



Getting hold of our material

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Working Group Enhancing
Collection and Sorting, PCEP

Content

Where we stand in Europe with the collection

Collecting – key to a circular economy

What works well and what doesn't yet work so well

What PCEP is doing

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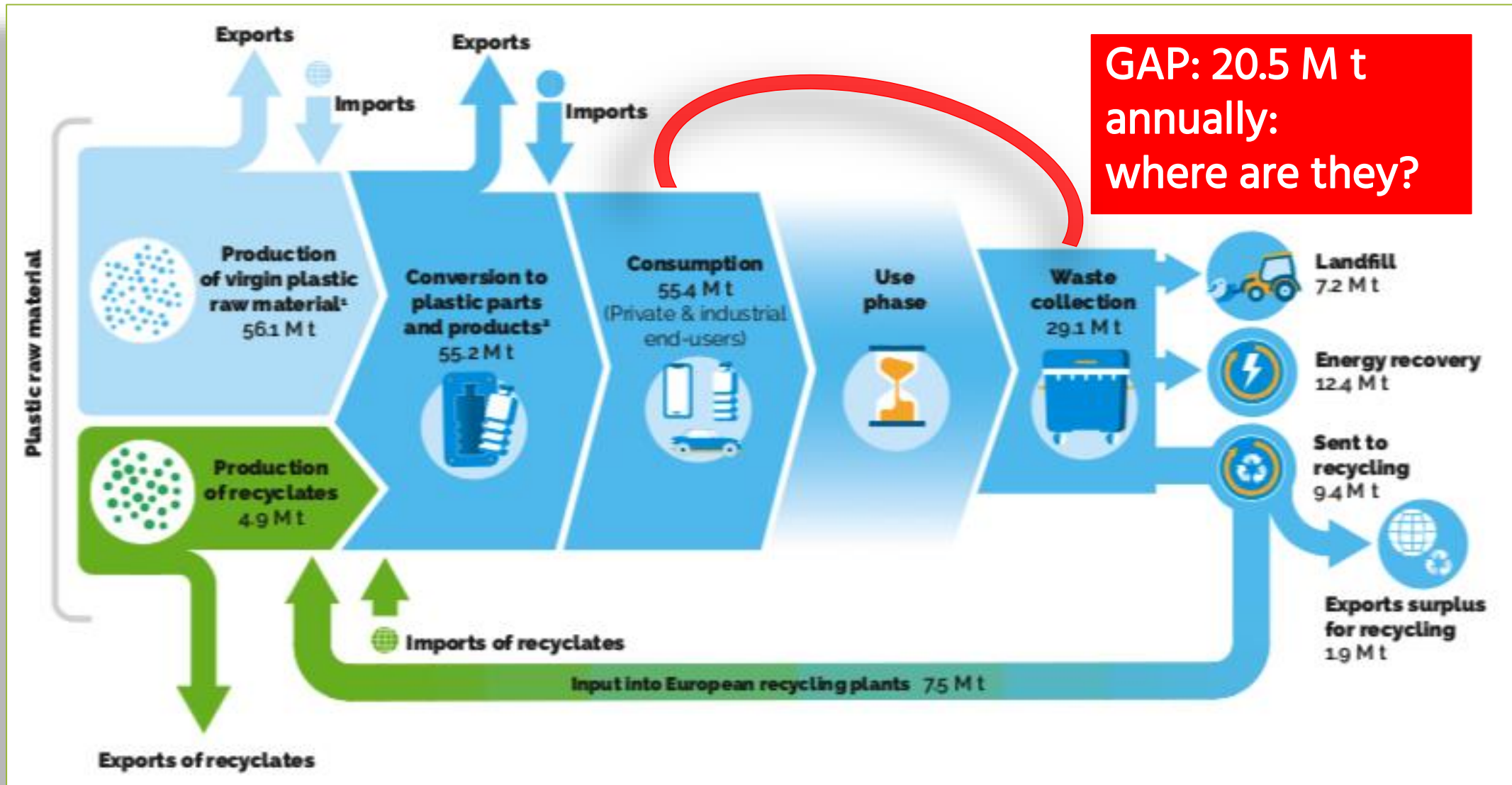
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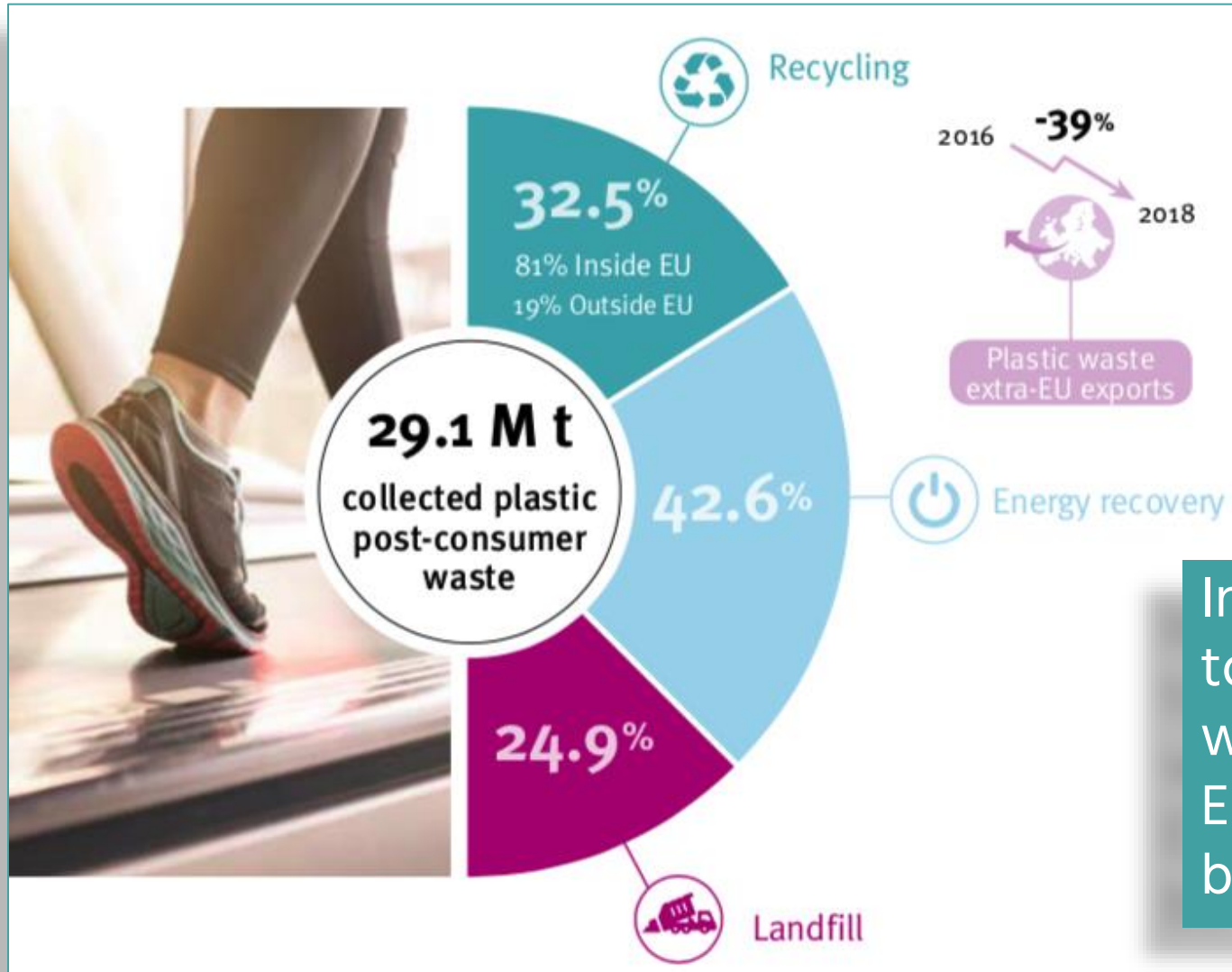
What PCEP is doing

