

# PLWOC PACKAGING POLICY

CO-BUILD THE CIRCULAR ECONOMY OF PACKAGING

BY SOURCING SUSTAINABLE MATERIALS  
AND CREATING A SECOND LIFE FOR ALL PLASTICS



DANONE

# TABLE OF CONTENTS

<b>01. INTRODUCTION</b>	<b>p.3</b>
<b>02. CONTEXT AND CHALLENGES</b>	<b>p.4</b>
2.1 The role of packaging	
2.2 The challenges of packaging	
<b>03. OUR RESPONSIBILITY</b>	<b>p.6</b>
<b>04. OUR GUIDING PRICIPLES</b>	<b>p.8</b>
4.1 Work from upstream to downstream all along the packaging life cycle	
4.2 Combining continuous improvement and breakthrough innovation	
4.3 Build coalitions to scale-up locally relevant waste management solutions	
<b>05. OUR COMMITMENTS AND GOALS</b>	<b>p.10</b>
<b>06. GOVERNANCE</b>	<b>p.17</b>
<b>07. GLOSSARY</b>	<b>p.18</b>
<b>08. APPENDIX</b>	<b>p.20</b>

### INTRODUCTION

At Danone, our business is food and beverages, and our mission is bringing health through food to as many people as possible.

Packaging has an important role to play by protecting the nutritional benefits and quality of our products and allowing them to be stored, transported and used safely. However, packaging also presents some challenges. It uses valuable resources in its conception and generates waste when not recycled.

To address this challenge Danone aims to source its packaging materials from sustainable resources and create a second life for all plastics. We want to move to a circular model where packaging waste becomes a resource. We also believe that the circular economy<sup>1</sup> and the bioeconomy<sup>2</sup> are interdependent because it is not currently possible to sustain an economy without any new resources being added.

Moving away from a linear economy requires a different approach and broader thinking to leverage collaborations, share knowledge and create partnerships with sectors and organizations that may not have otherwise come together.

We also aim to ensure that our packaging is made from sustainable materials and enhances the sustainability of our essential resource cycles.

Therefore, this policy is our plan for creating packaging that is fit for a healthier future. To build a future where people, nature, and the business can all thrive we will need to make changes to the way we interact with our resources. Sourcing materials responsibly to protect the ecosystems we rely on is critical, and using those materials more than once means we can do more with less.

*This policy focuses on packaging, and is a cornerstone of the Danone Nature 2020 strategy. Other policies and position papers within the Danone Nature 2020 strategy include climate, sustainable agriculture, food waste, forest footprint and animal welfare. Visit [www.danone.com/sustainability/](http://www.danone.com/sustainability/) for more information.*

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<sup>1&2</sup> See glossary page 19

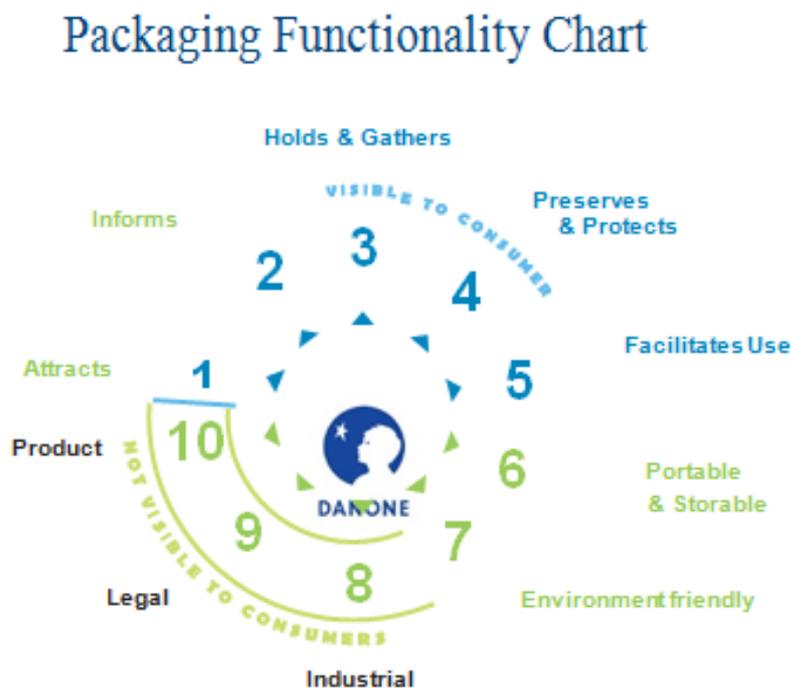
## CONTEXT AND CHALLENGES

Packaging has become part of life. Every day, billions of products are stored, transported and used safely and easily thanks to the packaging designed to protect products. But packaging also has unwanted consequences. It uses valuable resources and can generate waste when not recycled. This Packaging Policy is designed to keep enhancing the benefits of packaging while addressing the related sustainability issues.

