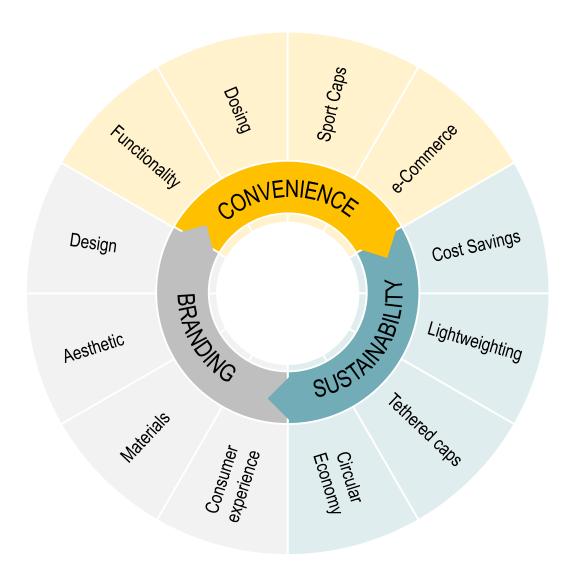


POLYOLEFIN TRENDSin the European Rigid Packaging Market

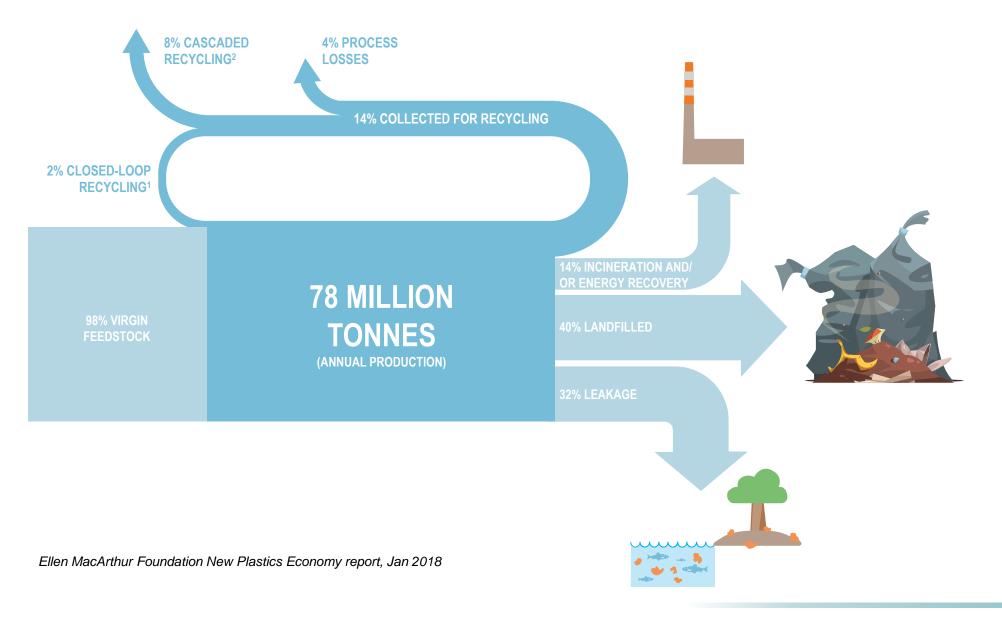
INTERPLASTICA 28 - 31 January 2020

Philippe Rasquin
Technical Service Manager
SIBUR International - Vienna

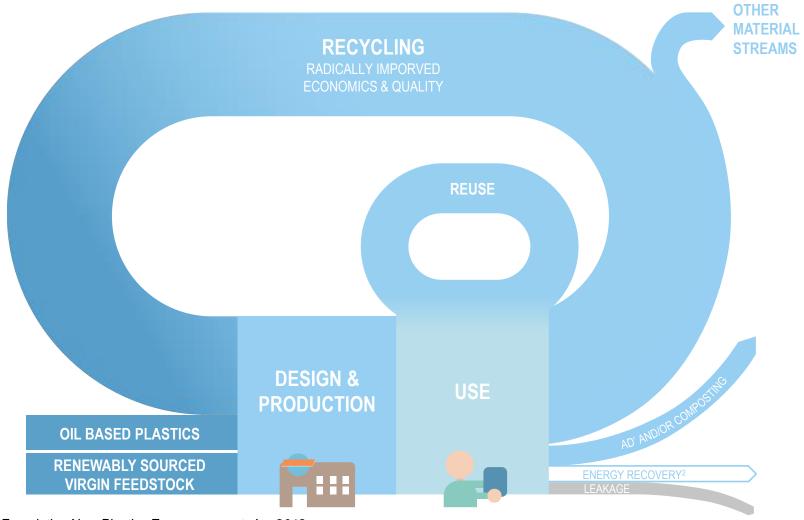
Main Drivers for Rigid Packaging and C&C



Circular Economy, current situation



Circular Economy, what we aim for



Ellen MacArthur Foundation New Plastics Economy report, Jan 2018

Sustainability is not only about the environment



REDUCE — REUSE — RECYCLE



Since several years already a lot of efforts have been done to **REDUCE** the amount of material used in packaging. The European decree about the ban of single use plastic products is also pushing the market to find new solutions



Thanks to polymer producers, more efficient materials have been developed to lightweight and to converters to design more efficient packaging.



More and more some materials like PVC, PS, PLA, oxo-degradable compounds ... are replaced by polyolefins.



New REUSABLE packaging are becoming available.



