

Macro and Microplastics; the Sources and Threats

Ewa M. Siedlecka, Gdańsk University

Waldemar Wardencki, Gdańsk University of Technology

**CLOSE PLASTIC TAP
– PLASTIC DOES NOT BELONG TO ENVIRONMENT!**

10 AF EU BSR, 13th June 2019 Gdańsk



The sources of macro and microplastics



Symbol	Description	
 PETE	Clear tough plastic such as soft drink, juice and water bottles.	
 HDPE	Common white or coloured plastic such as milk containers and shampoo bottles.	
 PP	Hard rigid clear plastic such as cordial bottles.	
Degradation time: PET bottle – from 100 to 1000 years Plastic bag– about 400 years The candy wrapper, diaper – about 450 years		
 PS	Rigid, brittle plastic such as small tubs and margarine/butter containers.	
 OTHER	All other plastics, including acrylic and nylon. Examples include some sports drink bottles, sunglasses, large water cooler bottles.	





Nanoplastics
< 1µm

Microplastics
1µm-5mm

Mezoplastics
5-200mm

Macroplastics
> 200mm

Bacteria

Plankton

Larvae

Fish

Seabirds

Turtles

Marine Mammals



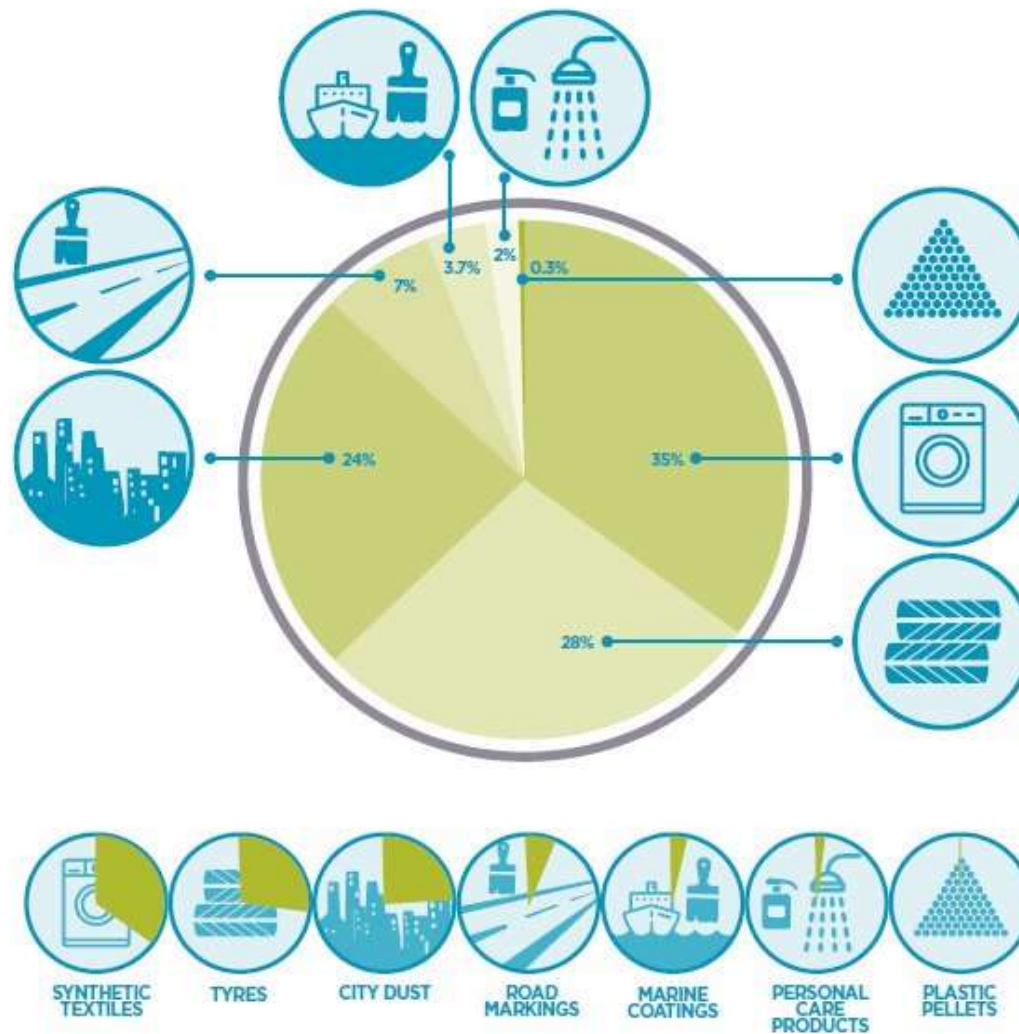
EUSBSR
EU STRATEGY
FOR THE BALTIC
SEA REGION

Interreg
Baltic Sea Region



GLOBAL RELEASES OF PRIMARY MICROPLASTICS TO THE WORLD OCEANS

BY SOURCE (IN %).



