

THE 12 MOST COMMON MISCONCEPTIONS ABOUT PLASTIC PACKAGING

EVERYONE'S TALKING ABOUT IT.
BUT DO THEY KNOW THE ACTUAL FACTS?



Plastic accounts for the largest share of the waste we produce.

01_MISCONCEPTION

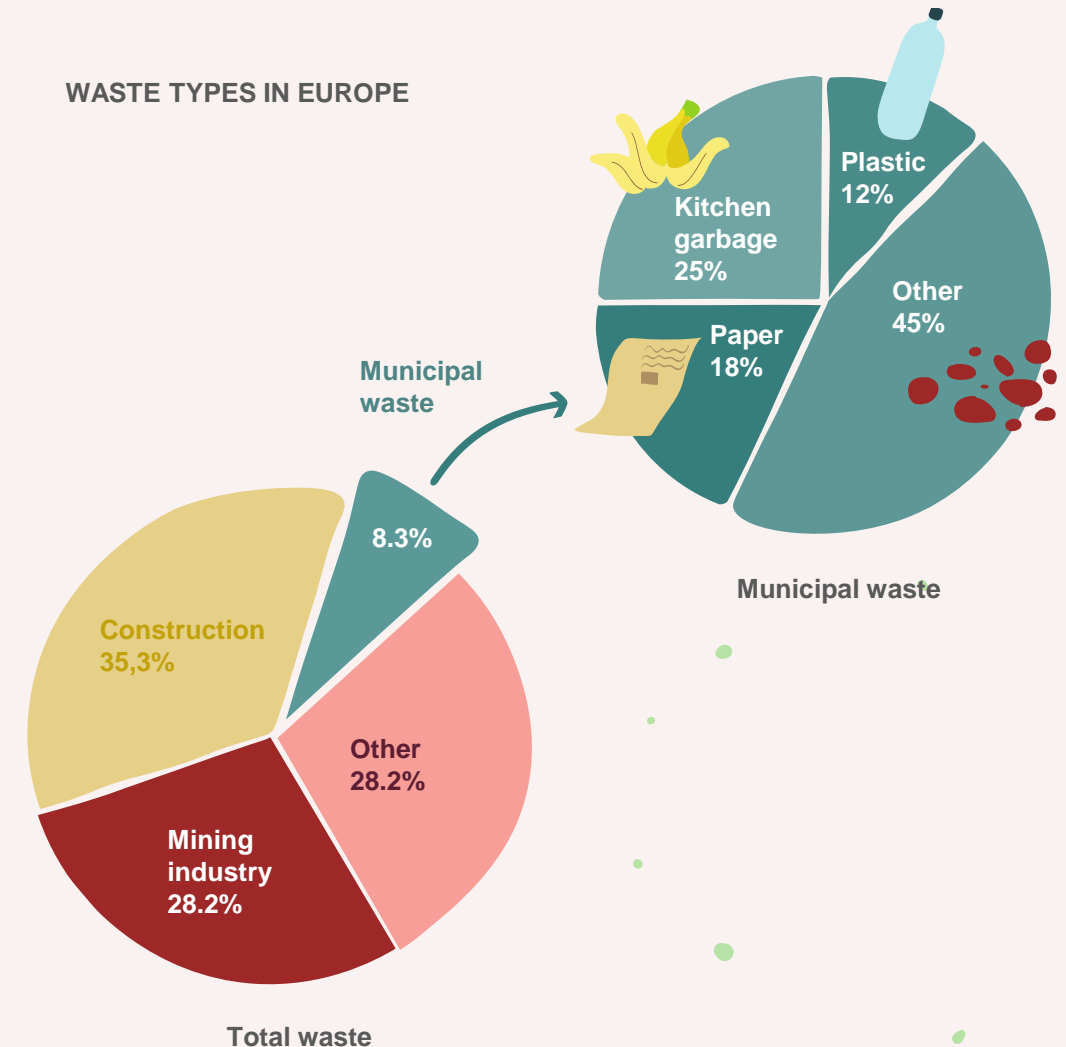


PLASTIC WASTE

Plastics in private households account for only 1% of the total amount of waste.

