



Instituto Politécnico  
de Viana do Castelo



area alto minho  
agência regional de energia e ambiente



Iceland  
Liechtenstein  
Norway grants

EEA Grants Portugal  
Mecanismo Financeiro do Espaço Económico Europeu  
European Economic Area Financial Mechanism  
Unidade Nacional de Gestão  
National Focal Point



REPÚBLICA  
PORTUGUESA



“Currently, there are 5.25 billion plastic particles scattered in the oceans, weighing about 268 thousand tons.”(Jornal Economico, 2018)

“The first plastics, produced in the 1950s, are still with us, in degradation.” (Viana do Castelo Environmental Monitoring and Interpretation Center, 2020)

"About 80% of marine waste originates or is made up of plastics." (Viana do Castelo Environmental Monitoring and Interpretation Center, 2020)

“Scientists showed for the first time in 2015 that, annually, about eight million tons of plastic materials end up in the sea, where they have been accumulating for decades.” (Diário de Noticias, 2020)





More than 150 million tons of plastic currently exist in the oceans.



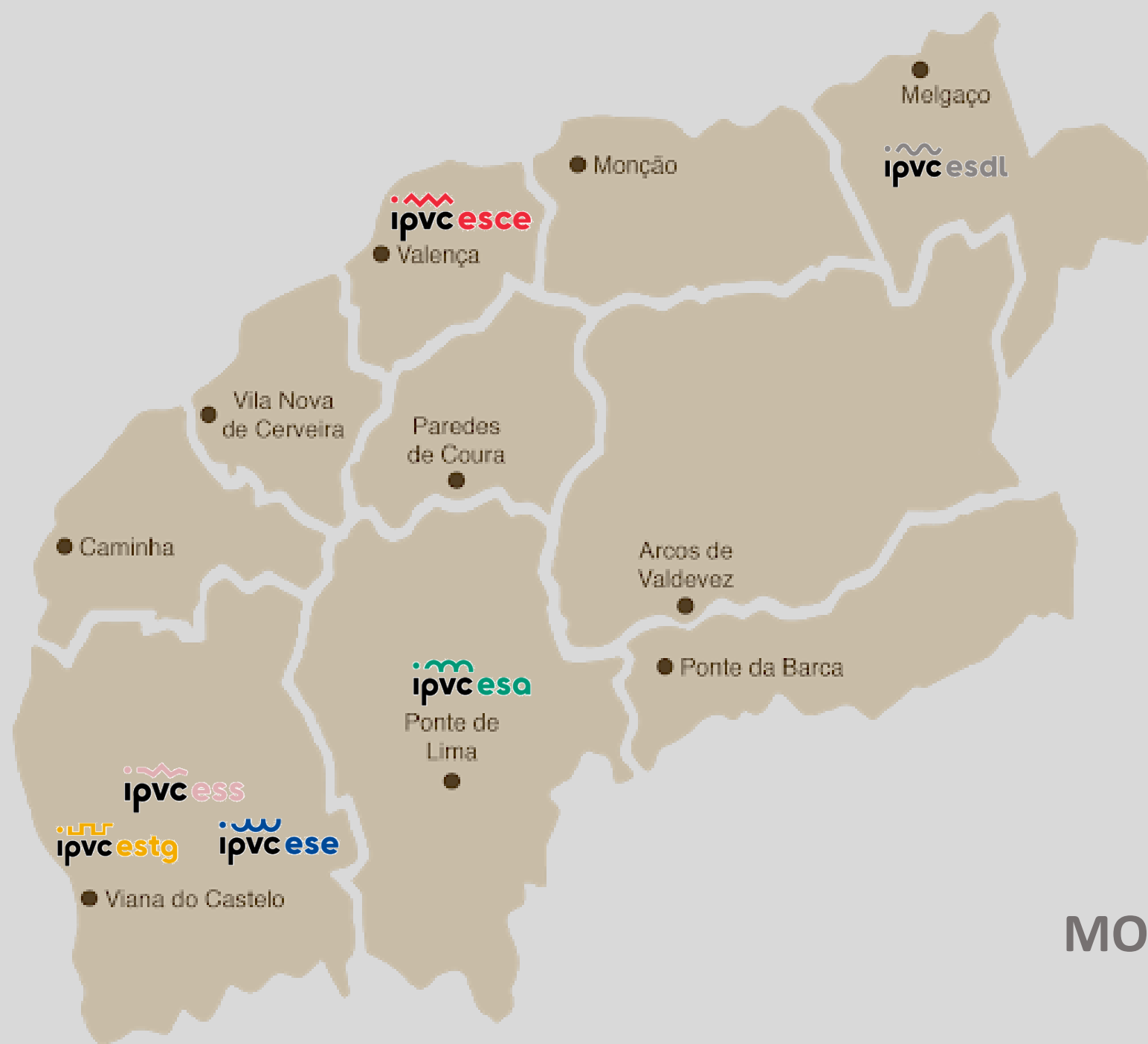
4.8 to 12.7 million tons of plastic enters the oceans each year.