- Primary



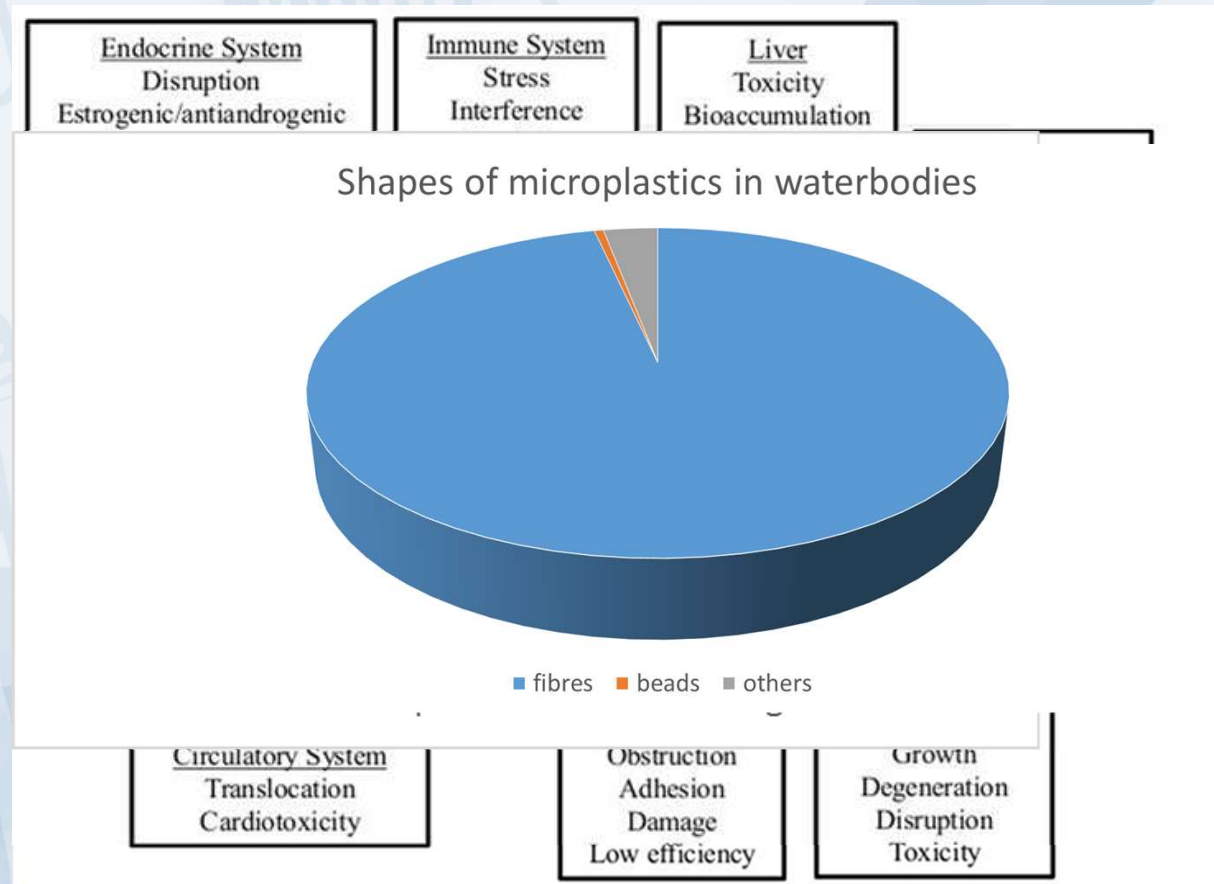
dust from brake pads and tires



and 125 mg / kg microfibers,



Principal effects of microplastics on fish



THE NEW FOOD C

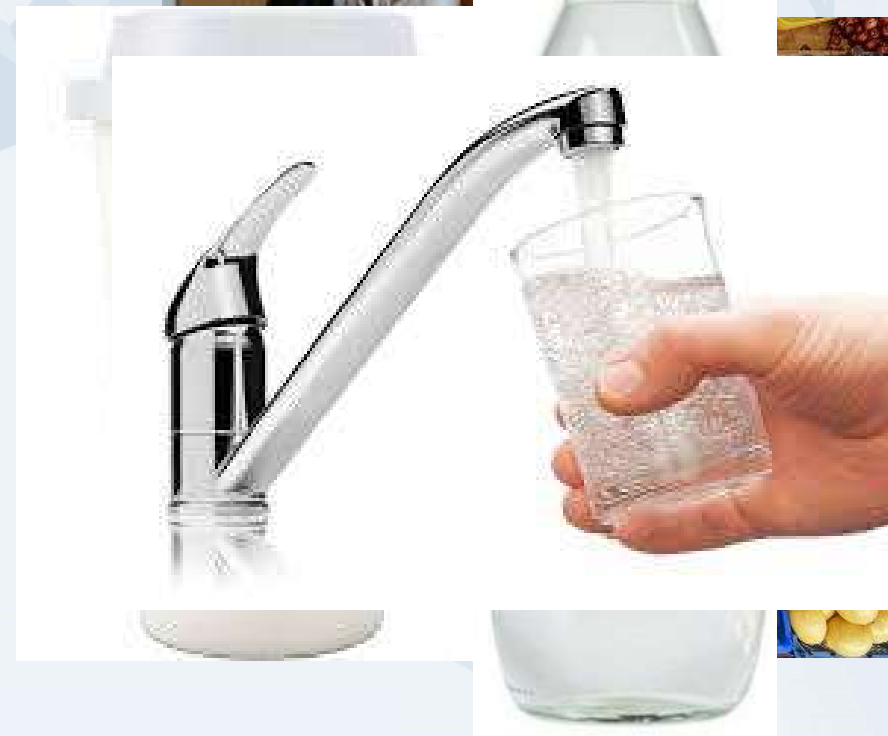


An average 20 particle

MICROPLASTICS

Conclusions

#MICROPLASTICS



EUSBSR
EU STRATEGY
FOR THE BALTIC
SEA REGION





EUSBSR
EU STRATEGY
FOR THE BALTIC
SEA REGION

Interreg
Baltic Sea Region



Thank you very much for your attention



Do we want such future?



Coalition
Clean Baltic