### THE ROLE OF PACKAGING

The fundamental role of packaging is to deliver a product to the consumer in perfect condition. This requires careful design that protects products as they transit through supply chains from factories to stores and from stores to consumers. For Danone, packaging plays a core role in protecting the nutritional benefits and quality of our products so they can best enhance health and enjoyment.

We demand packaging that fulfills many functions:



## DANONE PACKAGING POLICY

- Packaging must protect food, ensure food safety and visibly show evidence of any tampering.
- Packaging should provide information on the product usage, health and safety data, how to dispose of it, and other mandatory and educational information for consumers.
- Packaging should enable convenient transportation, storage and usage of the product built into the design.
- Packaging should help to promote and market the product to consumers.
- The best packaging will allow consumption of 'units' or portions of the product. A smart design packaging can help consumers to eat healthy portions and prevent food waste<sup>2</sup>.

This is a 'multi-variable' design brief, with packaging expected to perform highly across all of these functions. However, as well as functionality, packaging also faces challenges with managing sustainability impacts.

### THE CHALLENGES OF PACKAGING

Packaging uses natural resources and when not recycled, ends up back in nature as waste. This is an unsustainable impact and great efforts worldwide are already underway to close that loop. There is still much work to do. According to World Economic Forum New Plastics Economy report, 40 percent of the plastic used worldwide is still disposed of in landfill (**see Appendix 1 for more context on packaging waste**).

As the global population rises, so too does its demand for packaged products. In developing and emerging economies, desire for packaged products is in advance of waste or recycling infrastructure. Until recycling or even simple waste collection is in place, too many communities will experience serious litter and waste challenges. Across the world consumers and stakeholders now perceive packaging waste as a key environmental and social challenge. Most plastics are in principle recyclable and can be recycled if collected and sorted (like PET for bottles which account for 7% of all plastics produced in the world). Nevertheless there is a need to continuously improve second-life solutions or substitute by materials that can become useful resources with a hierarchy in the efficient use to turn waste back as a valuable resource. This is why waste collection is a clear priority.

**The solution to the resource challenges and also the waste problem can be the same: use renewable resources for packaging and turn waste into valuable resources.**

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<sup>2</sup> Danone position on food waste

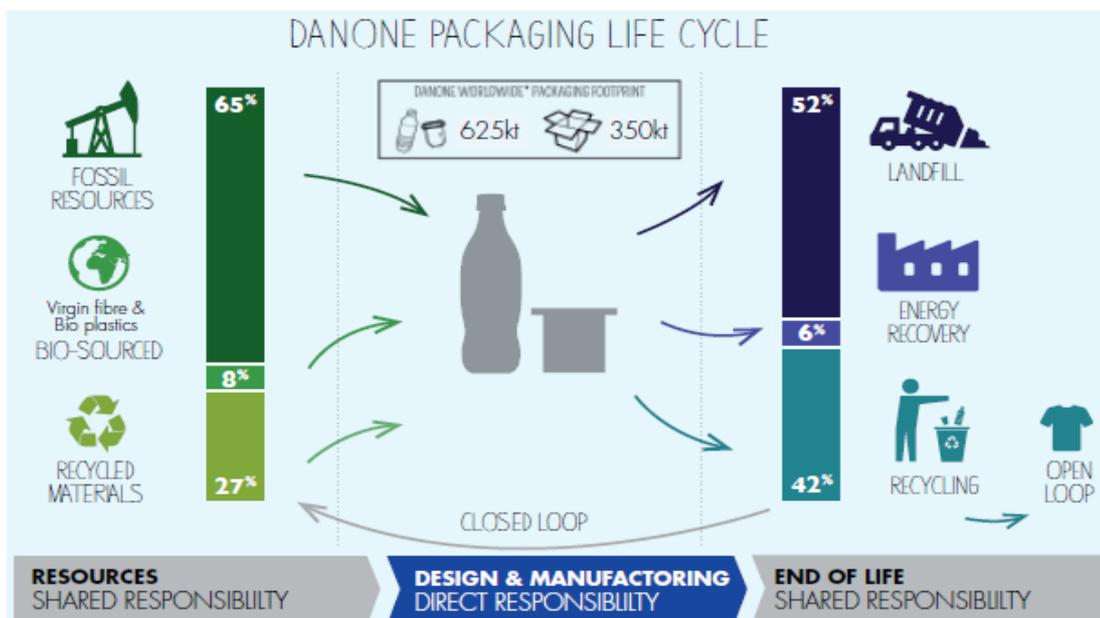
## OUR RESPONSIBILITY

The environmental impact of packaging is a fundamental concern. Danone uses more than one million tons each year of packaging worldwide (approximately 625,000 tons of plastic, 350,000 tons of paper and board but also glass, aluminum and steel).

Our packaging is made from a mixture of recycled materials (27%), bio-based materials which are derived from natural renewable resources (8%) and still mainly materials made from oil, a fossil resource (65%).

