

# Global CMS performance data 2021



- ❖ Annual report of the crop protection industry's initiative for the responsible management of empty pesticide packaging. The report includes:
  - ❖ The **CropLife International's Global Report for 2021** with the performance data and trends at regional level
  - ❖ The **regional reports** for Latin America, Europe, North America & Oceania, Asia as well as Africa & Middle East.
  - ❖ A report for CropLife International's **Container Management Project Team (CMPT)**

- ❖ The figures represent a **best available data** for benchmarked countries that provide their CMS data; they covers the packaging that are under the scope and the responsibility of the CMS initiatives in these countries.
- ❖ The data provided by countries are not always complete and of equal quality; they sometimes also include packaging for other products (e.g. fertilizers). Hence, the figures presented here are useful to monitor the overall progresses and trends but should not be used to compare or rank the performance of individual CMS systems.
- ❖ Real global data about quantity shipped are certainly higher due to the lack of data for some regions or countries, because the monitored data represent the data provided by contributing companies only, etc.. Likewise, the total quantity collected and recycled might be higher due to other routes of collection.
- ❖ The CLI CMS database provides the following data for 2021:
  - **72** countries are listed in the database (i.e. with some data entries on CMS activities since 2005).
  - **51** countries have provided the CMS data for 2021 (for some, only the collection quantities) (vs 51 for 2020)
  - **60** countries with collection scheme(s) are registers (i.e. with collection activities in the last 3 years), among them:
    - **43** countries with **Mature / fully developed programmes** (2 on hold or with no declared data for the last 1-2 years: Luxembourg, Peru)
    - **17** countries with **pilot projects, regional programmes** or with some **occasional collection activities** (in the last 3 years)
  - **5** or more countries with projects in design phase
  - **7** countries with collection activities in the past but that have stopped or not share data for the last 3 years: Egypt, Ethiopia; India; Indonesia; Namibia; Panama; Venezuela.

# Global CMS report 2021

## Newsletter 2021 – Report from the countries



### Information about new projects or operational programs for the management of empty packaging for crop protection products

- ❖ New projects were announced in **Bangladesh, Ireland, Ivory Cost, Zimbabwe**.
- ❖ Launch of situation & feasibility studies for CMS in **Finland** and in the **Czech Republic**
- ❖ **Venezuela**: System on hold for some times due to dramatical economical condition and fuel shortage that hinder collection activities
- ❖ **South Africa**:
  - Reached a new milestone in 2021 by collecting 80% of all containers placed on the market.
  - CropLife SA stepped away from recovery and recycling of **seed bags**. Only pesticide packaging are now allowed by environmental authorities.
- ❖ **Portugal**: the CMS program VALORFITO opened the collection program to **seeds** and **biocides** empty packaging

### New regulations

- ❖ **South Africa: Extended Producer Responsibility (EPR)** Scheme for the pesticide sector was drafted collaboratively between CropLife SA and the environmental authorities in 2021 and is expected to be promulgated end of 2022 or early in 2023.
- ❖ New plastic tax in **UK** (from April 2022) and in **Spain, Italy** from January 2023
- ❖ **Germany**: the Packaging law was amended to extend the producer responsibility to **commercial & industrial packaging** and provides also new obligations for **secondary & transport packaging**.
- ❖ **Europe**: draft of the new Packaging and Packaging Waste Directive foreseens new obligations (final text expected for 2023): **All packaging must be recyclable by 2030; Mandatory recycled content** for all plastic packaging by 2030; etc.
- ❖ **New Zealand**: Agrichemicals and their containers were deemed a priority product in July 2020 and thus, under EPR obligation. Agrecovery design was completed in 2021 to comply with the new regulation.
- ❖ **USA**: New **packaging EPR laws** in Maine and Oregon (2021) and in Colorado (2022). More laws are expected in 2023. Packaging legislation is extremely active in the USA now. Establishment of a multi-association **EPR Task Force** to prepare the industry for these new EPR laws.
- ❖ **Canada**: EPR is regulated at a provincial, with different rules and collection targets (55% for Quebec, 75% for Manitoba). Federally, the new **Zero Plastic Waste Strategy and Action Plan** sets out **minimum recycled content requirements** for 2025 that may or may not impact the Crop Protection sector.