# Top 10 of marine litter found

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1. Microplastics
2. Cigarette butts
3. Cotton buds
4. Food packages (potato chips, cookies, chewing gums, etc.)
5. Bottle caps
6. Bottles of water
7. Fishing nets and ropes
8. Beverage packages (yogurts, juices, milk, etc.)
9. Plastic bags
10. Beverage cans



6 schools

3 residences

8 bars

7 canteens

**MORE THAN 5000 USERS**





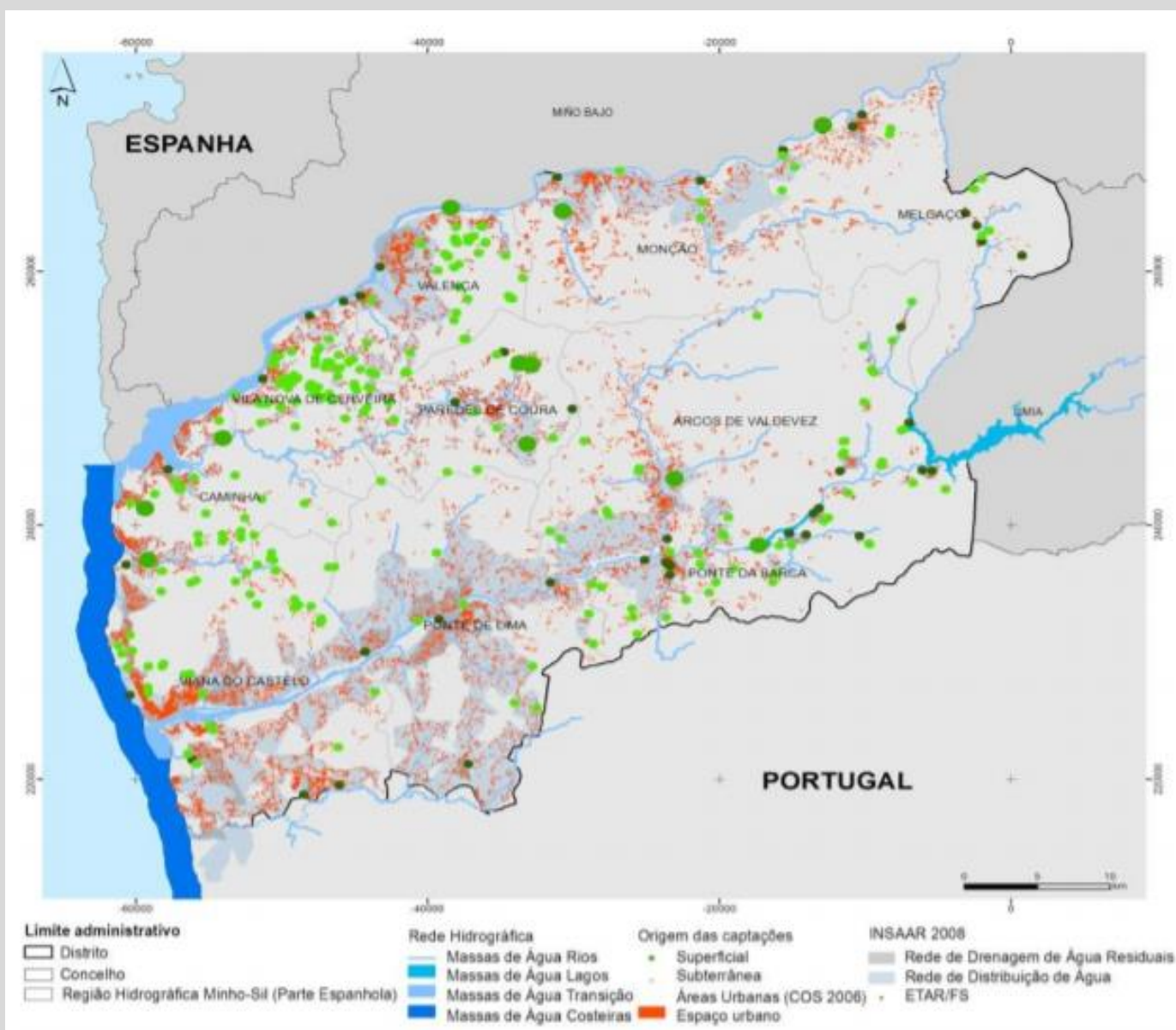
Refill H2O



Portuguese eyes / Vitor Oliveira









According to the data collected, on average they are consumed annually at the IPVC facilities:

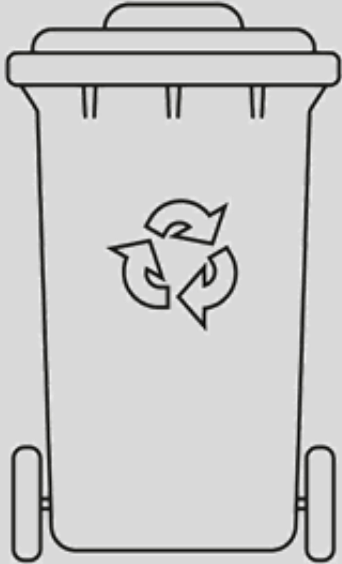


**51 000 bottles of 500 ml**

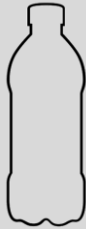
**15 000 bottles of 1500 ml**



Equivalent to 1215 kg of plastic



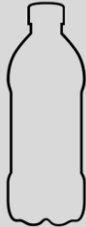
SINGLE USE



HIGH ASSOCIATED CARBON FOOTPRINT



HIGH PERCENTAGE OF  
INDIFFERENTIATED TRASH



ASSOCIATED CHEMICALS



ipvc estg

ipvc esce

ipvc esa

ipvc ess

ipvc ese

ipvc esdl

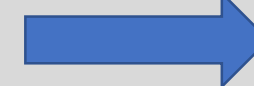
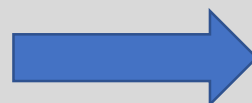
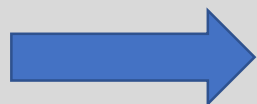


> 4600 students



> 38 000 students





Functional requirements  
specification

Development and design

Experimental work

Dissemination and awareness



10 water filling stations

5000 refillable bottles







ipvc<sup>esa</sup>



Serviços Centrais IPVC



Centro Académico IPVC



ipvc<sup>ese</sup>



ipvc<sup>ess</sup>



ipvc<sup>esdl</sup>



ipvc<sup>esce</sup>



ipvc<sup>estg</sup>

How much single-use plastic has been avoided?



10 secondary schools in  
Alto Minho region



10 elementary schools  
in Alto Minho region



Alto Minho beaches



Scientific papers,  
seminars and workshops  
regarding environment  
and sustainability

Dissemination and awareness