- Public waste discussions are being focused on municipal waste and, above all, on plastic packaging.
- Overall, only 1% of the total amount of waste is plastic packaging.

WASTE TYPES IN EUROPE





Food such as fruit and vegetables are often packaged unnecessarily.

02_MISCONCEPTION



FOOD PACKAGING

Plastic packaging extends shelf life of food relevantly.

- Foods have a limited shelf life, which can be extended with packaging.
- About 33% of global food production spoils on the way to the consumer or at home with the consumer.
- Any food that can be saved from being thrown away is a social and climatic success.



DURABILITY OF A CUCUMBER
UNPACKED



DURABILITY OF A CUCUMBER
PACKED IN A PE-FILM





Plastic packaging ends up directly in the garbage anyway.

03_MISCONCEPTION



REUSABLE SYSTEMS

Beverage crates in reusable circulation last up to 21 years!

- Reusable plastic bottles can be refilled up to 25 times. Plastic crates can be used up to 100 times. This corresponds to a service life of almost 21 years.*
- In Germany, 14% of reusable packaging for beverages is made of plastic.
- More than 95% of all reusable plastic bottles in Europe are used in Germany.





The industry is doing nothing to reduce plastic consumption.

04_MISCONCEPTION



MATERIAL REDUCTION

Without optimization, 6.1 million tons more plastic would be used in Western Europe each year.

- Compared to 1991, plastic packaging today is up to 42% lighter. (On average around 25%.)
- The annual saving corresponds to more than 200 billion 1.5 l PET bottles or a tower that would go to the moon 180 times.



WEIGHT CHANGES IN PLASTIC HOUSEHOLD PACKAGING
(1991-2013)





The mass of plastic packaging ensures that we will achieve our CO₂ targets even later.

05_MISCONCEPTION



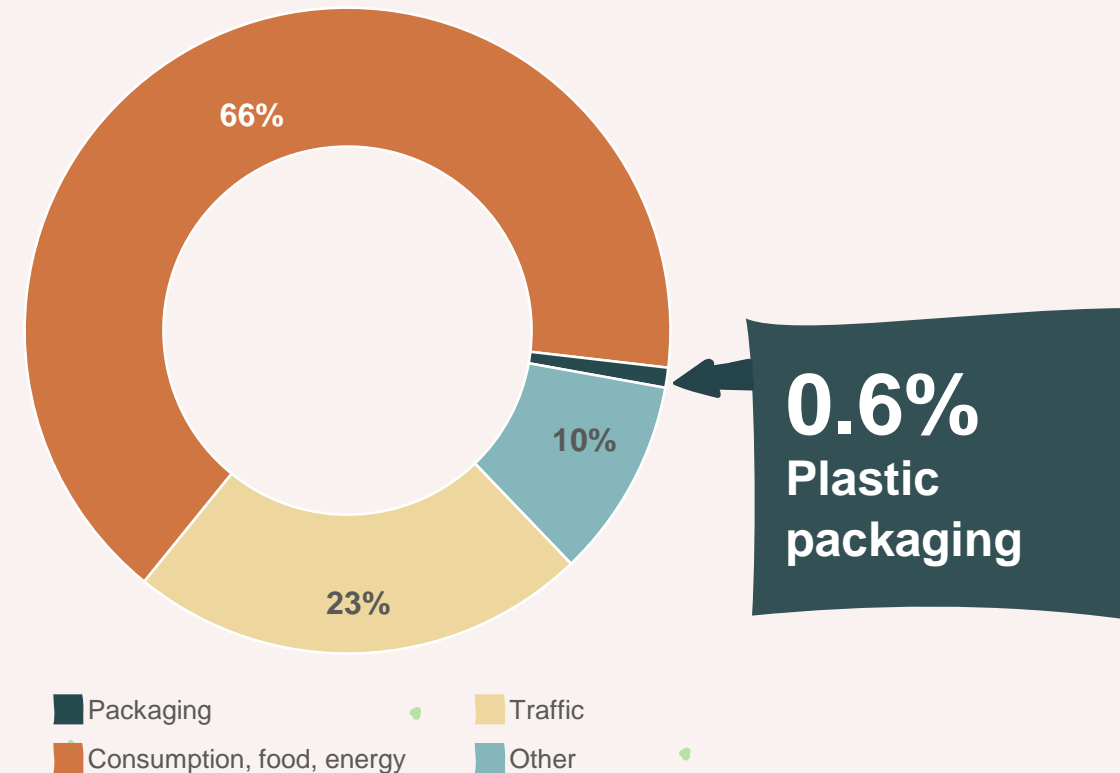
CO₂-EMISSION

The importance of plastic packaging to total carbon footprint is overestimated.

