

# RecyClass Unwrapped Role of EPRs for plastics circularity

Moderated by Paolo Glerean I Head of Sales and Marketing of Aliplast I RecyClass Chairman

20 October 2021

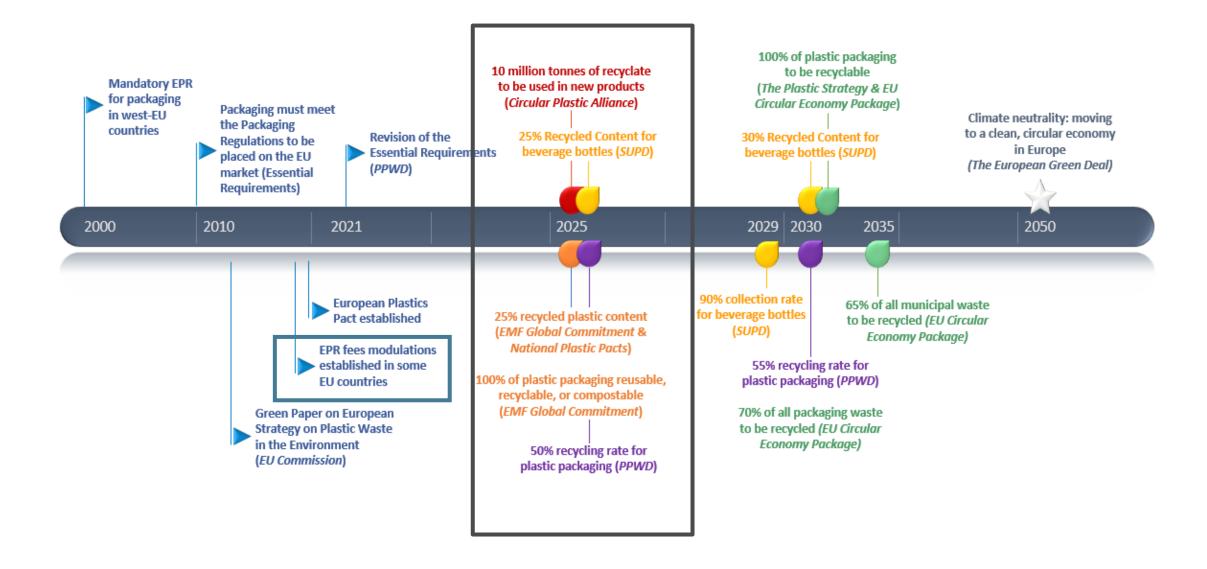
RecyClass

# RecyClass

# THE KEY ROLE OF EPRS TO ACCELERATE THE TRANSITION THROUGH THE CIRCULARITY

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RecyClass Unwrapped Webinar – 20/10/2021

# RecyClass | THE PLASTIC CIRCULARITY JOURNEY



# RecyClass | RECYCLING IS POSSIBLE ONLY IF THE SUPPLY CHAIN EXISTS



**Product** 



**Separate collection** 



Sorted waste



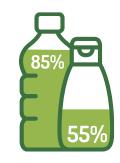
Flakes and granules



**New items** 







# RECYCLABILITY

# RECYCLED CONTENT

- Testing Protocols
- DfR Guidelines
- Recyclability Methodology
- Online-Tool
- Recyclability Certifications

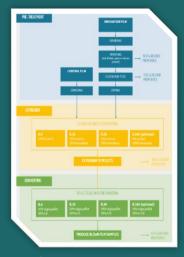
- Recycled Plastics calculation (controlled blending approach)
- Recycled Plastics TraceabilityCertification

✓ Trustworthy Logos and Use of Claims Guidance document

# RecyClass | HARMONIZATION

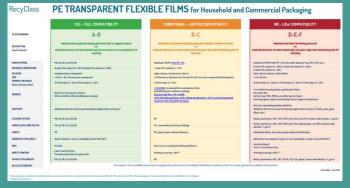
- Harmonised Evaluation Protocols and
   Design Guidelines are essential to:
  - ✓ Provides clear direction for design for recyclability policies within brands;
  - ✓ Strengthens and gives credibility to the message;
  - ✓ Provides for effective communication with stakeholders.

# RECYCLABILITY EVALUATION PROTOCOLS



- Lab testing of innovative plastic packaging vs control material
- Comparison of properties
- Technology/Product Approval

# DESIGN FOR RECYCLING GUIDELINES



- Design guide & recommendations for plastic packaging
- Design for Recycling (DfR)
  Guidelines transposed in the tool
- Assessing overall recyclability of a finished package

# RecyClass | ECO-MODULATION

#### Fact-based DfR guidelines are key for a reliable eco-modulation

#### RecyClass

#### PE COLOURED FLEXIBLE FILMS for Household and Commercial Packaging

#### YES - FULL COMPATIBILITY CLASS RANKING A-B Materials that passed the testing protocols with no negative impact DESCRIPTION (Test Protocol) materials that have not been tested (yet), but are known to be acceptable in PE PE-LD, PE-LLD; PE-HD MAIN MATERIAL MATERIAL COMPOSITION A when PE content is > 95%: B when PE content is > 90% COLOURS light colours; translucent colours > A4 or > 50 x 50 mm once compacted PRODUCT RESIDUES A if the index is < 5%: B if the index is < 10% (Easy to Empty index) Barrier in the polymer matrix; BARRIFR SiOx and AlOx without additional coatings ADDITIVES Additives that do not increase the density higher than 0,97 g/cm<sup>3</sup> CLOSURE SYSTEM PE-LD, PE-LLD, PE-HD LINERS, SEALS AND VALVES PE-LD, PE-LLD, PE-HD LABELS ADHESIVES FOR LABELS Water soluble or water-releasable at less than 60°C DIRECT PRINTING Printed production or expiry date; printing covering < 50%\*\* OTHER ATTACHMENTS PE-LD, PE-LLD, PE-HD

LITY	CONDITIONAL - LIMITED COMPATIBILITY	NO	
	B-C		
no negative impact	Materials that passed the testing protocols if certain conditions are met	Mate	
nn to be acceptable in PE	materials that have not been tested (yet), but pose a low risk of interfering with PE recycling	materials that have not be	
	Multilayer PE/PP with PP ≤ 5%	Multilayer PE/PP with PP	
	C when PE content is > 70%	D when PE content is > 50 F when PE content is < 30	
	NIR-detectable dark colours (Sorting test)	Non NIR-detectable dark	
	< A4 format or between 20 x 20 and 50 x 50 mm once compacted (Sorting test)	< 20 x 20 mm	
	C if the index is < 15%	D if the index is < 20%; E	
	< 5% EVOIt (in polyolefinic combination film); metallized layers without coatings; EcoLam High Plus; VO+LLDPE; <15% PA 6/66 copolymer with melting temperature < 192 °C and incorporating minimum 10% PC_MAN His layers	> 5% EVOH (in polyolefin Any other PA; barrier layer PVC, PVDC; foaming agents used as e	
97 g/cm³		Bio-/oxo-/photodegradal Additives that do increas fibers, etc.)	
	РР	Metal, aluminium, PVC, 1	
	PP, removable aluminium liddings	Metal, aluminium, PVC, F density < 1 g/cm <sup>3</sup>	
	PP, paper labels without fiberloss	Metallized labels, any oth	
		Adhesives non-soluble in	
	Non-toxic (according to EUPIA guidelines)	Inks that bleed; Toxic or hazardous inks.	
0%6**	printing covering > 50% **		
	PP	Metal, aluminium, PVC, P	
No change in the recyclabil	ty assessment. A separate 'Recycled Content Traceability Certification' based on a Chain of Custody a	pproach is available with RecyClass	

#### NO - LOW COMPATIBILITY Materials that failed the testing protocols Multilayer PE/PP with PP > 5%; Any other polymer (e.g. PET, PVC, etc.) D when PE content is > 50%: E when PE content is > 30%: F when PE content is < 30% Non NIR-detectable dark colours D if the index is < 20%; E < if the index is < 25%; F if the index is > 25% > 5% EVOH (in polyolefinic combination film); barrier layer PVC, PVDC; any other barrier layer; foaming agents used as expanding chemical agents; aluminium Bio-/oxo-/photodegradable additives Additives that do increase the density higher than 0,97 g/cm3 (CaCO3, talc, glass Metal, aluminium, PVC, PET, PETG, PS, PLA, non PO or foams with density < 1 g/cm2 Metal, aluminium, PVC, PET, PETG, PS, PLA, foiled paper, non PO or foams with density < 1 g/cm<sup>3</sup> Metallized labels, any other; paper labels with fibreloss Adhesives non-soluble in water or non-releasable in water at less than 60°C Inks that bleed; Toxic or hazardous inks. Metal, aluminium, PVC, PET, PETG, PS, PLA, paper, foams with density < 1 g/cm<sup>3</sup>

#### RECYCLABILITY CLASSES



#### CLASS A

The packaging does not pose any recyclability issues and the recycled plastics can potentially feed a closed-loop scheme to be used in the same quality application.



