

ALPLA[®]
FAMILY OF PIONEERS

THE MYTH OF THE
EVIL
PET BOTTLE

BAD-MOUTHING PLASTIC DOESN'T SOLVE ANY PROBLEMS.

BUT MAKING PLASTIC BETTER DOES.

Plastics don't have it easy – they come under fire from all sides. And yet a lot of the claims made about the harm to the environment caused by plastic packaging are preconceptions or only half-truths. It is an indisputable fact that the majority of the products we need in our daily lives are dependent on functional packaging. There are stringent requirements to be met regarding hygiene, durability and consumer safety – and it is the typical properties of plastics in particular that contribute significantly to these requirements being met.

If plastic is used responsibly and is recycled as frequently as possible after use and for as long as possible, it is more sustainable than the alternative packaging materials.

Developing and realising such solutions is precisely our area of expertise – and this has been the case for more than 60 years.

ALPLA is a pioneer in the development and production of sustainable packaging solutions using plastic and leads by example to this day. We operate our own recycling plants at a number of sites in Europe. And we engage in partnerships around the world that seek to optimise the use of resources and further advance the production of high-quality recycled plastics.

Those who demonise plastics do them an injustice. We are therefore combating the 'myth of the perfidious PET bottle' here with robust facts. Prepare to be surprised! Some of the facts will prompt you to revise your opinion and perhaps even rethink your own actions.

This is precisely what we continue to do too, and so we are therefore developing together.

**THIS IS OUR MISSION.
AND IT HAS BEEN
SO FOR MORE THAN
60 YEARS.**



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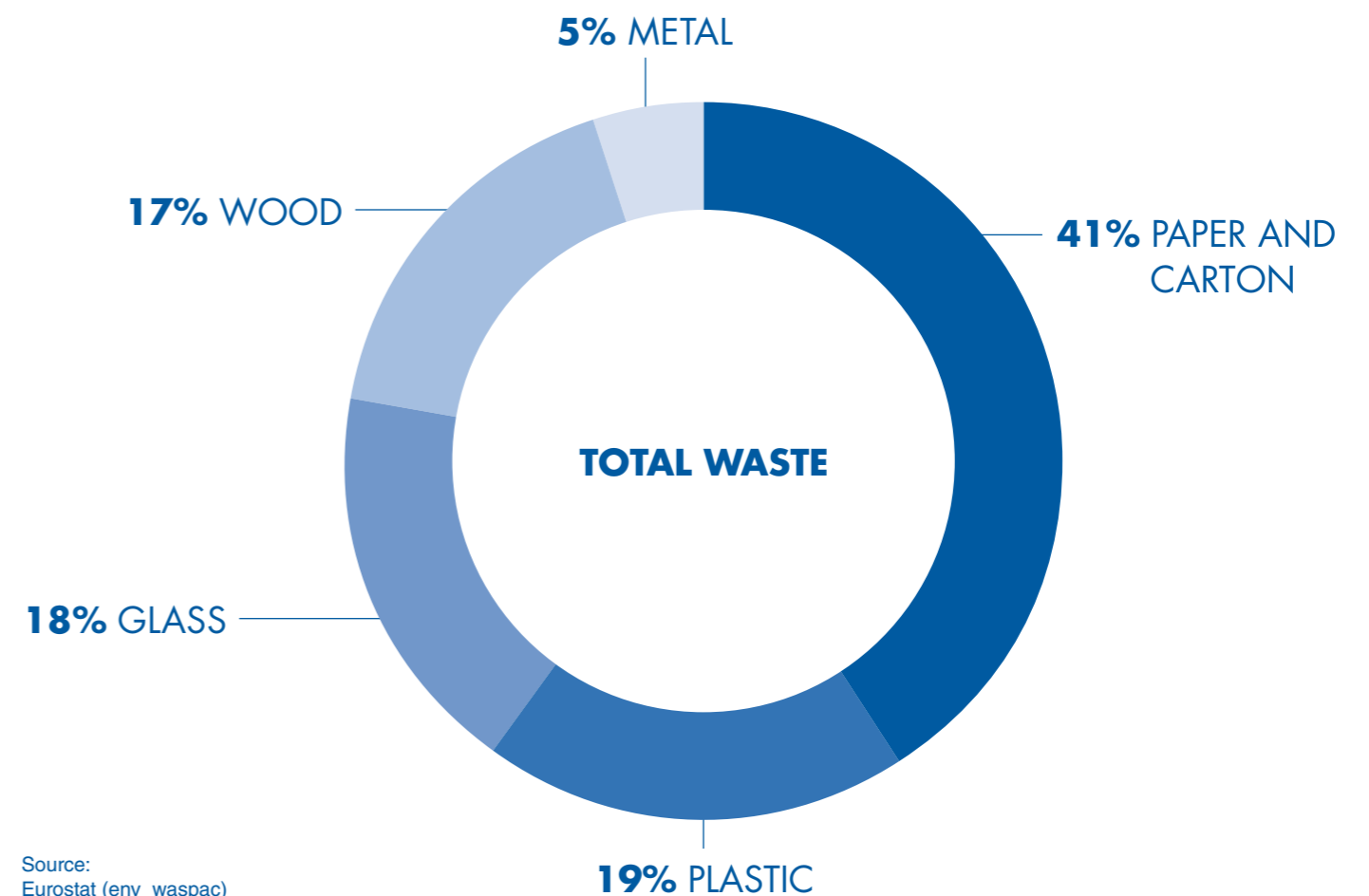
MYTH 01: PLASTIC WASTE

