

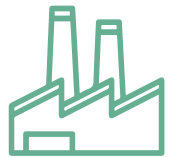
# How to cope with demand and longterm view with investment?

Recyclers view

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PLASTICS RECYCLERS EUROPE  
VICE PRESIDENT

# PLASTIC RECYCLING INDUSTRY IN EUROPE

## FACTS & FIGURES



+650 COMPANIES



€7.7 BILLION TURNOVER



9.6 MILLION TONES  
INSTALLED CAPACITIES

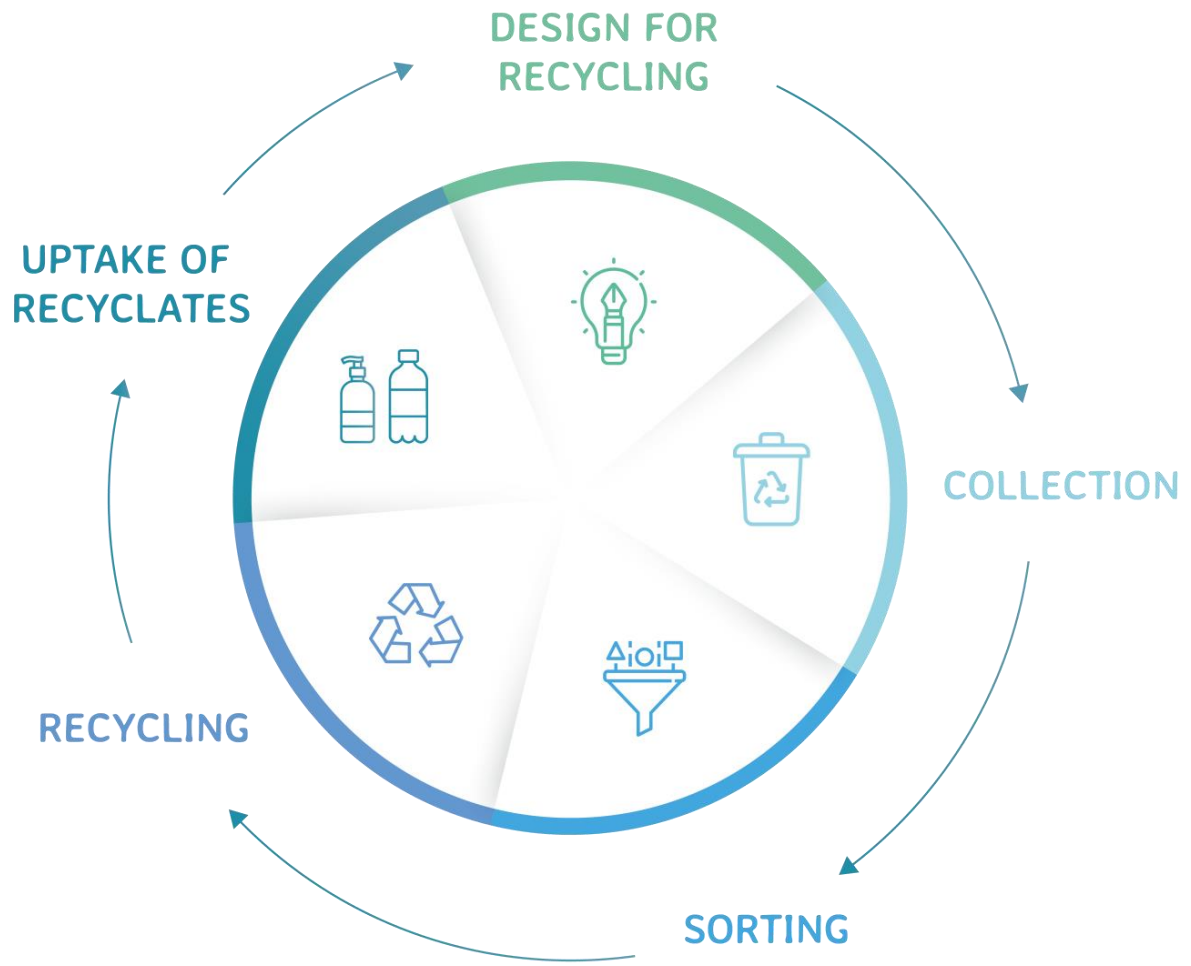


+20.000 EMPLOYEES



# OUR VISION

## MAKING PLASTICS CIRCULAR



- Advancing circularity of plastics through increased quality plastics recycling & use of recycled materials in high-end products
- Improving recyclability of plastic products
- Harmonising of the recycling standards & practices across Europe
- Genuine transition towards circular economy



