

Substitution of HDPE by PET in packaging: the view of a recycler

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ready for the resource revolution

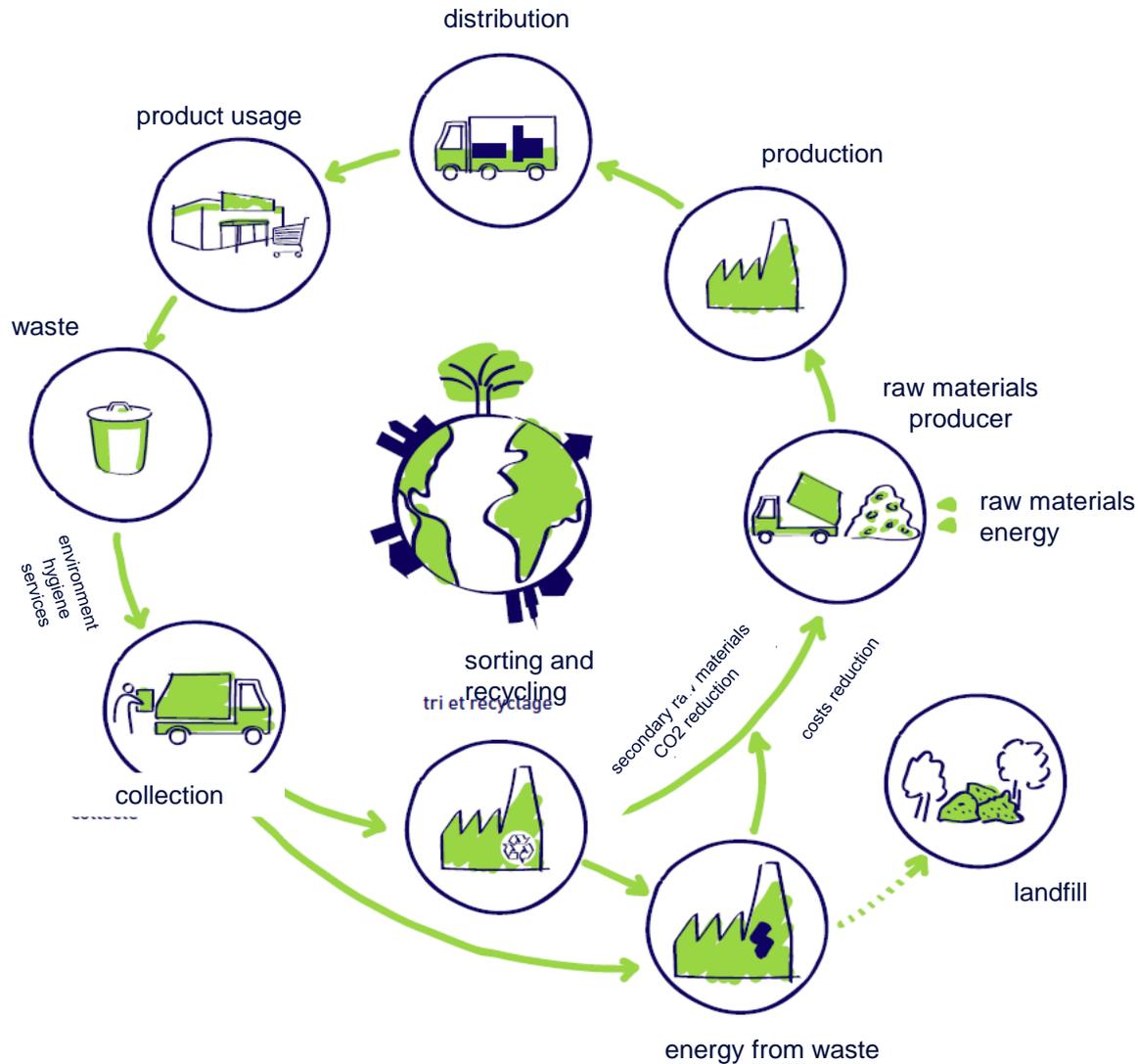


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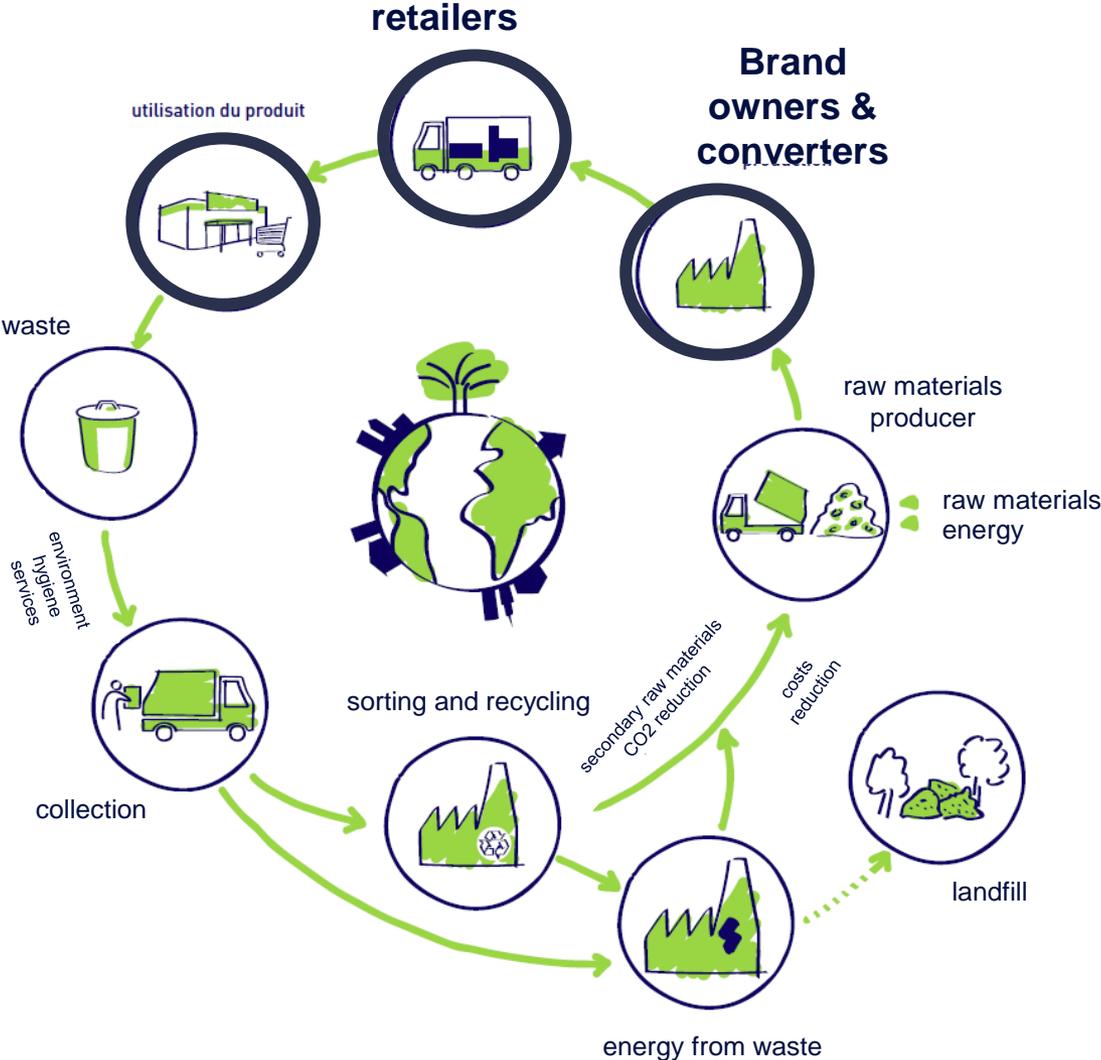
Switch from HDPE to PET : 3 questions

1. Do brand owners make the switch for good reasons?
2. As HDPE recycler, is this substitution endangering my supply chain of post consumer waste?
3. As brand owner, is this substitution helping my packaging to become more circular?

