



Packaging Sustainability: introducing more PCR and Importance of Partnerships

Gian De Belder (P&G, Packaging R&D - Sustainability)



AGENDA

- Who we are
- Sustainability strategy & goals (focus packaging)
- Case studies LW and PCR
- Partnerships and CE
- Key requirements for successful CE



Who We Are?



P&G at a Glance

Sales: **\$65.3 Billion**

Countries of Operations: **~70**

Countries Where Our Brands Are Sold: **180+**

Consumers Served by Our Brands:
Nearly 5 billion

Some of the world's most trusted brands



Fabric and Home Care

2015 Net Sales: \$22.3 billion

Categories: Fabric Care, Home Care



Baby, Feminine and Family Care

2015 Net Sales: \$20.2 billion

Categories: Baby Care, Family Care, Feminine Care



Beauty

2015 Net Sales:

\$18.1 billion

Categories:

Hair Care, Skin and Personal Care



Health and Grooming

2015 Net Sales: \$15.2 billion

Categories: Oral Care, Personal Health Care, Shave Care



P&G in Europe

Present since
1930

730 Million
Consumers

1/3 of Global
Employees 

Present in **50** Markets

24 % of Total
Company 

Fiscal 2015 data



On-the-ground operations in:

European Economic Area

Austria
Belgium
Bulgaria
Croatia
Czech Republic
Denmark
Finland

France
Germany
Greece
Hungary
Ireland
Italy
Latvia
Luxembourg
Norway

Poland
Portugal
Romania
Slovakia
Spain
Sweden
Switzerland
The Netherlands
United Kingdom

Eastern Europe and Central Asian Republics

Russia
Ukraine
Kazakhstan

Turkey and Caucasus

Turkey
Azerbaijan

4 R&D centers: 2000+ scientists to create superior consumer products through Innovation...





P&G SUSTAINABILITY
Our Objective

“Put simply our objective is to design products that delight consumers while maximizing the preservation of resources.”



Virginie Helias
VP, Global Sustainability

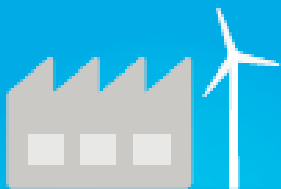
Our Sustainability Strategy



P&G SUSTAINABILITY

Our 4-Point Vision

One Day We Will...



Powering all our plants
with **100%**
renewable energy



Using **100%**
renewable or recycled
materials for all products
and packaging






Designing products
that delight consumers
while maximizing the
conservation
of resources



Having **ZERO**
consumer and manufacturing
waste go to landfills

Our 2020 Goals

	IN OUR OPERATIONS	THROUGH OUR BRANDS
 Climate	<p>20% reduction in energy use per unit of production</p> <p>20% reduction in truck transportation kilometers per unit of production</p> <p>30% absolute reduction in greenhouse gas emissions (Scope 1 & Scope 2)</p> <p>30% renewable energy powering our plants</p>	<p>70% of all washing machine loads are washed in cold water</p> <p><u>20% packaging reduction</u> per consumer use</p> <p>Create technologies to substitute top petroleum derived raw materials with <u>renewable materials</u> as cost and scale permit</p> <p>Implement palm oil commitments to ensure full traceability, supply chain engagement and development of programs for smallholders</p>
 Water	<p>20% reduction in water use</p>	<p>Provide one billion people with access to water efficient products</p>
 Waste	<p><i>New</i> Zero mfr waste to landfill across all our mfr sites (>100) (~650ktons diverted from landfill)</p> <p>100% recycled or 3rd party certified paper packaging</p>	<p>Ensure 90% of packaging is either <u>recyclable</u> or programs in place to recycle it</p> <p><u>Double our use of recycled resin</u> in plastic packaging</p> <p>Pilot studies in both developed and developing world to understand how to eliminate landfilled solid waste</p>

Same Performance, Less Materials

 Waste



- Over the last 20 years, we have reduced the weight of Pampers by around 50% and packaging weight by 70%.
- The “Box-to-Bags” innovations unveiled in Western Europe in 2015 means 80% less packaging and 160 metric tons less CO₂ for our Pampers brand.