RECYCLING is already well implemented but it is not sufficient. More efficient solutions like PCR materials and chemical recycling are becoming available

Tesco strategy

TESCO PREFERRED MATERIALS

Red: Materials that we will remove by April 2019

Amber: Materials that we will either investigate alternatives for, or use only where required

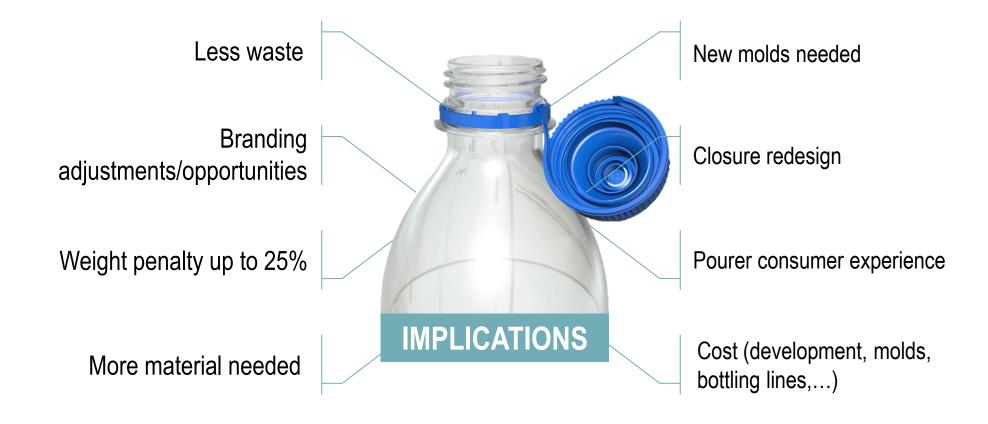
Green: Materials that we will continue touse as replacements for the Red List

31% Reduction in packaging weight per unit sold since 2007 (UK)

2,914 tonne
Hard to recycle materials
removed from Own Brand
packaging (UK)

RED – EXIT (poor for recycling and/or potentially harmful)	AMBER – HOLD (until infrastructure and/or scientific development take place)	GREEN – PREFERRED (easily recycled, can have high recycled content)
PVC & Polystyreme	Home compostable E.g. Cellulose, Materi-bi & Natureflex	Sustainably sourced Wood, board, paper & Glassine
Oxy degradable materials	OPP – Oriented polypropylene	Pet – Polyethylene terephthalate
Rigid Water soluble plastics	Black plastic	Glass
PLA – Polylactic acid	PP – Polypropylene (for certain food applications)	PP – Polypropylene (non food)
Industrial compostable	Complex laminates	HDPE & LDPE
Polycarbonate	PVdC (not PVC)	PE – Polyethylene (preferred material for flexible film)
Acrylic	New materials	Steel & Aluminium

The Tethered Cap Challenge



SIBUR New Offer



With the start up of 2 million tonnes of polyolefin at ZapSib in Tobolsk, Sibur is broadening its portfolio of materials to offer efficient materials meeting the needs of tomorrow.

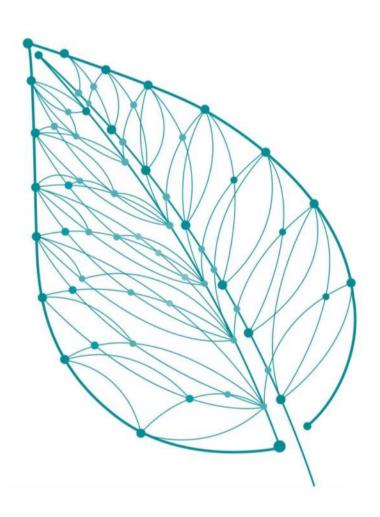
In the course of 2020 we are going to launch new products for

- Sheet Extrusion
- Thermoforming
- Blow molding
- Injection Molding

With different grades

- HDPE mono and bimodal
- PP homopolymers
- PP random copolymers
- PP Impact copolymers

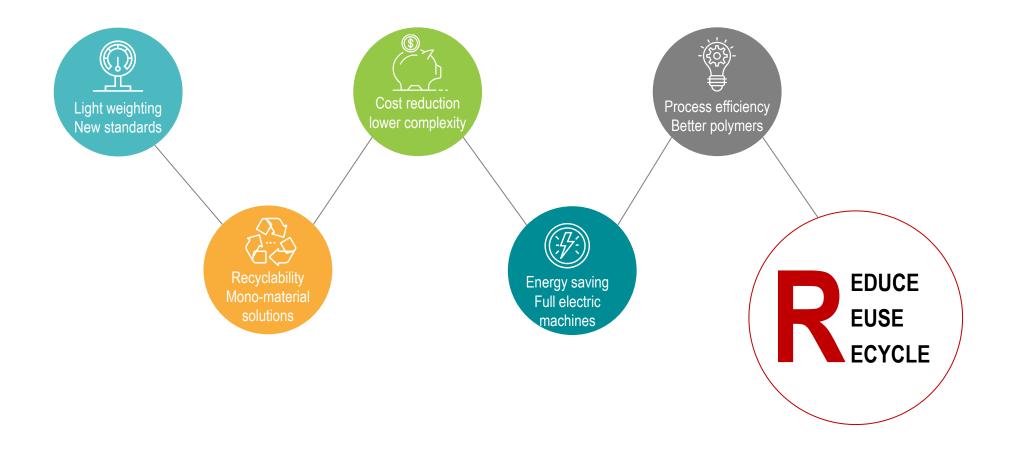




Thank you For Your Attention

BACKUP SLIDES

Sustainability means also:



Directive (EU) 2019/904 of the European Parliament

Single Use Plastics Directive (EU) 2019/904 of the European Parliament, of which Article 6 dictates a new norm to enforce closures to be connected/tethered with the bottle has been voted in by the European Parliament in March 2019. The tethered cap regulation will impact plastic beverage bottles under 3 litres, including composite containers (i.e. carton). By 2024 all beverage closures will have to be tethered by law.





