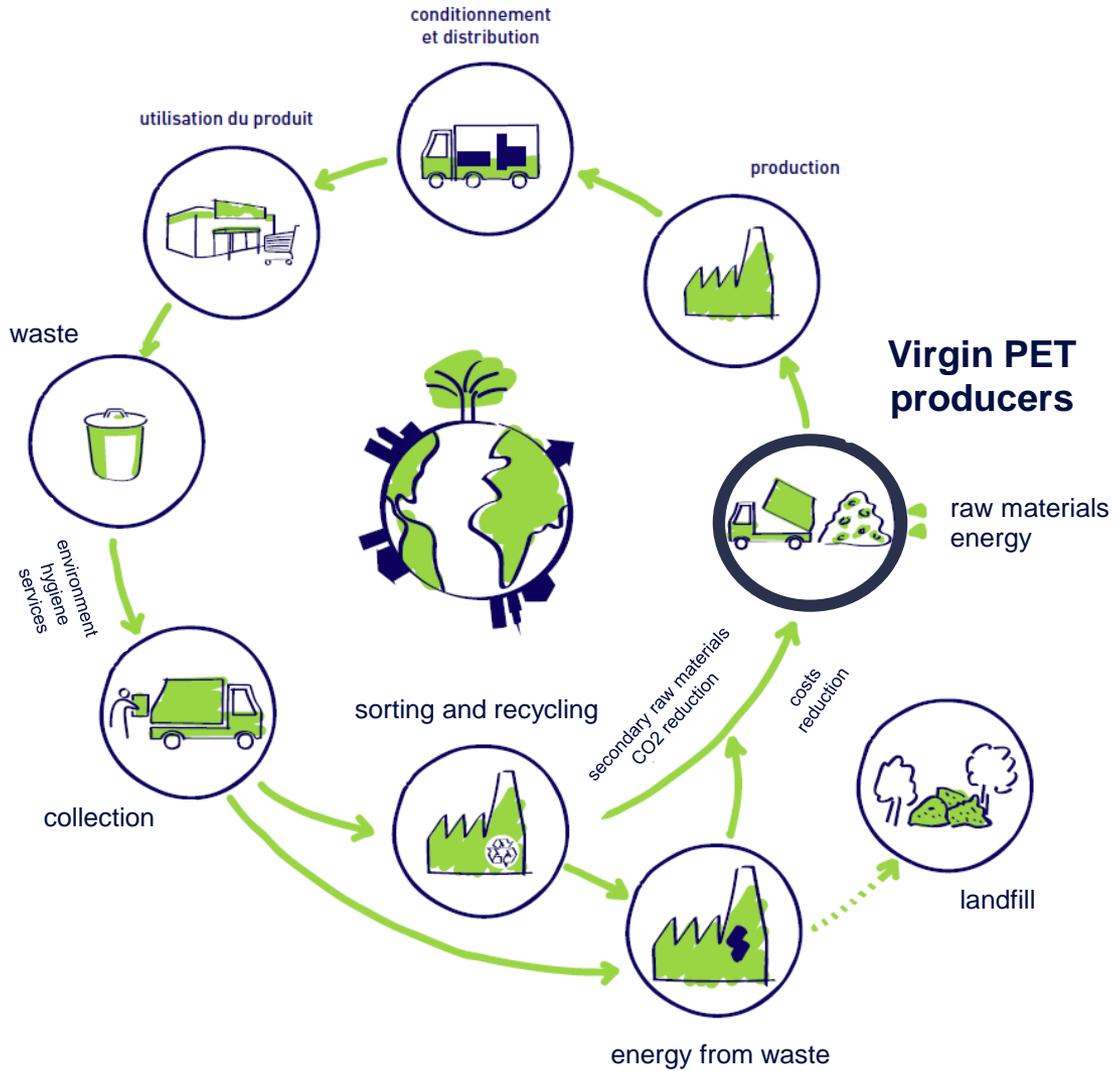
Warming up : where are you in the circle?