THE MAJORITY OF
PACKAGING WASTE
IS PLASTIC.

IN FACT:

PLASTIC PACKAGING MAKES UP ONLY
A SMALL PROPORTION OF PACKAGING
WASTE.

- › Across Europe, plastic packaging accounts for approximately only 19% of our total packaging waste.
- › Significantly larger proportions of total packaging waste, the volume of which has risen slightly since 2007, are attributable to paper and carton.



MYTH 02: ENVIRONMENTAL FOOTPRINT

GLASS, PAPER
AND METAL
ARE MORE
ENVIRONMENTALLY
FRIENDLY
THAN PLASTIC.

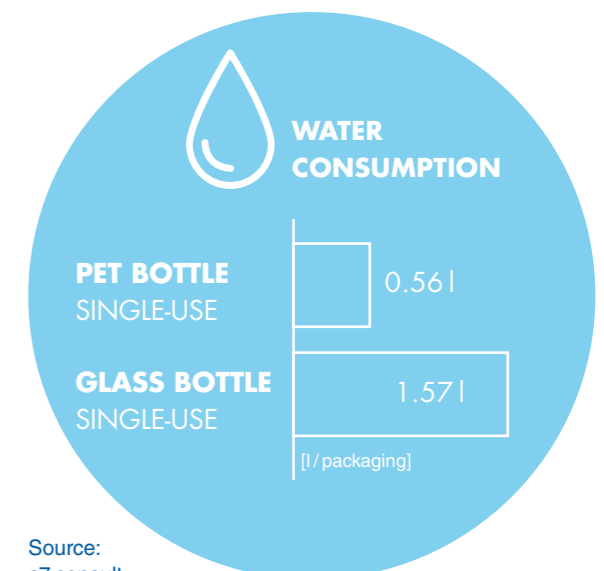
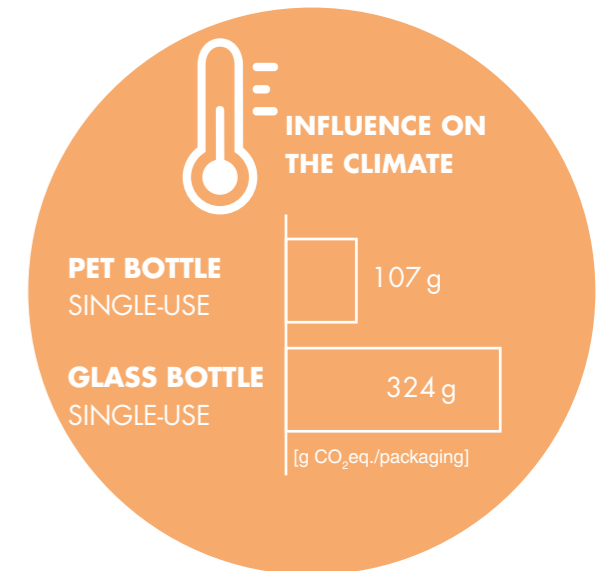
02

IN FACT:
PET IS A SUSTAINABLE
PACKAGING MATERIAL.

- › In a comparison of the environmental footprints of various packaging materials, plastic often performs better than glass or metal.
- › Less carbon is emitted during the production of PET drinks bottles than when glass bottles are produced (due to lower energy expenditure).
- › Plastic is very light and therefore causes fewer carbon emissions than other packaging materials when being transported.
- › PET has the major advantage that it can be recycled very easily and in a resource-conserving way. Bottles with a high proportion of recyclates therefore have a clear edge in terms of their environmental footprint.

PET is a valuable material. But it must be kept within the recycling cycle and should not under any circumstances be 'disposed of' in nature.

