

MICROPLASTICS

An aerial photograph of a beach heavily littered with microplastics. The beach is covered in a dense layer of small, colorful plastic fragments, including pieces of clear, blue, green, and red plastic. The ocean is visible on the right side, with waves breaking onto the shore. The sky is a clear, bright blue with some light clouds. The word "MICROPLASTICS" is overlaid in large, white, sans-serif capital letters across the center of the image.



THE LIFECYCLE OF A PLASTIC BOTTLE

https://youtu.be/_6xINyWPpB8

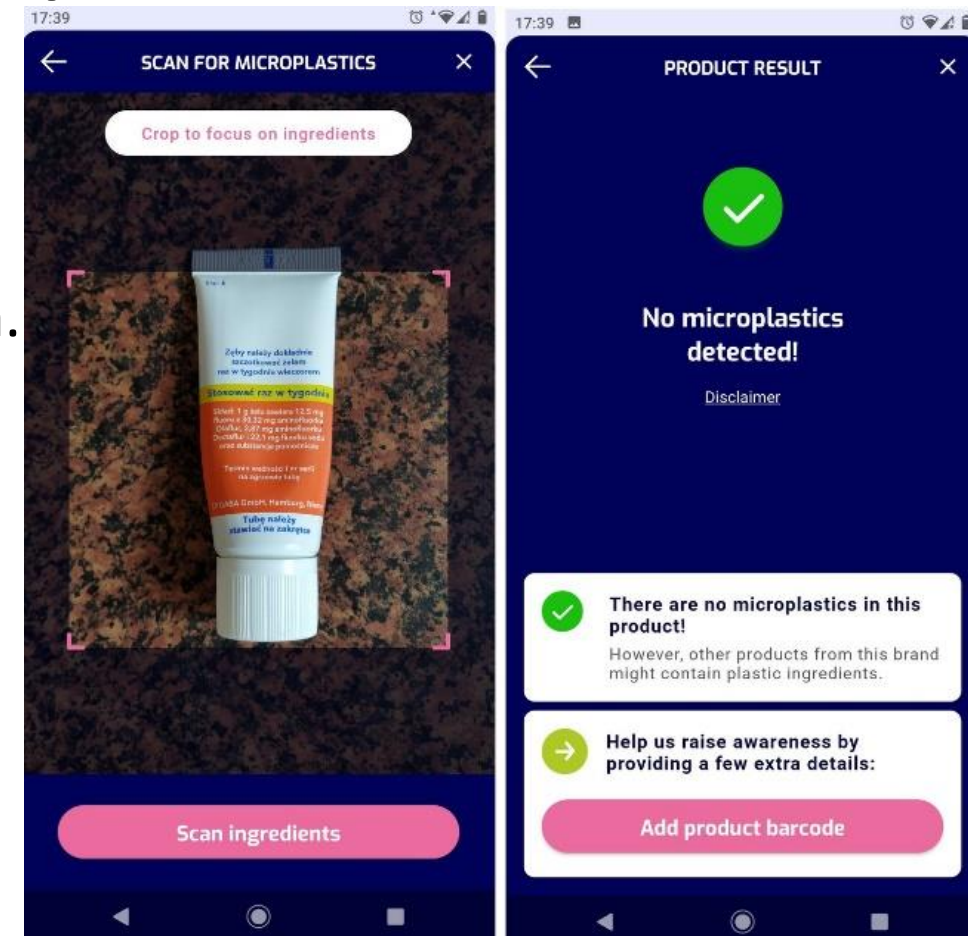


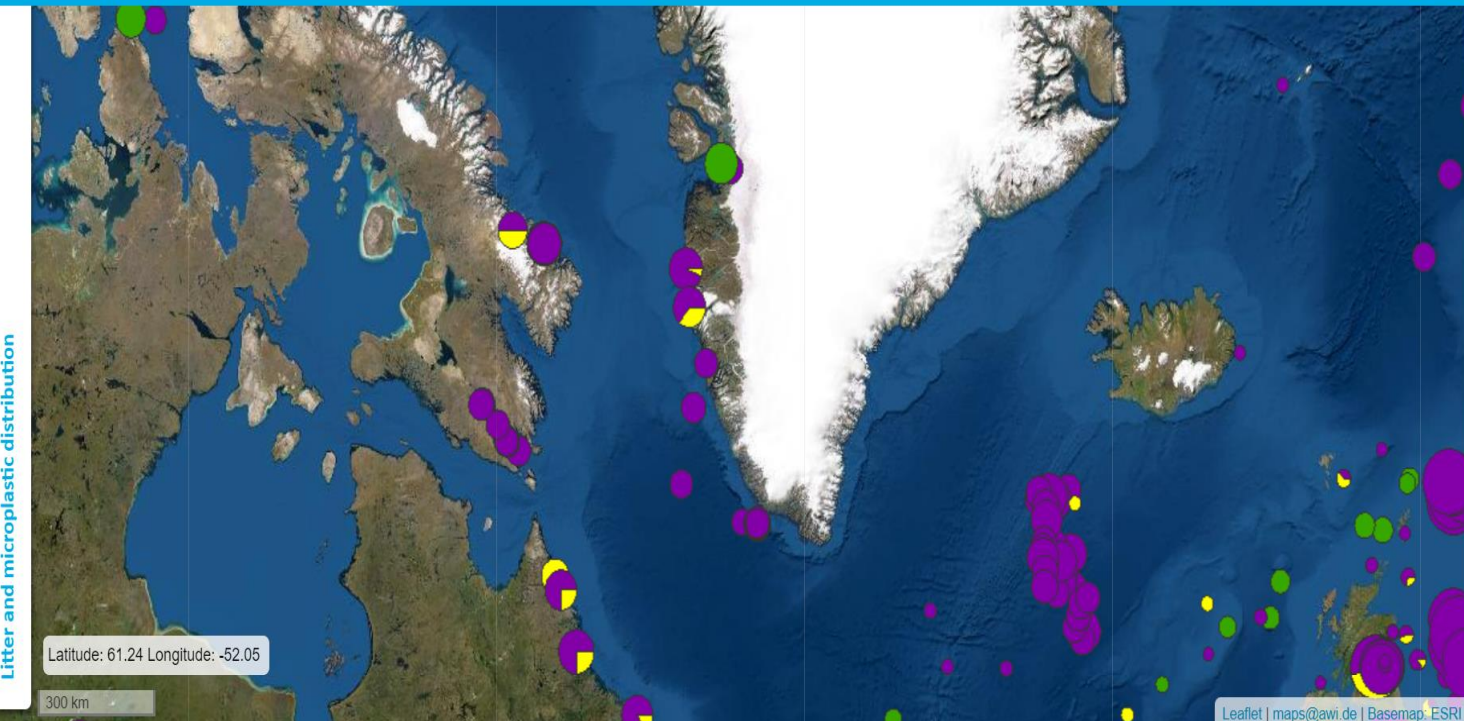
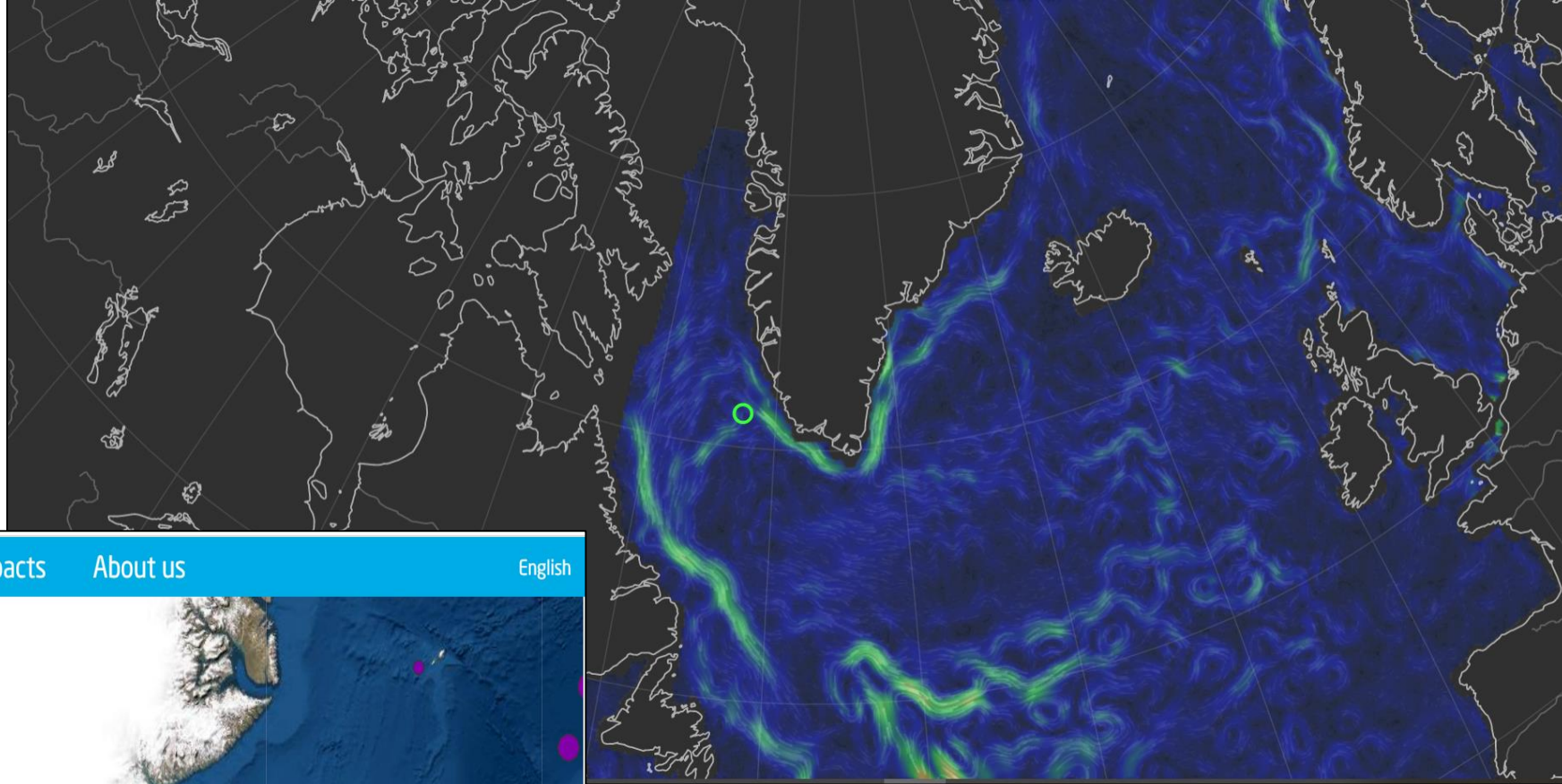