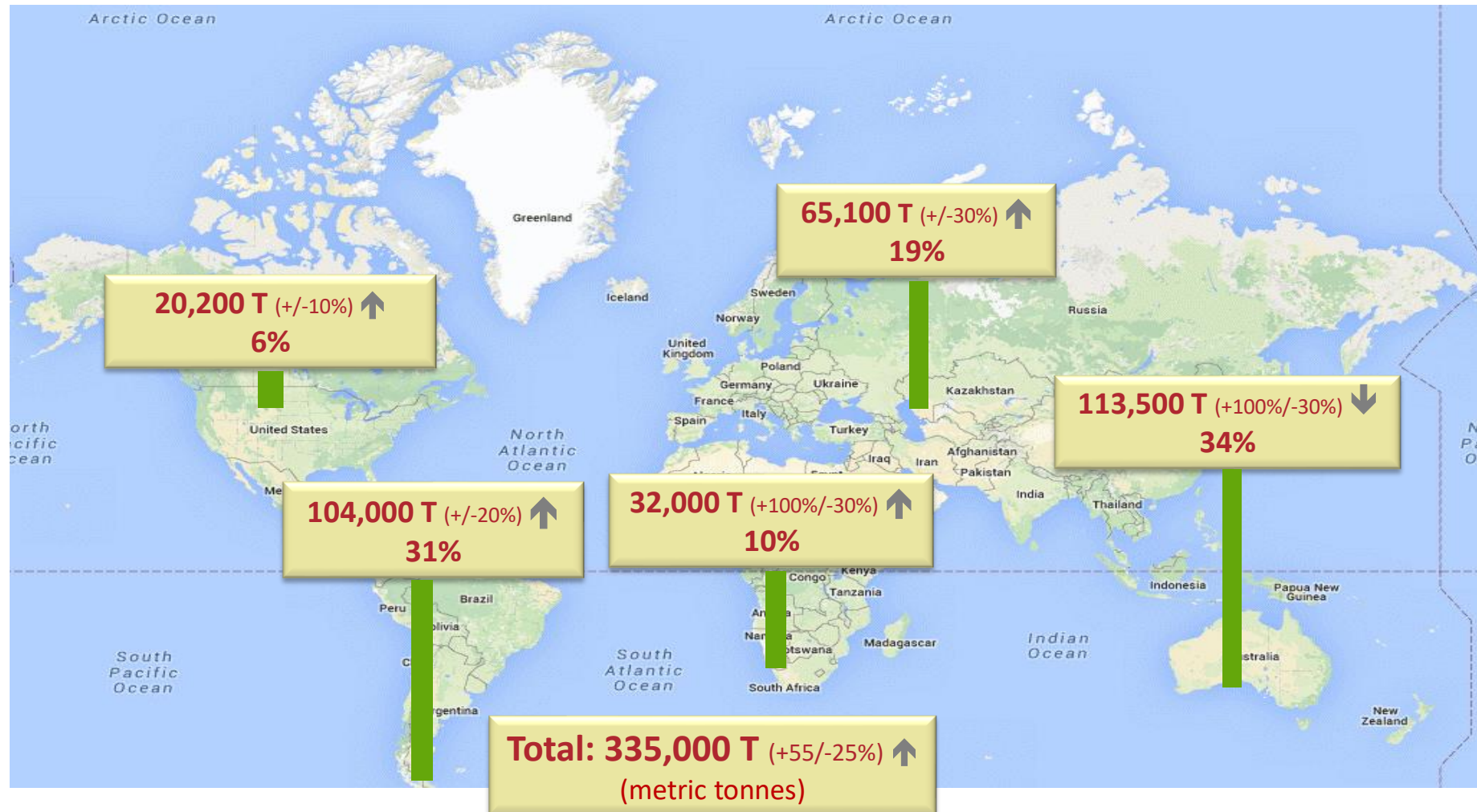
### Market information

- **North America**: Very **difficult recycling market for HDPE** in 2019-2020; began to improve in Q4 of 2021 and 2022.

# Global CMS report 2021

## Estimated Packaging Mass

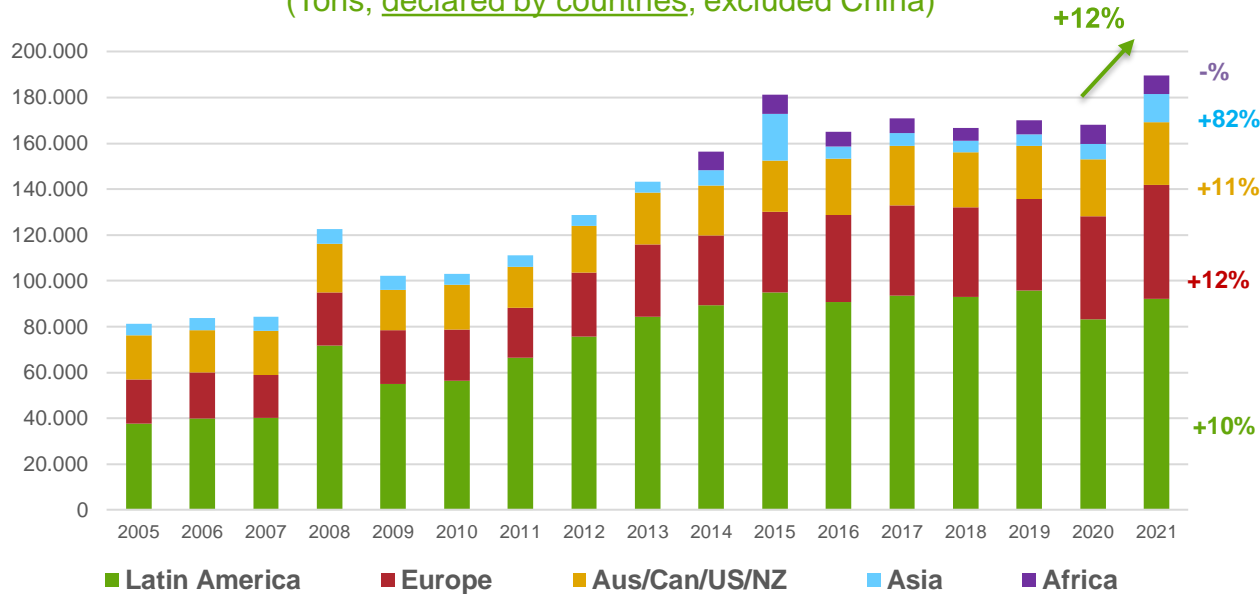
### Single trip primary packaging placed on the market in 2021 (estimate)



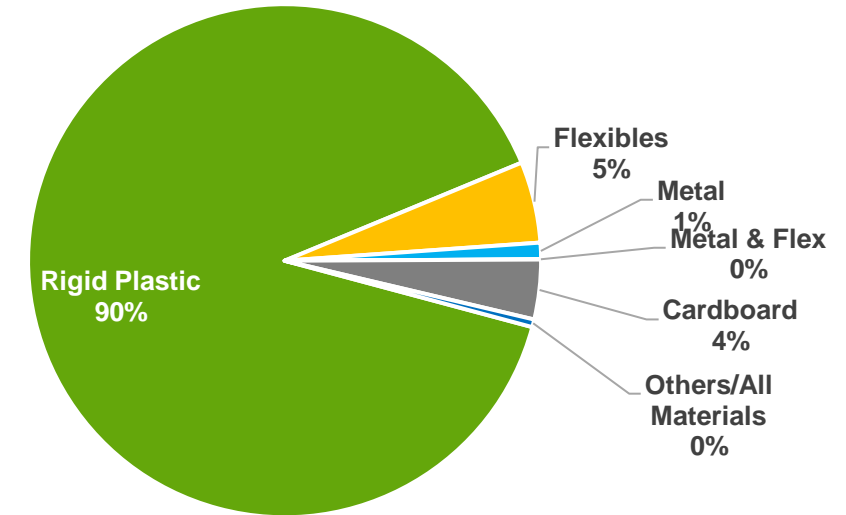
# Global CMS report 2021

Synopsis 2005-2021: Single trip primary packaging placed on the market (declared by countries)

**All primary packaging shipped 2005-2021**  
(Tons; declared by countries; excluded China)



**Primary packaging shipped**  
(2021; based on countries' declaration)



**Total shipped: 190,517 T**  
(declared by countries)

## About the data:

- ❖ The data is based on data for **single trip primary pesticide packaging** provided by benchmarked countries (around 60 countries).
- ❖ The global quantity is certainly higher as this data is not available for all benchmarked countries and for many countries in Asia, Africa & Middle-East. For these regions, only China, South Korea and South Africa could provide the data and for the last few years (>2014). Data from China are not included on this graphic.