State of the circular economy



State of plastics collection

Source: PlasticsEurope, Plastics - the Facts 2019



In 2018, 29.1 million tonnes of plastic waste were collected in the EU28+NO/CH in order to be treated.

State of plastics collection

- Are we all aware of what “post consumer waste” is?
- Do we know the polyolefin content of the waste streams?



Polyolefins in a circular economy



50%
of Europe's
plastics demand



70%
of Europe's plastic
packaging demand



59%
of collected post-
consumer plastic
waste

State of plastics collection

- Obviously, there seems to be a big hidden potential of appr. 20 m t per year for more recycling and recovery
- But where is the material, when can we expect it to reappear a waste, what needs to be done to retrieve it?



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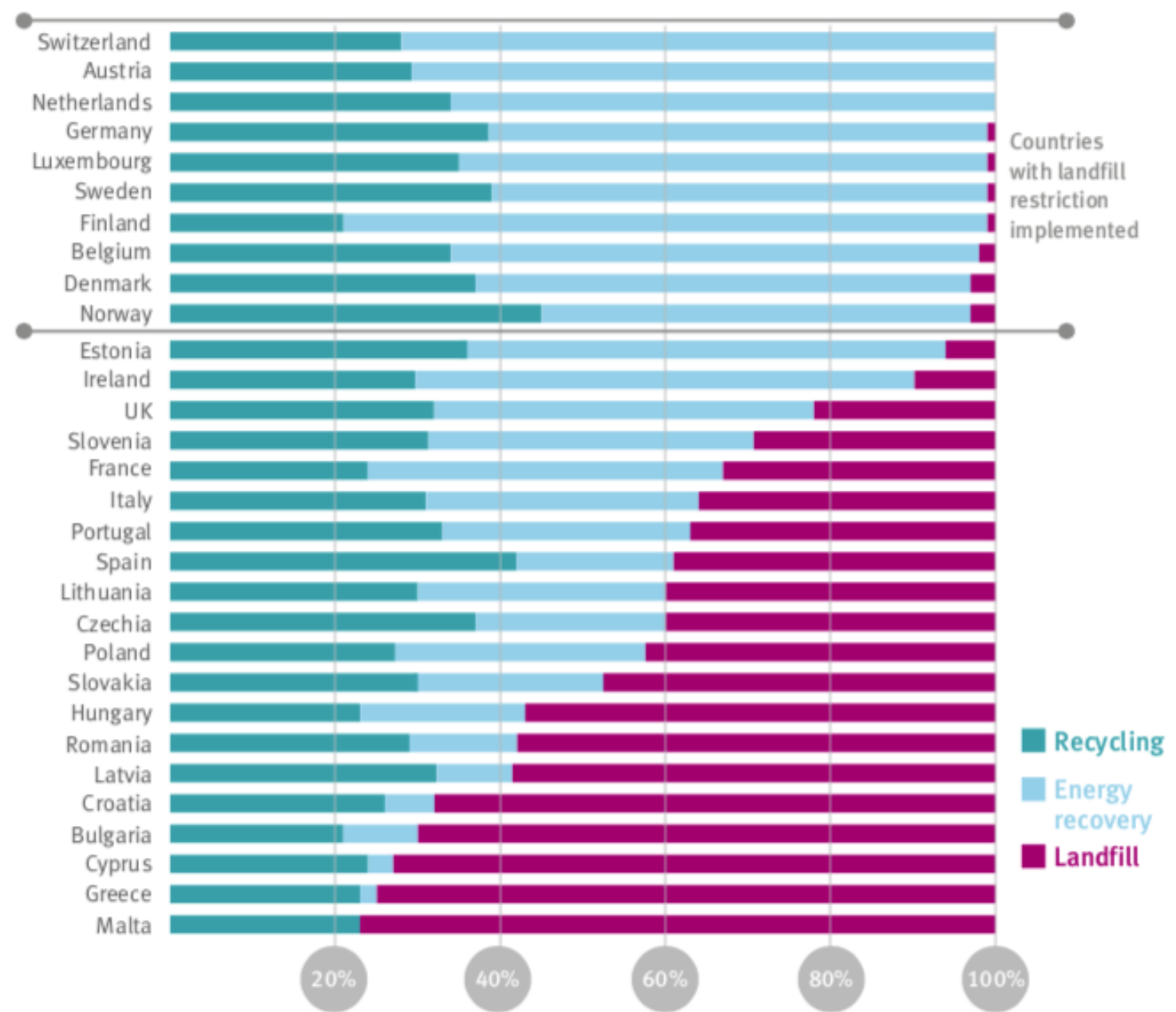
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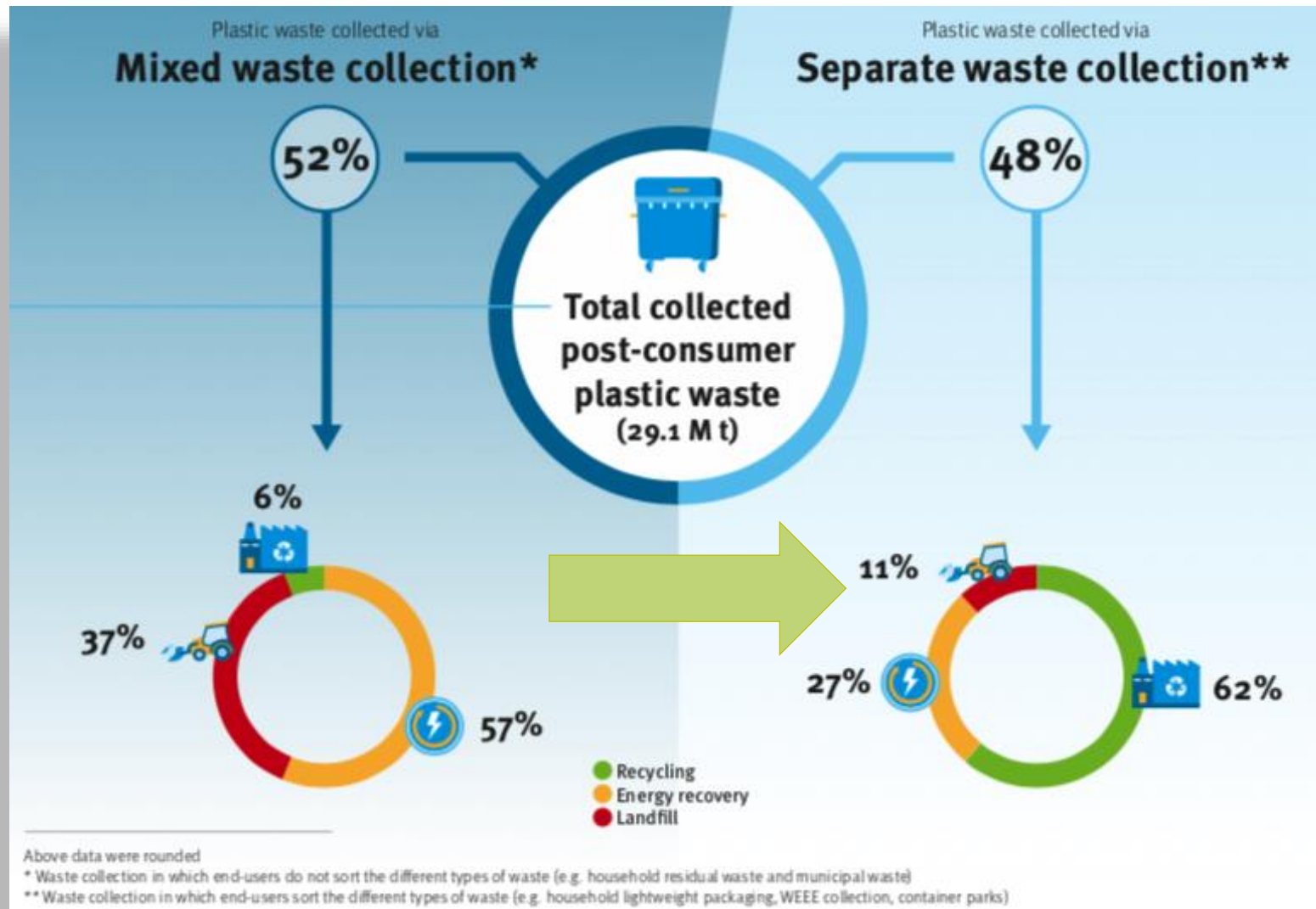
What works well and what doesn't yet work so well

What PCEP is doing

Plastic post-consumer waste rates of recycling, energy recovery and landfill per country in 2018