- Each person emits an average of 9.1 tons of CO₂ per year.
- Compared to transport, energy and nutrition, packaging accounts for only a fraction of CO₂ emissions.
- A holiday flight Berlin-Mallorca-Berlin alone releases as much CO₂ as the emissions from plastic packaging in **11 years**.

Industrial and consumer packaging made of plastic
 Source: CO₂-equivalent, myclimate-calculator, 3.300 km Economy-Class, Return flight

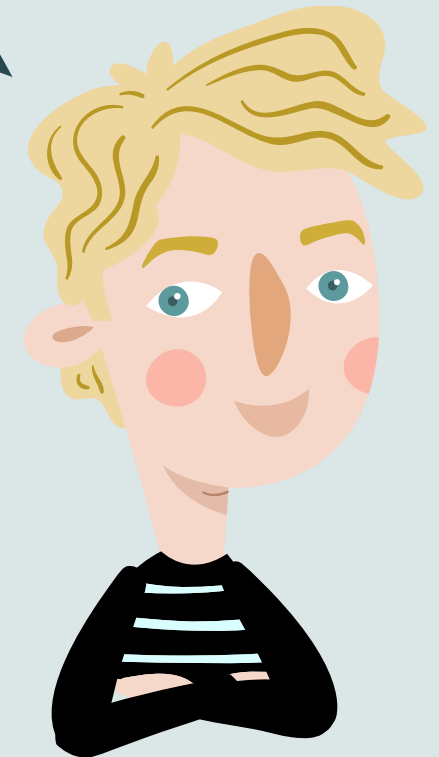
CO₂-EMISSIONS PER YEAR AND PERSON (EXAMPLE GERMANY)





If we replace plastics with glass, metal or paper packaging, we could save a lot of CO₂.