An independent survey by Deloitte estimates that while already approximately 42% of our packaging is recycled at a global scale (with 37% for plastics alone) and 6% are used to produce energy, more than half of Danone’s post-consumer packaging still does not have a second life, with a higher ratio of non-recycling in developing countries.

Resolving these challenges will require us to work within our direct scope of responsibility (design and manufacturing) as well as co-create solutions when ‘shared responsibility’ is required (from upstream raw materials to post-consumer end-of-life):



## DANONE PACKAGING POLICY

The key to a sustainable packaging future is turning waste into resources, ensuring that all materials are captured and re-used or recycled. This can be broken down into two major areas of focus:

### **Resources used**

To reduce the use of valuable resources, our packaging needs to be made from more renewable and recycled resources.

### **End of Life**

To allow the creation of systems that close the loop, our packaging needs to be made from material capable of being recycled. The packaging also should be designed to facilitate easier recovery and recycling through easy separation of different materials.

Closing the loop also requires effective waste collection and processing systems. Around the world, infrastructure to collect and process packaging varies considerably, from countries with highly advanced recycling infrastructures through to those with little ability to ensure even low levels of recycling. Developing economically viable and context-specific solutions is important.

### OUR GUIDING PRINCIPLES

The Packaging Policy principles are based upon Danone’s vision to bring a healthier diet to more people while using natural resources sustainably. We believe packaging has a core role to play in reaching that vision ([See Danone Climate Policy](#) on Danone.com).

#### WORK FROM UPSTREAM TO DOWNSTREAM ALL ALONG THE PACKAGING LIFE CYCLE

Packaging has an essential role, from protecting upstream resources to responsible end-of-life practices, and connecting products and brands with consumers. Danone’s vision of packaging is built on a circular approach from the use of resources through to consumer behaviors. Through eco-design principles, we will seek to minimize the challenges and maximize the benefits from every part of packaging – from design to sourcing, retail and disposal. When it comes to the end of life in particular, we will be guided following the **waste hierarchy**:



#### COMBINING CONTINUOUS IMPROVEMENT AND BREAKTHROUGH INNOVATION

The fundamentals of food safety, quality and regulatory compliance underpin all our packaging solutions. We take into account consumer expectations from the act of shopping to the act of consuming the product and then disposing of waste. Packaging plays a significant role at every stage. We believe optimal performance is achieved when our products and packaging are designed together from conception, and take into account the full lifecycle of the packaged product.

Innovation is possible beyond design. Danone can innovate in consumer engagement, behavior change and through its marketing practices.

### **BUILD COALITIONS TO SCALE UP RELEVANT WASTE MANAGEMENT SOLUTIONS**

Danone has learnt much about the critical importance of building coalitions of partners across the chain to be able to turn packaging waste back into a resource. In countries that lack formal management systems but are experiencing rapid consumption growth, the challenge is to develop locally relevant, socially inclusive waste collection and recycling systems to turn packaging waste into a resource.

## OUR COMMITMENTS AND GOALS

### CO-BUILD THE CIRCULAR ECONOMY OF PACKAGING BY SOURCING SUSTAINABLE MATERIALS AND CREATING A SECOND LIFE FOR ALL PLASTICS

Danone’s strategy is to promote the circular economy of packaging by supporting the development of processes and systems that turn waste into resources. We believe in a circular future for packaging. Our strategy is based on **5 commitments that span the cycle of our packaging<sup>1</sup> from the choice of raw materials upstream to consumer behaviors downstream:**

1. Use sustainable resources
2. Optimize weight and move towards 100% “circular-by-design”
3. Zero plastics to landfill for our industrial waste
4. Innovate to ease life of consumers and engage them to sort and recycle
5. Co-create a second-life for all plastics

Our integrated goals support these commitments and the links between them.



<sup>1</sup> Although quality and food remaining an absolute priority in everything we do, our packaging commitments do not always apply to our Advanced Medical Nutrition product packaging.

### 01. USE SUSTAINABLE RESOURCES

Because the transition to sustainability requires systemic change, we believe solutions will come through collaborative platforms to accelerate and scale. Danone aims to be a catalyst between brand owners, suppliers and technologies to accelerate the emergence of ‘new generation’ plastic materials.

We believe it is possible to substitute traditional fossil materials with packaging materials sourced from bio-based resources: paper or bio-based plastic. The latest of the ‘first generation’ of these bio-based technologies can reduce environmental impacts by fixing carbon and limiting the use of fossil resources. Food security being of critical importance, Danone continues its cooperation initiatives with experts and partners to contribute to the emergence of new generations of materials that are not in direct competition with foodstuffs and allow for a more efficient use of land and resources. By experimenting and implementing pilots in selected applications and geographies, Danone contributes to pull the upstream market and R&D efforts on these new technologies.

#### OUR GOALS TO USE SUSTAINABLE RESOURCES INCLUDE:

- **Paper and board: eliminate deforestation within our supply chain by 2020**

In 2012 Danone published its policy on ‘Forest Footprint’ which aimed at transparently evaluating the deforestation risks associated with commodities used directly or indirectly by the company, and set a plan to eliminate deforestation from its supply chain. This commitment is central to both this Packaging Policy and also our Climate Policy (see **Danone Forest Footprint Policy** at <http://www.danone.com/publications>).