#### CLASS B

The packaging has some minor recyclability issues that slightly affect the quality of the recycled plastic generated. However, maiority of recycled plastics from this packaging can still potentially feed a closed loop



#### CLASS C

The packaging presents some recyclability issues that affect the quality of the recycled plastics or lead to material losses during recycling. In the first case the recycled plastic could be used in a cascade open-loop scheme, whereas in the latter case the plastic could potentially feed a closed loop scheme.



#### CLASS D

CLASS E

The packaging has significant design issues that highly affect its recyclability or imply large material losses. In both cases the recycled plastic can only be fed into low-value applications (i.e. the packaging will be downcycled).



The packaging has major design issues that jeopardize its recyclability or imply severe material losses. The packaging is not considered recyclable and can only be used in incineration with energy recovery



#### CLASS F

The package is not recyclable at all, either because of fundamental design issues or a lack of specific infrastructure for collection, sorting and recycling in EU28+2.

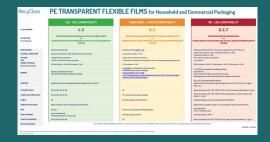
\*\* temporary solution

RECYCLED CONTENT

#### \* Class ranking resulting from the RecyClass assessment. B class is reported two times because of the 90-95% amount of PE in the packaging or because of slight incompatibilities in the design.

# RecyClass | CERTIFICATION

# DESIGN FOR RECYCLING GUIDELINES



- Design guide & recommendations for plastic packaging
- Design for Recycling (DfR)
   Guidelines transposed in the tool
- Assessing overall recyclability of a finished package

#### **RECYCLASS TOOL**



- Recyclability Self-Assessment
- RecyClass Team support

#### RECYCLABILITY CERTIFICATION



- Recyclability **Assessment** by recognized Certification Bodies
- Logos + Use of Claims guidance

# WHAT MAKES A PRODUCT RECYCLABLE?



The product must be **made with plastic that is collected** for recycling, has market value and/or is supported by a legislatively mandated program.



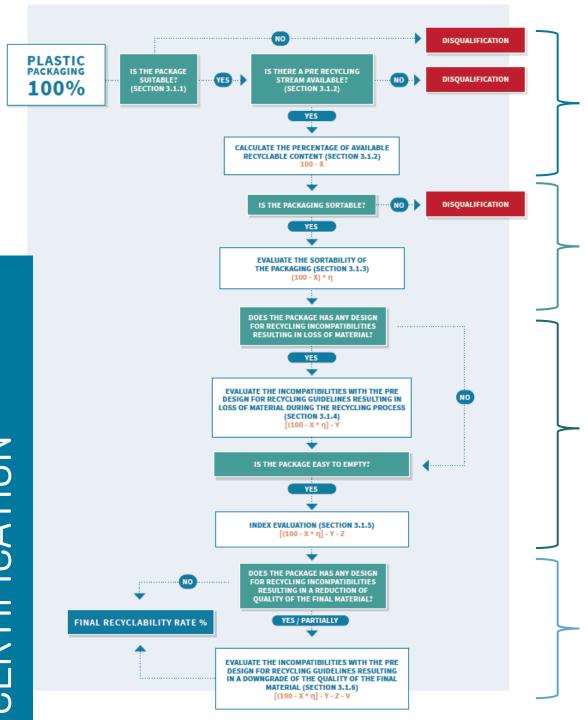
The product must be **sorted & aggregated into defined streams** for recycling processes.



The product can be processed & reclaimed/recycled with commercial recycling processes.



The recycled plastic becomes a raw material that is used in the production of new products.



COLLECTION & LOCAL INFRASTRUCTURE

SORTABILITY (SORTING PROTOCOL)

RECYCLABILITY
(RECYCLABILITY
PROTOCOLS & DFR
GUIDELINES)



#### RECYCLABILITY RATE ASSESSMENT

- Use of the RecyClass logo (on-pack, BtC)
- Endorsement of recyclability claims by RecyClass

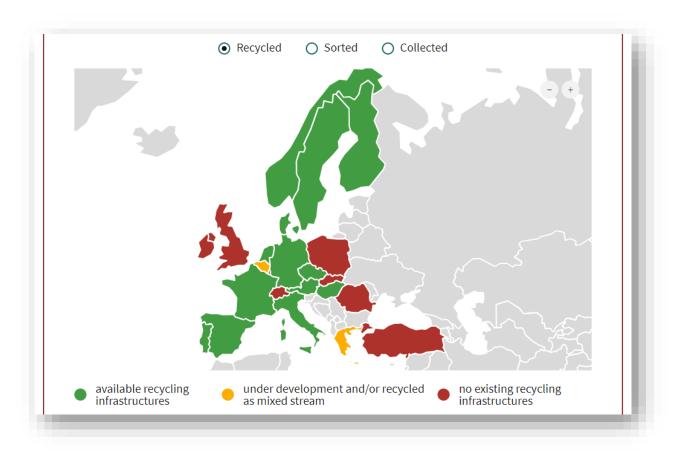
END MARKET: ABILITY IN REPLACING VIRGIN PLASTIC

# RecyClass | DESIGN FOR RECYCLING CERTIFICATION



## DESIGN FOR RECYCLING ASSESSMENT

- Class ranking from A to F
- Sorting and recycling compatibility are evaluated
- Use of the RecyClass logo for BtB and BtC (under limitations)<sup>1</sup>
- Endorsement of recyclability claims<sup>1</sup> by RecyClass



# Thank you for your attention

# RecyClass

PLASTICS FUTURE IS CIRCULAR



## EPR as tool for plastic packaging circularity

Monika Romenska Regulatory & PA Manager



#### **RecyClass Unwrapped**

22 September 2021 20 October 2021 17 November 2021 9 December 2021







Producer
Responsibility
Alliance

# 8 years existence

■ MEMBERS & Partners all industry-owned, non-profit

HAVE 25 YEARS

of experience and expertise in the waste management field PROVIDE 200 MILLION PEOPLE