- Mr. Proper 2.5x concentrated formula resulted in 45% less packaging and 64% less water per bottle.

 INNOVATION

Product Innovation – example 1



New dosing system for 2.5x concentrate

Dosing cap: measures the flow through opening of the cap with a kind of timer mechanism that shuts it off when the right amount is dosed

Results for WE:

- 64% less water per bottle
- Amazing performance in cold water
- Auto-stop cap: no overdosing
- LW bottle (ISBM) and Packaging reduction: 11000 ton
- Transport reduction: 1125 less trucks



Bottle: 78g HDPE → 33g PET (1400ml → 600ml);
Cap= 4 component PP only (recycling)



External recognition :

- ✓ Fost Plus
- ✓ Oscar de L'Emballage
- ✓ Ameristar
- ✓ Dupont Award Gold
- ✓ SPE Best Plastic Design
- ✓ World Star - May 15
- ✓ Product of the year UK and Belgium
- ✓ ...



GREENER
PACKAGING
AWARD



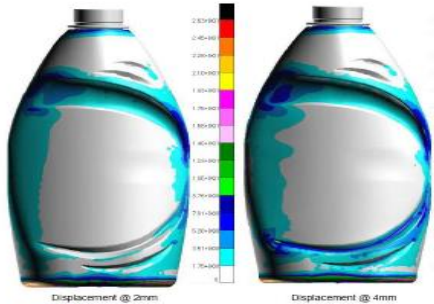
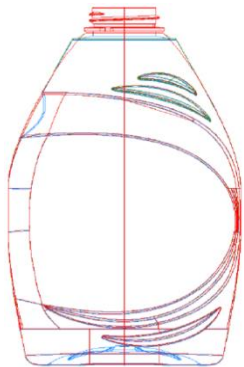
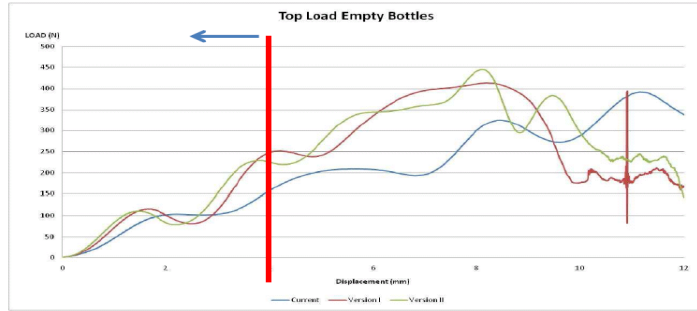
**WORLDSTAR
WINNER 2015**



Light-weighting example. 2

Light-weighting Dish

Generation 2 of new Dish design:
optimize performance (virtual assessment)



Example 3: More Recycled Content

 Waste

Recycled Resin Strategy: r-HDPE

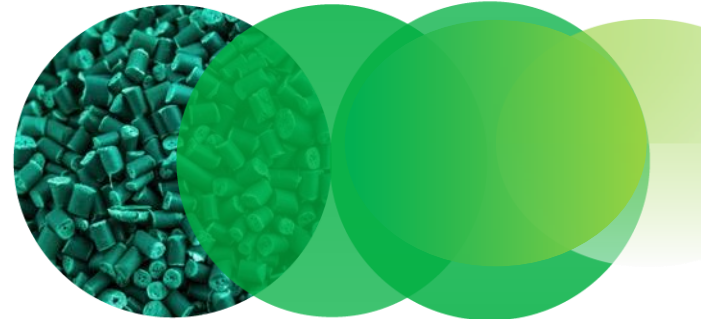
- Partner with few key players
(collection facilities, recyclers, converters, industry associations, ...)