EXAMPLE:
1 L MINERAL WATER
IN AUSTRIA



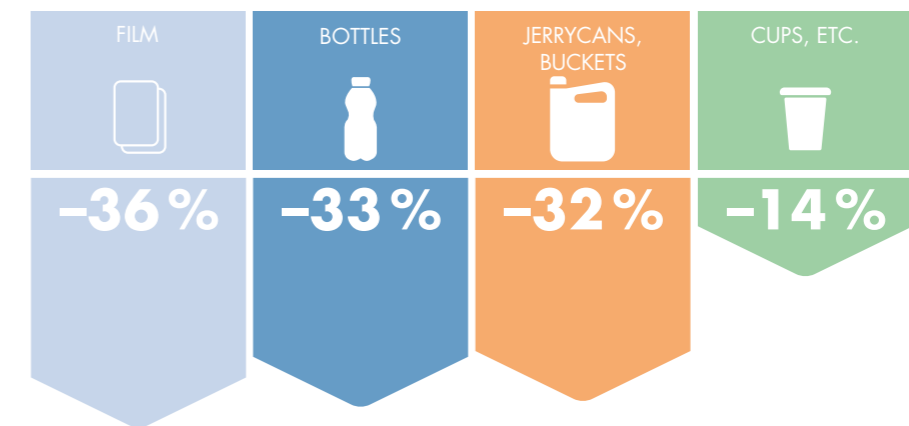
Source:
c7-consult

MYTH 03: MATERIAL CONSUMPTION

THE INDUSTRY
ISN'T DOING
ANYTHING TO
REDUCE THE USE
OF PLASTICS.

03

Changes in the weight of
household plastic packaging
(1991–2013)



IN FACT:

OPTIMISATIONS HAVE RESULTED IN AN ANNUAL REDUCTION OF ALMOST 6.2 MILLION TONNES OF PLASTIC IN WESTERN EUROPE.

- › On average, packaging made of plastic has become 25% lighter since 1991, for example thanks to improved material properties as well as advances in production technology and in design.
This results in a reduction of almost 6.2 million tonnes of plastic a year in western Europe alone.
- › Even with these weight reductions, plastic packaging unreservedly meets all the functional requirements, for example regarding hygiene and transport safety.
No other packaging material is currently able to achieve this.

Sources:
German Association for Plastics Packaging and Films (IK):
'Daten & Fakten – Ressourceneffizienz von Kunststoffverpackungen';
PlasticsEurope: 'Plastics – the Facts 2019'

04

MYTH 04: CLIMATE CHANGE

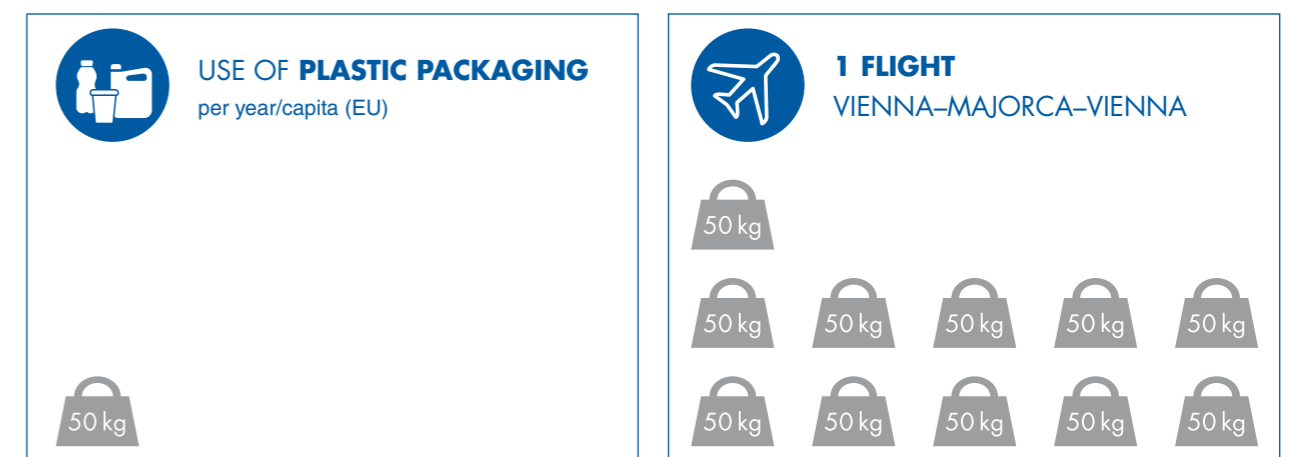
PLASTIC PACKAGING IS PREVENTING US FROM ACHIEVING THE CARBON TARGETS.

IN FACT:

PLASTIC PACKAGING CREATES A VERY SMALL AMOUNT OF A PERSONS TOTAL CARBON FOOTPRINT.

- › Every person in the EU causes approximately 8.4 tonnes of carbon emissions a year. Packaging causes only a fraction in comparison to transport, energy and food, namely 0.6%!
- › Just one return flight from Vienna to Majorca and back causes as much carbon to be emitted as using plastic packaging for approximately twelve years!