with packaging collection, sorting and recycling infrastructure

ENSURE RECYCLING AND RECOVERY

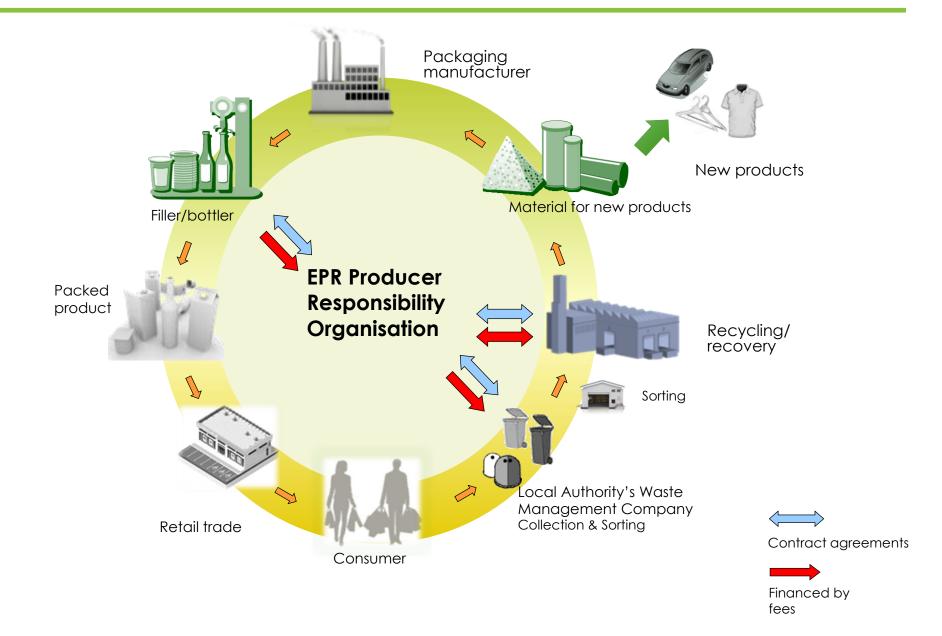
of packaging every year

MILLION TONNES

EXPRA in a nutshell

## EPR's role in a circular economy

# Operational AND financial responsibility

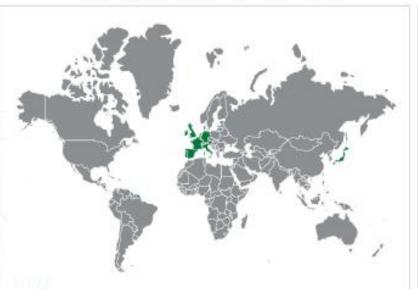




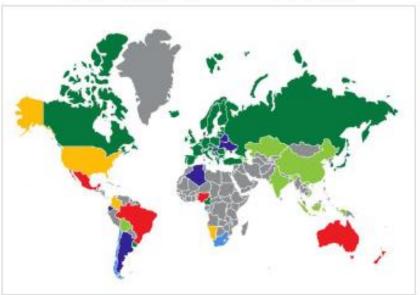


#### **EPR LANDSCAPE EVOLVING AT FAST PACE**

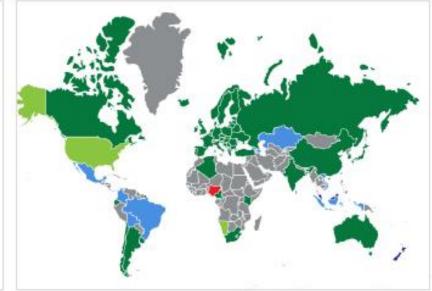
#### Packaging EPR in 2000

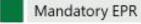


#### Packaging EPR in 2020



#### Packaging EPR in 2025





Voluntary EPR

Limited EPR

EPR framework

Emerging EPR framework

Emerging EPR legislation

## EPR - several ways of implementation

## EPR System in hands of obliged industry

(BE, ES, IT, NL, NO, CZ, FR, IE, LU)

#### **Competing PROs**

(DE, AT, PT, LT, SV, SK, PL, RO, BG, ....)

#### 'Tradable Credits' Model with several traders

(UK)

# Several PRO's sharing infrastructure

(DE, AT)

PROs acting in different areas

(BG)

# PROs have established parallel infrastructure

(EE)

Operational responsibility fully with local authorities

(FR, NL, CZ)

Collection and sorting with local authorities

(BE, ES, IT)

EPR system in parallel to a deposit system

(DE, NO, SE, FI, EE, LT) One
comprehensive
system for all
(household)
packaging

(e.g. BE, FR, ES, IT)

# No EPR for commercial packaging

(DE, FR, ES)

Same rules for all packaging

(e.g. IT, CZ, SK, RO)

Dual system approach

(e.g. DE, AT, BE, SE)

Shared cost approach

(e.g. IT, ES, FR)

Incentive cost approach

(UK)

# Obliged entity are fillers (and importers)

(e.g. DE, AT, SE)

Obliged entity is the packaging producer (and the importers)

(IT)

Obliged entity is the whole value chain by percentages

(UK)

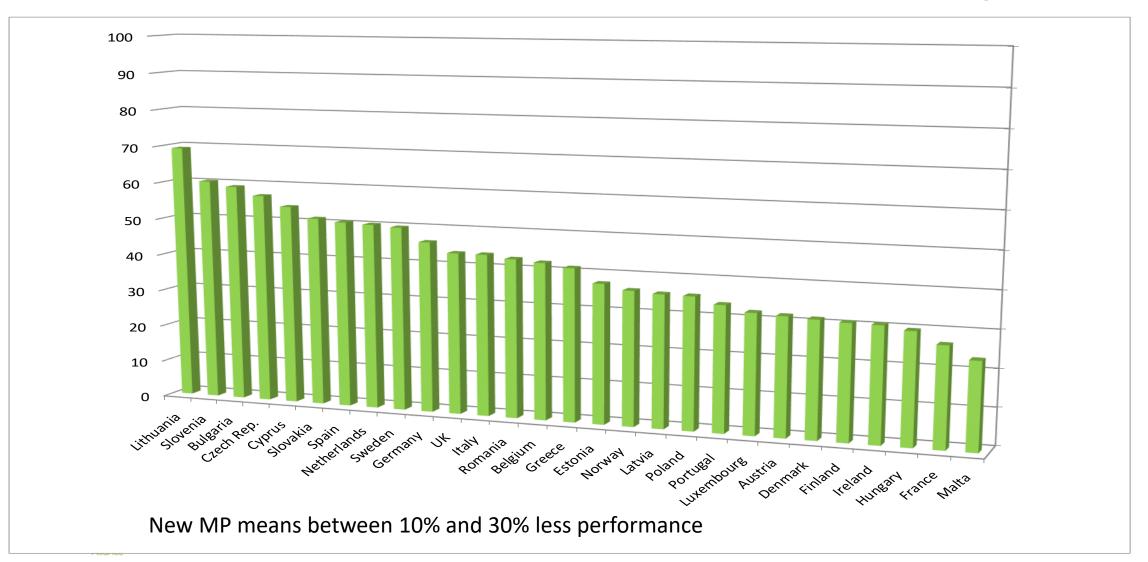
Special EPR system(s) for commercial packaging

(e.g. BE, AT)



## Plastic Recycling Quotas in 2018

#### Old measurement point – no check of reporting



# Waste Framework Directive (2018) – Learnings for EPR

Sets out general, minimum requirements for EPR with regards to:

Article 8a

- Roles and responsibilities
- Target compliance
- Increased Reporting
- Equal treatment of producers
- Information & communication
- Transparency

- full (necessary) cost coverage
- Eco-modulation of fees
- Monitoring and enforcement
- Independent Oversight in case of competition
- EU & National Dialogue platforms



## Plastics policies and legislation

## Comparing targets

	PPWD	SUP	EU Plastics Strategy	Circular Plastics Alliance	European Plastics Pact
Targets	65% recycling of all packaging waste by 2025	77% collection of plastic beverage bottles by 2025	By 2030, all plastics packaging placed on the EU market is either reusable or can be recycled in a cost-effective manner	By 2025, 10 million tonnes of recycled plastics to be used in European products	By 2025, all single-use plastics products and packaging will be reusable or at least 100% recyclable
	70% recycling of all packaging waste by 2030	90% collection of plastic beverage bottles by 2029	By 2025, 10 million tonnes of recycled plastics find their way into new products on the EU market		Net reduction in use by 2025 compared to 2017
	50% recycling of plastic packaging by 2025	25% of recycled content in plastic beverage bottles by 2025			At least 70% of all single-use plastics products are recycled to a high standard
	55% recycling of plastic packaging by 2030	30% of recycled content in plastic beverage bottles by 2030			30% recycled content in single- use plastic products and packaging by 2025
					Specific targets for: PET bottles 55%; Milk bottles 45%; PE bottles 30%, PET trays 55%; PP PTTs 20%; PE films 18%



# Characteristics in countries on track to meet 2025 plastic packaging recycling target

- Mature systems in place with good communication to citizens on how to recycle.
- A structured national approach to collect all plastic packaging, rather than having an uncontrolled market where only higher value streams are targeted.
- Supportive national legal framework in place providing certainty and ensuring a level playing field where there are multiple PROs in the country.
- All plastic packaging collected at households (bottles, non bottle rigids, flexibles).
- A structured and managed approach taken to the roll out of household plastics collections with sorting and recycling infrastructure considered as part of the process.
- Consideration given to sorted centre output grades to maximise recycling levels from collected plastic waste and ensure downstream demand.
- Actions already taken to increase plastic packaging recycling rates, or a clear plan is in place.