# State of play

# "2021 slide" What are questions PRE still have?

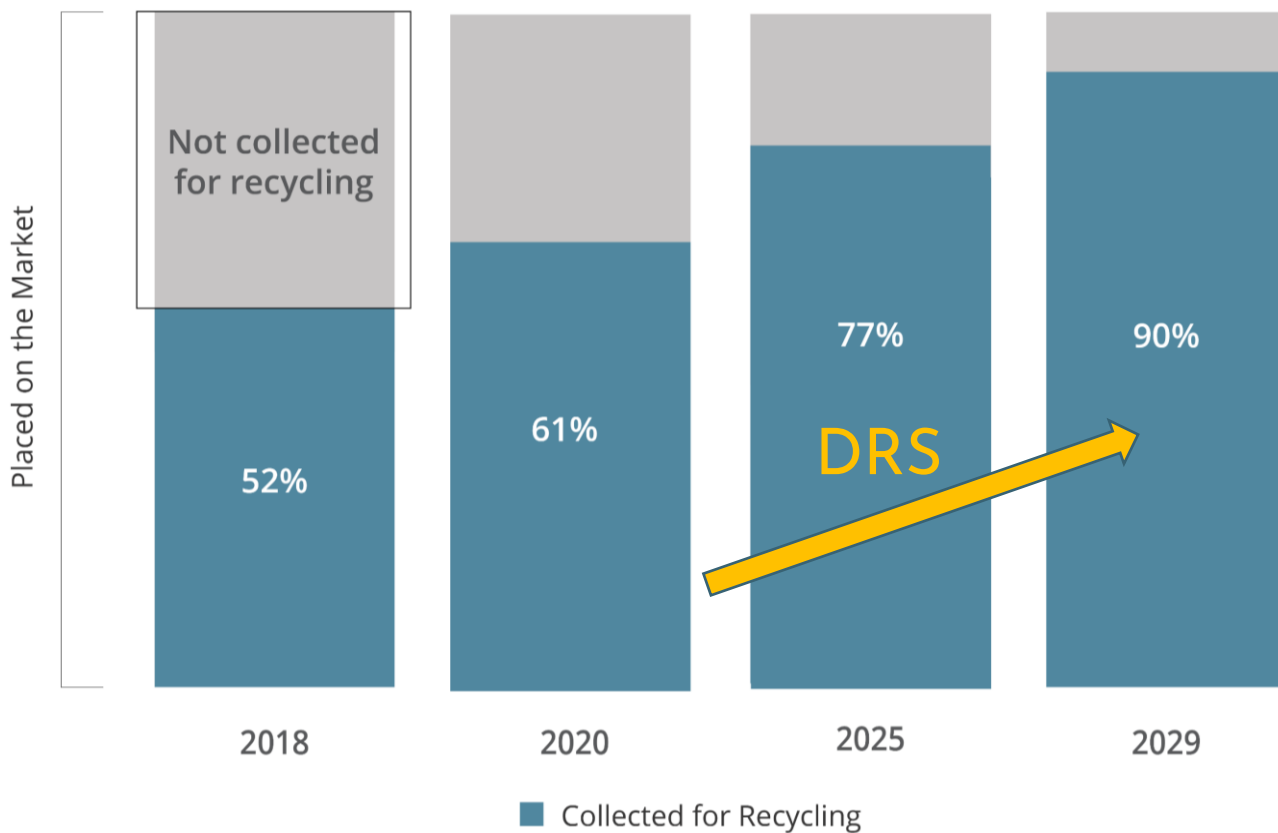
- Questions of PRE for PET Value Chain:
  - How will the rPET bottle market develop as material becomes more tight in next years?  
**Price increases have confirmed tightness**
  - Remains the concept of deposits consortia's still a local puzzle to get started? **Still delays to get started**
  - Is the publication of 282/2008 creating a better level playing field for PET value chain? **Novel technology introduction as concept to cover more options**
  - Are RPET requirements based on more local commitments or is global supply/demand needed? **Imports of different RPET feedstock elements have increased**
  - How is the chain of custody developing to prove the required quota? **Industry is preparing for traceable transparency.**
  - What is the effect of the EU tax on the difference collection systems and packaging concepts? **Not confirmed clear effect**
  - Can we expect harmonised EU standards for feedstock and applications in Foodgrade? **Too early to say.**

# COLLECTION

## targets



PET Bottles Collection Evolution



### State of the affairs

- ✓ 4.6mt of PET rigid packaging ended its product life and was available for collection in 2020
- ✓ 61% of PET bottles and 21% of trays were collected for recycling

### Deposit Return Schemes (DRS)

- ✓ 19 EU Member States to have DRS in place by 2025
- ✓ sorted for recycling rates of 7 EU Member States with established DRS are of 83% or higher.