CARBON EMISSIONS



Sources:
European Environment Agency 2017;
CO₂ equivalent, myclimate calculator, 2,900 km
Economy Class, return flight, 1 person

05

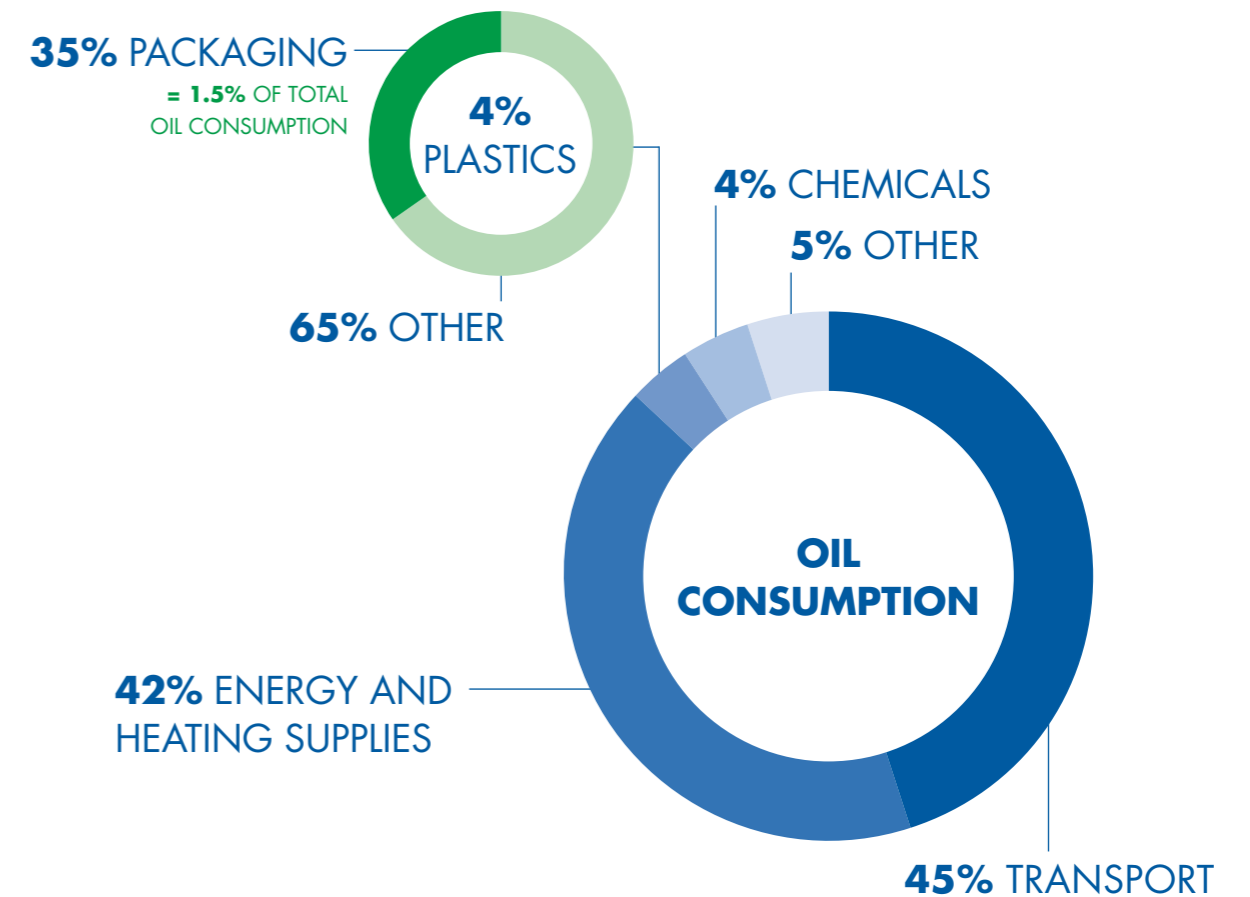
MYTH 05: FOSSIL RESOURCES

PLASTIC
PACKAGING
CAUSES
EXTREMELY
HIGH OIL
CONSUMPTION.

IN FACT:

JUST 1.5% OF THE CRUDE OIL
PRODUCED GLOBALLY IS USED
FOR THE MANUFACTURING OF
PLASTIC PACKAGING.

- › It takes far fewer fossil resources to produce plastics than people think.
- › What's more, unlike 'used' fuel, used plastics can be reprocessed multiple times, thus conserving resources.
- › There are also future-proof alternatives in the form of bio-based plastics which are made of renewable resources.