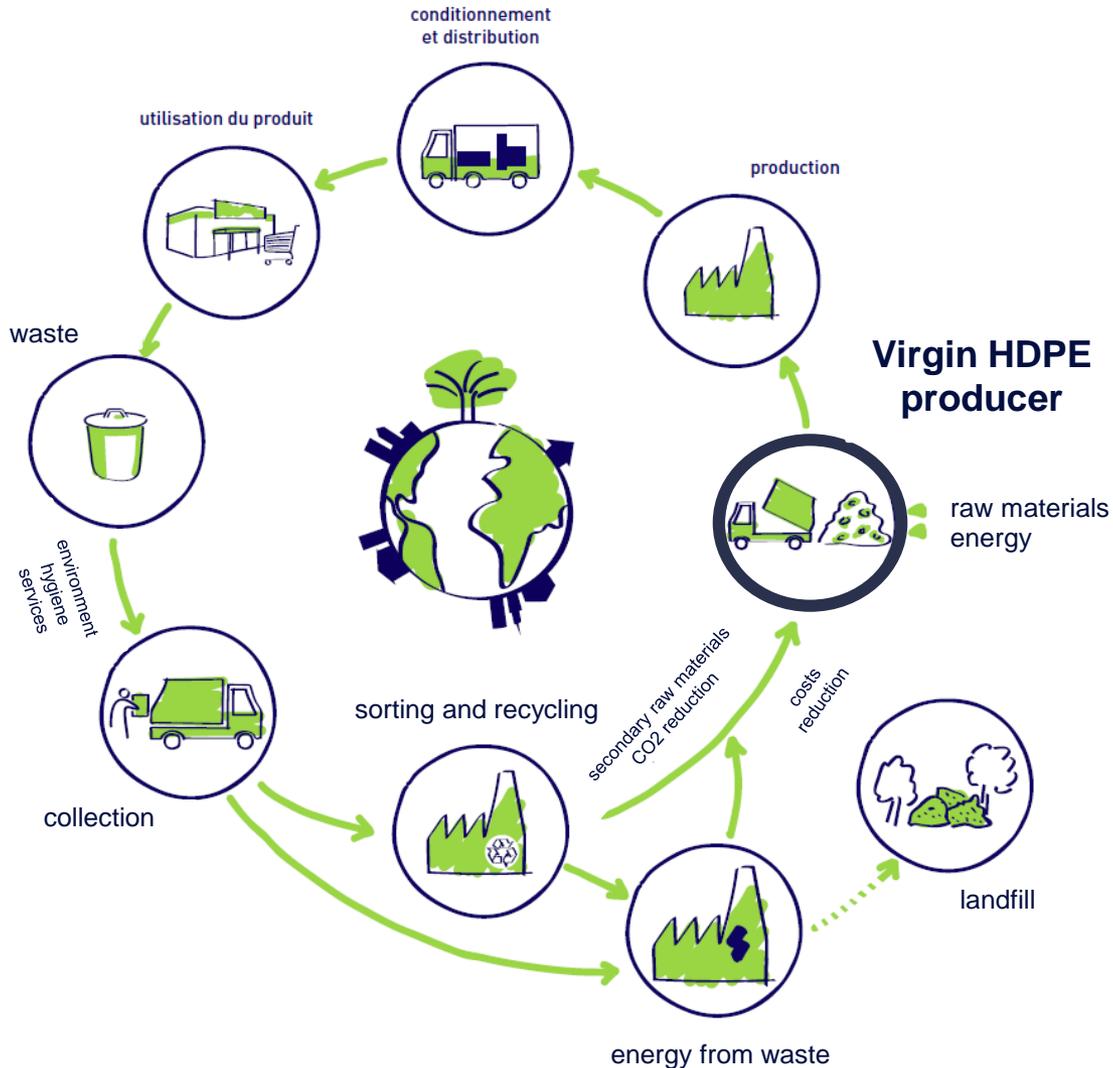
Any brand owner or retailer in this room?



Any virgin PET producer?