Danone is committed to **eliminating the deforestation risks** of its virgin paper & board packaging supply chain by 2020. The commitment targets three concrete objectives: **actively reduce the weight of paper and board packaging for each product, prefer the use of recycled fibers and, where this is not possible, prefer FSC certified virgin fibers** (Paper & Board Policy at [www.danone.com](http://www.danone.com)).

## DANONE PACKAGING POLICY

- **Plastic: seek to increasingly use bio-materials and lead a consortium to foster new generations of packaging materials and co-create consensus on bio-feedstock choices**

We believe in the future of bio-materials for packaging. Since 2008, Danone has experimented with bio-sourced plastics (sugar cane, sugar cane waste and corn) for four brands (Volvic, Actimel, Activia and Stonyfield) in five of our largest markets (Germany, Brazil, France, US and Canada) **with the objective of reducing the use of fossil resources**. This has allowed Danone to develop an understanding of the environmental implications (lifecycle analysis), compliance with food security and critical sustainability criteria (end of life, recyclability, land use and farming practices, carbon and water etc.), associated business issues, stakeholder concerns and consumer perceptions.

**We will seek to increasingly use bio-materials**. But we will not encourage the use of oxo-biodegradable materials and **will only use other biodegradable or compostable materials if proper end-of-life infrastructure can be developed in the country where they are used**.

Danone co-created the **Bioplastic Feedstock Alliance** with the World Wildlife Fund **to encourage responsible development of plastics made from bio-sourced materials, helping build a more sustainable future for the bio-plastics industry**. The primary focus of BFA will be guiding the responsible selection and harvesting of feedstocks — such as sugar cane, corn, bulrush, and switchgrass — used to make plastics from agricultural materials. As the development of these renewable materials has grown, so has the opportunity to address their potential impacts on land use, water, food security and biodiversity. BFA intends to bring together leading experts from industry, academia and civil society **to develop and support informed science, collaboration, education, and innovation to help guide the evaluation and sustainable development of bioplastic feedstocks**.

Growing a competitive and profitable bio-economy that is both environmentally and socially responsible is a key step towards building healthy and resilient ecosystems whose services will benefit us all. Danone will use **BFA guidelines** when screening and selecting bio-sourced plastic future technologies and feedstocks.

*More information (including BFA guidelines) can be found at [www.bioplasticfeedstockalliance.org](http://www.bioplasticfeedstockalliance.org).*

### 02. OPTIMIZE WEIGHT AND MOVE TOWARDS 100% 'CIRCULAR BY DESIGN'

We develop full packaging systems to provide an ideal product experience for the consumer. Food safety and quality remain a strict condition for any actions we take on our materials.

Core to this approach is the optimal use of materials for industrial scale operations while significantly lowering carbon emissions.

This approach will ensure all our newly designed or adapted packaging can maximize what we called **circularity by design**. Preferred circular options are: re-useable, recyclable, compostable or biodegradable (see glossary). Reaching this goal requires a longer-term understanding of the existing recycling infrastructure and supply chain within primary Danone sales markets to provide

resources (e.g. knowledge, manpower, investment/capex and/or microfinance) that help local entrepreneurs build the infrastructure needed where there are gaps.

We have developed a new **eco-design tool** and process for packaging. This tool guides packaging designers towards lowest impact on the environment (on all components of packaging: primary and secondary such as labels, etc), and also eases the life of consumers while reducing food waste.

#### OUR GOALS FOR 'CIRCULAR BY DESIGN' INCLUDE:

- We will monitor our **packaging weight ratio** (weight of packaging materials / weight of products sold per consumer use) across our product ranges to seek ways to optimize packaging performance at lower weights to help drive design to value.
- We will use our eco-design tool in a systematic way for all our packaging renewals and innovations.
- We will seek to develop the concept of 'recyclable by design' with external experts, taking in to account the specific context of local post-consumer end-of-life capabilities.

### 03. ZERO PLASTICS TO LANDFILL FOR OUR INDUSTRIAL WASTE

While manufacturing our products we might generate waste of packaging materials. These include the scrap, unwanted surplus material, unwanted by-products and broken, contaminated or otherwise spoiled material associated with the manufacturing process of our products.

## DANONE PACKAGING POLICY

In 2015 we generated 133,000 tons of packaging waste: so far 83% of total packaging waste in our factories is recycled or incinerated with energy recovery.

As we aim to build better solutions through partnerships and alliances, our factories already have started the work with our partners to maximize their recovery rate. By way of example the French dairy factory Le Molay is working with Veolia to optimize waste management system and to implement a solution for every type of packaging waste.