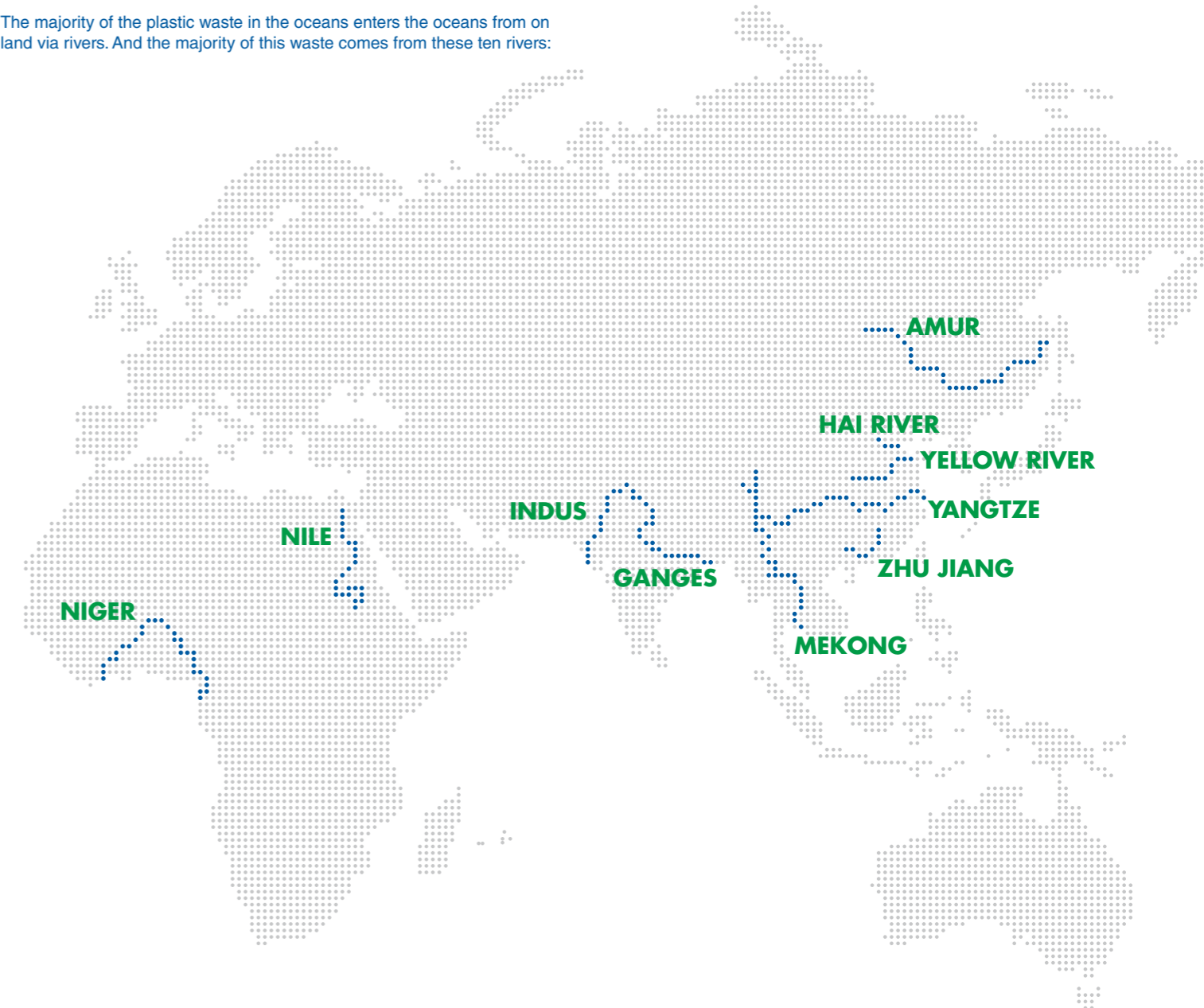
Source: http://bpf.co.uk/press/Oil_Consumption.aspx

06

MYTH 06: MARINE LITTERING

THE OCEANS ARE LITTERED WITH PLASTIC PACKAGING THAT COMES FROM EUROPE.

The majority of the plastic waste in the oceans enters the oceans from on land via rivers. And the majority of this waste comes from these ten rivers:



IN FACT:

MARINE LITTERING IS A STRUCTURAL PROBLEM, NOT A PLASTICS PROBLEM.

- › Plastic which is disposed of in countries with a functioning waste disposal system does not wind up in the ocean. 80% of the waste in the world's oceans originates on land, primarily in developing countries that lack a comprehensive waste collection system.
- › ALPLA therefore actively promotes the following in such countries:
 - Raising awareness that plastic is a valuable resource rather than a waste product
 - Supporting initiatives that combat marine pollution
 - Establishing infrastructures for the collection, sorting and recycling of plastics

Source:
European Commission: 'A European Strategy for Plastics in a Circular Economy'

