

SUMMARY



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VEOLIA CORPORATE STRATEGY



DEVELOPING ACCESS TO RESOURCES:

Veolia offers operational solutions that consume fewer environmental resources and are more economically efficient, so as to expand both the potential and the accessibility of the resources available.

PRESERVING RESOURCES:

Veolia develops solutions to conserve resources and optimize their use, while protecting their quality and efficiency throughout the usage cycle.



REPLENISHING RESOURCES:

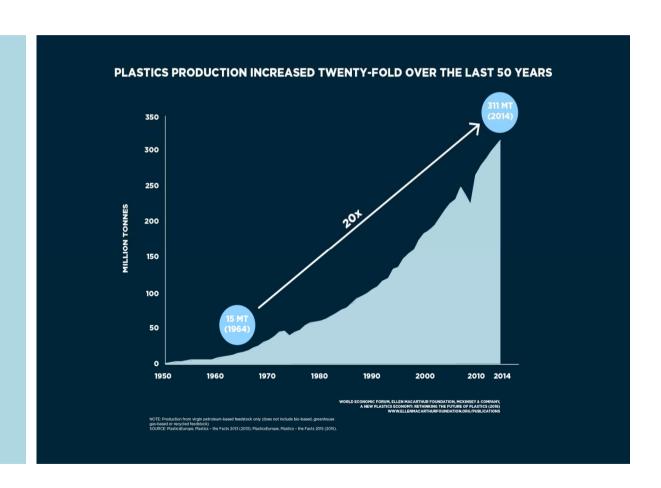
Veolia provides solutions for creating new "secondary" resources that will gradually offset the increasing scarcity of natural "primary" resources, generating new opportunities for social and economic development that protect the environment.

PLASTICS: AN INTEGRAL AND IMPORTANT PART OF THE GLOBAL ECONOMY

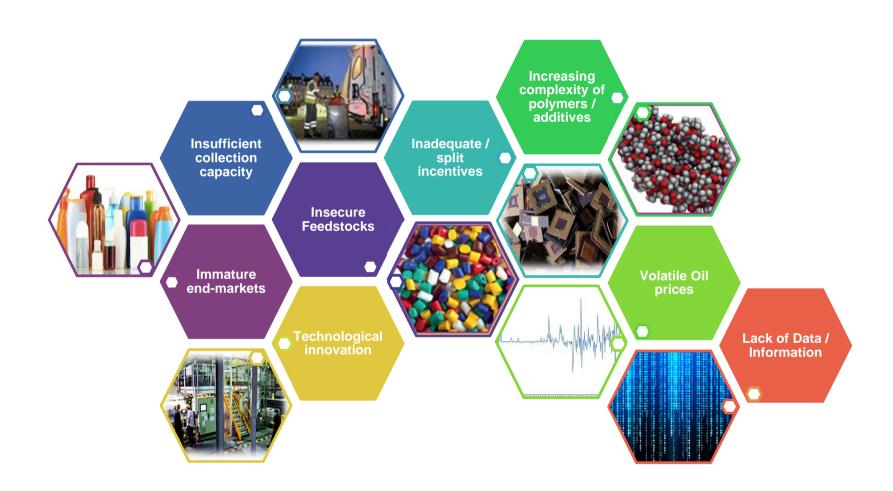
Multiple Benefits of Plastics

- ✓ Weight Reduction
- √ High Reliability
- ✓ Superior Wear Resistance
- ✓ Chemical & Corrosion Resistance
- ✓ Increased Service Life
- ✓ No Product Contamination
- ✓ Noise Reduction
- √ Flexibility
- ✓ Ease of Machining

√ ...