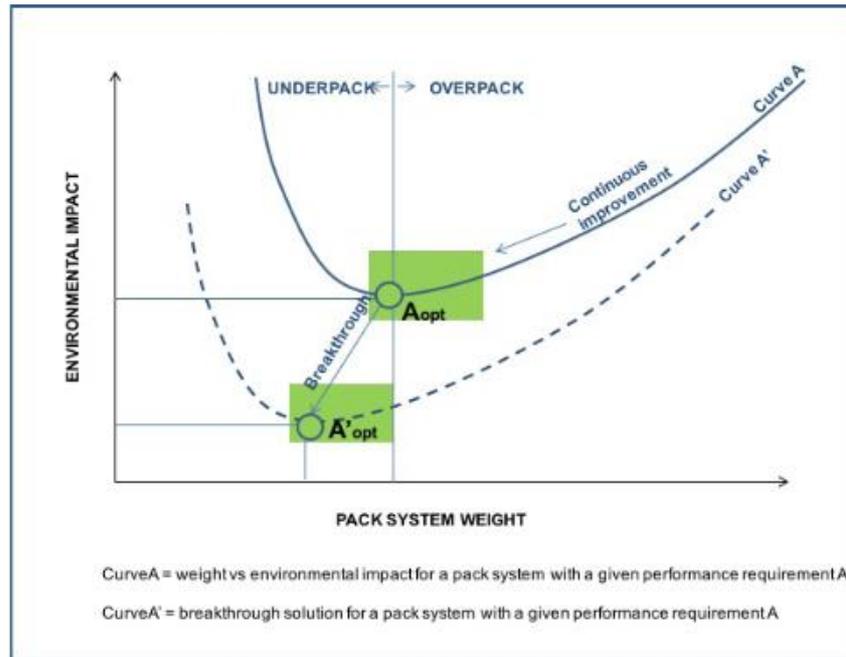
### OUR GOALS AND COMMITMENTS FOR ZERO PLASTICS TO LANDFILL FOR OUR INDUSTRIAL WASTE INCLUDE:

We will avoid our factories' plastic waste ending in landfill for countries with developed collection systems by 2020 and for all our factories by 2025. This will be achieved following the same principles of the post-consumer waste hierarchy.

#### 04. INNOVATE TO EASE LIFE OF CONSUMERS AND ENGAGE THEM TO RECYCLE

Our packaging must both fulfill consumers' needs every day while encouraging them to sort and recycle with information on how to recycle it. The right packaging can enhance the shelf-life of food and facilitate consumers to 'eat it all'. Danone is committed to develop new products and packaging with the **minimum of packaging quantity** while ensuring the **lowest rate of food waste and the best consumer satisfaction**. By using development tools including consumer research, modeling and simulation, market analysis and physical performance test methods we can ensure we are in the 'green zone', the point at which products are neither 'underpacked' (not fit for purpose) or 'overpacked' (creating excess waste). We will use the ability of our meaningful brands such as Villavicencio to connect with consumers to actively engage them in recycling.

## DANONE PACKAGING POLICY



We also acknowledge the crucial role of consumers. Danone is committed to creating packaging that is recyclable. But recyclable packaging doesn't guarantee that it will actually be recycled. The circular economy starts with a consumer choice to sort, and packaging is the first communication contact with them. Packaging should provide information on how to dispose and other mandatory and educational information for consumers. We also need to help consumers improve their practice by making recycling easier.

### OUR GOALS TO ENGAGE CONSUMERS TO RECYCLE INCLUDE:

- We will improve **ease of life from packaging at every step**; from purchase through to recycling, and optimize the level of convenience that packaging offers consumers.
- We will use the outreach of our brands and our marketing science to **inspire our consumers to sort and recycle their waste**. We will continue informing consumers of the potential value and uses of empty packaging, sharing how it can be turned into something useful again through re-use or recycling. We will measure the success of these campaigns and utilize the latest academic research on behavior change.

### 05. CO-CREATE A SECOND-LIFE FOR ALL PLASTICS

Packaging waste can be re-connected with the efficient use of resources, creating positive environmental, economic and social value. We aim to **create a second-life for all plastics we use**

## DANONE PACKAGING POLICY

as we believe **they should be used as a resource** with a clear priority for re-use and recycling (in closed or open-loop) while composting and biodegradability can be assessed under specific conditions. Recovery can be acceptable only as a complementary solution and after having explored the other preferred options of the waste hierarchy.

This will require a **shared responsibility** approach to organize collection and recycling. We will continue to take initiatives to build new coalitions, partnerships and alliances for locally adapted, socially inclusive collection and recycling models to turn packaging waste into a resource. Waste management is a **collective responsibility**, shared between consumers, local authorities, governments, waste professionals, NGOs and brand owners. Each actor is a critical link in the recycling chain.

Danone intends to engage with local relevant public authorities and stakeholders to overcome hurdles such as transparency in the waste management chain and proper governance looking at the environmental, social and economic performance balance.

In countries where efficient country-scale systems do not exist and collection is based on the informal sector, we need to actively participate in co-creating collection solutions. Our ability to meet this aim is partly dependent upon the clarity of guidance from governments.