MYTH 07: CIRCULAR ECONOMY

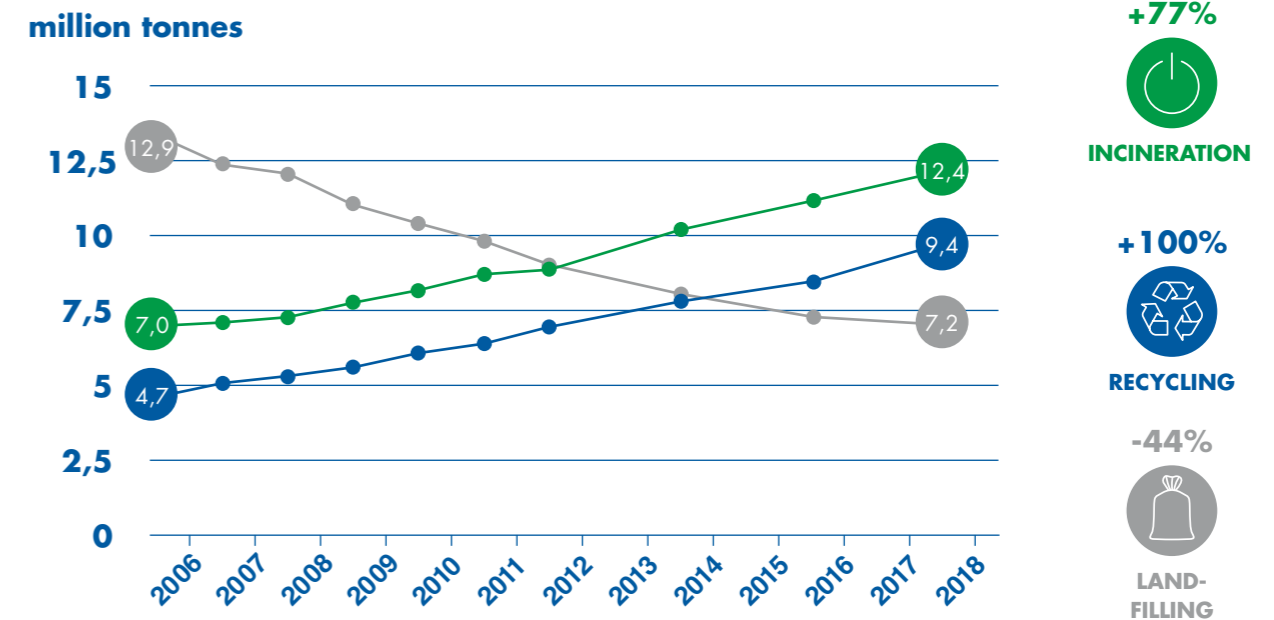
PLASTIC PACKAGING ULTIMATELY ENDS UP AS LANDFILL.

07

IN FACT: LESS AND LESS PLASTIC IS ENDING UP AS LANDFILL.

- › Used plastic packaging is increasingly being collected throughout Europe.
 - › Only a small proportion of this is then used as landfill – and this is diminishing all the time.
 - › When plastics are incinerated, the energy they contain is exploited. Incineration is preferable over landfilling in the case of plastics which can no longer be recycled.
- Accordingly, the proportions of recycled and incinerated plastic waste are increasing.

UTILISATION OF PLASTIC WASTE IN EUROPE (EU + NORWAY AND SWITZERLAND)