06_MISCONCEPTION

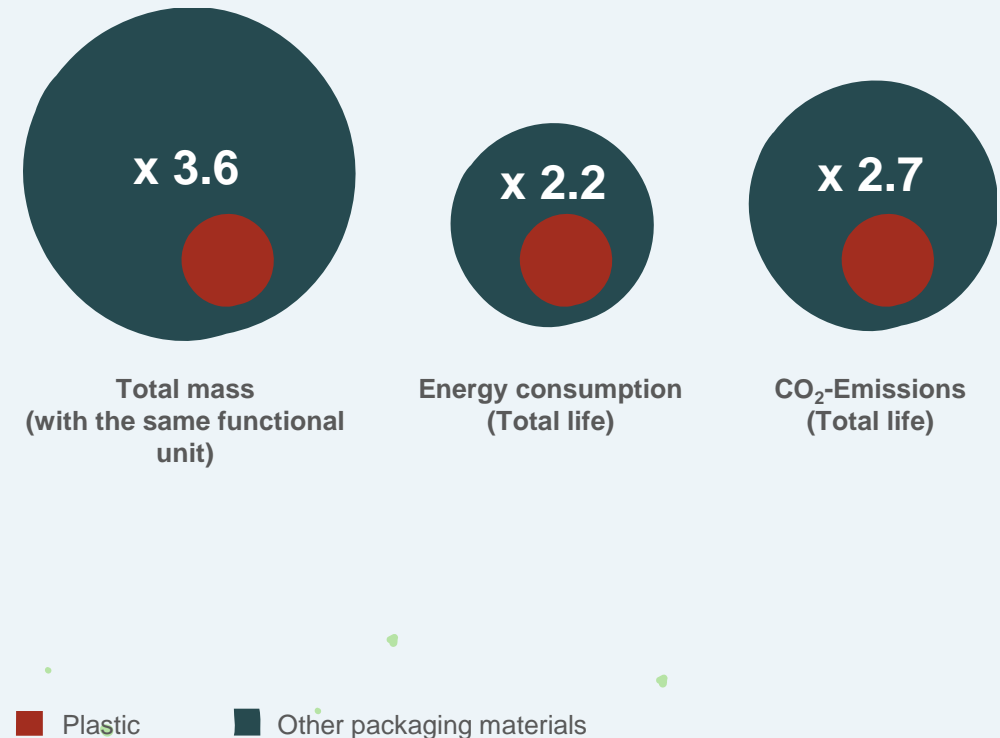


CO₂-EMISSION

Plastic packaging helps to achieve climate targets.

- If plastic packaging were to be replaced by other materials, ...
- ... the mass of the corresponding packaging would be on average 3.6 times higher.
- ... energy consumption would increase by a factor of 2.2 or 1,240 million gigajoules per year.
- ... the greenhouse gases emitted would increase by a factor of 2.7 or 61 million tons of CO₂ equivalents per year. This corresponds to the total CO₂ emissions of Denmark.