To establish high-quality, sustainably affordable sources of recycled resins

- To preserve our quality promise
- To work through technical issues
- To build robust production systems
- To meet cost requirements

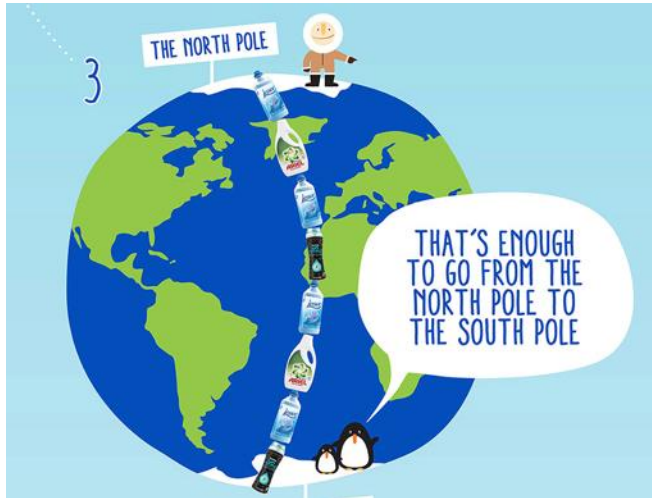


VS



PCR in Fabric Care bottles

Waste



- Flagship fabric brand bottles, Ariel, Dash and Lenor will be made with up to 50% post consumer recycled content.
- That equates to 230 million packs – enough to go from North to South poles.



Bottle: up to 50% PCR
+3.8 ktons/yr PCR

PCR in Hair Care: WEF Davos 17



PCR in Hair Care: WEF Davos 17

(up to 25% PCR)

Awareness



- Summer 2017: beach plastic PCR - Carrefour France (~2.8ton beach HDPE ; > 100M bottles)



- By end 2018: > 0.5 bn bottles/yr (~**2.6kton**) (>90% of all EU Hair Care bottles)

Pantene™ and Head & Shoulders™



World's first Shampoo bottle made with Beach Plastic



MEET THE WORLD'S FIRST RECYCLABLE SHAMPOO BOTTLE MADE WITH BEACH PLASTIC

1 PLASTIC IS COLLECTED ON
BEACHES BY VOLUNTEERS

2 IT'S SORTED
BY TERRACYCLE



3 AND SENT FOR
CLEANING AND
GRINDING INTO
PELLETS



4 THE PELLETS ARE
THEN SENT TO P&G



5 AND TURNED
INTO THESE



 **head &
shoulders**



IT'S THE WORLD'S LARGEST
PRODUCTION RUN OF
RECYCLABLE BOTTLES
MADE WITH BEACH PLASTIC.

More partnerships

Stretched Sustainability Vision

- We can not do it on our own...
- We actively seek suppliers to go beyond Europe and North America
- We aim to educate consumers better about what they can and should recycle
- Partnerships with industry leaders/suppliers/organizations are KEY!



Winning with Partnerships



Plant PET Technology Collaborative

MISSION PTC:

- Accelerate development of 100% plant-based PET by 2020 (affordable, sustainably sourced...)
- Partner with external leaders in industry
- LCA
- Feedstocks



Encouraging the responsible development of plant-based plastics.



Leading global brand companies join with WWF to encourage responsible development of plant-based plastics



Flexible Film Recycling Group (FFRG)

What's Next?



1. New WG Petcore Europe: ODR

Opaque Colored and Difficult-to-Recycle Packaging Containers

Chair: P&G ; Co-Chair: PRE

WG = Platform for discussion (full value chain approach)

Many new innovative (PET) packages are entering the market today, yet might cause challenges at EoL (End-of-Life)

Sorting/Recycling technologies will need to keep the pace, but always will be behind.

Innovation has to go hand-in-hand and dialogue required between stakeholders!