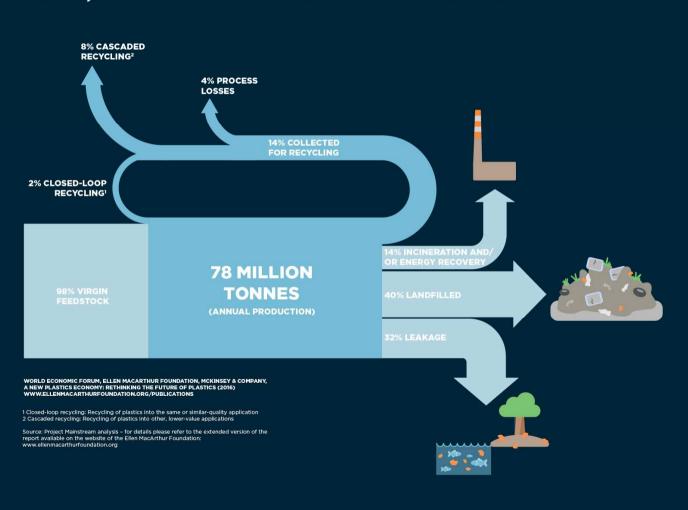


CHALLENGES - PLASTICS RECYCLING



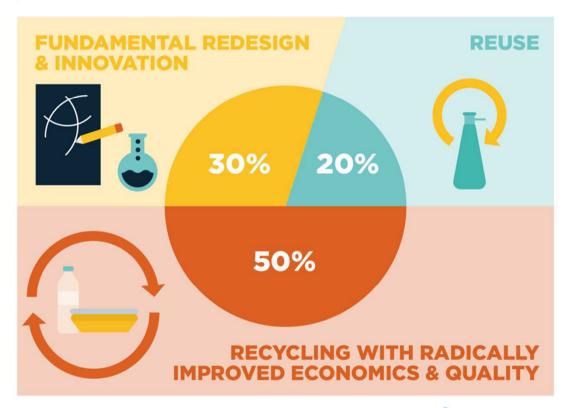
PLASTIC PACKAGING MATERIAL FLOWS

TODAY, PLASTIC PACKAGING MATERIAL FLOWS ARE LARGELY LINEAR



NEW PLASTICS ECONOMY INITIATIVE - REPORT

Three strategies to transform the global plastic packaging market



World Economic Forum and Ellen MacArthur Foundation The New Plastics Economy - Catalysing action (2017, www.newplasticseconomy.org).





« BOTTLE TO BOTTLE » RECYCLING PROCESS (PET)



Technical Materials





- 1 billion bottles recycled each year
- 31,000 metric tonnes of petroleum saved
- 113,000 metric tonnes of CO2 equivalent avoided each year



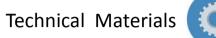
Rostock, Germany

VEOLIA POLYMERS RECYCLED PLASTIC MANUFACTURER, NL









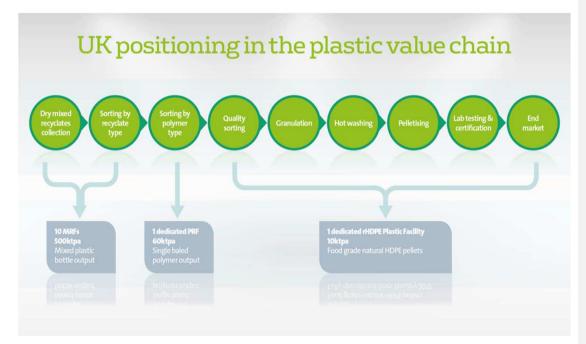
Veolia's solution

- Customized manufacturing of high quality, recycled, polypropylene (PP) granulates
- Advanced sorting of PP(1) and PE(2) (Liquisort®) and reformulation (granulation, mixes, extrusion) of highquality resins (~40kt/year)
- Customer applications of products notably include horticultural, infrastructure, electronic appliances, automotive and packaging products.
- With a state-of-the-art equipped laboratory, providing comprehensive analysis in each stage of the production process, in combination with highly developed formulation skills, as well as advanced currently developed separation technologies ...
- the Vroomshoop facility will be the cornerstone for the expansion of Veolia's European platform of recycled raw plastic materials manufacturing.

VEOLIA INVESTS IN UK PLASTIC RECYCLING



Technical Materials





East London, UK

Veolia's solution

- Veolia acquired the assets of Euro Closed Loop Recycling - the HDPE milk bottle recycling business in East London (under former ownership, closed its doors in late summer 2015).
- Veolia will recycle 200 million plastic milk bottles and produce 10,000 tonnes of high quality food-grade HDPE pellets, per year.
- Veolia will offer the complete range of services from collection of raw feedstock (waste plastic bottles) direct from people's homes or businesses, through all the recycling steps, and back to food grade pellets ready to be blown into new plastic milk bottles.
- The move will boost the UK's domestic recycling capability and create 30 permanent jobs