COMPARISON: PLASTIC VS. OTHER PACKAGING MATERIALS





*The oil consumption for plastic packaging
is insanely high!*

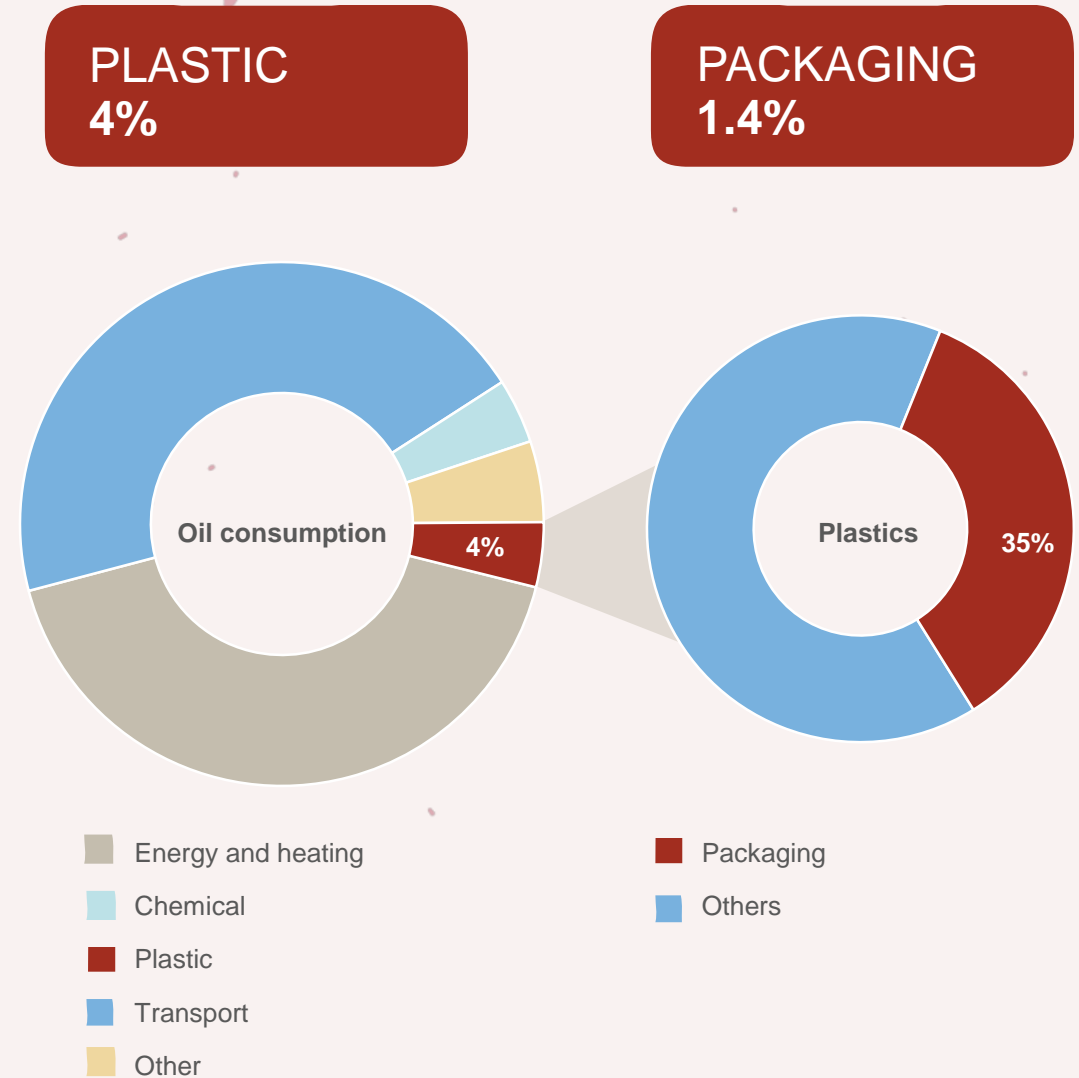
07_MISCONCEPTION



FOSSIL RAW MATERIALS

Only 1.4% of total oil consumption is used for plastic packaging.

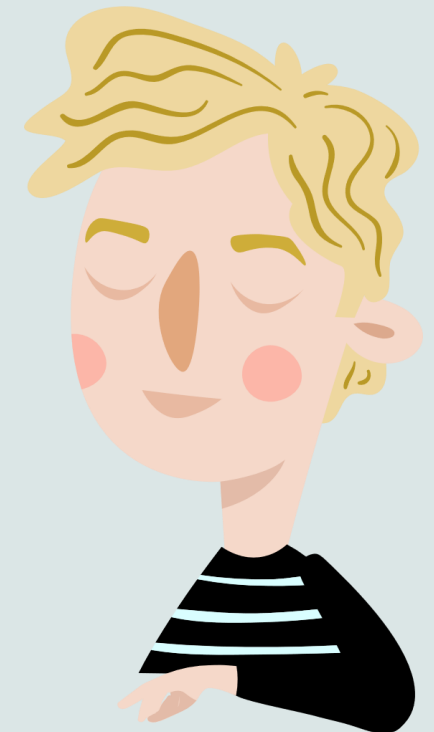
- Gasoline, energy and heat lack this perception. When a litre of petrol is burned, you have already "forgotten" it - provided that you were aware of it at all.





Plastic packaging in Europe should be banned immediately to stop the ocean littering.

08_MISCONCEPTION



OCEAN LITTERING

The littering of the oceans is a mismanagement problem and not a plastic problem.

- About 3 billion people live without access to controlled waste disposal.
- The correlation of high population numbers near the coast and a lack of waste management leads to a high discharge of valuable substances into the ocean.
- A few Asian countries are mainly responsible for this.

95% OF THE PLASTIC WASTE IN THE OCEANS COMES FROM 10 RIVERS





We pay the Chinese to pick up our plastic waste.