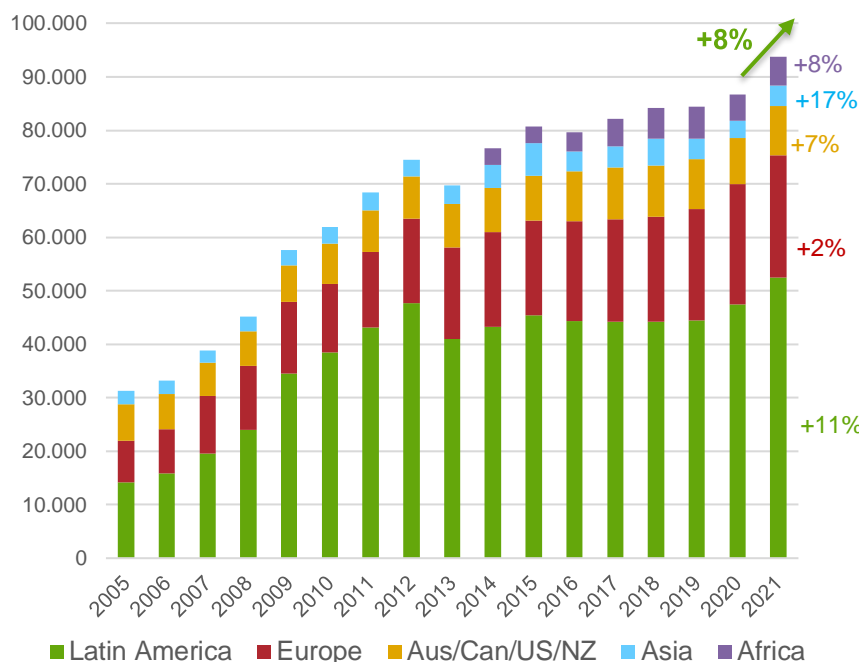
## Major trends 2021 vs 2020 (data declared by countries):

- ❖ **Latin America:** significant increase in large markets (BR: +12%; AR: +8%; MX: +17%)
- ❖ **Europe:** Increase due mainly to new project (& data) in Ukraine; without Ukraine, the increase was limited to 2,3%
- ❖ **AU/CA/NZ/US:** Increase in all 4 countries, in particular New Zealand (+50%) and US (+12%)
- ❖ **Asia:** New data from Taiwan
- ❖ **AME:** -22% (only South Africa provided shipped data)

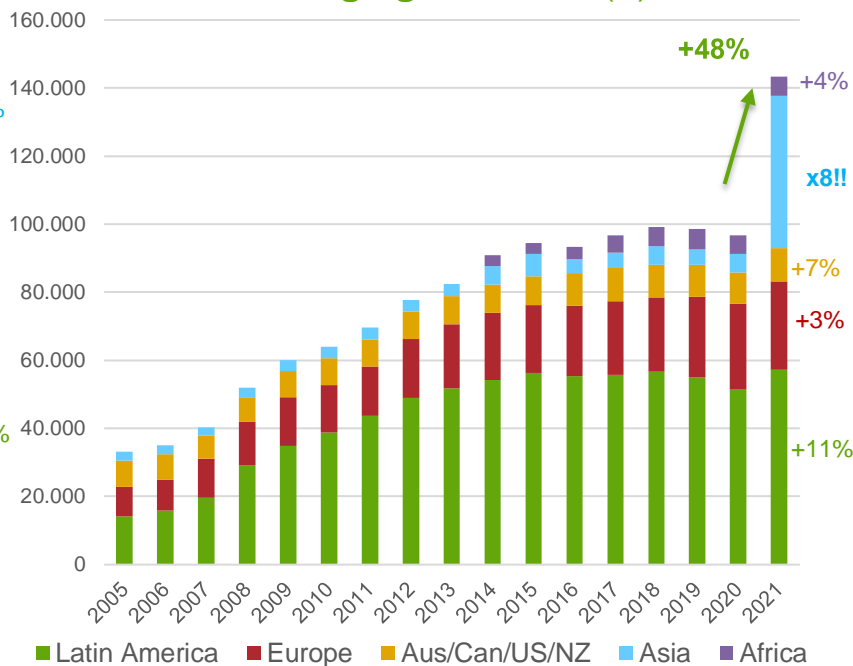
# Global CMS report 2021

Synopsis 2005-2021: Single trip primary packaging collected (declared by countries)

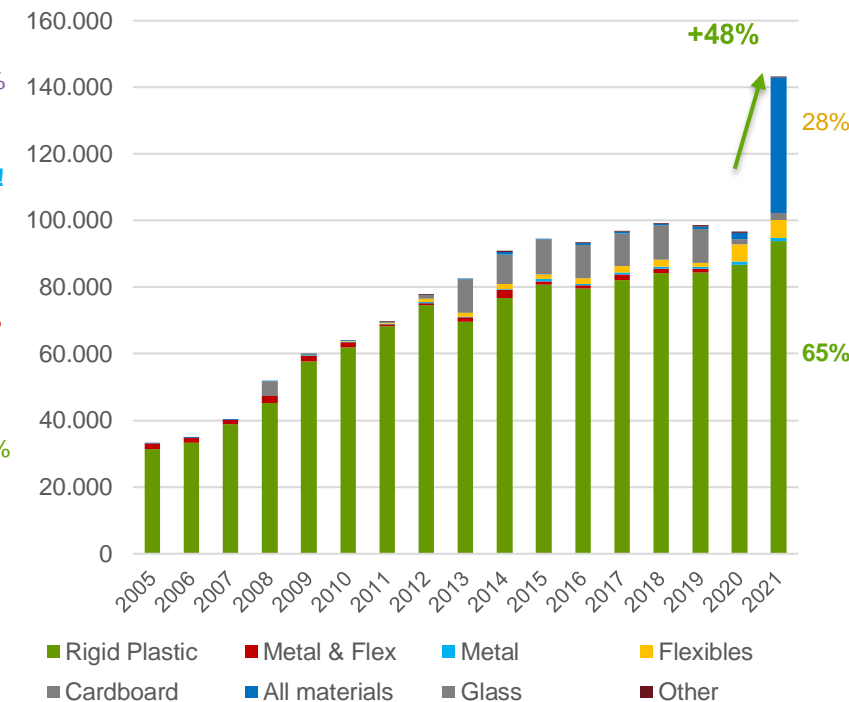
Plastic collected (T)



All Packaging collected (T)



All Packaging collected (T)