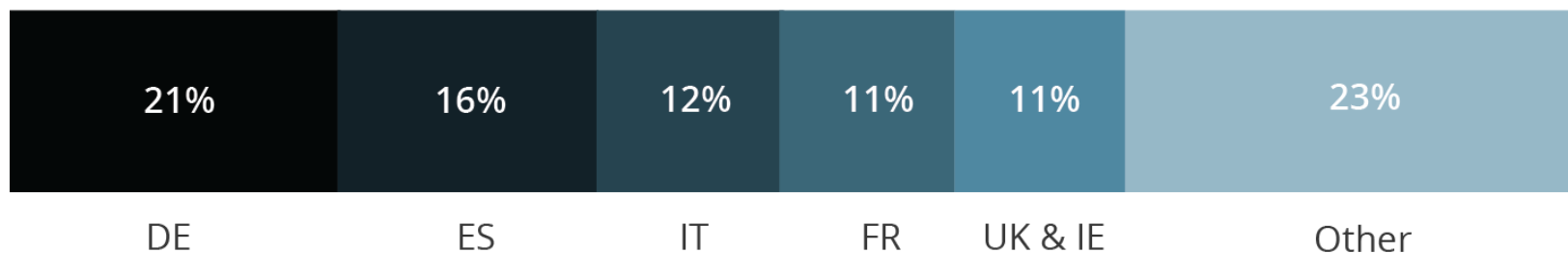
*\*2025 & 2029 - Single Use Plastic Directive Target*

# RECYCLING

## CAPACITY PER COUNTRY



PET Recycling Input Capacity (EU27+3), 2020



- 2.8Mt PET installed recycling capacity
- 6 countries account for 71% of the total share, with Germany leading the group
- Potential DRS countries need tailormade adaptations to capacity development

# RECYCLING

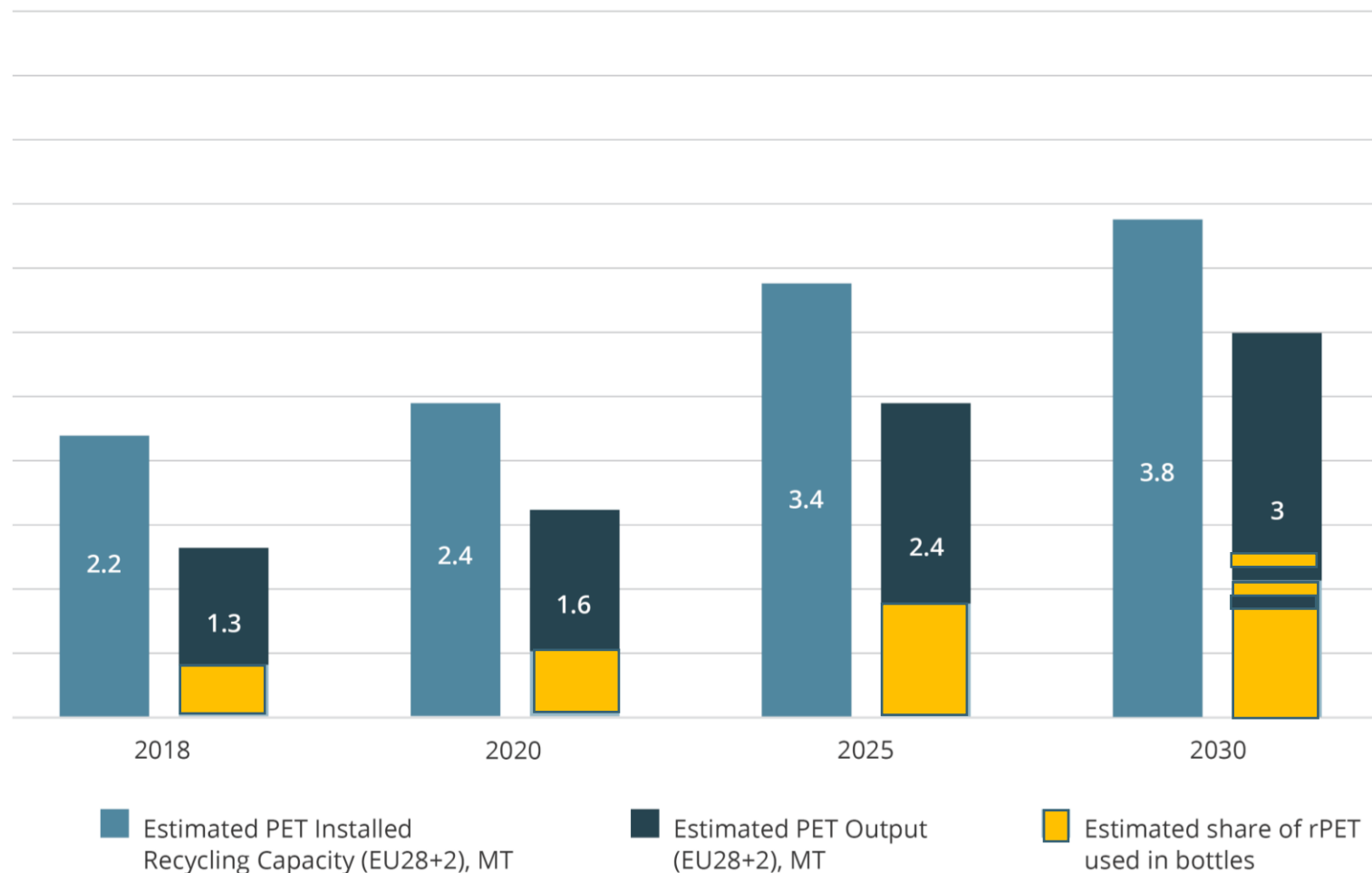
## FAST-PACED GROWTH OF PLASTIC RECYCLING



PET recycling capacity increased roughly by 21% in 2020, reaching a total of 2.8mt, another +30% is needed until 2030