09_MISCONCEPTION

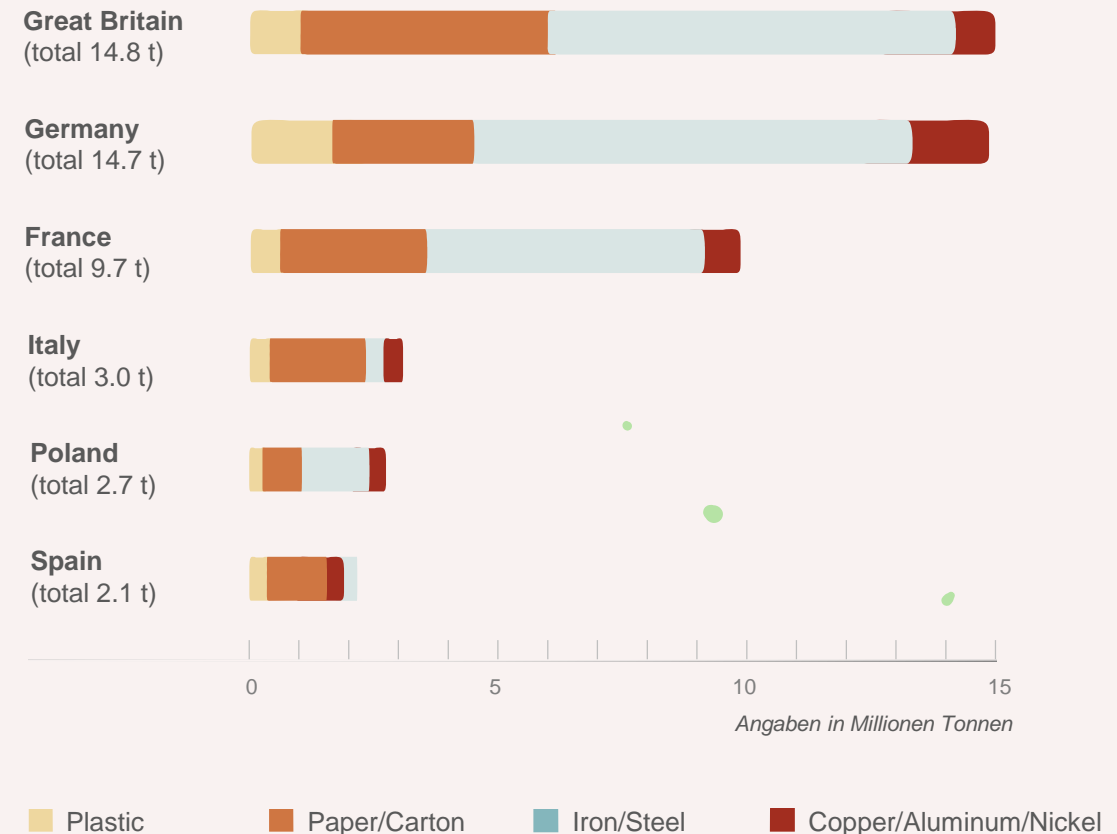


EXPORT OF PLASTIC WASTE

The export of recyclable materials is a considerable part of the national economy.

- China is one of the largest plastics processors in the world, so the material requirements are correspondingly high.
- In 2016, China purchased around 7.3 million tons of plastic waste worldwide for a total of 3.7 billion US dollars. Of this, 1.6 million tons came from the EU.
- China wants to install its own recycling economy. The country wants to make more use of the ecological and economic advantages of its own secondary raw materials.

WHICH WASTE IS EXPORTED?





Plastic packaging is the main cause of microplastics!