## Major trends 2021 vs 2020 (data declared by countries):

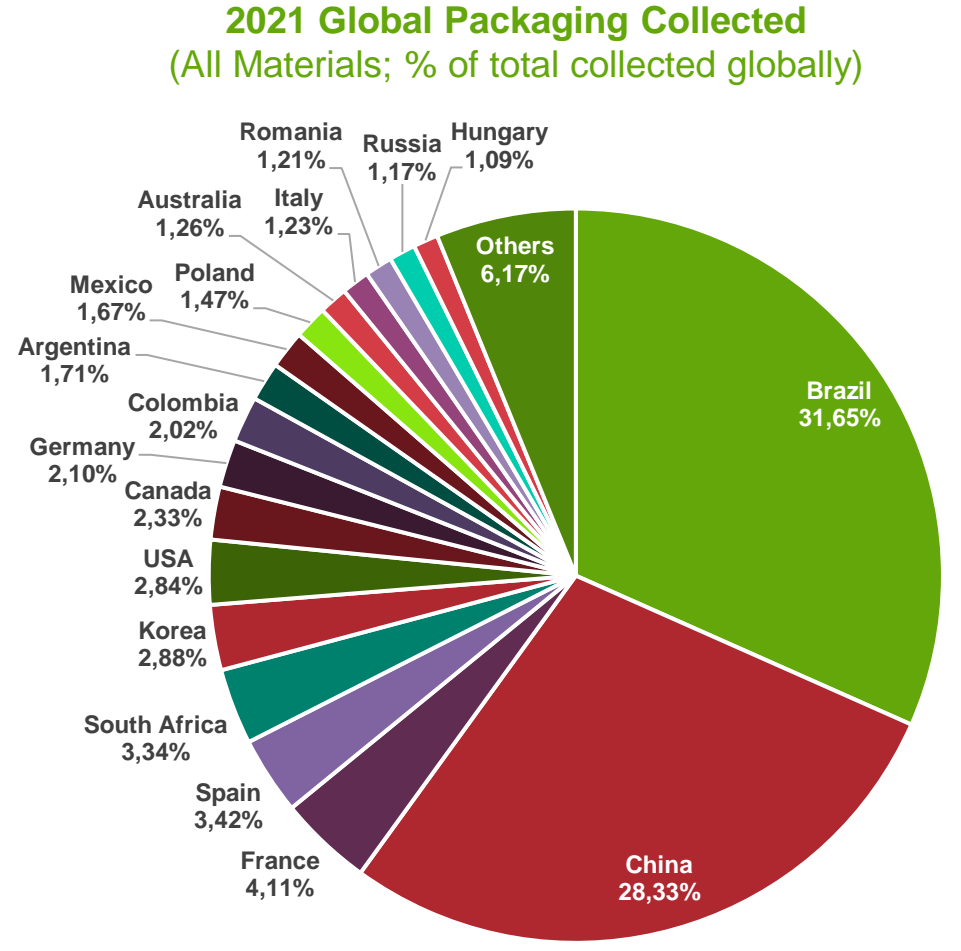
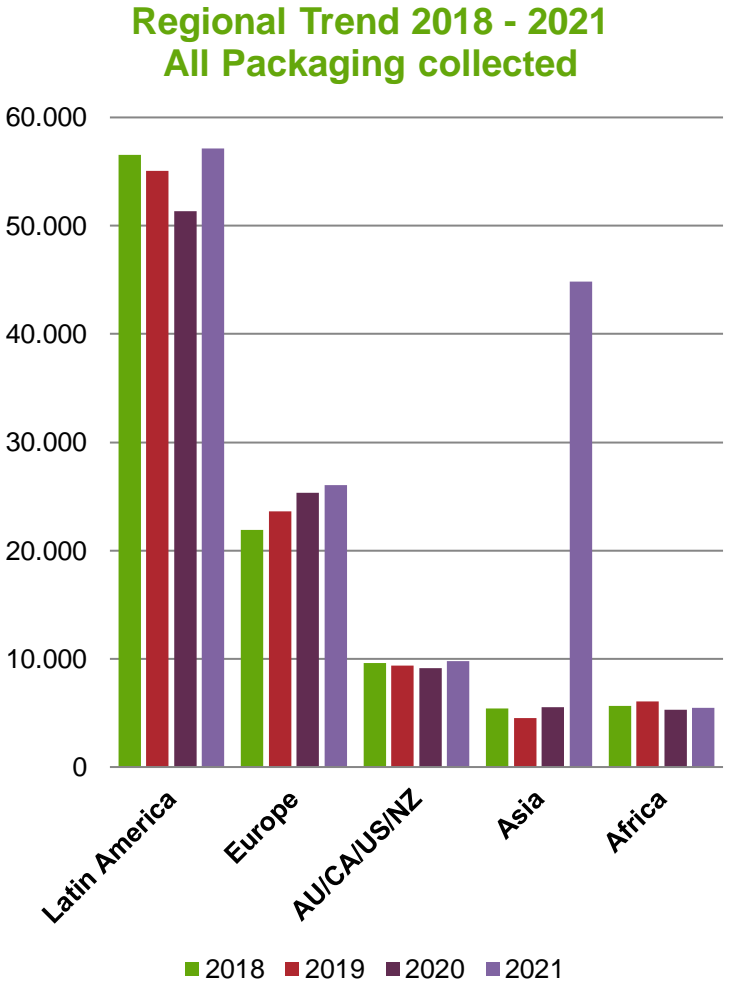
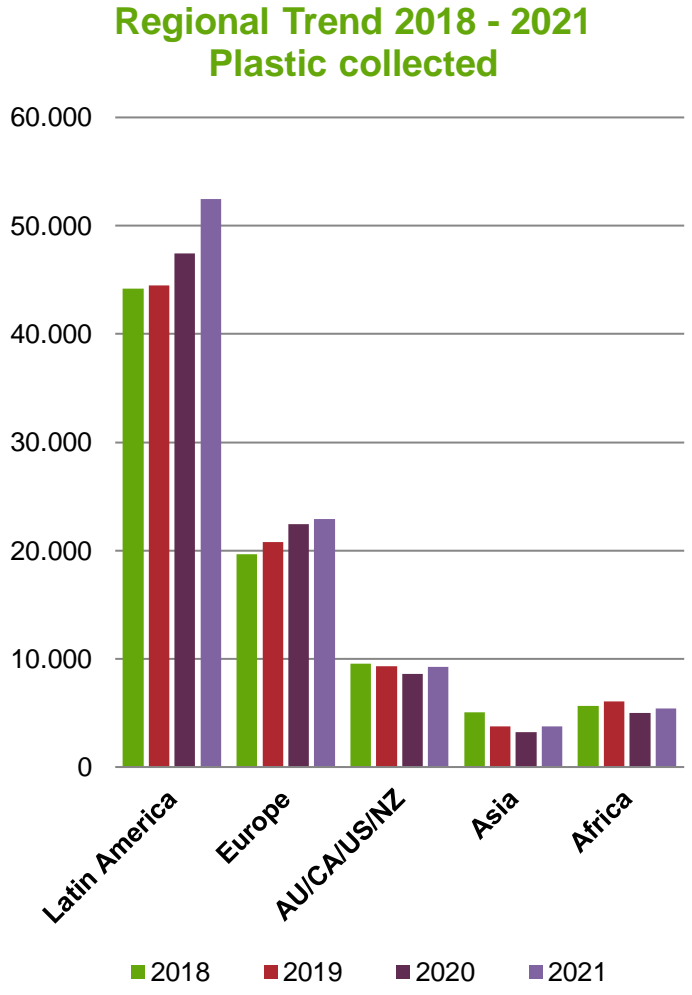
- ❖ **Latin America:** general collection increase, with 11 of 16 countries that have provided data for 2021 showing an increase, including +118% in AR, +22% in CO, +9% in BR.
- ❖ **Europe:** light collection increase, mainly due to the new project in Ukraine.
- ❖ **AU/CAN/NZ/US:** Impressive collection increase in NZ (+26%), Canada (+13%) and Australia (+10%); Collection remained the same in the US.
- ❖ **Asia:** 8-fold increase in China, with new data based on official Governmental data. Good increase in South Korea (+15%)
- ❖ **Africa:** General increase in the 9 countries out of the 10 countries that have reported data for 2021, in particular a 16% collection increase in SA.