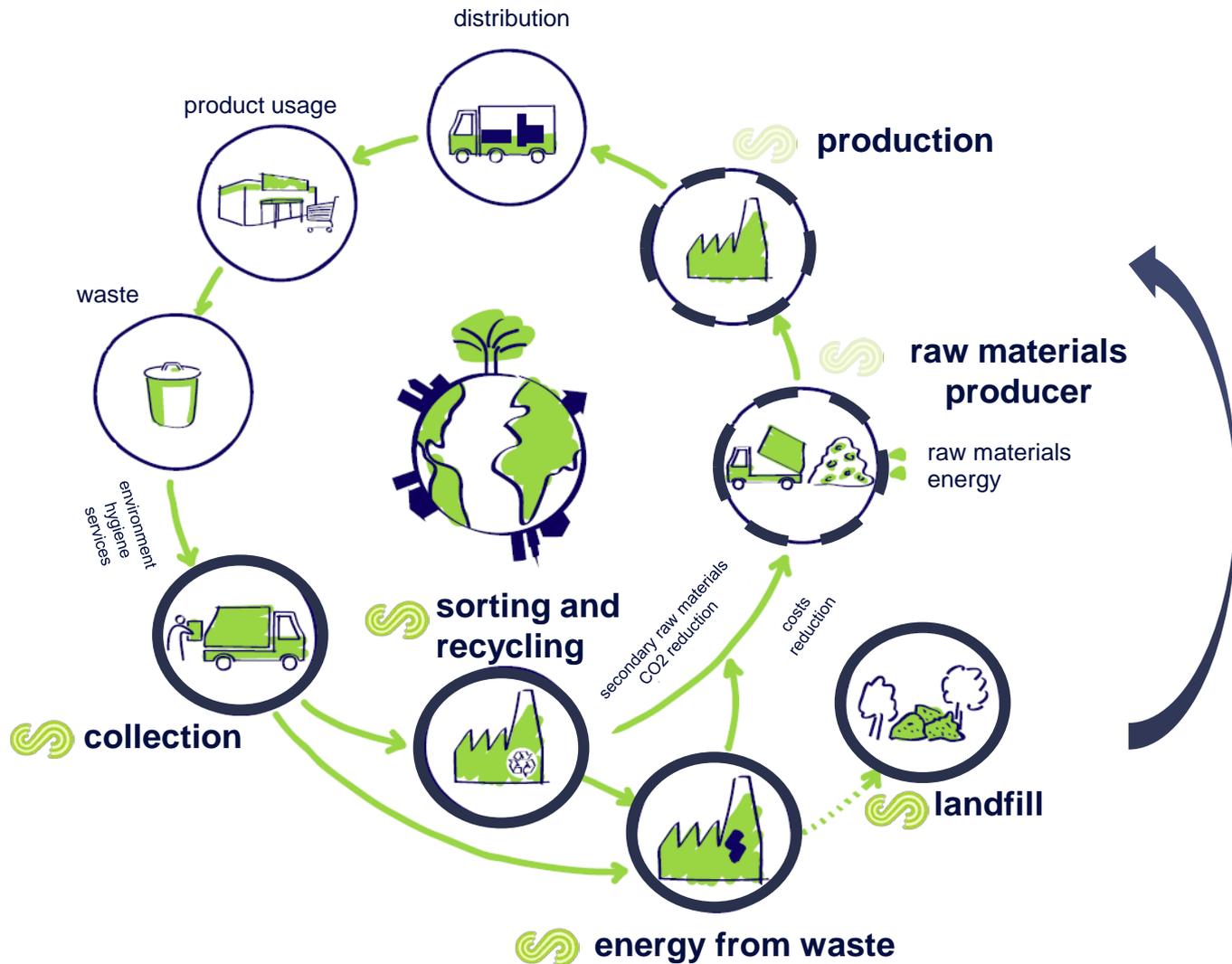
Any virgin HDPE producer?



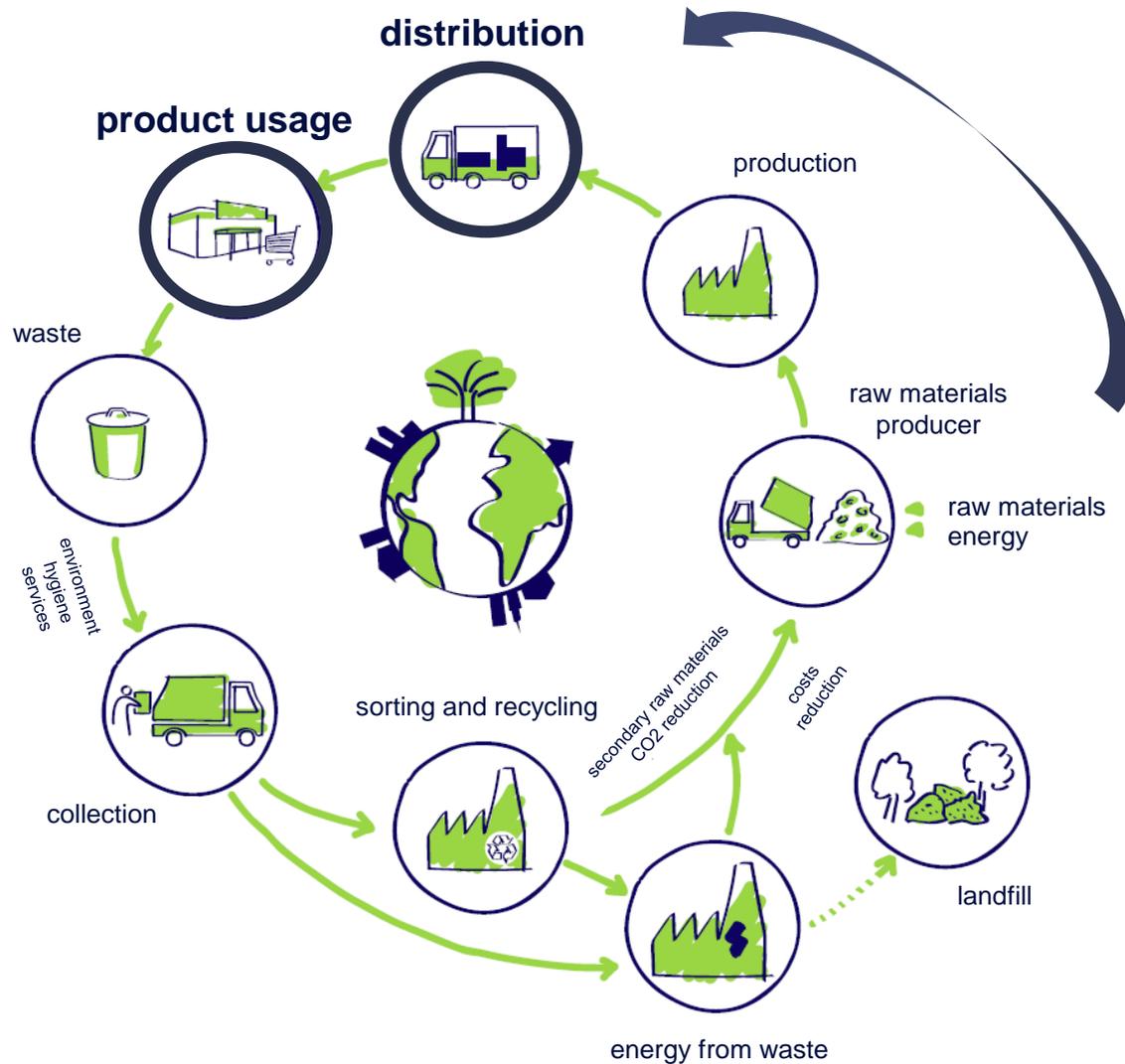
At SUEZ, we are active here...