# Example actions to meet the plastic packaging target

- Fost Plus (Belgium) and Valorlux (Luxembourg): roll out of expanded household plastic collections to include non bottle rigids and flexibles.
- FTI (Sweden) and Fost Plus (Belgium): continued development of sorting infrastructure to maximise recovery of different polymer / formats for recycling.
- RINKI (Finland) and FTI (Sweden): expansion of household plastic collection coverage for larger apartment blocks / bring points and kerbside respectively.
- Valipac (Belgium): targeted interventions to increase commercial and industrial plastics collections and remove potential barriers, for example with respect to use of recycled content.



# Additional plastic packaging waste for recycling

	2018 (kt)	2025 (kt)
Sorted plastic packaging waste for recycling	6 955	11 040
Percentage exported	23%	11%
Input to recyclers EU+3	5 339	9 826

- 2018: Based on CPA State of Play Report.
- **2025**: Based on modelling done for packaging in the CPA *Untapped Potential Report*. Assumptions: 50% plastic recycling target met in 2025 at new measurement point, exports of plastic waste reduce at a rate of 10% per annum.

Figures for EU+ 3 (UK, Norway, Switzerland).



# But now? How to speed up?

- Fast national implementation of the 2018 Waste Legislation to provide investment clarity and security
- Establishment of necessary structures of the authorities to monitor and enforce especially in case of competing PROs ("independent authority")
- Taking decisions on the PRO Level to provide investment security to build the needed infrastructure ("Belgium example")
- Packaging Value Chain delivering (CPA, CEFLEX, HolyGrail 2.0, CGL, 4EverGreen etc.)
- All other stakeholders doing their part as well (like municipalities)
- National and EU authorities ready to fix bugs and loopholes (start of the MANDATORY EPR dialogue platforms (national and EU wide))



## **Packaging Value Chain**

Continue and increase the collaborative approaches to increase the circularity of packaging like

- HolyGrail 2.0 Pioneering Digital Watermarks for a Circular Economy
- CEFLEX DRIVING TOWARDS CIRCULAR ECONOMY
- Close the Glass Loop bringing together the entire glass packaging ecosystem
- 4EverGreen Perfecting circularity together
- Circular Plastics Alliance voluntary pledge for 10 Mio t recyclates













## **EXPRA P4R Packaging for recycling**





About

User Guide

Contact us!

Reserved Area

# Packaging recyclability roadmap

This website provides a dynamic online information tool aimed at allowing users to self-assess the recyclability of packaging and a roadmap based on the following recyclability critical control points: design, labelling, collection and sorting. It brings together best practices by the Extended Producer Responsibility Alliance (EXPRA) membership as well as information on how to best reduce the environmental impact of packaging while optimising its resource efficiency. The toolkit particularly covers the most-frequently used materials for packaging: aluminium, glass, paper, plastic, steel and wood.

Click the button to start a packaging recyclability critical control point analysis

Start Analysis

#### CONAL

Italy, Stewardship tender 2018





www.conai.org/en/prevention/thinking-about-the-future/stewardshiptender/, www.ecotoolconai.org

#### **ECOEMBES**



A project created by the environmental NGO, SEO / BirdLife, in partnership with Ecoembes with the objective of raising awareness and mobilizing citizens to keep the natural spaces free of littering.

www.proyectolibera.org

#### AFVALFONDs/KIDV

Netherlands, Improve packaging recyclability

Website on tips and tricks to improve the recyclability of packaging: plastic, glass, metal, paper/board and wood.

www.recyclability.kidv.nl



#### **FOST PLUS**

Belgium, Eco packaging tools

A kit of websites helping industries to assess the environmental impact of their packaging www.preventpack.be, www.pack4recycling.be, www.pack4ecodesign.org

#### **VALIPAC**

Belgium, Sustainable Packaging Platform

Improve sustainable packaging decisions with the right information on the right place www.go4sustainablepackaging.org









Canada, Pack Play2 Design competition

A student packaging design competition with the objective to gather the best packaging eco design projects.

www.facebook.com/Packplay2/



#### **EKOKOM**

Czech Republic, Seminars on packaging prevention.

At least 12 big seminars per years for clients explaining them legislation and standardization for prevention and minimization in detail trough showing the best results from other companies.

www.ekokom.cz



#### **Grønt Punkt Norge**

Norway, Labelling for recycling

Packaging labels that remind the consumer to recycle. Includes material specific pictograms in print quality and visual guides on correct labelling.

www.grontpunkt.no/medlemskap/emballasjemerking/english/



Luxemburg. The Tropheco award

Award that rewards and promotes sustainable and eco-friendly packaging sold in Luxembourg.

www.tropheco.lu/en



## What's next?

- Revision of the PPWD in 2022/2023
- New "Essential Requirements" especially to define recyclability and to ensure that only reusable and/or recyclable packaging is put on the market from 2030
- Further recycled content targets for further packaging
- Defining (chemical) recycling?
- Further restrictions for exporting plastic waste
- Reduction consumption targets?
- Directive or Regulation?
- Harmonizing separate collection? Colors? Labels? The way?
- Implementing Act for fee modulation?



### **PARTNERSHIP IS KEY TO SUCCESS**



### Litter prevention: based on 5 pillars

Infrastructure



Communication



**Enforcement** 



**Participation** 



**Environment** 





# Awareness-rasing, eduaction and communication campaigns – only all together we can succeed!



## Contact

EXPRA aisbl

2 Avenue des Olympiades

1140 Brussels – Evere

Belgium



Extended Producer Responsibility Alliance



Efforts to achieve circular packaging in Norway

Dr. Johannes Daae

Head of Development Grønt Punkt Norge Associate professor at Produkt Design - OsloMet



# Recyclability targets of plastic packaging in Norway

2019: 30% (sorted)

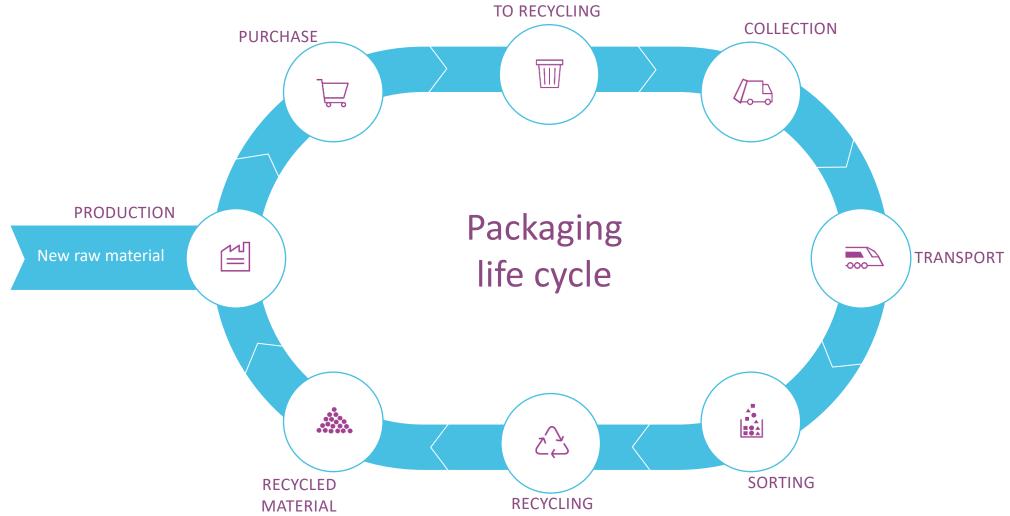
2020: 30% (recycled)