Note: • Data covers **primary pesticide packaging** (those in contact with the products).  
 • Some countries do not collect shipped data or not for all material; *Collection figures cover benchmarked countries only. Data are expressed in metric tonnes.*  
 • The total amount of collected material may be higher due to other routes of collection

# Global CMS report 2021



## Regional trends 2018-2021 (declared by countries)



**Total collected: 143.300 T**  
(declared by countries)

The strong increase for Asia in 2021 is due to newly available official Governmental data for the collection in China, that is translated into a 8-fold collection increase in comparison to the data for 2020 collated by CropLife China. The quantity includes all primary packaging for crop protection products but could not be segregated into the different materials.

Note: • Collection figures cover benchmarked countries only. Data are expressed in metric tonnes.  
• The total amount of collected material may be higher due to other routes of collection

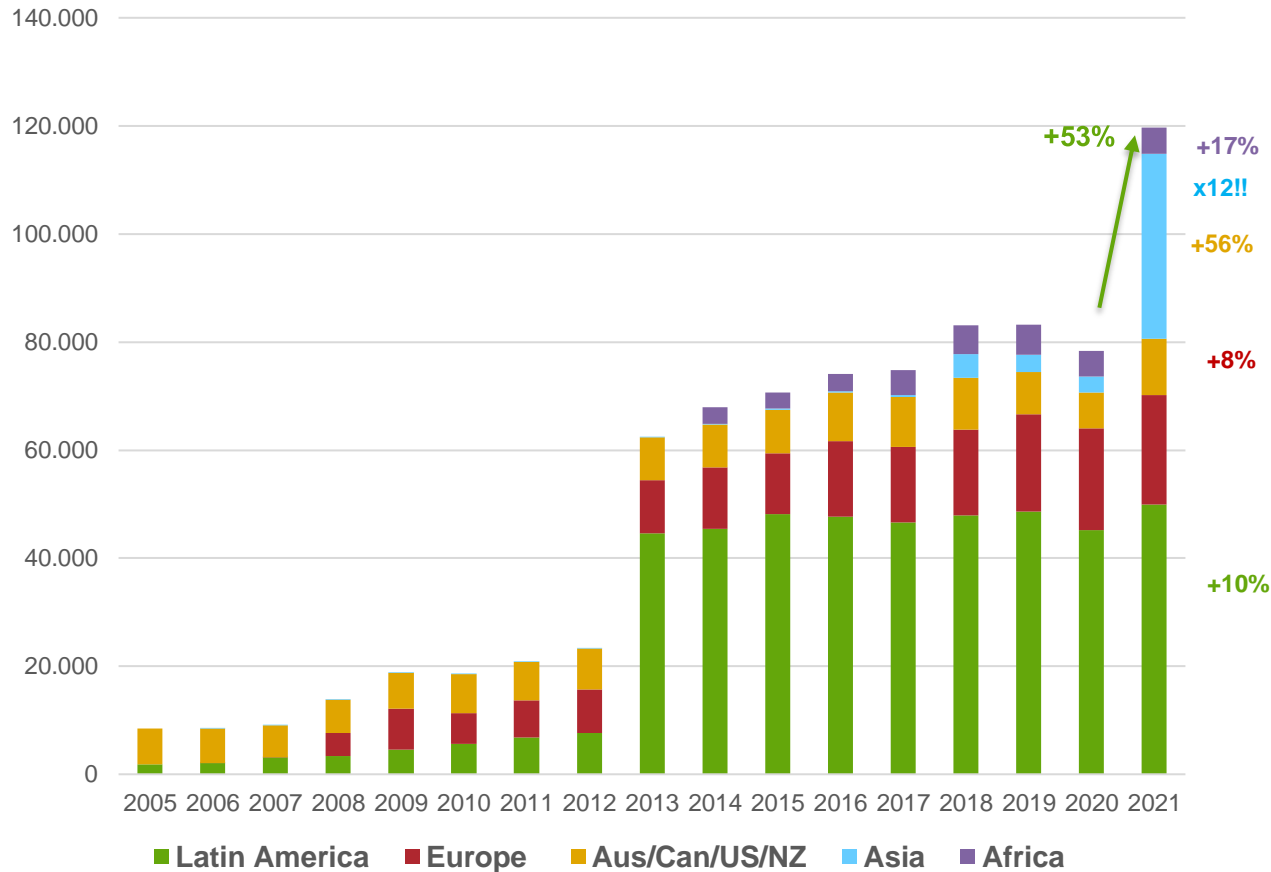


# Global CMS report 2021

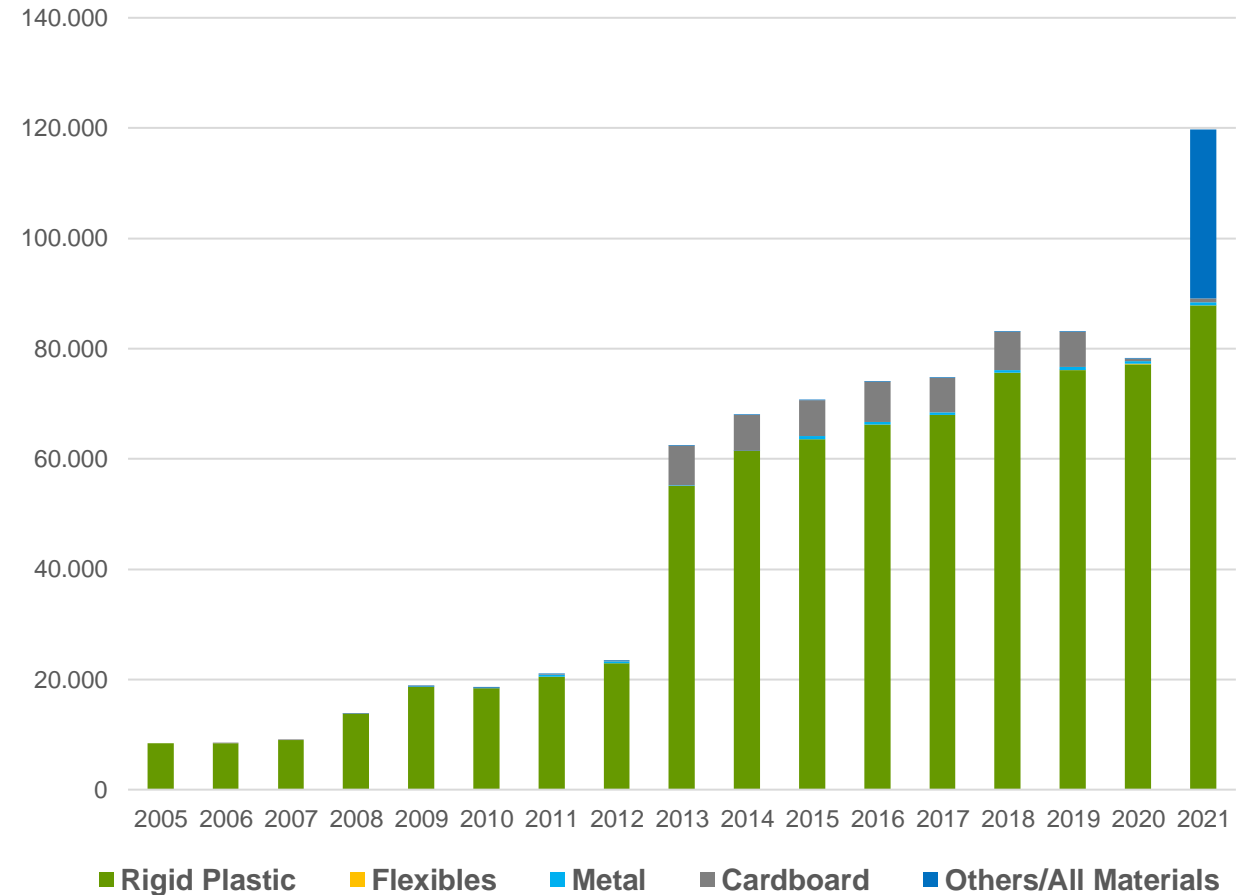
Material recycling (declared by countries)