### **Group 1 – Informal recycling systems**

No formal collection infrastructure with recycling occurring through informal collection systems involving individuals picking and selling waste into recycling operations.

Danone's opportunity is to work in partnership with local communities to improve standards in informal waste collection, with government to strengthen recycling infrastructure and encourage behavior change among consumers.

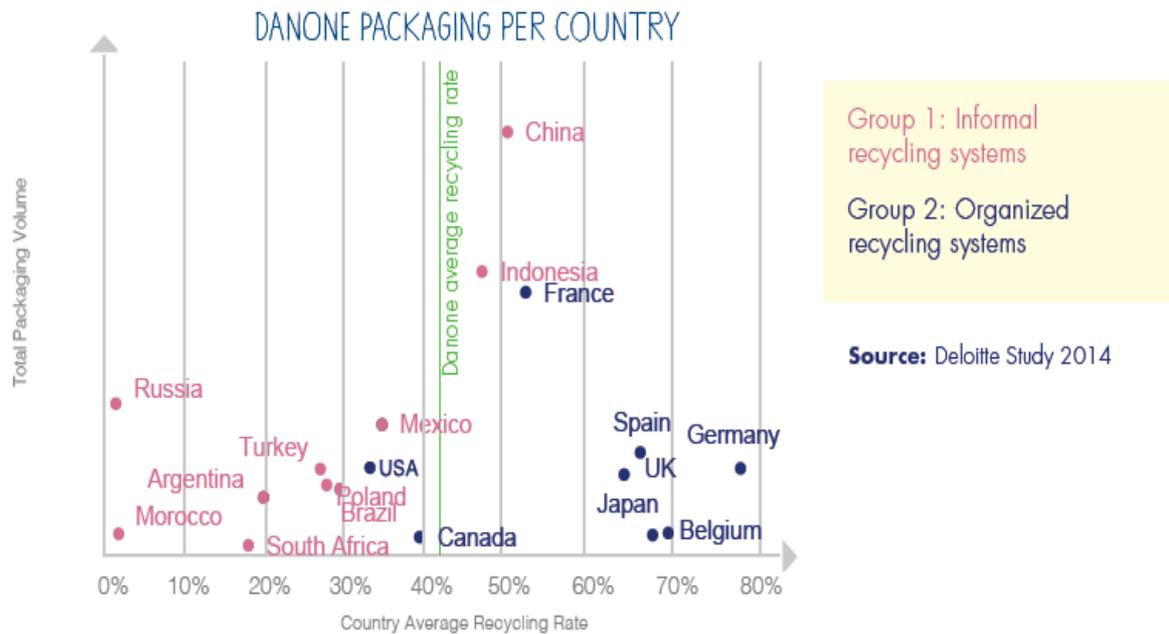
### **Group 2 – Organized recycling systems**

A formal and regulated approach exists with regards to packaging recycling infrastructure with professional systems for recovering and recycling waste.

Danone's opportunity is to promote shared efforts to continue improving waste collection scheme efficiency and the power of our brands and marketing to engage consumers in raising recycling rates even further than current levels.

*See appendix for examples of inclusive recycling projects with the Danone Ecosystem Fund.*

## DANONE PACKAGING POLICY



### OUR GOALS TO CO-CREATE A SECOND-LIFE FOR PLASTICS INCLUDE:

- We will seek to build demand for recycled materials by maximizing closed loops. By 2020, Danone will use at least **25% of recycled PET in its water and beverages plastic bottles** in countries where local standards and regulations allow for it. Danone will also seek to further increase its reach to **33% by 2025** in the countries where allowed.
- **By end of 2017, at least 10 countries business units will have developed local plans and roadmaps to co-create a second life for plastics.** We will have set specific milestones by 2020 by co-creating initiatives with relevant stakeholders at local level (governments, peers, waste-pickers and waste professionals, NGOs...) and international level (funding organizations and NGOs involved in fostering circular economy and preventing marine littering such as the **Ocean Conservancy** or the **Ellen MacArthur Foundation**) to launch scalable ‘packaging second-life’ initiatives. We will progressively disclose our plans and business cases with clear ‘second-life’ targets.

### GOVERNANCE

These goals and targets are ongoing and form the basis of our Packaging Policy. Many of them will take years until we can claim to have met them. We will publicly report on our achievements, successes and difficulties in our journey in our [Integrated Report](#). Danone has created a Strategic Resource Cycle organization within our business, which will manage the fulfillment of this policy. In particular a dedicated team, led by a company vice president, will lead purchasing, research & development and end-of-life issues related to plastic.

Please visit <http://www.danone.com/sustainability> for further information and access to our integrated report in which we track our performance against our policies.

### GLOSSARY

**Circular economy:** The circular economy is defined as an economy that is restorative and regenerative by design – where material flows are captured and re-used, and biological flows are designed to re-enter and replenish nature safely, while creating job opportunities and helping reduce carbon emissions.