### Trends:

- ✓ Bottle-to-bottle recycling to grow
- ✓ Less rPET going to sheets and more to bottles
- ✓ Tray-to-tray recycling to grow (apart from Netherlands, also in France and Belgium)



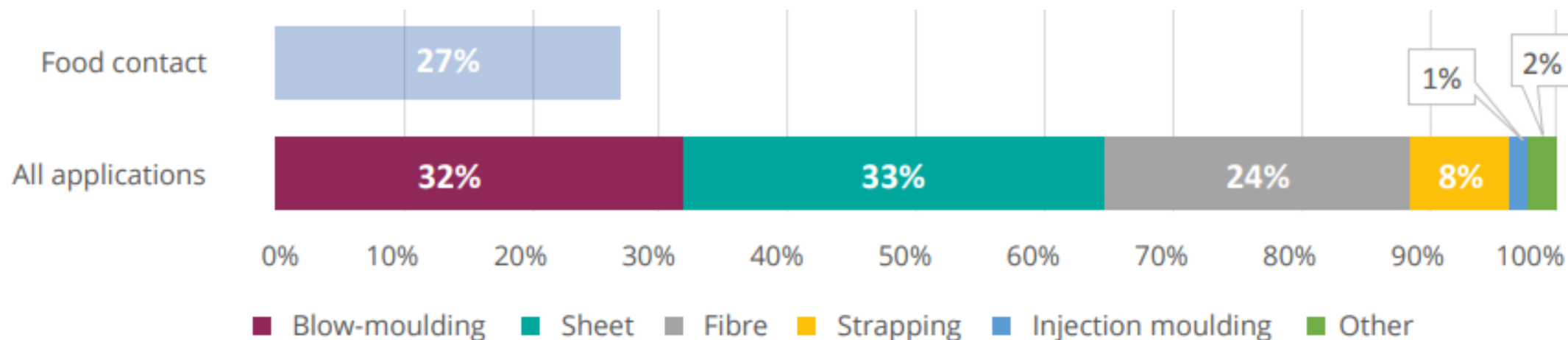
*\*compared to 2018 data*



# rPET END MARKETS



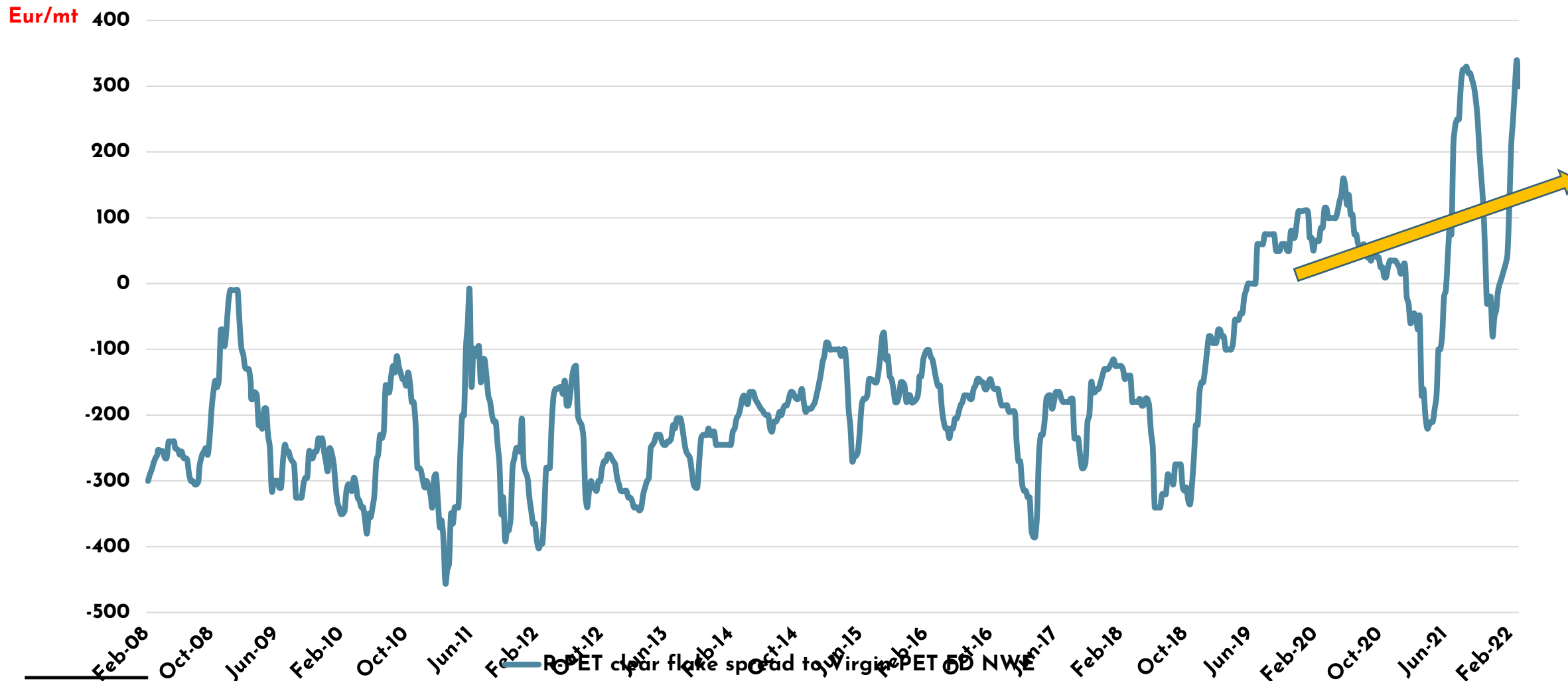
- ✓ 1.7mt of flakes was estimated to be produced in 2020
- ✓ there is a steady growth within trays and sheets application, which with a 33% share remain the largest outlet for rPET in packaging,
- ✓ followed by food contact bottles with a 29% share
- ✓ Estimate RPET content in PET bottles is 17%