## All Packaging Recycled 2005-2021 (Tons)



## Material recycling (Tons)



**Note:**

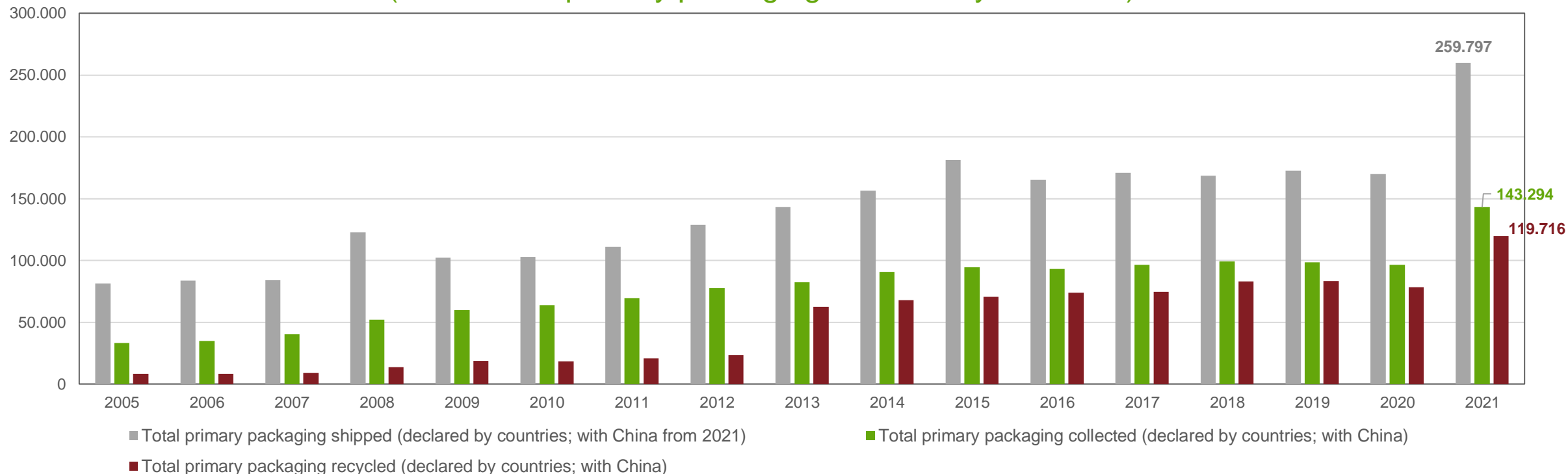
- Data expressed as metric tonnes
- Recycling means here the reprocessing of collected waste material into new products, materials or substances (material recycling). It excludes other recovery options such as energy recovery, co-incineration, co-processing in cement kilns, conversion into fuel, etc.
- The total amount of recycling material may be higher because recycling data have not been systematically collected in the past
- Recycling data from Brazil available from 2013 onwards

# Global CMS report 2021

## Summary Global quantities (declared by countries)

### Placed on the market - Collected – Recycled

(Metric Tons primary packaging declared by countries)



#### Quantity shipped:

- The data is based on data provided by benchmarked countries (around 60 countries).
- The global quantity is certainly higher as this data is not available for many countries in Asia, Africa & Middle-East. In these regions, the data was provided for few countries only (China, South Korea and South Africa) and for the last few years (>2014).
- For **China**, official data are available for the first time in 2021. Data for previous years is based on estimates and is not included in the global shipped data above.

#### Quantity collected & recycled:

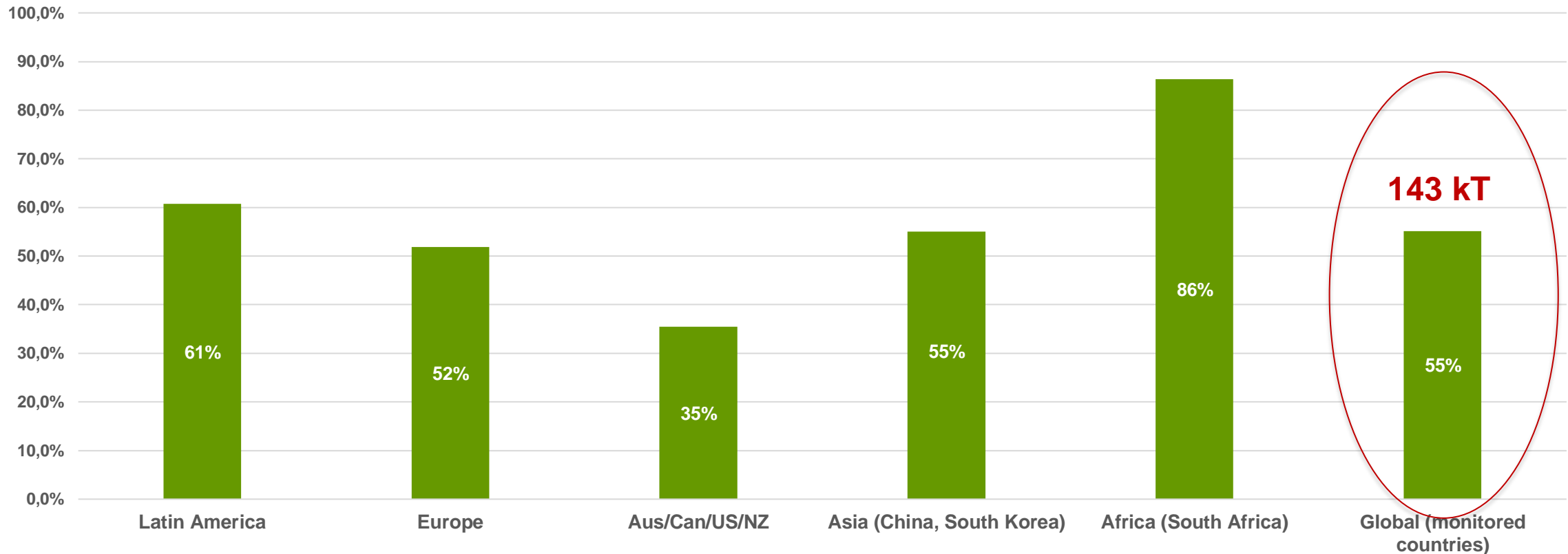
- Based on quantities declared by benchmarked countries (60 countries)
- The total amount of collected material may be higher due to other routes of collection
- The total amount of recycled material may be higher because this data has only systematically been collected in recent years