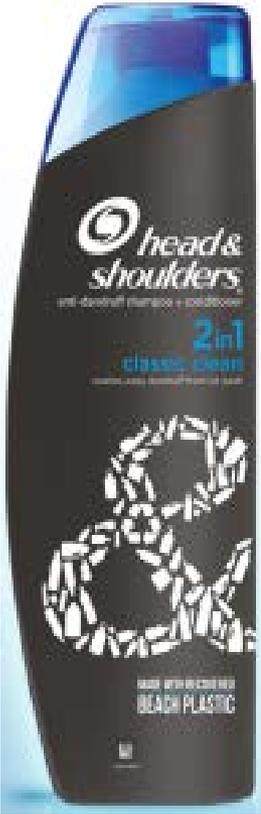
...and increasingly moving up here, with partners



To provide our customers with circular materials



And more specifically with circular plastics



We sort out and reprocess both PET and HDPE post consumer feedstocks



PET

SUEZ plant in Bayonne
FPR plant in Limay



HDPE

QCP plant in Geleen
www.qcpolymers.com

Switch from HDPE to PET : first question

- 1. Do brand owners make the switch for good reasons?**
2. As HDPE recycler, will this substitution endanger my supply chain of post consumer waste?
3. As brand owner, is this substitution helping my packaging to become more circular?

PET instead of HDPE: for good reasons?