**Eco-design:** An approach to designing products with special consideration for the environmental impacts of the product during its whole lifecycle.

**Circular by design:** Every packaging developed to be easily re-useable, recyclable, compostable or biodegradable by using eco-conception guidelines, adapted to the local recycling infrastructure.

#### END OF LIFE

**Recyclable:** Packaging and materials that have been designed to be compatible with existing collecting and recycling processes for a second usage.

**Closed loop:** The packaging is collected and recycled to manufacture the same packaging. For example bottle-to-bottle, cardboard-to-cardboard, or cup-to-cup. The pack is collected and recycled to manufacture the same packaging.

**Open loop:** The product is collected and recycled into other products.

## DANONE PACKAGING POLICY

**Inclusive recycling:** There are millions of people working in waste management, the majority of them in the informal sector. They provide a public service. Despite this valuable contribution to their community and the environment, millions of these recyclers are still marginalized and exploited even as they create value. Inclusive recycling is about being more transparent and efficient by recognizing the recyclers as an essential link in the chain of value creation. Only then will the recyclers' labor and human rights be respected, and steps taken to provide fair pay for their services.

**Biodegradable:** A biodegradable material is one that is capable of being slowly decomposed by bacteria or other living organisms and thereby avoiding pollution.

**Renewable resource:** Natural resource that, after exploitation, can return to their previous stock levels by natural processes of growth or replenishment, such as paperboard-based packaging and bio-based polyethylene.

### SUSTAINABLE RESOURCES

**Bioeconomy:** A bioeconomy is an economy where the materials we need come from renewable, biomass sources. For instance feedstocks are collected and converted into things we need and use in our daily lives – like textiles, sports equipment, packaging, automotive parts and more. Growing a bioeconomy that is both environmentally and socially responsible is a key step towards building sustainable future.

**Bio sourced materials:** A bio-sourced material is one intentionally made from substances derived from living (or once-living) organisms. Bio-sourced plastics are typically made from plant-based materials such as agricultural crops.

**Bio-sourced plastic – Generation 1:** Made from edible materials (traditional agricultural crops).

**Bio-sourced plastic – Generation 2:** Made from non-edible materials but potential indirect competition with food through land use (cellulosic crops as well as residue and agricultural waste product).

**Bio-sourced plastic – Generation 3:** Made from non-edible materials and without land use (non-traditional organisms like some forms of algae and non-agricultural wastes).

**Biodegradable plastic:** Decomposition through bacteria to produce humus, water, carbon dioxide and/or methane. PLA is bio-degradable under certain conditions, but PEF and bio-MEG are not.

**Compostable plastic:** Capable of undergoing biological decomposition in a compost site such that the material is not visually distinguishable and breaks down into carbon dioxide, water, inorganic

## DANONE PACKAGING POLICY

compounds and biomass at a rate consistent with known compostable materials. Many people confuse 'biodegradable' with 'compostable'. 'Biodegradable' broadly means that an object can be biologically broken down, while 'compostable' typically specifies that such a process will result in compost, or humus.

**Oxo-biodegradable plastic:** Currently made from oil-based polymers such as PE (polyethylene) PP (polypropylene) and PS (polystyrene), and containing extra ingredients (NOT heavy metals) to degrade and biodegrade in the open environment, not be recycled. Timescale for complete biodegradation is shorter than for 'conventional' plastics.

### PACKAGING CATEGORIES

**Primary:** Packaging in contact with food or beverages (examples: PET bottle, yogurt cup...).

**Secondary:** Packaging attached to product sold to consumers, second layer of packaging (examples: wrap-around, pick-ups, shelf-ready packaging, etc.).

### APPENDIX 1: PLASTIC WASTE GLOBAL CHALLENGES

In the past, packaging used natural resources and ended up back in nature as waste. This is an unsustainable impact for packaging and great efforts worldwide are already underway to close that loop. There is still much work to do. According to [World Economic Forum New Plastics Economy report](#)<sup>1</sup>, 40 percent of the plastic used worldwide is still disposed of in landfill.

Approximately 10–20 million tons of plastic a year, as a proportion of the 310 tons of total plastic produced each year (78 tons of packaging), end up in the oceans. In fact, plastics are the second largest source of the ‘seventh continent’ of garbage floating in the Pacific Ocean with all the negative impacts on marine biodiversity that can cause. According to research published in the journal *Science*, over 60% of this ocean pollution comes from five countries: China, Indonesia, Philippines, Vietnam, Sri Lanka, all of which have overburdened or inadequate waste management systems.

This waste impacts the environment, especially in those areas where resources, ecosystems, biodiversity, water and climate are already under pressure. Most plastics still utilizes fossil while a limited portion uses bio-based or recycled resources today. The Worldwatch Institute estimates that about 4 percent of the petroleum consumed worldwide each year is used to make plastic. Most of that plastic packaging is used only once and then sent to landfill. According to the World Economic Forum that lack of reuse is costing the global economy \$80 billion-\$120 billion annually. As the global population rises the demand for packaged products also rises. In developing and emerging economies desire for packaged products is in advance of waste or recycling infrastructure. Until recycling or even simple waste collection is in place, too many communities will experience serious litter and waste challenges.