VEOLIA KEY RECOMMENDATIONS ON THE CIRCULAR ECONOMY PACKAGE







Complementarity of waste treatment alternatives

Full harmonisation of the legislation & the calculation method



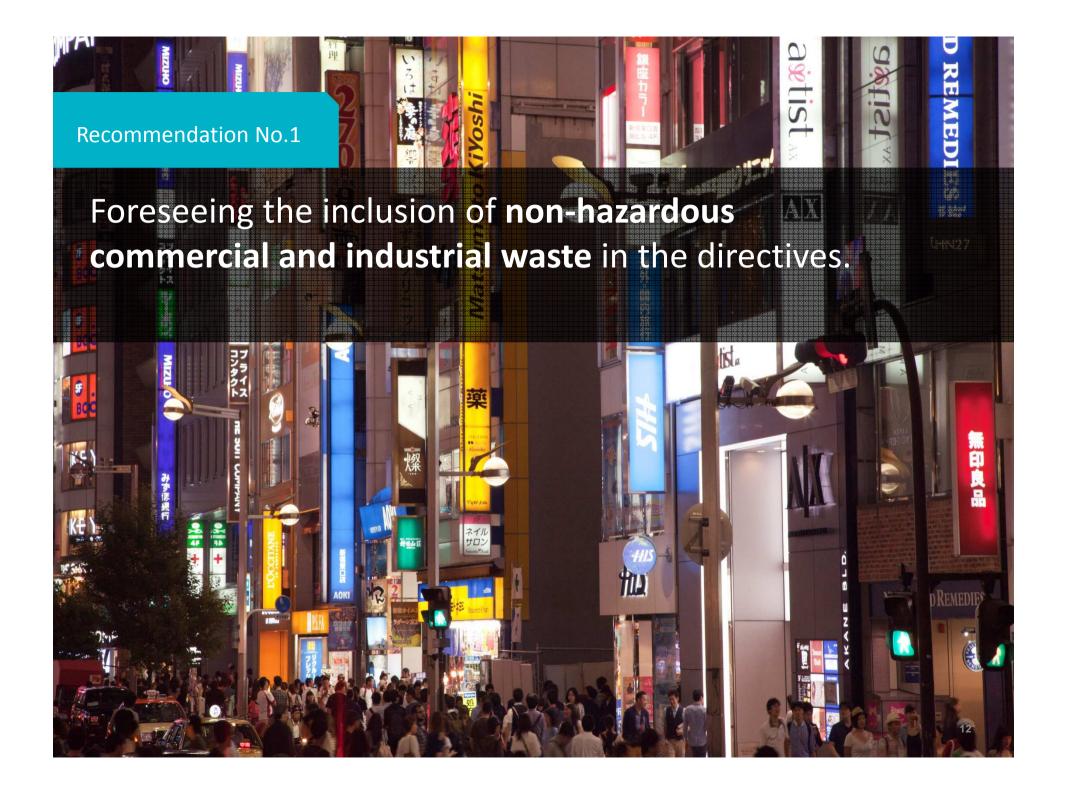
Exploitation of energy of waste

Improvement of the design of products



A boost to SRM markets





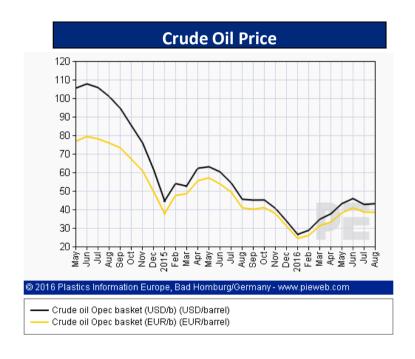


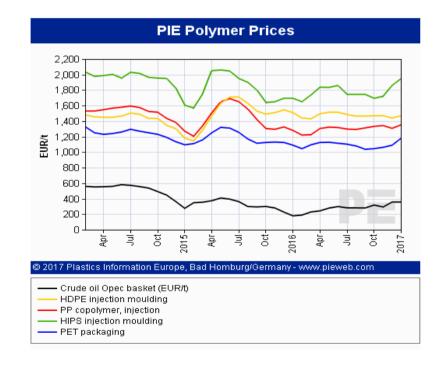




THE COST GAP BETWEEN VIRGIN AND RECYCLED RESINS 1/2

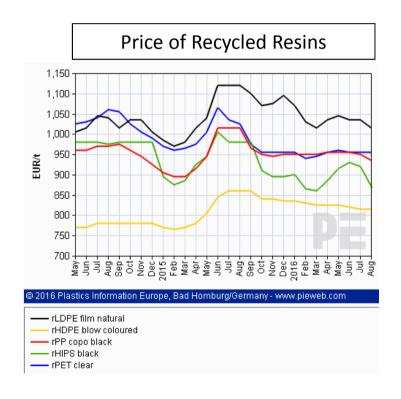
- Significant Drop in Oil Prices since July 2014
- Prices of Virgin Resins (typically) Correlated to Crude Oil Prices

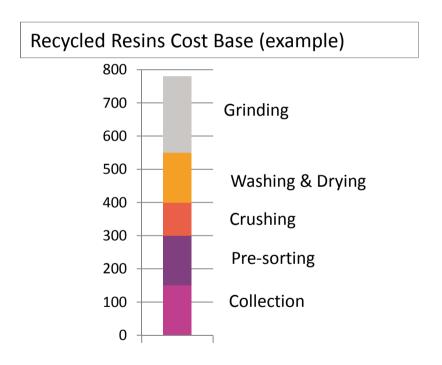




THE COST GAP BETWEEN VIRGIN AND RECYCLED RESINS 2/2

 Recycled plastic prices are not determined by production costs but are defined by virgin prices at the top end and plastic waste supply and recycled plastic demand at the bottom end.





Very little correlation with the price of the crude oil or the resin

THE NEW PLASTICS ECONOMY



THANK YOU FOR YOUR ATTENTION!

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