10_MISCONCEPTION

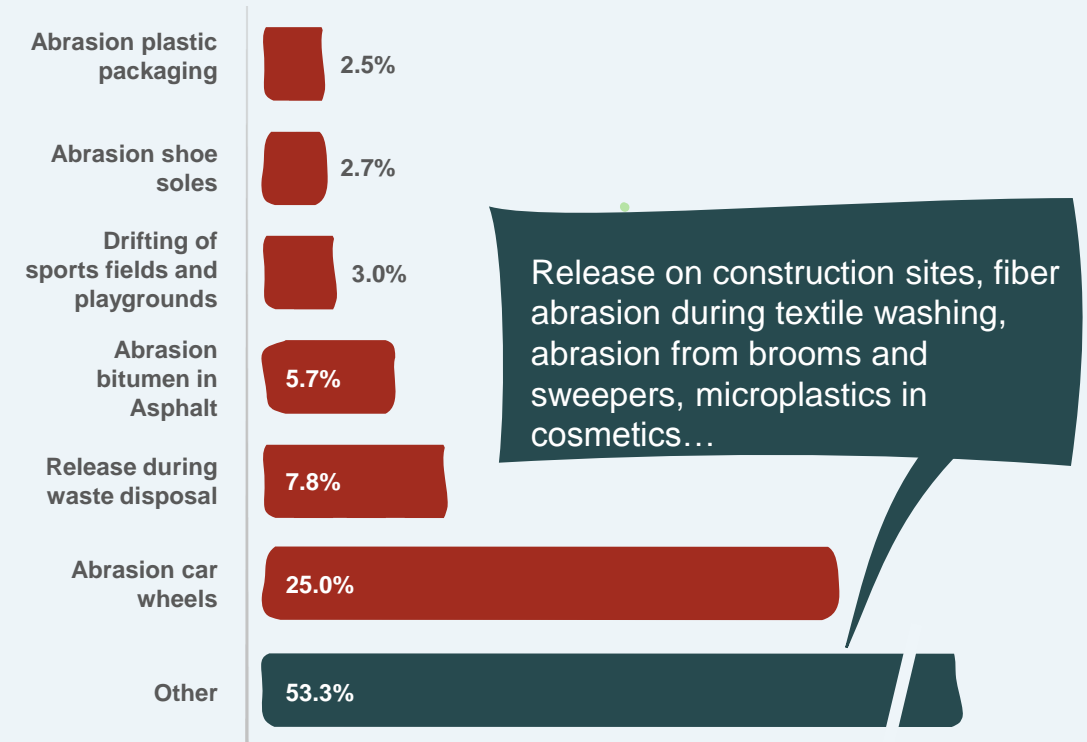


MICROPLASTIC IN THE OCEANS

The sources of microplastic are not what you think.

- Each inhabitant in Germany causes an average of 4kg of primary microplastics per year.
- In addition, there is 1.5 kg of secondary microplastic. It is produced by the weathering of plastic waste in the environment.
- Depending on industrial development, consumer behavior and waste management in the region, the inputs of primary and secondary microplastics are very different.

SOURCES FOR PRIMARY MICROPLASTIC IN GERMANY (INHABITANT/YEAR)





The industry does nothing to recycle plastic packaging!

11_MISCONCEPTION



RECOVERY

Plastic packaging worth almost 10 billion Euros is recycled every year in the EU.

- The recycled plastics have a value of EUR 4.2 billion.
- The energy recovery achieves a value of EUR 5.1 billion.
- As a result of deposition, around 3.5 billion € are still lost in the EU each year.

DEVELOPMENT OF RECYCLABLE PLASTIC MATERIAL IN EUROPE 2006 - 2016
(28 EU-STATES+ NORWAY AND SWITZERLAND)



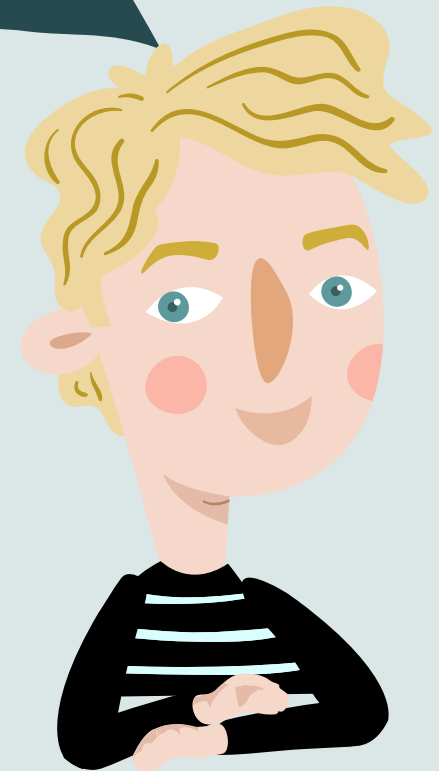
Energy recovery +61%

Recycling +79%



Plastic packaging changes the hormonal balance of children through the plasticizers and BPA it contains!