Are you aware that a lot of your everyday care products contain millions of microplastics? There are actually **more than 500 microplastic ingredients** that are widely used in cosmetics and personal care products.

Use the “**Beat the Microbead**” application with your phone (download it from the Play Store) to check whether the products you use every day have microplastics in them. You can scan products like:

- Toothpastes and mouthwashes
- Deodorants
- Makeup (lipsticks, eye and face makeup etc.)
- Hair products (shampoo, conditioners, hair gels etc.)
- Hands and nails products (hand creams, nail polishes, lotions etc.)





Litter and microplastic distribution

PLASTIC SOUP

Estimated quantities of plastic in major marine areas, total and by size, in billion pieces (rounded numbers).

SIZE OF PLASTIC PARTICLES

-  **Small microplastics**
0.33-1.00 mm
-  **Large microplastics**
1.01-4.75 mm
-  **Mesoplastic**
4.76-200 mm
-  **Macroplastic**
> 200 mm


NORTH ATLANTIC
930 BILLION PIECES

324  532 
2  73 

MEDITERRANEAN SEA
247 BILLION PIECES

85  146 
0.4  16 

NORTH PACIFIC
1990 BILLION PIECES

688  1,160 
3  132 

SOUTH PACIFIC

SOUTH PACIFIC
491 BILLION PIECES

176  269 
1  44 

SOUTH ATLANTIC

SOUTH ATLANTIC
297 BILLION PIECES

106  167 
0.5  24 

INDIAN OCEAN

INDIAN OCEAN
1300 BILLION PIECES

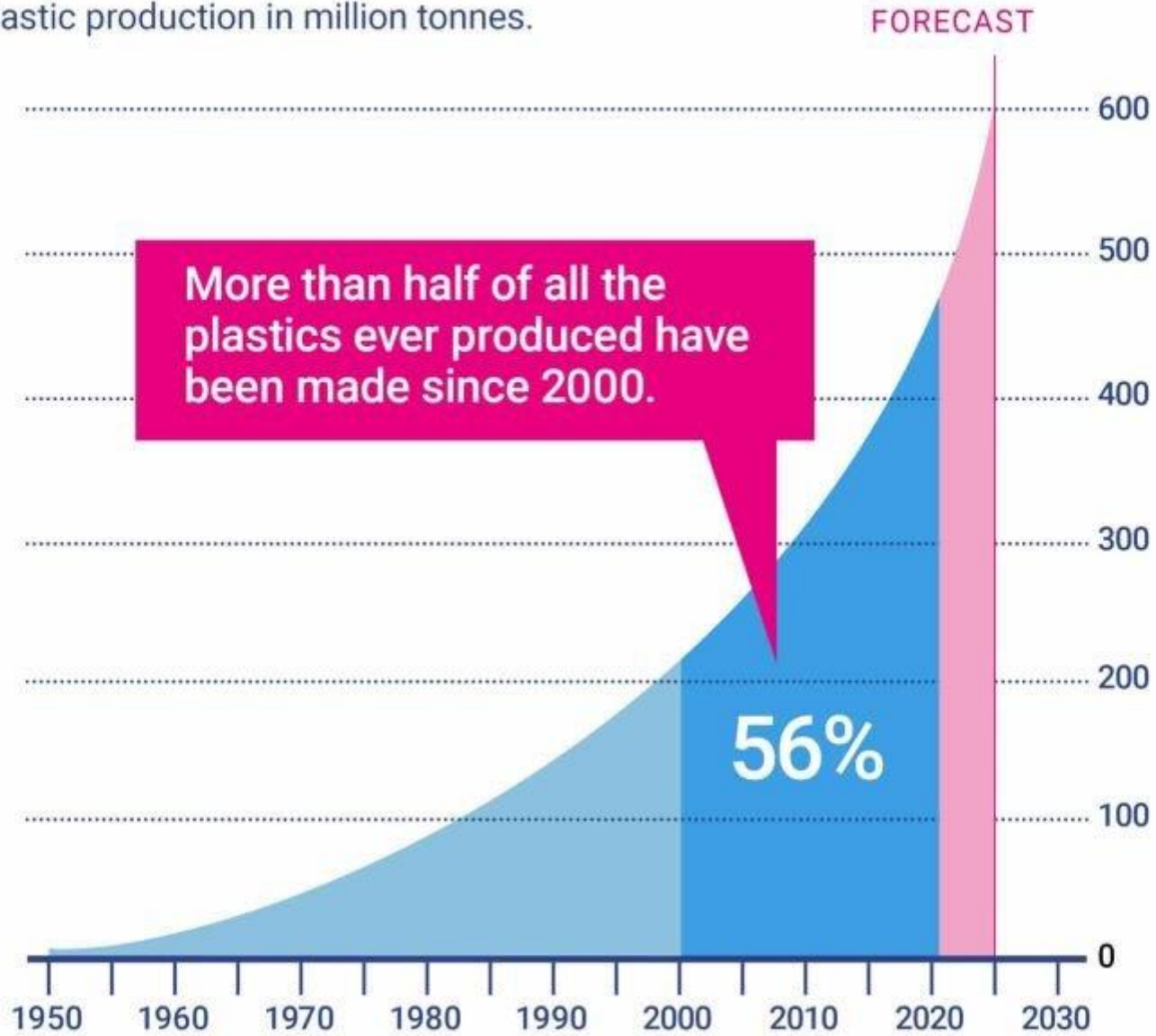
455  749 
2  92 

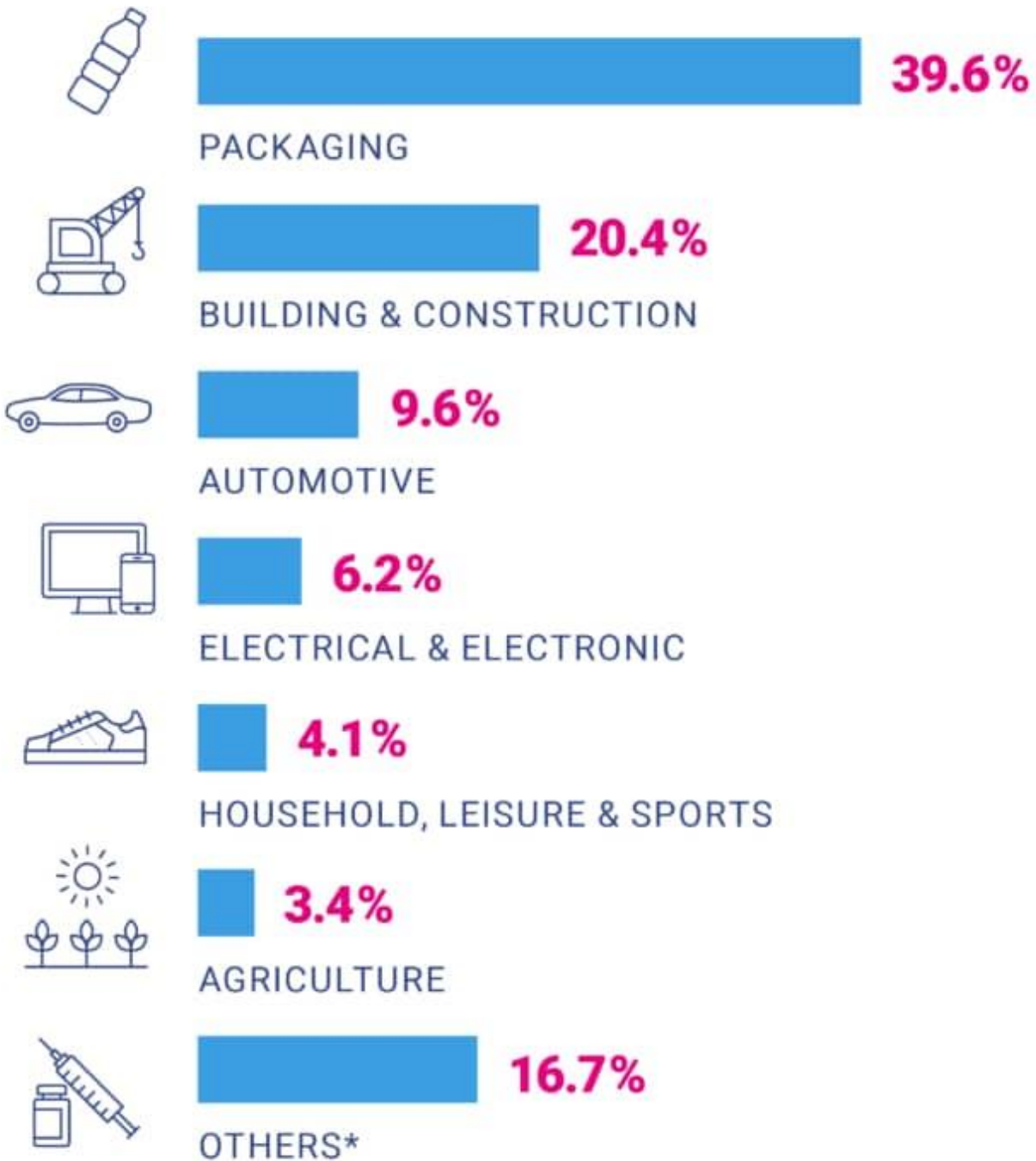
An aerial photograph of a stark, white, rectangular cliff formation in the Arctic. The cliff stands in the middle of a dark, icy sea. In the foreground, a large, flat, white expanse of snow or ice is visible, with a few small, dark spots that could be plastic debris. The sky is a clear, pale blue.

PLASTIC SNOW FALLING IN THE ARCTIC

PRODUCTION OF PLASTIC

Global annual plastic production in million tonnes.