Objective: allow and increase market share ODR & improve “image” ; Short/Mid/Long term Visions.

Analyze ODR market (TF 1)

Define/validate/disseminate best collection/sorting and recycling technologies (TF 2+3+6)

Map current and new recycling paths for ODR (TF 4)

Learn from best-in-class examples/practices (TF 5)

Optimize DfR Guidelines (TF 6)

Transparency on all issues

needed to improve ODR challenges

ODR

NEW



With over 1.8 million tonnes of collected and recycled PET bottles, the 2015 European PET collection and recycling volumes have increased by 5% compared to 2014. This means that nearly 59% of all bottles placed in the European market have been collected for recycling in 2015, outlining an increase of 2% points compared to the 2014 collection rate.

Clear bottles accounted for less than 15% of the stream



2. New Plastics Economy Participation



The New Plastics Economy is an ambitious, three-year initiative to build momentum towards a plastics system that works.



New Plastics Economy: bring together key stakeholders to re-think & re-design the future of plastics.

P&G and New Plastic Economy:

- Active participant in NPEC
- Standardization of Tracer/Watermark sorting ; to be worked as Pioneer Project (including full value chain)



Open workshop:

- Brussels - April 4th, 2017 (brand owners, waste mfr, recyclers, packaging components mfr,...)



Close the loop:

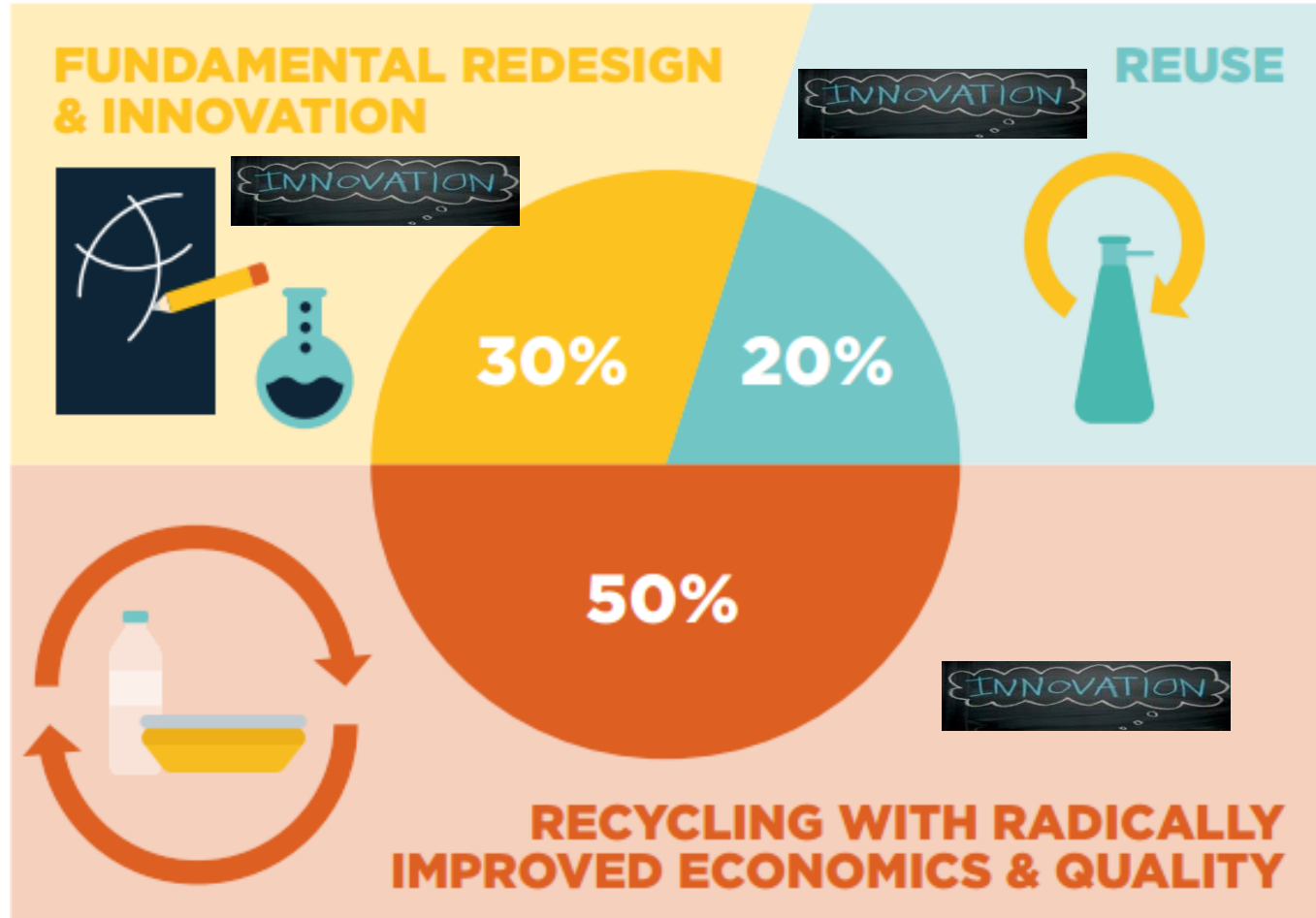
- 32% leakage
- 40% landfilled
- 14% incineration/energy
- 14% collected for recycling