08

MYTH 08: MICROPLASTICS

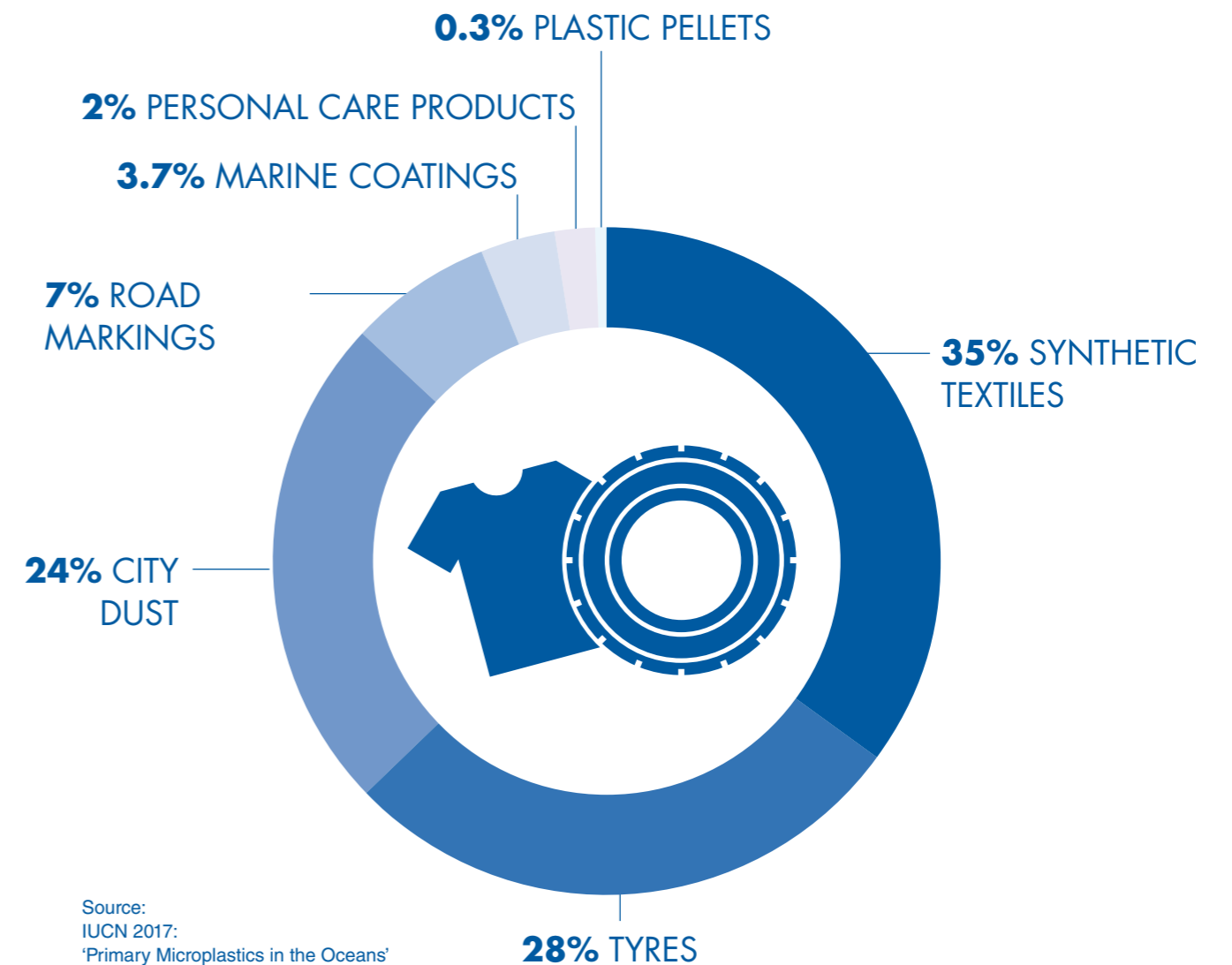
PLASTIC
PACKAGING
LEADS TO
MICROPLASTICS.

IN FACT:

THE PRIMARY CAUSES ARE
SYNTHETIC TEXTILES AND
CAR TYRE WEAR.

- › Plastic packaging does not contribute to putting primary microplastics in the ocean.
- › The more plastic packaging is disposed of correctly and is recycled, the lower the proportion of secondary microplastics.

If plastics are kept within the materials cycle, they cannot end up in nature and break down into microplastics there.



09

MYTH 09: HEALTH

PLASTIC PACKAGING IS HARMFUL TO HEALTH.

IN FACT:

PLASTIC PACKAGING CAN ACTUALLY EVEN PROTECT PEOPLE'S HEALTH.

- › Plastic can actually be beneficial to people's health. For example, contaminated water can be purified in transparent PET bottles with the help of UV rays. This simple solution can help people living in regions where there is no access to clean drinking water.
- › Plasticisers such as bisphenol A (BPA) have been identified as being harmful to health. Substances of this kind are not used in PET drinks bottles and caps or in the plastic packaging used for personal care and household products.
- › Very small amounts of acetaldehyde are present in PET bottles. This natural substance can also be found in foods and occurs as an intermediate in human metabolism.



Sources:
Federal Institute for Risk Assessment (BfR): 'Selected Questions and Answers on PET Bottles', 2015;
AGPU 201, IK 2017, UBA 2013

WE'RE NOT TRYING TO BE DO-GOODERS. WE'RE TRYING TO DO GOOD.