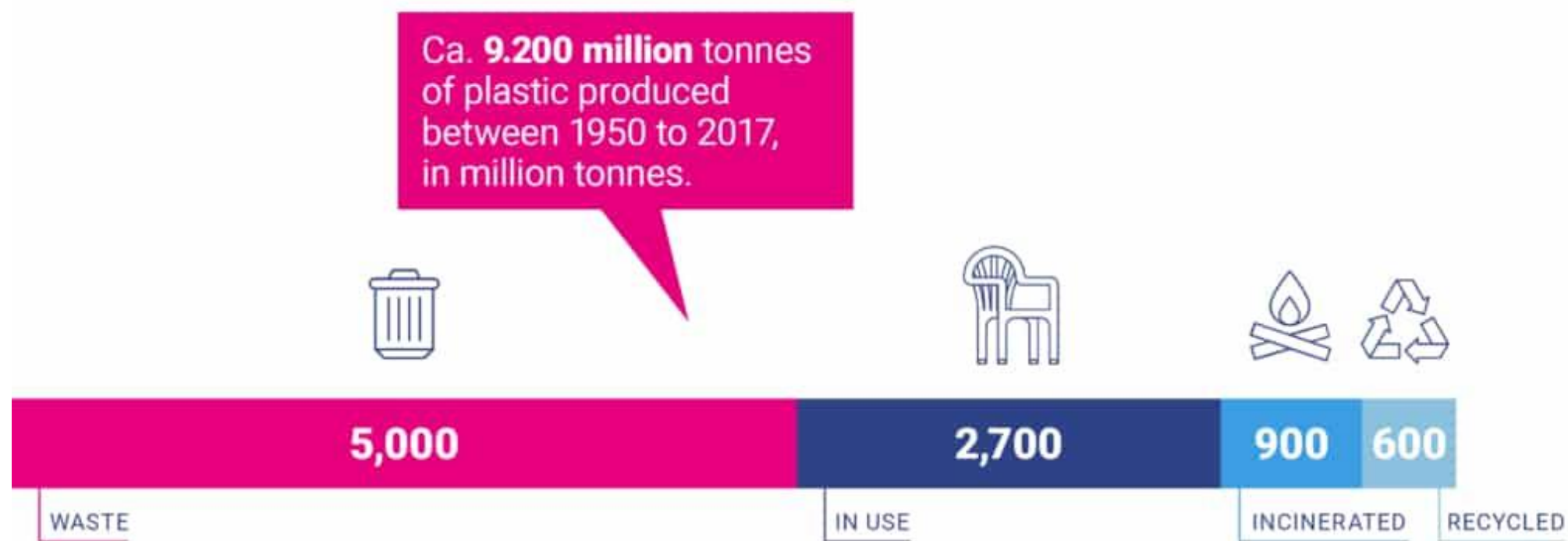
USE OF PLASTIC

Distribution of European (EU28+NO/CH) plastics converters demand by segment in 2019. Packaging and building & construction by far represent the largest end-use markets. The third biggest end-use market is the automotive industry.

*Others include appliances, mechanical engineering, furniture, medical, etc.

THE LIFE CYCLE OF PLASTIC

Global production, use and disposal of plastics, 1950 to 2017 in million tonnes.



1. What percentage of plastics end up in the oceans every year?

- 2%
- 10%
- 6%

Every year, 10% of global plastic production ends up in the ocean. That's anywhere between 5 and 13 million tones of plastic going into the ocean every year.

2. How many microplastics can be found in the oceans?

- More than 5,000 particles
- 300 particles
- An average of 2 million particles
- More than 51 trillion particles

According to UN News, as many as 51 trillion microplastic particles - 500 times more than stars in our galaxy - currently litter our seas, seriously threatening marine wildlife

3. How long does plastic last in the ocean?

- 600 years
- Forever
- 2 years

Plastic breaks down in smaller particles but it never actually disappears. When plastic breaks down in to tiny particles, or microplastics, it lasts forever in the environment as the ocean is not capable of biodegrading plastic

4. What percentage of plastic in the ocean floats on the surface?

- All of it
- 50%
- 15%
- 1%

5. What is a plastic hotspot?

- An area in the ocean where the water is warmer
- A place where the concentration of plastic is high
- A popular location to do beach cleanups
- The Great Pacific Garbage Patch

Are the concentrations of plastic debris higher in the gyres? Not necessarily. There are other places where the concentration is as large or larger. These places are called hotspots. Plastic concentrates in these places, but not as a result of ocean currents.

6. Which of these places are plastic hotspots?

- Bay alongside large cities
- River mouths
- Coastal industrial centres
- All answers are correct

Hotspots are places where, for different reasons, high concentrations of plastic occur. All the areas of the answers are hotspots.

7. In what year will there be more plastic than fish in the ocean?

- 2030
- 2050
- 2080

The EllenMacArthur Foundation stated that if we continue with our plastic use the way we do now, our oceans will contain more plastic than fish in 2050

8. Besides enormous environmental consequences, where else does plastic pollution have a negative impact?

- Tourism
- Fisheries
- Shipping
- All answers are correct

Plastic poses many threats to both human health and environmental wellbeing. Aside from that, it also causes damage to economic activities such as tourism, fishing, shipping and many other areas of business.

Η δική μας δράση!

Τι δράσεις κάνουμε ήδη στο σχολείο
μας ή στην κοινότητά μας;

Τι μπορούμε να βελτιώσουμε (στο
σχολείο ή/και στην κοινότητά μας;)

Ποιους αφορά η δράση;
Πώς μπορούμε να τους εμπλέξουμε;