# Global CMS report 2021

## Regional collection performance (for monitored countries)

### Collection rate All Primary Packaging declared for 2021

Total Packaging collected vs Packaging sent to market (only countries that have provided this data)



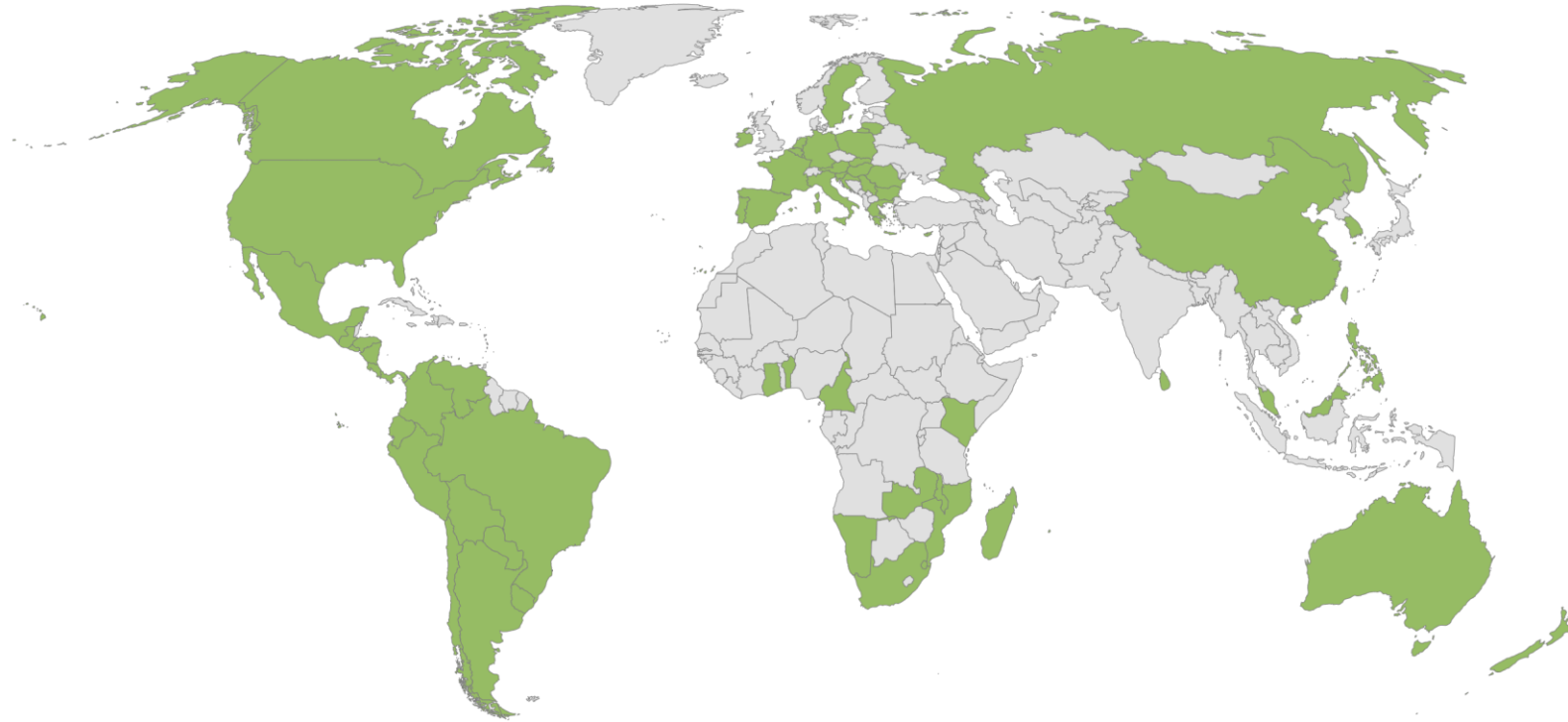
Note:

- Performance figures cover the data declared by benchmarked countries. For some regions, the data is solely available for few countries, thus, the collection rate for these regions represents the overall performance of these monitored countries only.
- The total amount of collected material may be higher due to other routes of collection

# Global CMS report 2021

## CMS network

### Countries with dedicated Container Management programs (2021; including pilot projects)



Argentina  
Australia  
Austria  
Belgium  
Benin (pilot; on hold)  
Bolivia  
Brazil  
Bulgaria  
Cameroon (pilot; on hold)  
Canada  
Chile<sup>1,2</sup>

China (pilot)  
Colombia  
Costa Rica  
Croatia  
Cyprus (pilot)  
Dom Republic  
Ecuador  
El Salvador (on hold)  
France  
Germany  
Ghana

Greece (pilot)  
Guatemala  
Honduras  
Hungary  
Ireland (pilot)  
Italy (pilot)  
Kenya  
Korea  
Lithuania (pilot)  
Luxembourg  
Madagascar (pilot)

Malawi (pilot)  
Malaysia  
Mauritius (pilot)  
Mexico  
Mozambique (pilot)  
Namibia (on hold)  
Netherlands (pilot)  
New Zealand  
Nicaragua  
Panama (on hold)  
Paraguay