2025: 50%

2030: 55%

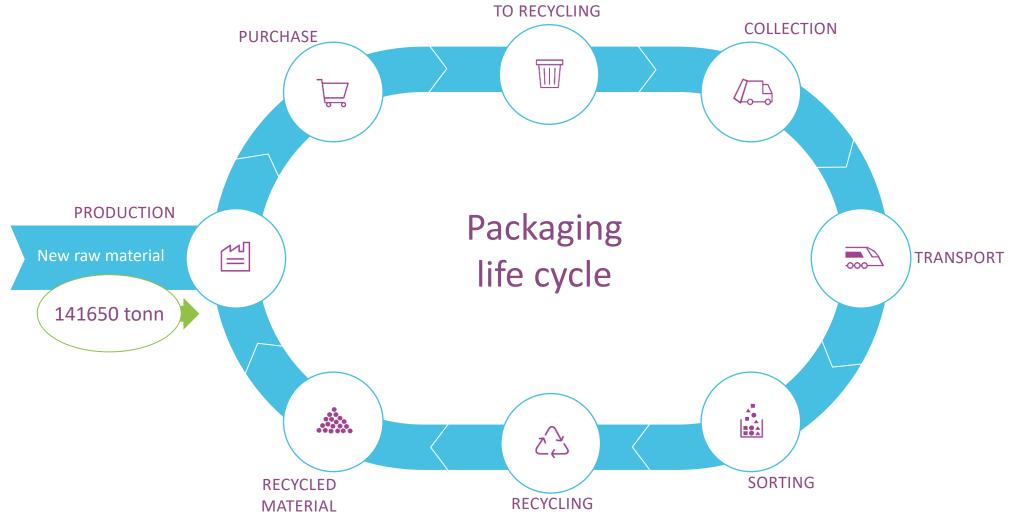


#### Plastic packaging 2020





#### Plastic packaging 2020





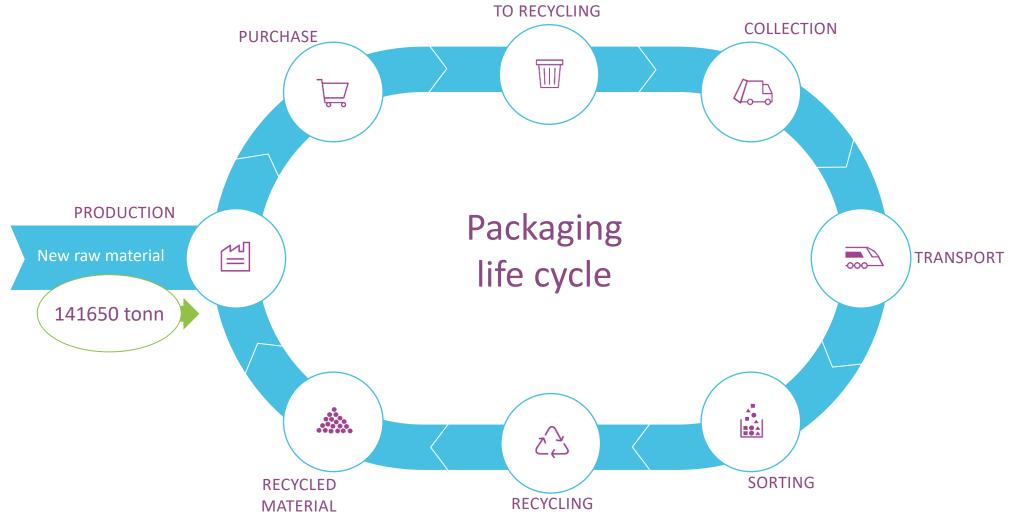
#### INFINITUM

PET beverage bottle deposit system Collection rates 2020:

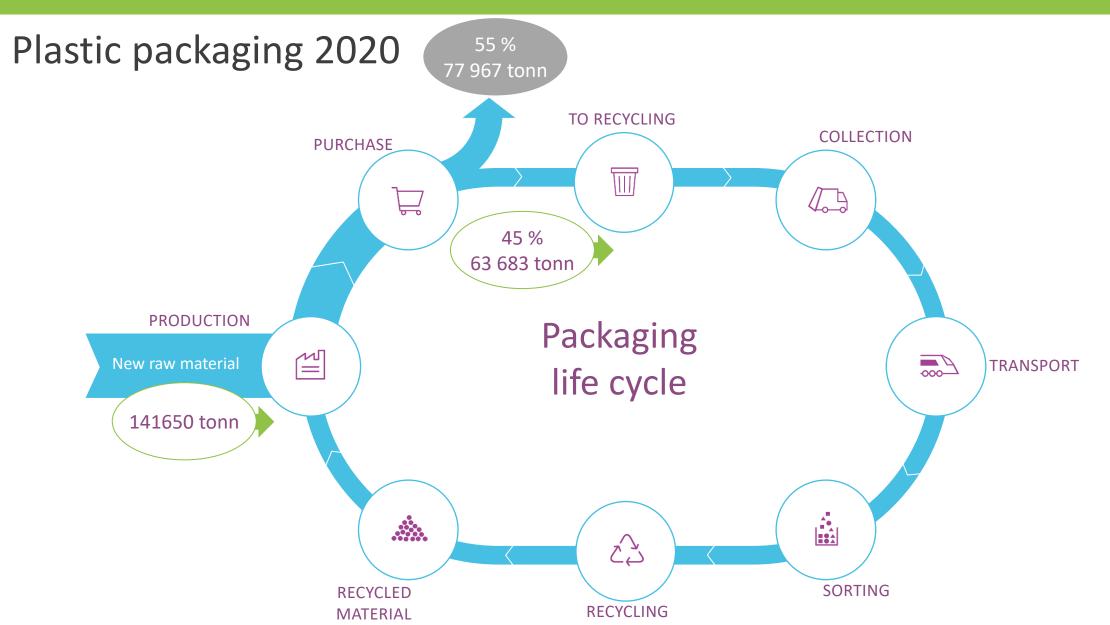
Deposit system 92% 21970 t Source separation system5,7% 1363 t Total 97,7% 23332 t



#### Plastic packaging 2020







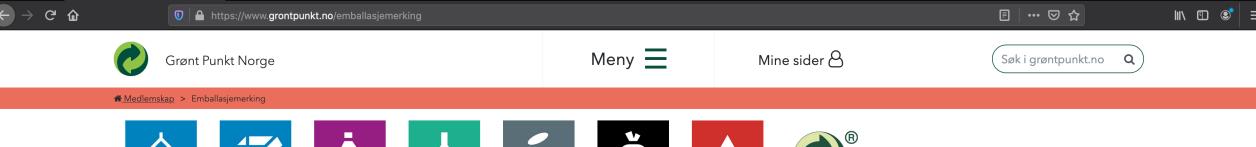












Restavfall



Glass

Metall

Farlig avfall

Grønt Punktsymbolet

Last ned alle merker

Last ned denne siden

#### Hvorfor merke emballasjen?

Kartong, papp

og papir

Drikkekartong

Bedrifter som sender emballerte produkter på markedet er forpliktet til å sikre resirkulering av emballasjen. Når piktogram er trykket på emballasjen, vil dette gi en ekstra påminnelse til daglig sortering og dermed økte mengder riktig sortert emballasje. Emballasjen bør også merkes med med Grønt Punkt-symbolet for å tydeliggjøre at det er betalt vederlag og dermed tatt miljøansvar i et godkjent retursystem.

De nye piktogrammene som nå vil tas i bruk på emballasje er de samme merkene som kommer på alle avfallsbeholdere, returpunkter og miljøstasjoner og erstatter piktogrammer og avfallssymboler som har vært i bruk i over 20 år. De nye merkene er basert på det danske, utviklet i 2017. Det har vært viktig å benytte de samme fargene og ligge tett opptil deres illustrasjoner for å sikre et felles nordisk system. Nye emballasjemerker er tverrfaglig forankret i retur- og avfallsbransjen, ledet av Avfall Norge og Loop.