Across the world, consumers and stakeholders now perceive packaging waste as a key environmental and social concern with packaging seen as “being part of the problem”. Although most plastics are in principle recyclable and can be recycled if collected and sorted (like PET for bottles which account for 7% of all plastics produced in the world), there is a need to continuously improve second-life solutions or substitute by materials that can become useful resources with a hierarchy in the efficient use to turn waste into a valuable resource. This is why waste collection is a clear priority.

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<sup>1</sup> [http://www3.weforum.org/docs/WEF\\_The\\_New\\_Plastics\\_Economy.pdf](http://www3.weforum.org/docs/WEF_The_New_Plastics_Economy.pdf)

### APPENDIX 2: EXISTING GLOBAL RECYCLING SYSTEMS

#### **Group 1 – Informal recycling systems**

In many developing countries there is no formal collection infrastructure and recycling occurs through informal collection systems involving individuals picking and selling waste into recycling operations (where they exist). There are millions of people working in waste management. They provide a public service. Despite this valuable contribution to their community and the environment, millions of these recyclers are marginalized with significant social issues like child labor and education or health & hygiene even as they create value. Inclusive recycling not only requires public policies to promote separation of solid waste but also the formalization of recycling activities. The market has to become more transparent, efficient and inclusive by recognizing the recyclers as an essential link in the chain of value creation. Only then will the recyclers' labor and human rights be respected, and steps taken to provide fair pay for their services.

Danone's approach is to work in partnership with local communities operations and cooperatives to develop and improve standards in informal waste collection. We can build new coalitions with governments and other private sector companies to scale-up initiatives for locally adapted, socially inclusive collection and recycling models, strengthening the recycling infrastructure and encouraging behavior change among consumers.

#### **Group 2 – Organized recycling systems**

In many developed countries there is a formal and regulated approach taken to packaging recycling infrastructure. Several Group 2 markets (but not all) have based their approach on the concept of 'extended producer responsibility', in which environmental costs associated with municipal waste management and recycling are integrated into the market price of products.

Danone's approach is to promote shared efforts to continue improving waste collection scheme efficiency and the power of our brands and marketing to engage consumers in raising recycling rates even further than current levels.

Simply put, Danone wants to move from petroleum/virgin resource to recycled/sustainable packaging and also from landfill to packaging that is always recycled. That definition for Danone is 'packaging for the future', which is within the circular economy.

## APPENDIX 3: EXAMPLES OF DANONE PROJECTS OR INITIATIVES

- **Use sustainable resources**

The first of its kind in France, **Volvic**'s new 1.5L bottle is made from up to 20% plant material. Danone also co-created the Bioplastic Feedstock Alliance with the World Wildlife Fund to encourage responsible development of plastics made from bio-sourced materials, helping build a more sustainable future for the bio-plastics industry.



- **Optimize weight and move to 100% 'circular by design'**

Danone reduced the weight of its **Actimel** bottles by 50% over 5 years, resulting in a CO<sub>2</sub> reduction of 130K tons.



- **Innovate to ease life of consumers and engage them to recycle**

In 2015, **Villavicencio** — one of Danone's natural mineral water brands in Argentina — launched Rebotella, the first 100% recyclable bottle made with 50% recycled plastic. The launch was backed with a television campaign that starred popular Argentinian actor Ricardo Mario Darín promoting the importance of waste collection and recycling.



- **Co-create a second life for all plastics**

Danone co-created [Eco-Emballages](#) in France in 1992, pioneering the  **ECO EMBALLAGES** 'extended producer responsibility' for packaging waste management now in place in 22 countries in the EU and 27 worldwide.

Danone also created the **Ecosystem Fund** in 2009, which has co-built with NGOs socially inclusive waste collection and recycling initiatives in 5 main countries: Brazil, Indonesia, Mexico, France and Argentina.

An example of the Ecosystem Fund in action is our **Novo Ciclo Project in Brazil** where Danone Brazil is working with the Nenuca Institute for Sustainable Development and local authorities to tackle the national challenge of safe and effective waste management. Much of Brazil's waste processing is done



by the informal sector, and waste pickers often face potentially hazardous work conditions and challenges in building stable long-term incomes. The Brazilian Government is encouraging initiatives to improve working and living conditions for waste pickers while also imposing stricter waste management and resource recovery rules on companies.

## DANONE PACKAGING POLICY

Novo Ciclo aims to professionalize waste pickers through creating waste management centers, setting up sale and resale cooperatives, and delivering management training to help them manage their own business independently.

Through projects like Novo Ciclo we are taking tangible actions to create systems in which packaging is safely recovered and recycled for a second life as part of an eventual circular system.

Visit <http://ecosysteme.danone.com/> for further information about Danone Ecosystem projects