PET allows **clear transparent** packaging, and more shiny colors



PET allows **lighter** packaging

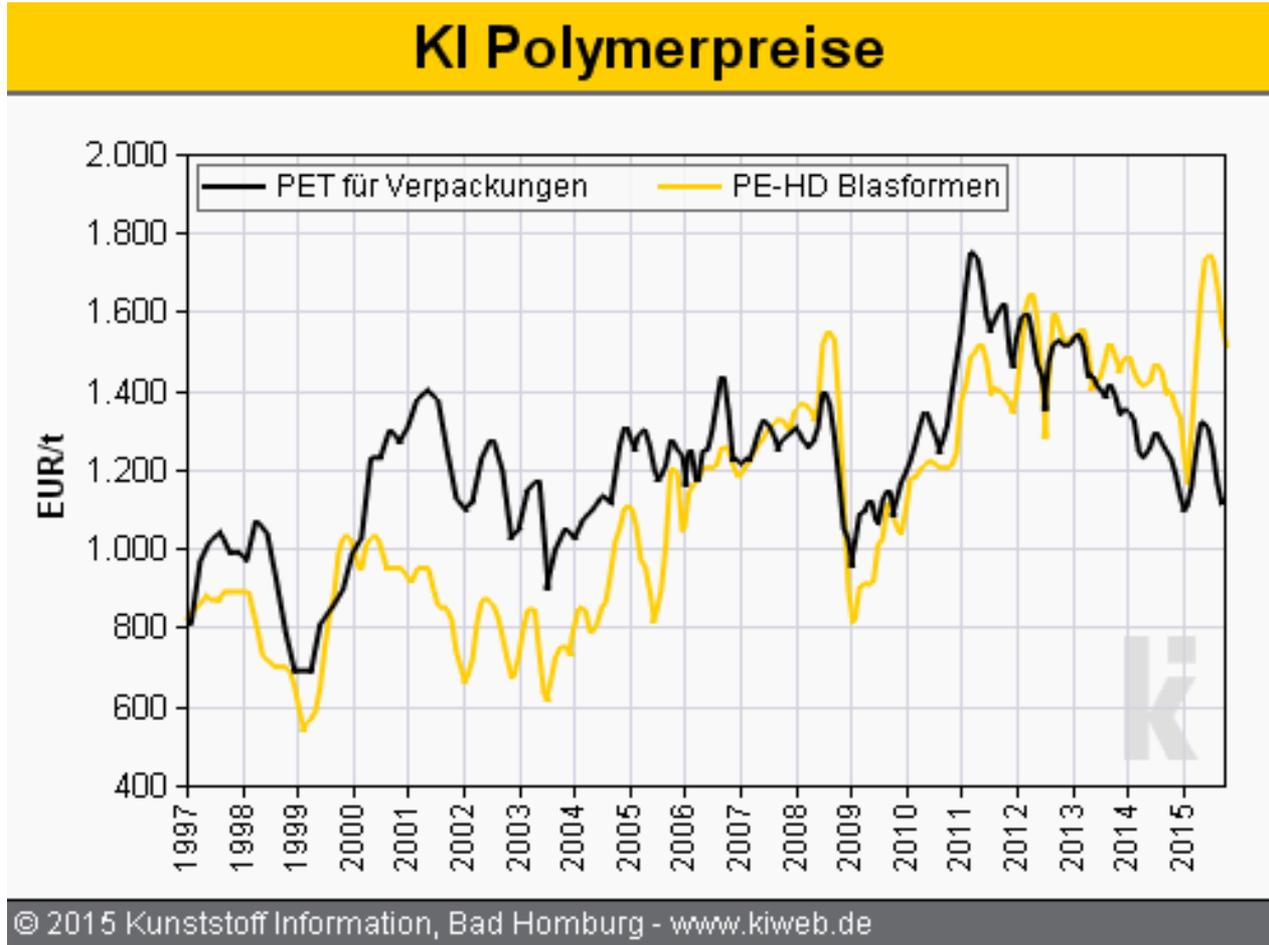


PET more sustainable and more circular than HDPE



rPET bottle grades available in larger quantities than rHDPE bottle grades [Until when?]

PET instead of HDPE: for good reasons?



PET cheaper
than HDPE
since 2014
[until when?]

Switch from HDPE to PET : second question

1. Do brand owners make the switch for good reasons?
- 2. As HDPE recycler, will this substitution endanger my supply chain of post consumer waste?**
3. As brand owner, is this substitution helping my packaging to become more circular?

Maybe yes... (French source, 1 country=France)