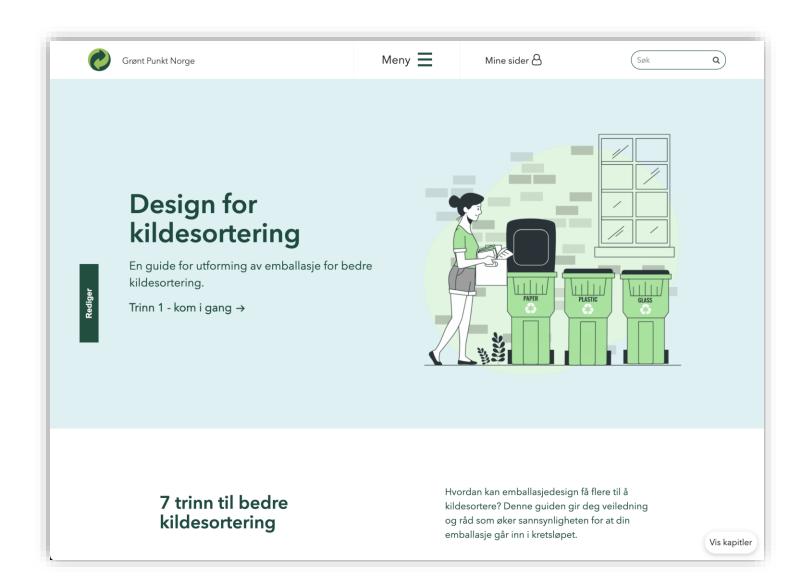






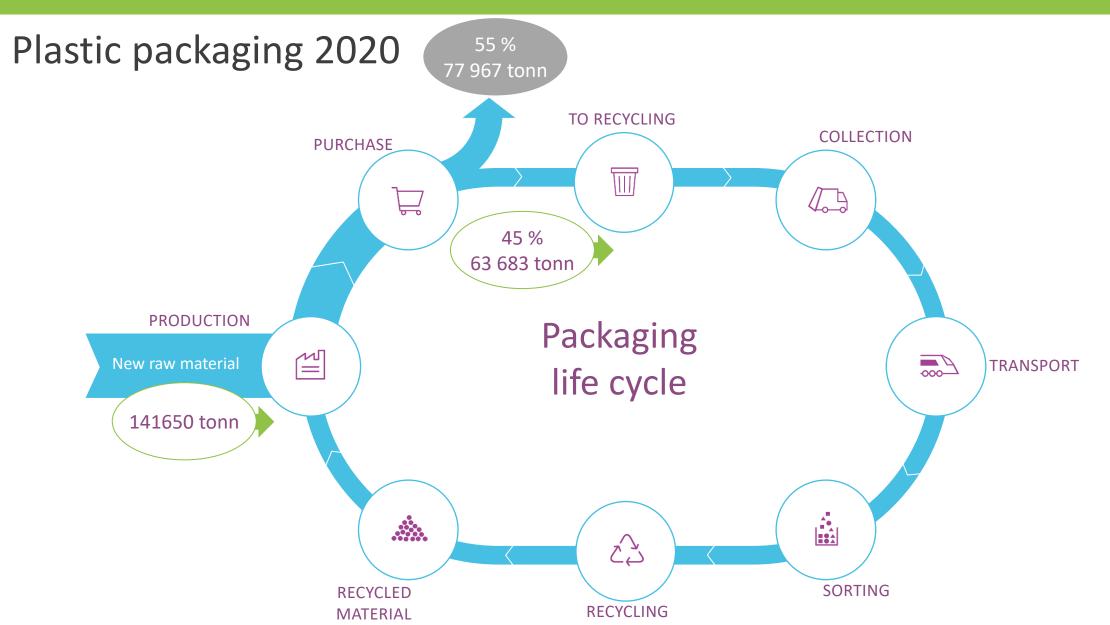




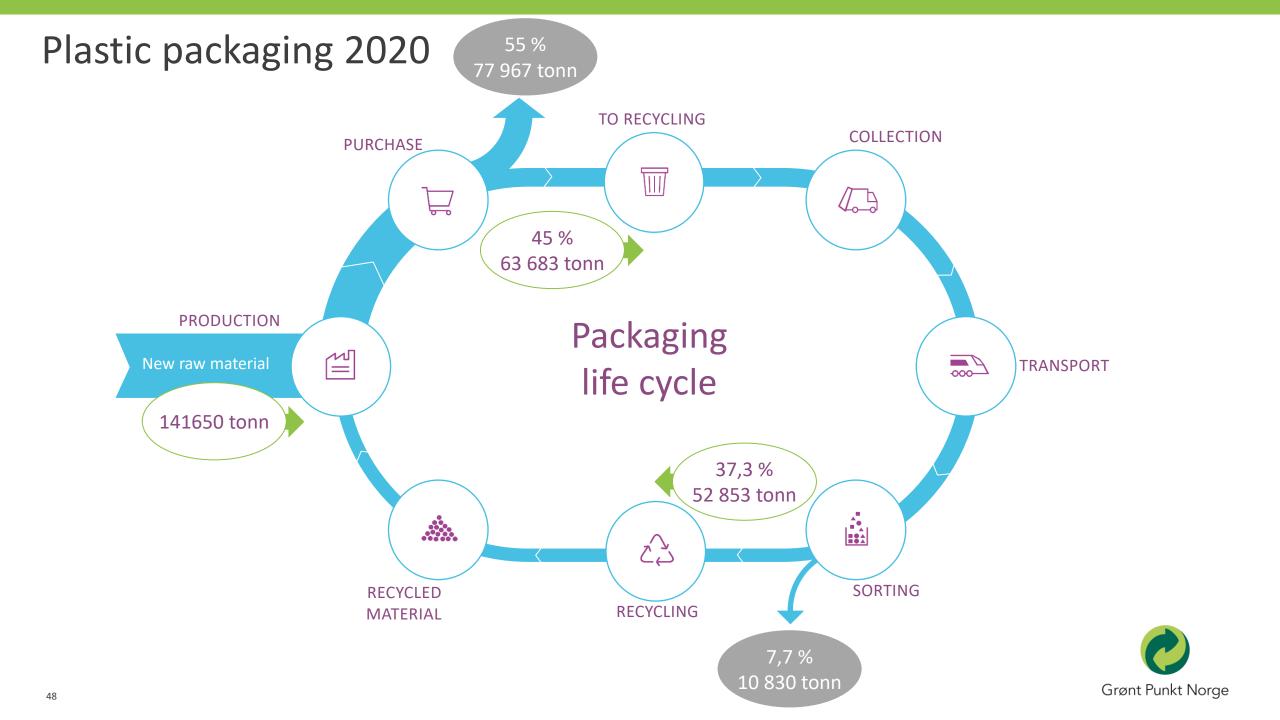


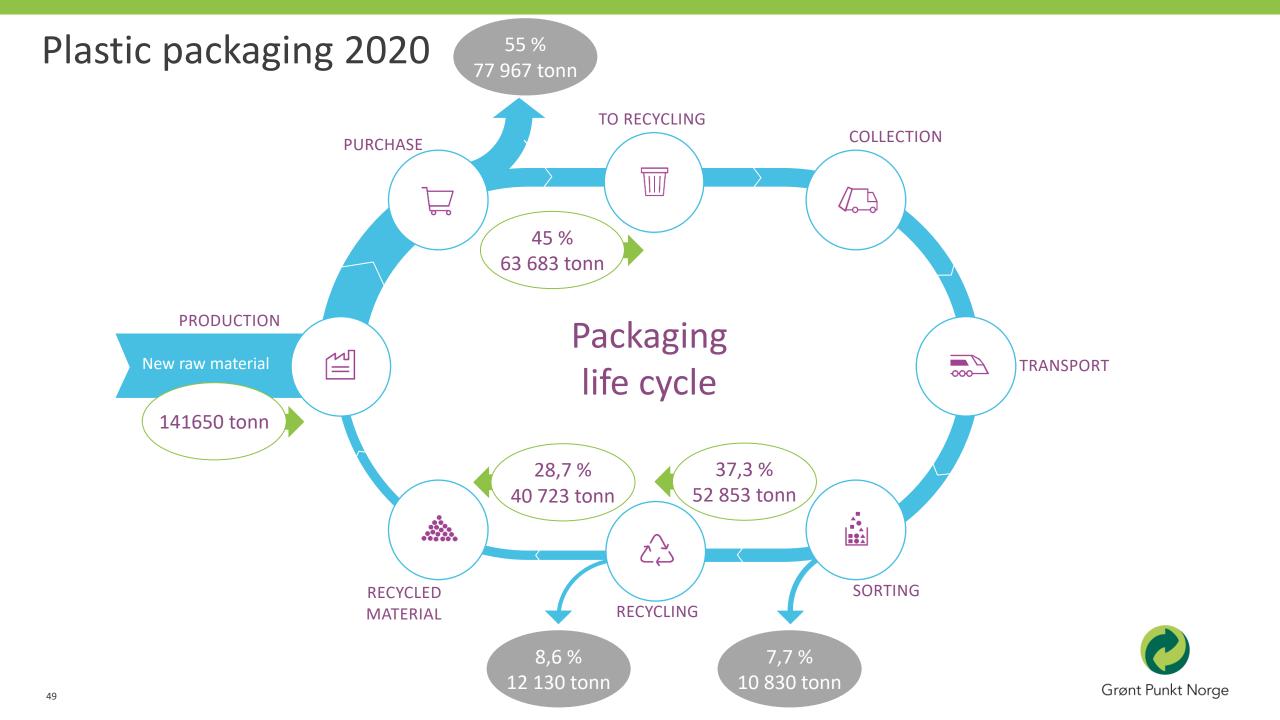




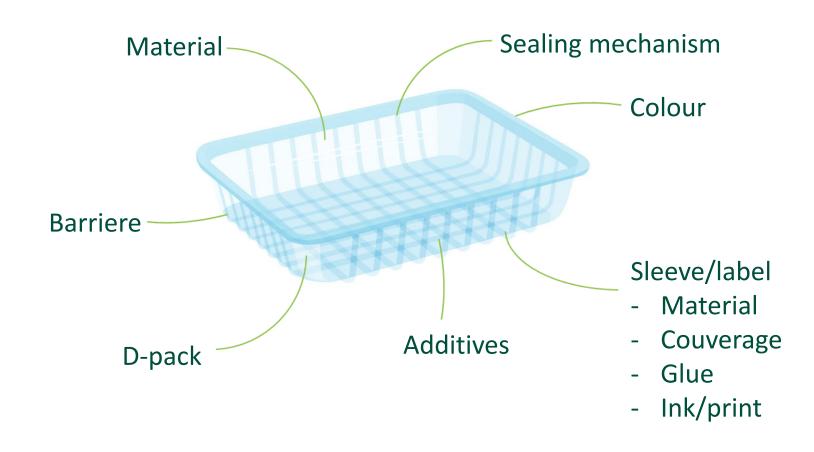








## Design for Recycling (DfR) for plastic





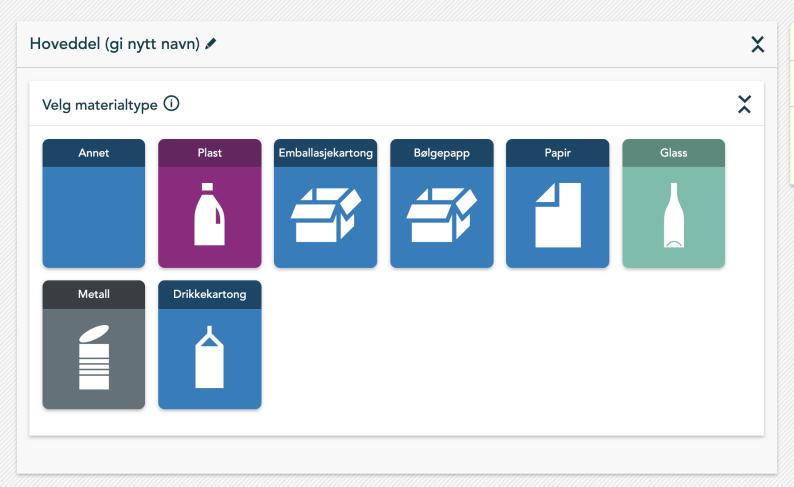