12_MISCONCEPTION

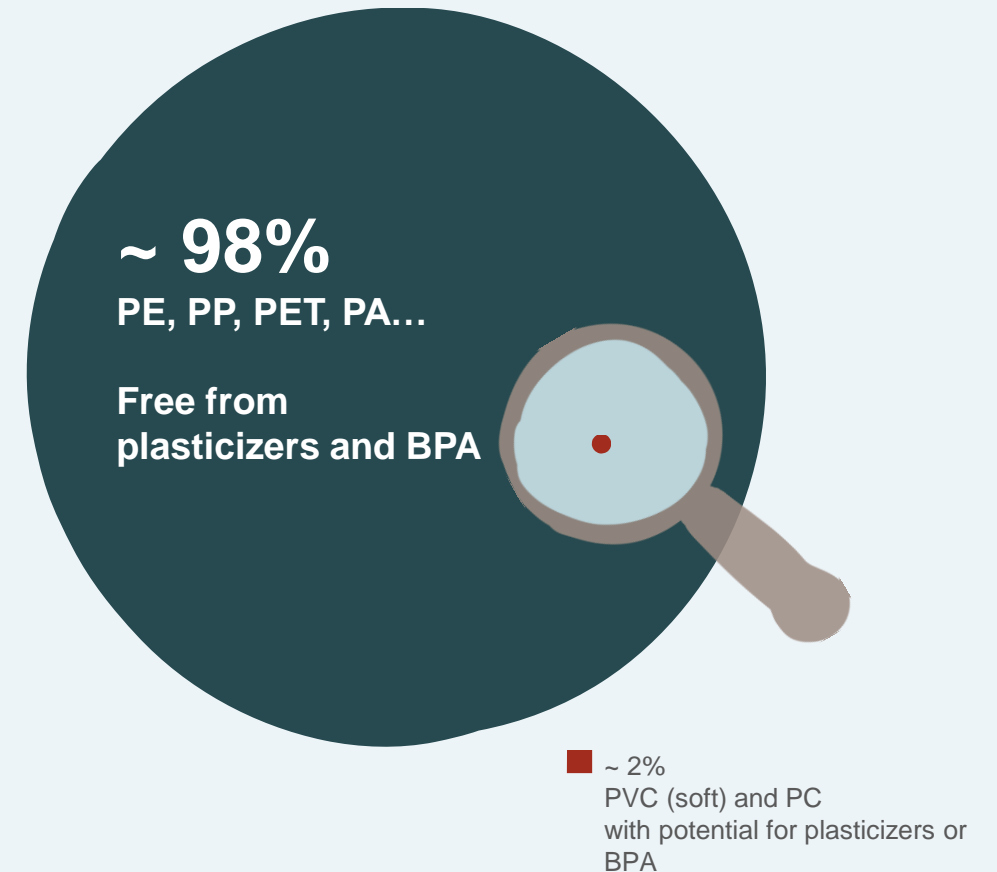


HEALTH

Plasticizer/BPA is not an issue of plastic packaging for food.

- Plastics with **plasticizers and BPA** are very rarely used for packaging. They play no role for food and beverage packaging.
- **Plasticizers** (phthalates) are used for the production of plasticized PVC. Areas of applications are mainly non-packaging applications such as cables, floor coverings, sport and leisure articles.
- **Bisphenol A (BPA)** is used for the production of polycarbonate (PC) and epoxy resins, which are used, among other things, in interior coatings for beverage and food cans.

PACKAGING PRODUCTION ACCORDING TO TYPES OF PLASTIC USED



MORE INFO

Are you interested in further information about plastics in packaging?
Please do not hesitate to contact us.



IMPRESSUM

© 2018 Berndt+Partner Consultants GmbH

Diese Unterlagen sind ausschließlich für Präsentationszwecke bestimmt. Eine Weitergabe an Dritte ist ebenso wie eine Verwendung ganz oder in Teilen ohne vorherige Zustimmung der Berndt+Partner Consultants GmbH untersagt. Der Inhalt dieses Dokumentes ist durch das Urheberrecht geschützt. Alle Rechte an dem Dokument und seinem Inhalt stehen der Berndt+Partner Consultants GmbH zu. Die Nutzung der vorliegenden Entwürfe in ihrer Gesamtheit und/oder in Teilen und/oder Auszügen durch Dritte ist nur nach vorheriger schriftlicher Genehmigung durch und entsprechender Vergütung an den Urheber zulässig. (UrhG§§31ff)

This documents are only assigned for presentation purposes. A transfer to a third party as well as a complete or partly use without previous approval of Berndt+Partner Business Consultants GmbH is not allowed. The content of this document is protected by the copyright. Berndt+Partner Business Consultants GmbH is the owner of the rights regarding document and its content. The use by a third party of all present drafts and/or parts of them and/or extracts is subject to prior approval in writing, and with an adequate remuneration of the author. (UrhG§§31ff)