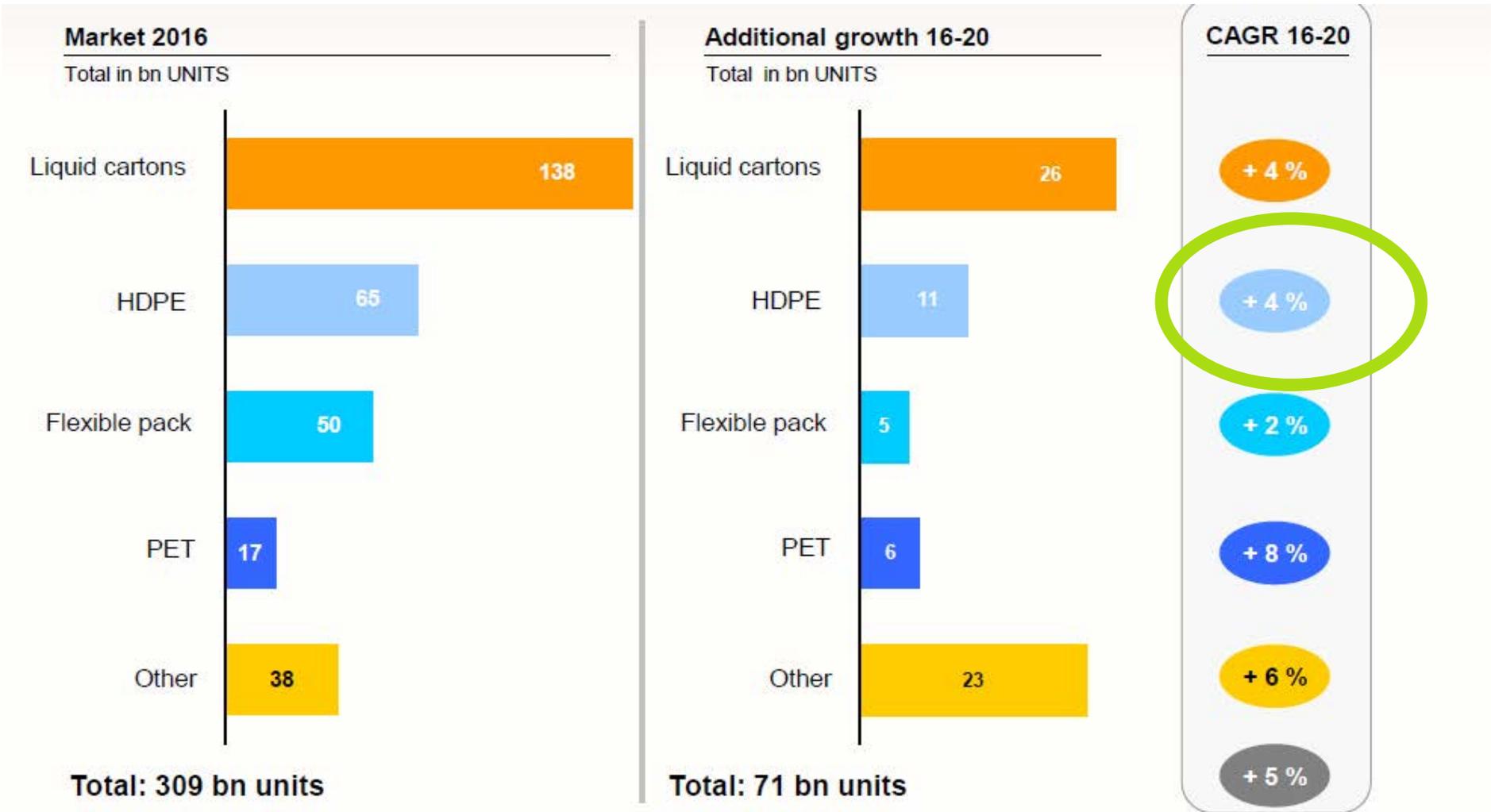
In kT	Household packaging 2014	Household packaging 2020*	%
LDPE	110	110	=
HDPE	170	100	- 42%
PP	190	200	+ 5%
PS/PSE	120	90	- 25%
PVC	20	10	- 50%
PET	400	450	+11%
Others	75	70	- 7%
TOTAL	1085	1030	- 5%

Milk + home&personal care



Figures for France

Maybe No (Euromonitor 2016 for packaging in 54 countries)



Source : Euromonitor 2016 – Top 54 countries database
All packaging type

Less HDPE feedstock for recyclers?

- What is the capacity of HDPE extrusion blow moulding lines having been replaced by PET stretch-blow moulding pre-forms until now in Europe?
- This capacity is lost for at least 5 years
- Will the trend continue? Let's first address last question...

Switch from HDPE to PET : last question

1. Do brand owners make the switch for good reasons?
2. As HDPE recycler, will this substitution endanger my supply chain of post consumer waste?
3. **As brand owner, am I increasing the circularity of my packaging if I use PET instead of HDPE?**

PET packaging more circular than HDPE packaging?



Natural grade HDPE

Equally circular



Clear PET grade

PET packaging more circular than HDPE packaging?



Opaque HDPE

Less circular in actual market conditions (no demand for opaque r-PET)



Opaque PET

Conclusion

- Substitution of HDPE by PET is ongoing for aesthetical and economical reasons, and because clear r-PET bottle grade is easier to find on the market
- Will this trend continue?



Not so sure!

Thank you for your attention

**Come and visit us
at the SUEZ exhibition stand**

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