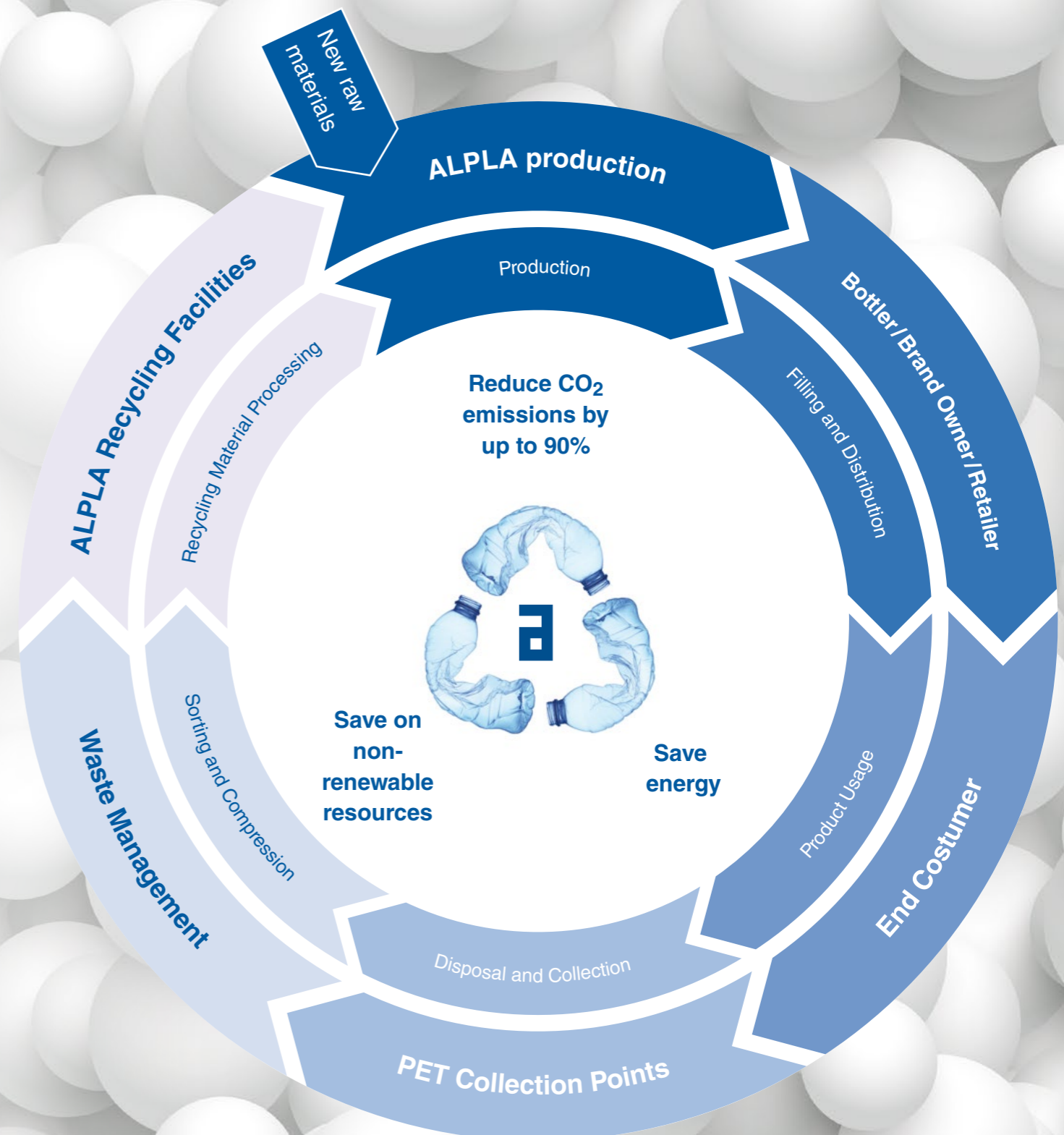
These days, plastics are far better than their reputation.

As globally leading specialists in plastic packaging, we work tirelessly every day to make it more efficient, more sustainable and more eco-friendly. We firmly believe that the future belongs to innovative solutions – and to companies like us who realise such solutions with responsibility, expertise and creativity.



ASSUMING RESPONSIBILITY: THIS IS AT THE HEART OF EVERYTHING WE DO.

- › **WE COMPLETE CIRCLES:** All of our packaging solutions are to be 100% recyclable by 2025. The proportion of processed post-consumer recycled materials is to rise to 25% of total material usage by this time.
- › **WE INVEST:** 50 million euros is being made available for the expansion of recycling activities until 2025.
- › **WE THINK FURTHER AHEAD:** We intend to present at least three packaging solutions a year that are particularly lightweight and therefore reduce material consumption. All packaging will remain completely free of PVC.



EXEMPLARY!

ALPLA already produces many sustainable packaging examples for renowned customers in a variety of areas. Here are just a few of our showpiece products:



The proportion of recycled PET (rPET) that can be used in new bottles depends on a number of factors such as the material composition and the colour of the recycle.

As a rule, though, bottles containing rPET are more environmentally friendly than bottles made solely of new PET, irrespective of the rPET proportion. Therefore, if you have a choice, you should always opt for the product with the greatest proportion of rPET.



WE ARE LEADING BY EXAMPLE. THE MORE THAT FOLLOW US, THE BETTER FOR THE ENVIRONMENT.

As a family-owned enterprise, we want to ensure that our world remains liveable for future generations too. We are therefore always on the lookout for ways in which to make our product portfolio even more sustainable.

All of us as individuals too can help to conserve precious resources and protect the environment through our actions:

- › When shopping, give preference to reusable plastic packaging and packaging with a high proportion of recycle.
- › Never dispose of plastic packaging in nature – always dispose of it correctly via the recycling system. In so doing, you will keep bottles made of, for example, PET within the materials cycle and will help take the strain off the environment.
- › Pick up packaging which has been carelessly discarded and dispose of it via the recyclables collection (yellow big bag or bin). After all, nothing is more motivational than setting a good example.



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