2020 data

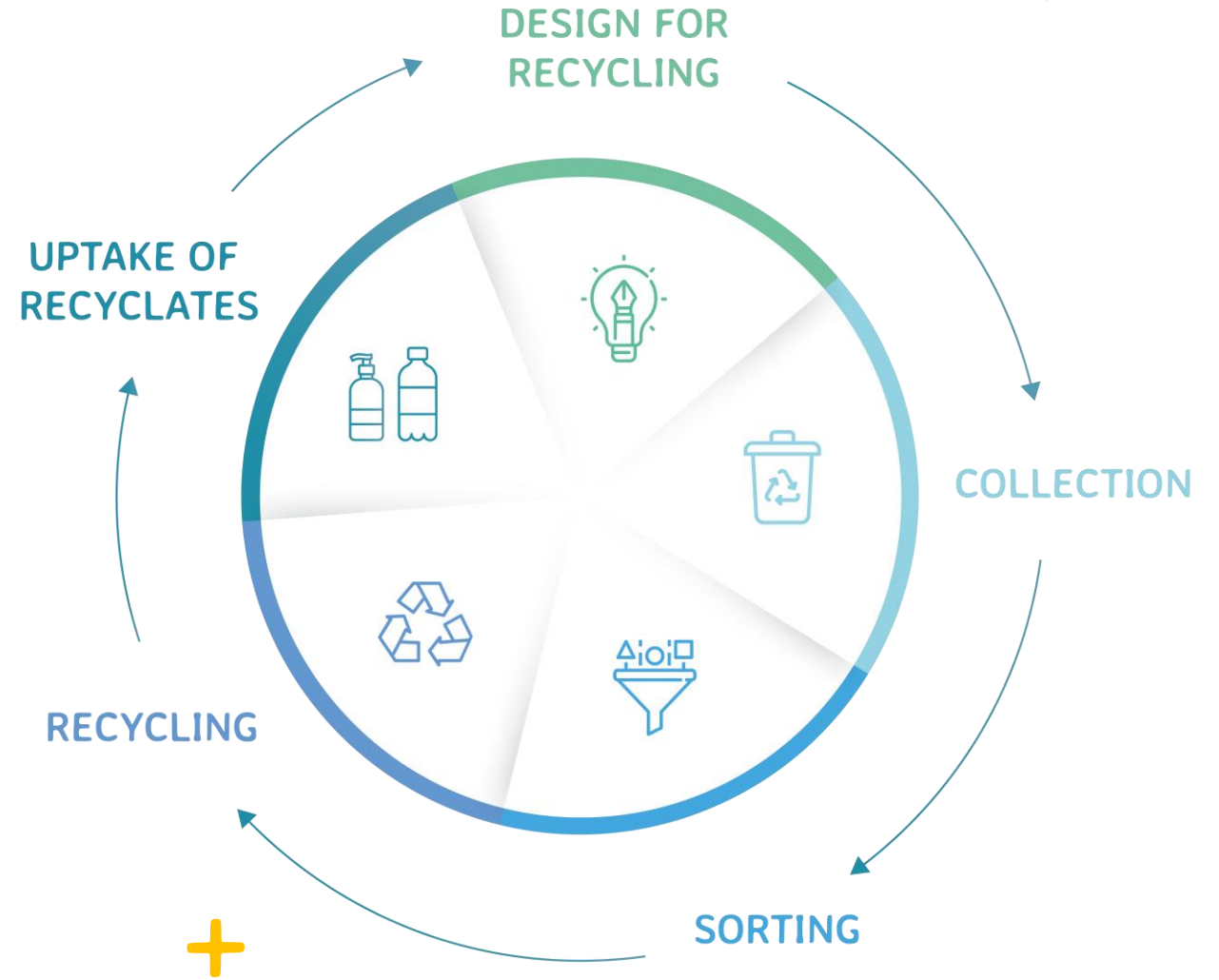
# rPET PRICES

RPET flake spread to Virgin PET FD NWE, Period 2008-2022



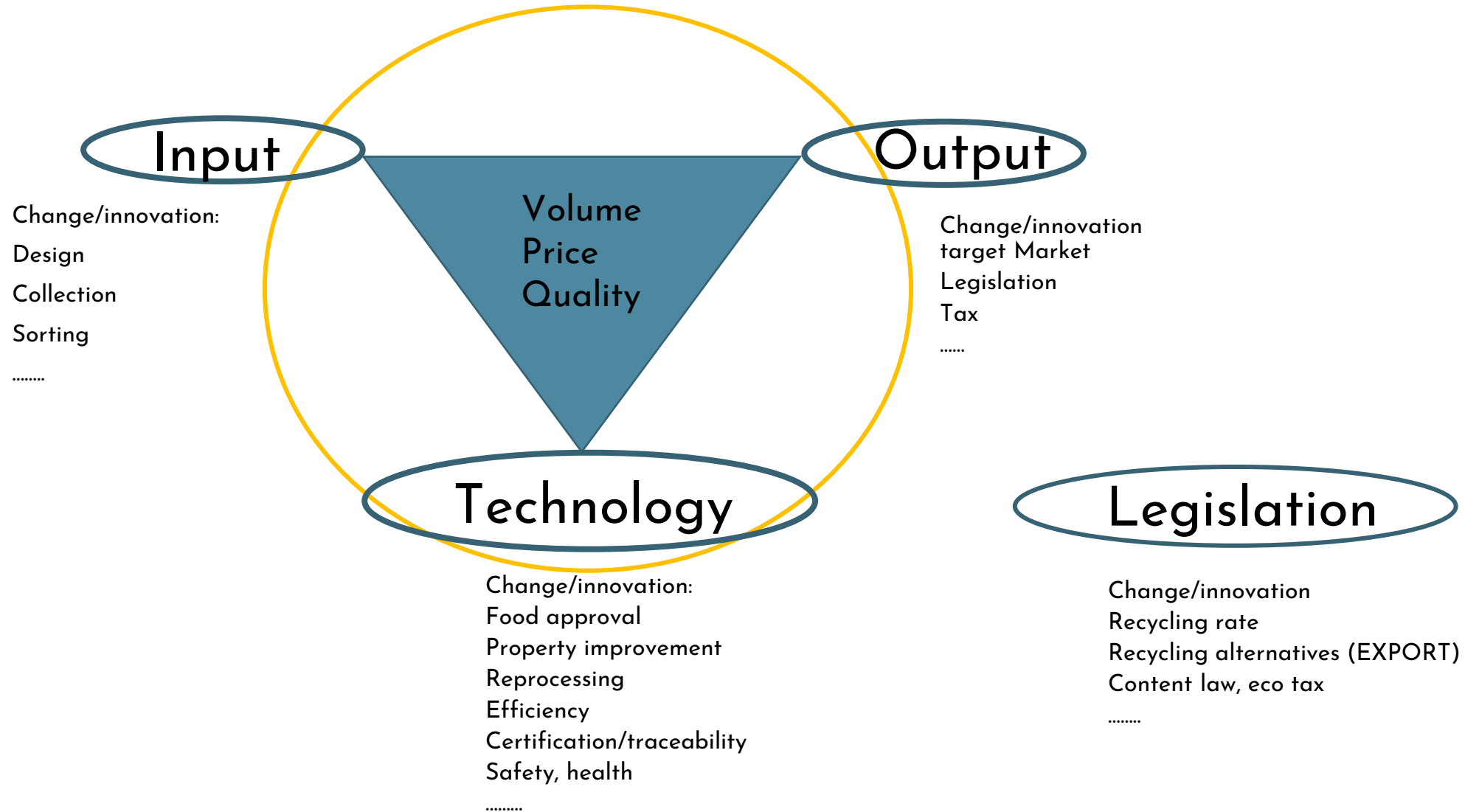
**KEY  
DRIVERS for  
circularity**

# KEY DRIVERS FOR INCREASING PET RECYCLING



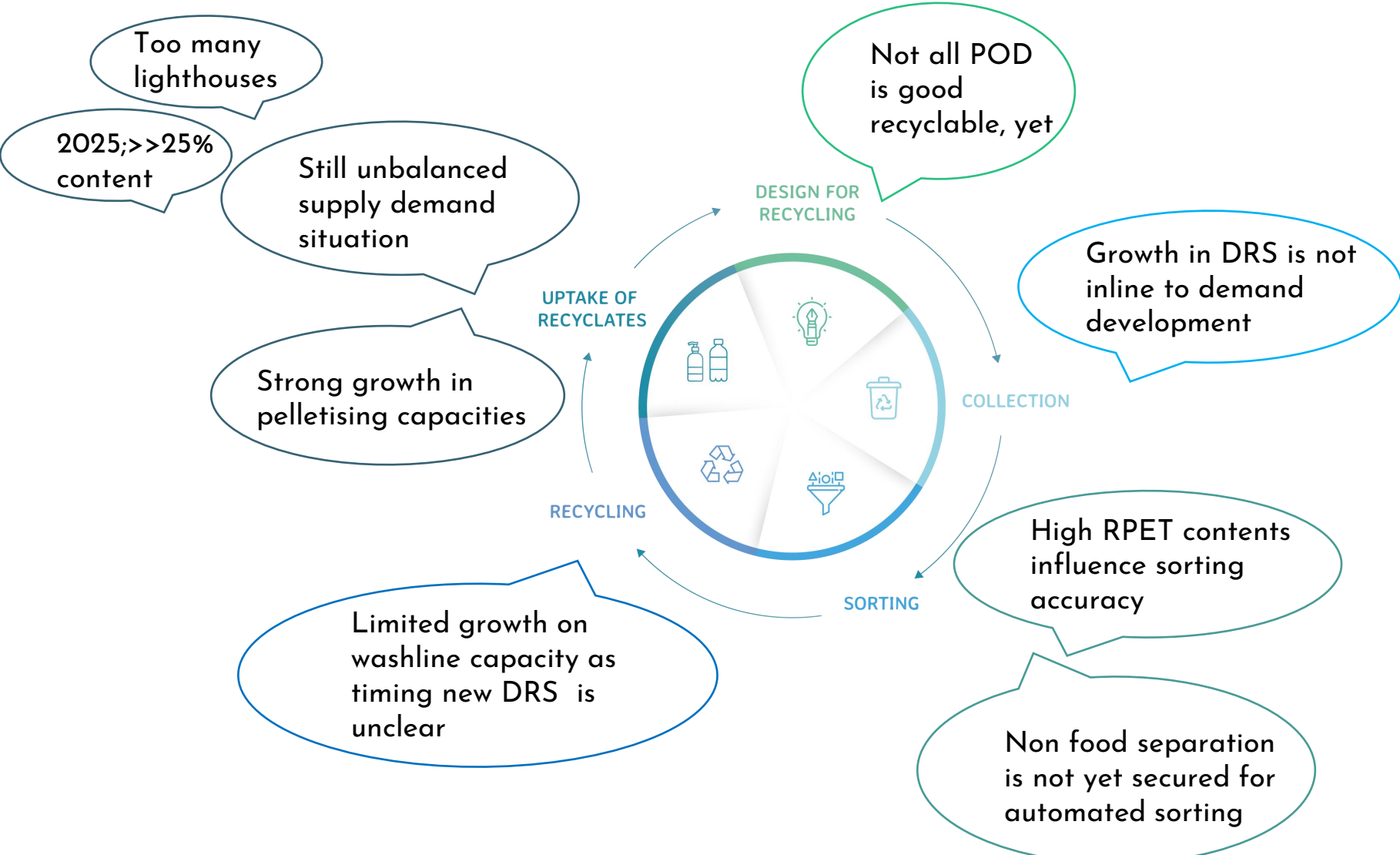
LEGISLATIVE FRAMEWORK

# Investment senario for recycling



# What is typical in the drivers today

## Overview



# INPUT

## STATUS OF DRS DISCUSSION IN EUROPEAN COUNTRIES



DRS ESTABLISHED <sup>26</sup>		POLITICAL DECISION TAKEN <sup>27</sup>		DRS IN DISCUSSION	CURRENTLY UNKNOWN
ICELAND	1989	IRELAND	2022	BELGIUM	ITALY
DENMARK	2002	SCOTLAND		FRANCE	LUXEMBOURG
SWEDEN	1984	LATVIA		SPAIN	
NORWAY	1999	ROMANIA		SLOVENIA	
FINLAND	2008	TURKEY		BULGARIA	
ESTONIA	2005	MALTA	2023	CZECH REPUBLIC	
LITHUANIA	2016	HUNGARY			
CROATIA	2006	GREECE			
GERMANY	2003	POLAND	2024		
NETHERLANDS <sup>28</sup>	2005	PORTUGAL			
SLOVAKIA	2022	ENGLAND, WALES, N. IRELAND	2025		
		AUSTRIA			
		CYPRUS			

