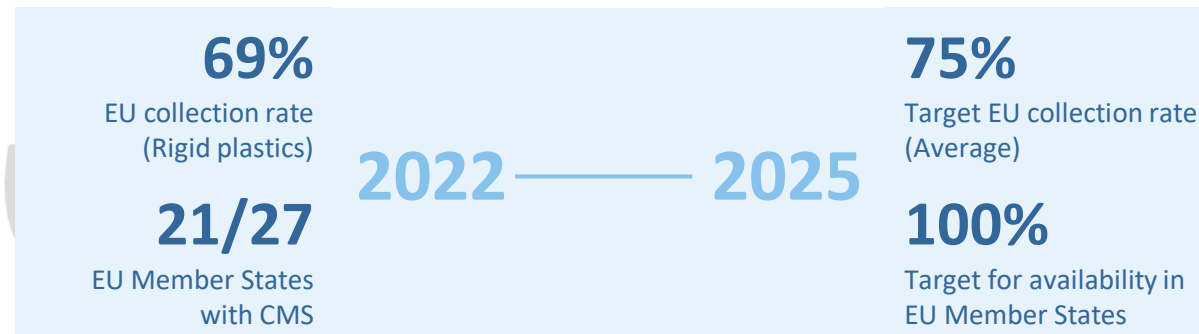
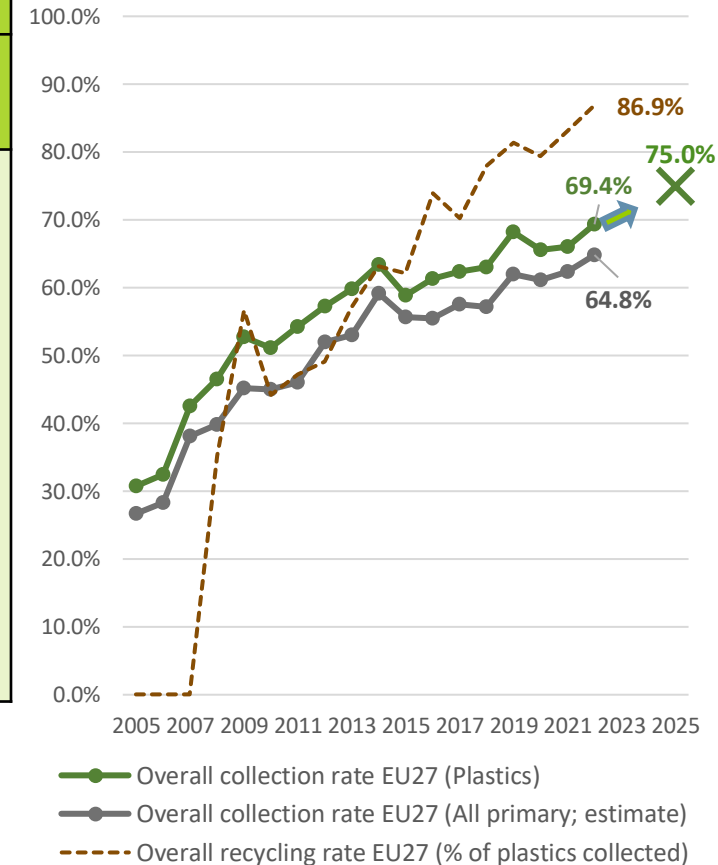
\*) Estimates based on data from previous years or on studies

# CLE Commitments for the Circular Economy

Progress monitoring: status 2022

2030 Commitments For the Future of #Ag  Targets for 2025 (All primary packaging)	Commitments for the Circular Economy – Implementation monitoring –			
	IV) Dedicated CMS in all MS Status 2022	III) >75% Collection rate Status 2022		
<div>CMS in all MS</div> <div>With new CMS projects in (“Roadmap”): CZ, DK, ET, FI, IE, LV, MT, NL</div> <div>Average collection rate for plastics &gt;75%</div> <div>More Recycling!</div>	<div>EU MS with dedicated &amp; monitored CMS programmes: 21 MS (+1 MS vs PY)</div> <div>Mature programmes (12): BE, BG, CY, DE, ES, FR, HR, HU, PL, PT, RO, SI</div> <div>Pilot programmes (4): FI, GR, LT, SK</div> <div>Independent dedicated programmes with data (3): AT, IE, SE</div> <div>Independent dedicated programmes without data (2): IT, LU</div>	Monitored CMS (20 MS)	<div>Plastic containers</div> <div>74%</div> <div>(+3 pp vs PY)</div>	<div>All primary packaging</div> <div>69%</div> <div>(+2cpp vs PY)</div>
	<div>EU MS without CMS and/or performance monitoring: 6 MS</div> <div>Project in design phase – without reported dedicated collection or data (6): CZ, DK, EE, LV, MT</div>	Total EU (27 MS)	<div>69%*</div> <div>(+3 pp vs PY)</div>	<div>65%*</div> <div>(+2 pp vs PY)</div>

Overall CMS performance EU27



\*) Calculated as total quantity collected by monitored programmes (19 MS) vs total quantity plastic packaging shipped in the EU27 market (where data is not available, quantity is estimated based on market sales data).



# CLE Commitments for the Circular Economy (EU MS)

## Implementation monitoring: summary 2022

- Reach overall **69% collection rate for rigid plastics** for EU27 (+ 3%-points vs PY).
- Positive but **fragile progress**: 2/3 due to decrease of plastic shipped, 1/3 due to collection increase
- The collection and collection rate of the other packaging slightly decreased in 2022. Nevertheless, the trend for **all primary packaging** is positive with **64,8% collection rate** reached in 2022 (+2,4%-points vs PY), thanks to the good increase of the rigid plastics.
- The attention on the “**Other primary packaging**” is still unsatisfactory, with several countries **not collecting the data** and/or **not providing a collection service** for these packaging!
- **21 MS with monitored dedicated collection** (+1 MS vs PY). +1 MS “Mature” CMS (CY)
- At least +2 MS expected with monitored dedicated collection in 2023 (DK, NL). Maybe also data for CZ, EE, LV, and IT?
- Critical to **progress in countries with new & pilot projects** to reach the 75% targets. Quantities shipped for these countries are already integrated in the EU27 statistics (based on estimates). **I.e every kg collected and reported for this countries counts!**
- Each additional 300 T of plastics collected in EU27 adds +1%-point towards the 75% target! With 6%-points missing, we need to collect around +1800 T per year from 2025 onwards in EU27.