Collect separately

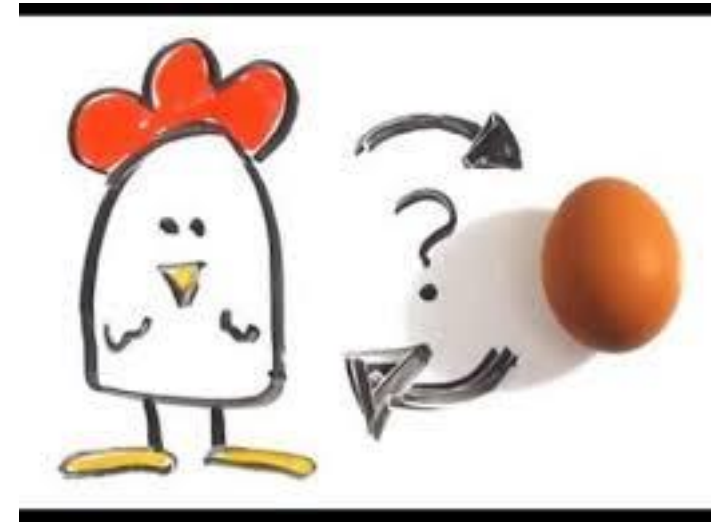


Source: PlasticsEurope, The Circular Economy für Plastics, 2019

Start collecting now!

Member states do

- not collect at all
- not collect all plastic packaging or
- only collect certain packaging applications (cherry-picking for PE-HD bottles, PET beverage bottles etc.)



- ⇒ Chicken-henn-dilemma: no collection – no capacities in sorting and recycling??
- ⇒ Previous cherry picking has resulted in much higher costs, lower quality and less acceptance as soon as other, less valuable applications (min 60%) were collected and recycled as well

Collect separately

More than half of all post-consumer plastic waste can be found in different mixed waste collection streams (e.g. municipal household waste) in which the share of plastics ranges from 2% to 8% by weight



Most *recycled* plastics come from separately collected wastestreams generated at households or at commercial activities.



Collect separately

Reasons are obvious:

- Separate paper collection as a role model
- Cross-contaminating on the surface: bad yield
- Absorbing odours and unwanted substances: bad quality / foodgrade??
- 100% sorting with 8 -10% recovery rate for plastics:
 - good business for sorters and suppliers
 - bad business for the value chain

Consumers separating at home therefore play an important part in the effort to recycle more plastics.

Collect separately

- Commingled collection with other dry recyclables is an option to enhance convenience and efficiency of collection logistics: materials have to agree!
- Sorting RSW to retrieve plastics for mechanical (and chemical) recycling can become necessary as fall back position under certain circumstances (which still need to be agreed upon)

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What works well and what doesn't yet work so well?

Consumers want to participate, but effectively:
We have to offer segregation convenience!

Some undisputed learnings from countries where nationwide collection for all plastic packaging is in place:

- simple segregation requirements (e.g. „all plastic packaging“ vs. „no flexibles“, „PE-HD only“, „bottles only“)
- Kerbside collection (quantity) vs. bring-systems (quality)

What works well and what doesn't yet work so well?

Consumers want to participate, but effectively:
We have to offer segregation convenience!

Recyclability by design plays an important role here, too:

- No disguised as plastic packaging (looks like paper but is coated plastic): easy to allocate to the right collection stream by consumers
- DFR vs. dismantling instructions on packaging: not convenient, not happening

Re-inventing the wheel and expecting too much from the consumers however seem to be the new fashion

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- Voluntary commitment to enhance collection & sorting.
- Ongoing study to update our figures to 2019 for LDPE, HDPE, PP post-consumer waste collection and estimate post-industrial volumes. Due early February.
- Scoping new study to map collection & sorting, starting from application to expected streams to PO type in waste stream

What PCEP is doing

- Reviewing a joint project with CEFLEX on compositional waste analysis
- Identifying best practice and lessons learned for collection & sorting of polyolefins
- Coordinating the full value chain position on principles for collection, sorting and EPR schemes

About



mtm plastics, member of the **Borealis Group of Companies**.

mtm plastics and mtm compact are recycling and recovering 100 k t of polyolefin (packaging and bulky house-hold) waste per year.

www.mtm-plastics.eu

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Thank you