Only 2% closed loop recycling!



Source:

World Economic Forum, Ellen MacArthur Foundation and McKinsey & Company, *The New Plastics Economy — Rethinking the future of plastics* (2016, <http://www.ellenmacarthurfoundation.org/publications>)



Source: World Economic Forum and Ellen MacArthur Foundation, *The New Plastics Economy – Catalysing action* (2017, <http://www.ellenmacarthurfoundation.org/publications>)

New Partnerships Required to achieve CE

Recycling & Recyclability

Focus Areas

0

Design-for-
Recycling

(Eco-design)

1

Access to
Collection

Infrastructure
CLOSED
LOOP *fund*

3

Separation

Technologies



2

Participation

Education



Fostulus

4

End Markets

Useful homes...
2X PCR



INNOVATION

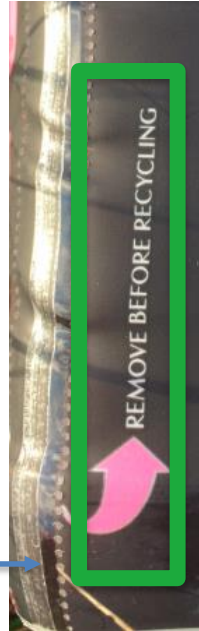
Recent PET introductions



Design-for-Recycling: consumer msg!

PCR content

0
Design-for-Recycling
(Eco-design)



Key requirement for successful CE

- EU plastic strategy: clearer **definitions**
- Eco-design
- Need EU EoW (End-of-Waste) criteria
- CE needs scale, so need common approach across MS
→ Harmonization of collection across MS
- EU to keep financial incentives

OUR COMMITMENT TO PLASTIC RECYCLING



AS A WORLD LEADING
HAIRCARE COMPANY,
WE'RE COMMITTED TO
DOING THE RIGHT THING



SO WE'LL BE FINDING A MARKET
FOR **2,600 METRIC TONNES**
OF **PLASTIC WASTE**

IT MEANS
HALF A BILLION
BOTTLES WILL BE MADE
WITH RECYCLED PLASTIC
EVERY YEAR



WE'RE INTRODUCING
RECYCLED PLASTIC
ACROSS P&G BIGGEST
HAIRCARE BRANDS
ACROSS EUROPE

SO BY...



THAT WOULD OTHERWISE HAVE
GONE TO WASTE

THAT'S THE EQUIVALENT IN WEIGHT
TO 8 FULLY LOADED
747 JUMBO JETS!