*\*EUNOMIA I PET MARKET IN EUROPE: STATE OF PLAY  
Source: EPA Network<sup>29</sup>, NMWE, TOMRA*

# RECYCLING TECHNOLOGIES

## Opportunities

Current status is based on  
-Limited sorting & Mechanical Recycling

Transition to **smart sorting** will improve quality & efficiency options

Organised DfR including a modulation for new DRS systems will improve quality & efficiency

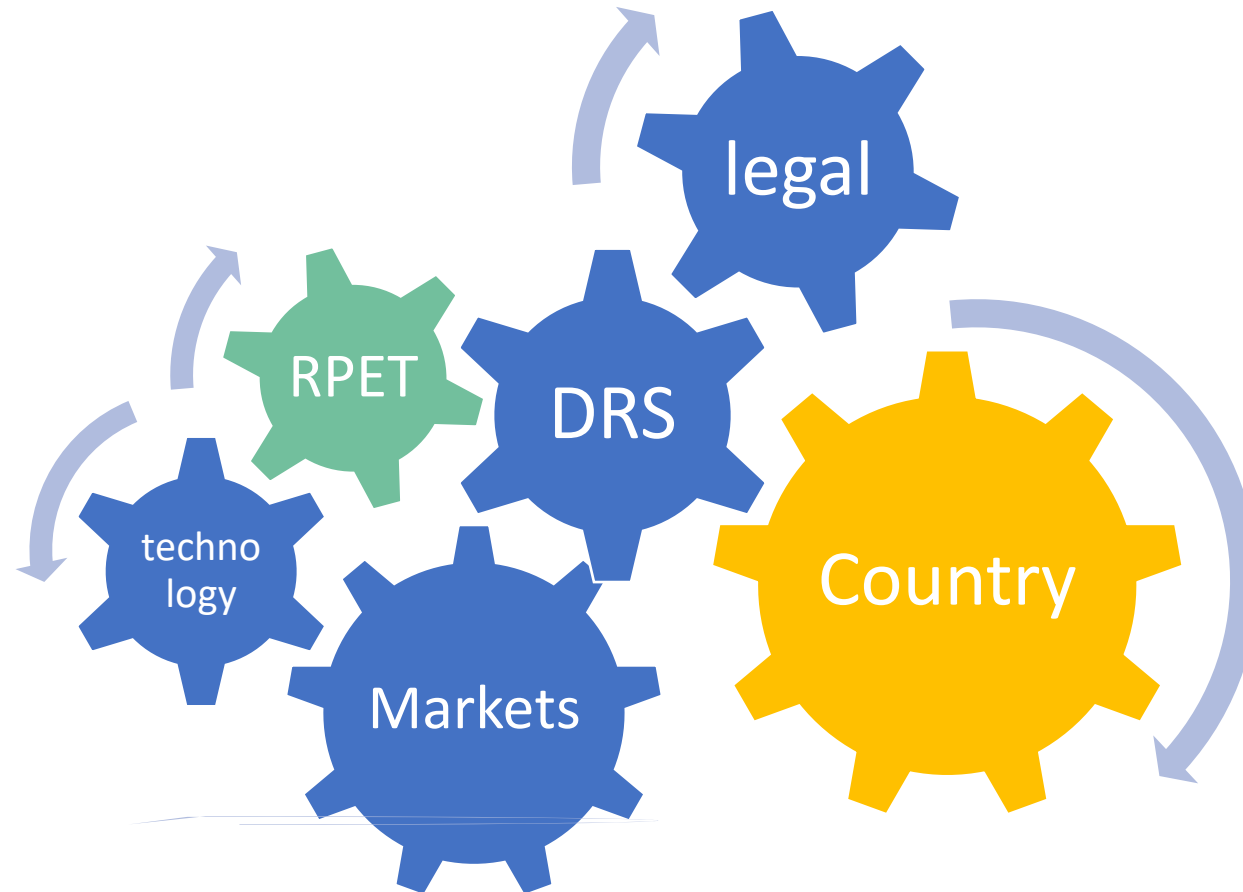
Chemical recycling technologies need get a clear legal development path to further improve the sustainability of PET





# Challenges until 2025

Balancing act  
to program  
investments



# What are questions PRE still have?

- Questions of PRE for PET Value Chain:
  - Bottle segment
    - Will the level of light houses(100%'s) further increase or is the 30% content more equally over all bottles?
    - Will the concept of deposits consortia's further mature in fixing programmable concepts?
  - Tray segment
    - what is the level of collection we can expect to program further capacity growth?
  - Both segments
    - When is the publication of 282/2008 going to be final?
    - Is the import of RPET Feedstock still needed to secure demand in EU?
    - How is the chain of custody developing to prove the required quota?
    - What is the effect of the different country taxes to still allow RPET demand?
    - Can we expect a start towards harmonised EU standards for feedstock and applications in Foodgrade?

# THANK YOU

# 25

## YEARS OF MAKING PLASTICS CIRCULAR