#### Velg emballasjetype



#### Emballasjetyper 🛈







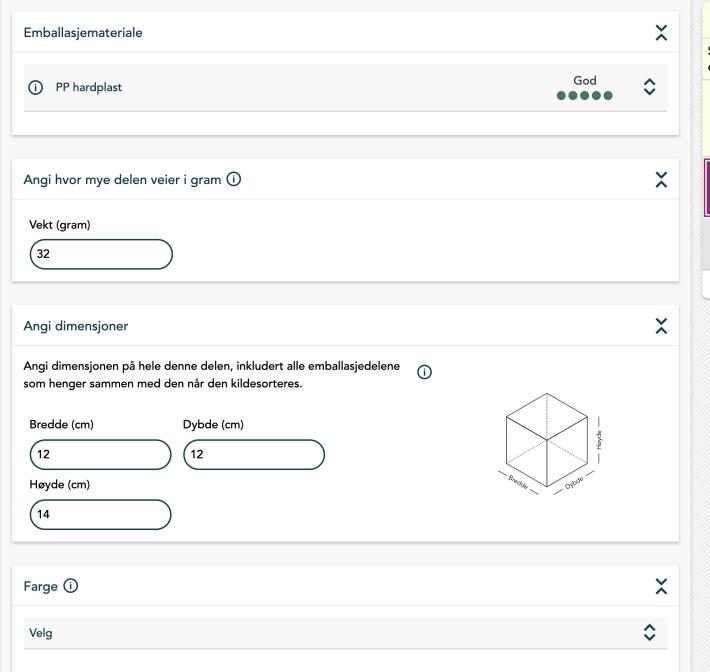
Lagre og legg til ny del

Lagre og avslutt

Avbryt

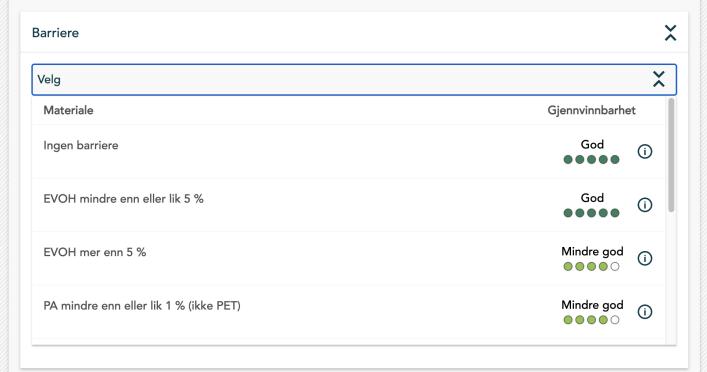
GRØNT PUNKT NORGE AS Bibliotek

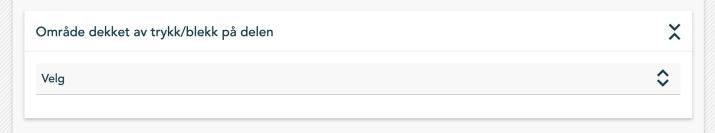
♥ Filtrer etter:







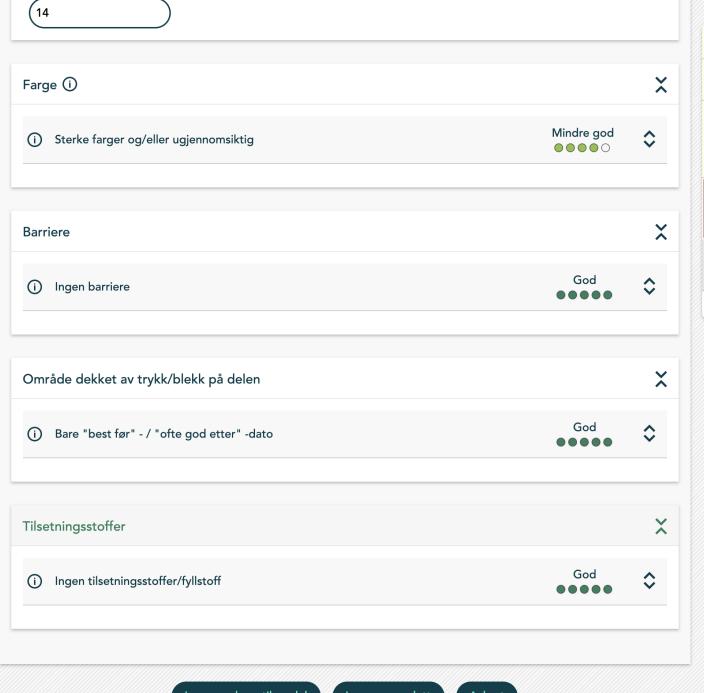


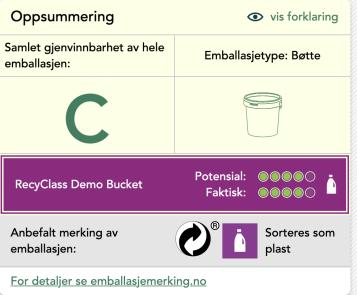


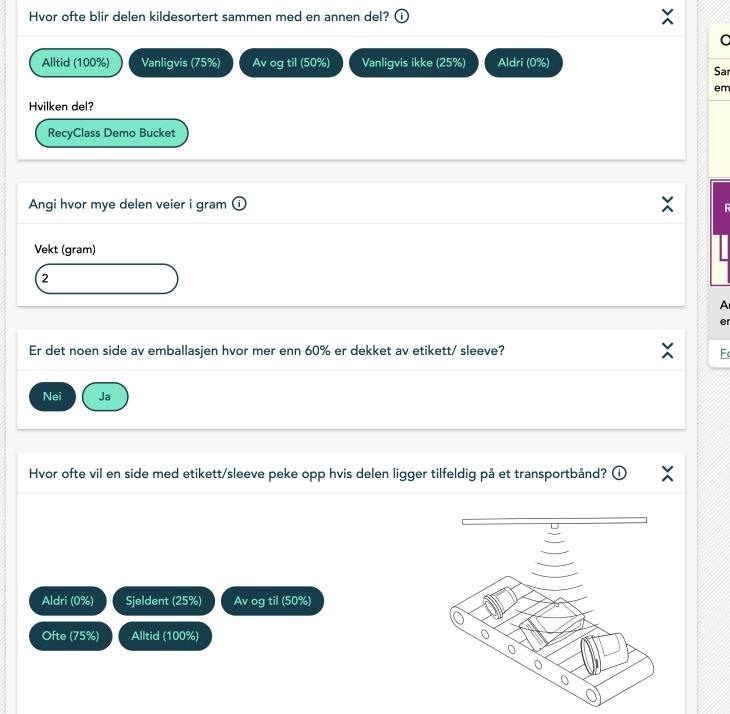
Type trykk/blekk



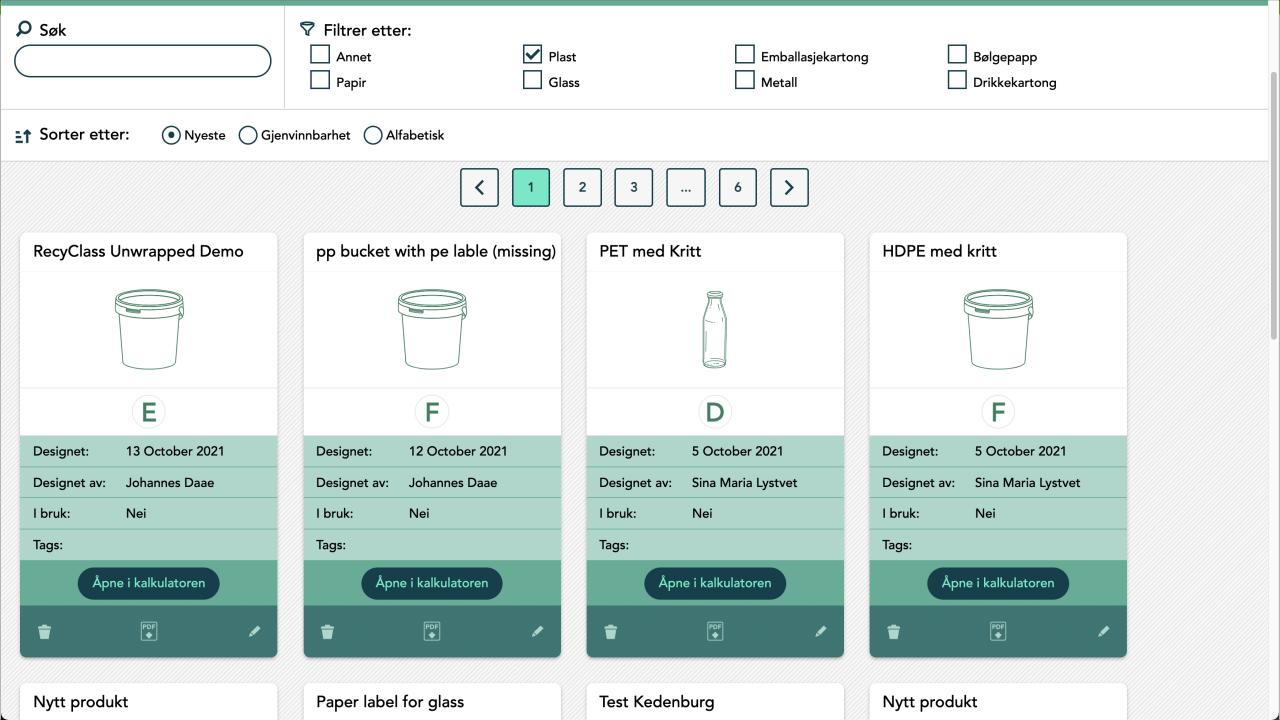
X















# Companies taking the plastic pledge, pledge to:

- 1. Increase the use of recycled plastic
- 2. Avoid unnecessary plastic
- 3. Design for Recycling























**Nestlé** 

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QQQ



ASK

**C**artonage



Swedish Match



(UNIL)

**RINGNES**<sup>‡</sup>

HILDING ANDERS

bāma









**Oskar Sylte** 













NORSK KYLLING



























**Nortura** 









**Brynild** Gruppen

SCANLUX





### Results of the plastic pledge 2020

- 1. Increase the use of recycled plastic
- 2. Avoid unnecessary plastic
- 3. Design for Recycling

8857 tons

#### Results of the plastic pledge 2020

- 1. Increase the use of recycled plastic
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Reduction 1017 tons
Substitution 1030 tons

## Results of the plastic pledge 2020

- 1. Increase the use of recycled plastic
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5480 tons





NYHETER KJØP & SALG STILLINGER BEDRIFTER KURS

#### TINE, Orkla og Arcus vinner Plastløftetprisene for 2021

Vinnerne av årets priser premieres blant annet for mindre emballasje rundt skivet ost, saftflasker i 100 prosent gjenvunnet plast og pantbare vinflasker. Totalt har deltakerne i Plastløftet kuttet 1 017 tonn plast og erstattet 8 857 tonn jomfruelig plast med resirkulert.



## Thank you for your attention!

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# Questions & Answers

Use the Q&A box in the top-right corner of your screen

RecyClass



# Thank you for participating!

Join us at future sessions: 17 November 2021 9 December 2021

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