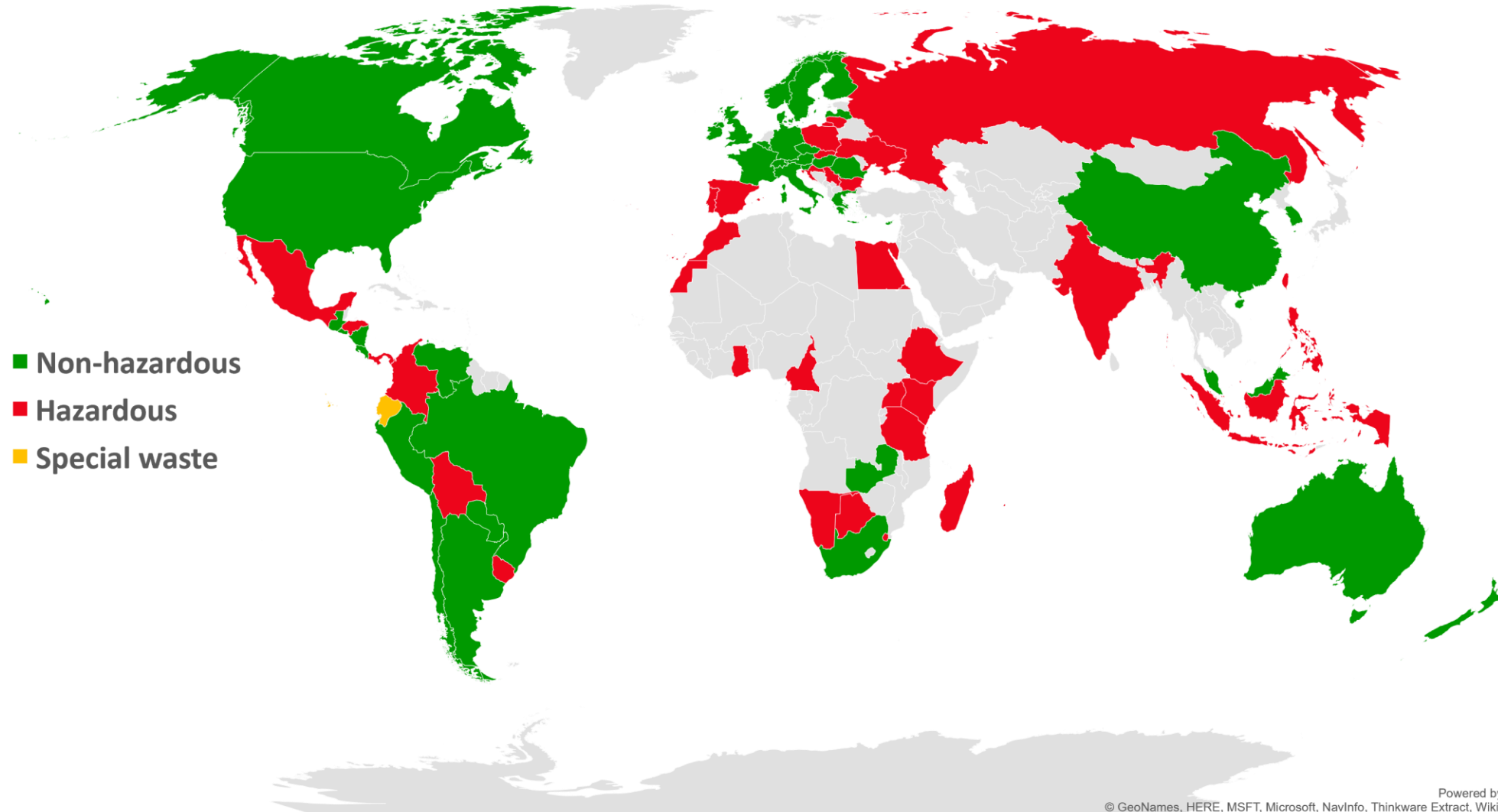
Peru  
Philippines (on hold)  
Poland  
Portugal  
Romania  
Russia (pilot)  
Serbia (pilot)  
Slovakia (pilot)  
Slovenia  
South Africa  
Spain

Sri Lanka (pilot)  
Swaziland  
Sweden  
Taiwan  
Uruguay  
USA  
Venezuela (on hold)  
Zambia

*(“on hold” when no collection activities reported in the last 3 years)*

# Global CMS report 2021

## Classification rinsed empty containers



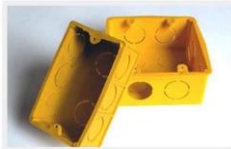
## CropLife's approach to the sound recycling of pesticide packaging materials

To ensure the safe and controlled recycling of material from pesticide packaging, the industry has developed a series of safeguard measures and guidelines:

- ✓ Only rinsed & controlled pesticide packaging should be sent for recycling.
- ✓ **Toll Manufacturers** (Reprocessor, Recycler):
  - ✓ Should be contracted based on a full assessment and approval process.
  - ✓ Must have clear responsibilities & liabilities established through legally binding contract.
  - ✓ Prefer few partners & long-term collaborations
  - ✓ Performance should be measured and improved.
- ✓ **End-use applications:**
  - ✓ Where possible, the plastic containers should be recycled into new products (end-use applications) and these should undergo a risk analysis to show that there is no unacceptable risk to humans and the environment.
  - ✓ Materials from primary pesticide packaging should not be recycled into products destined for the food, drink, pharmaceutical, toy, clothes, pet, veterinary, furniture & hobby garden sectors.
  - ✓ Prefer outdoor or underground/enclosed industrial end-use applications that are not in human contact on a routine basis.
  - ✓ A list of "**Tested end uses**" applications that have undergone risk analysis by individual container management programs is available on CropLife International website. Recyclates from CMS programs should not be used for applications listed as "**Rejected end uses**".
  - ✓ The crop protection industry promotes the **bottle-to-bottle recycling** when the final end use application is based on a risk assessment and that closed-loop recycling guidelines developed by CropLife International are followed (*guidelines in development; completion expected by the end of 2023*).
- ✓ Industry-run programs are accountable for the implementation of these safeguard measures and should have staff with the appropriate qualification, skill and experience to monitor the recycling activities and tollers.
- ✓ Country managers or local CropLife associations are requested to submit an annual report to CropLife International with statistical recycling results, end use applications, incident reports, etc.



(inpEV, Brazil)



Electrical box  
(inpEV, Brazil)



Battery box  
(inpEV, Brazil)

### Plastic being recycled into unknown or untested end-use applications is considered an industry risk!



Road fence & cones  
(SCAPA; RO)



Drainage pipe  
(ACRC; US)



Drainage pipe  
(ACRC; US)



Core tubes for agro-film  
(ADIVALOR, France)



Underground internet tube  
(SCPP; Bulgaria)



Cable conduits twin-layers  
(ADIVALOR, France)



Concrete saver  
(inpEV, Brazil)

- ❖ The figures represent best available data for **benchmarked countries** that provide their CMS data. 51 countries have provided some or all requested CMS data for 2021.
- ❖ There are 60 countries with operational CMS scheme(s), among them 18 in pilot stage.
- ❖ New CMS projects in **Ireland, Côte d'Ivoire, Zimbabwe, .....**
- ❖ Over **143.3 kT of pesticide packaging were collected in 2021** (93.7 kT of plastics). Over **1.3 MT of packaging** have been collected since 2005.
- ❖ **Collection rate** (All primary packaging; For countries that have provided quantities shipped & collected):
  - ❖ **Latin America: 61%** (↗)
  - ❖ **Europe: 52%** (↘)
  - ❖ **AU/CA/US/NZ: 35%** (↘)
  - ❖ **Asia: 55%** (↗) (only China & South Korea)
  - ❖ **AME: 86%** (↘) (only South Africa)
- ❖ **120 kT of packaging material recycled in 2021** into new items (84% of total collected). **Since 2005, over 836 kT of packaging material have been prepared for recycling** and sent back into the economy.
- ❖ Of the monitored countries, 39 classify rinsed pesticide containers as **non-hazardous waste**, 34 has **hazardous waste** and 1 as **special waste**

**Thank you**