

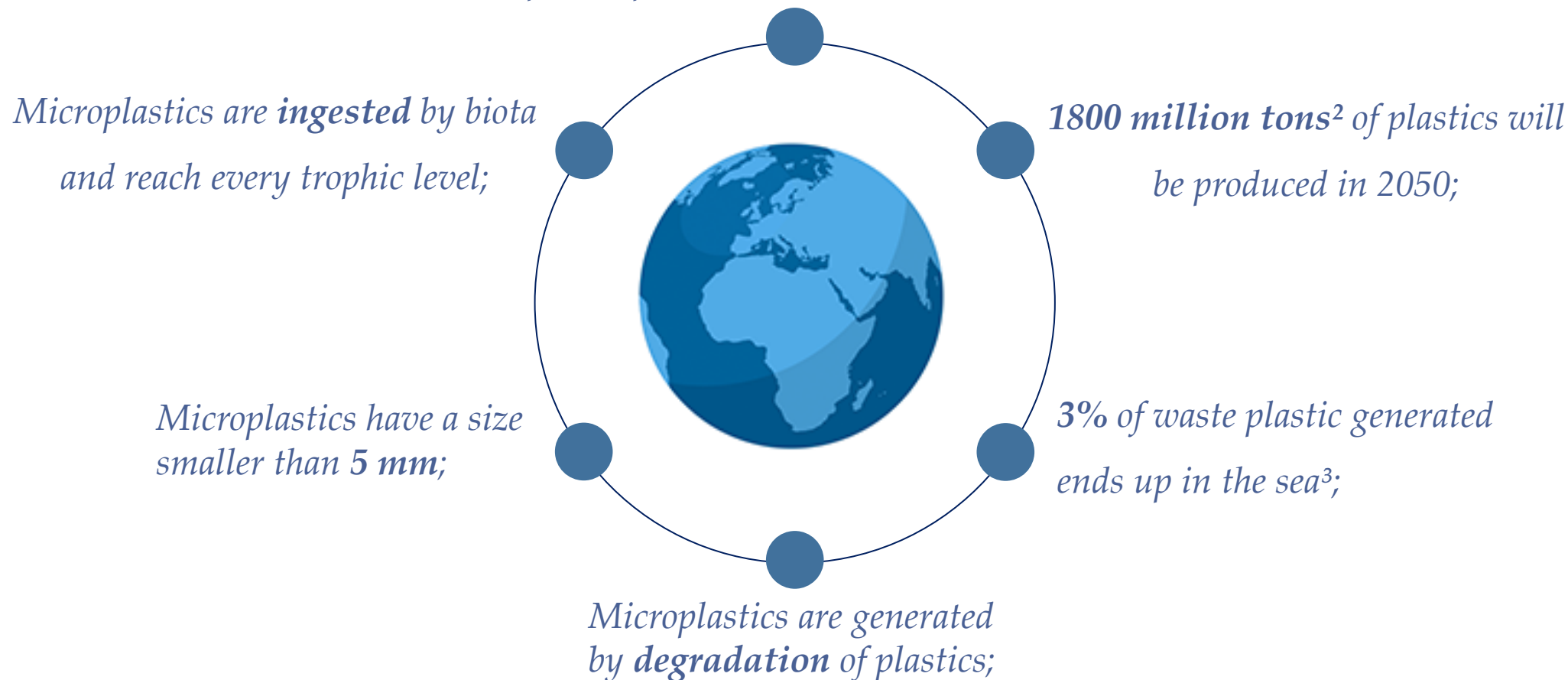
GRIMALDI GROUP

DEVELOPMENT OF MICROPLASTICS FILTRATION SYSTEM



PLASTIC POLLUTION WARNING

Worldwide plastic production in 2023: 430 million tons¹;



Source:

1. PlasticsEurope Market Research Group (PEMRG) and Conversion Market & Strategy GmbH
2. Top Priority to Curb Plastic Pollution: Empowering Those at the Bottom (Nizzetto et al. 2020)
3. Plastic waste inputs from land into the ocean (Jambeck et al. 2015)

FIRST REAL SCALE TESTS



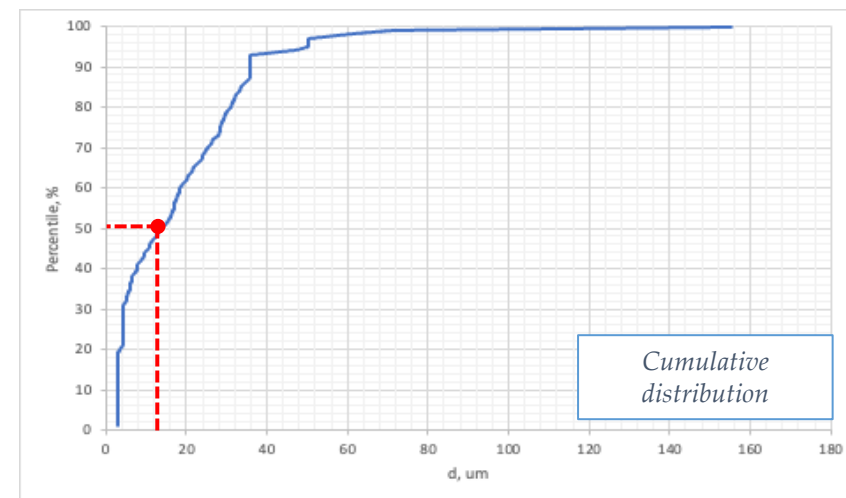
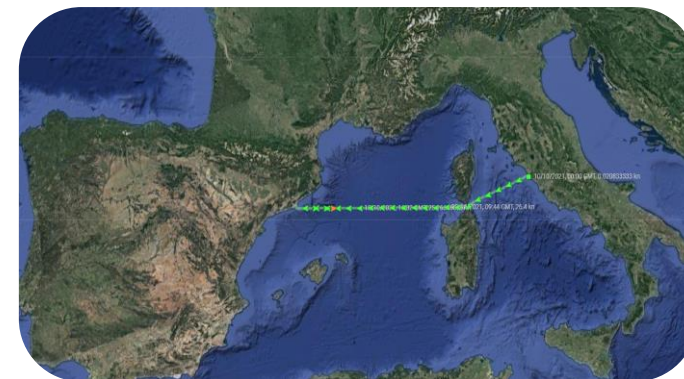
M/V CRUISE ROMA

*Route: Civitavecchia-Barcelona;
Length: 18 [h];*

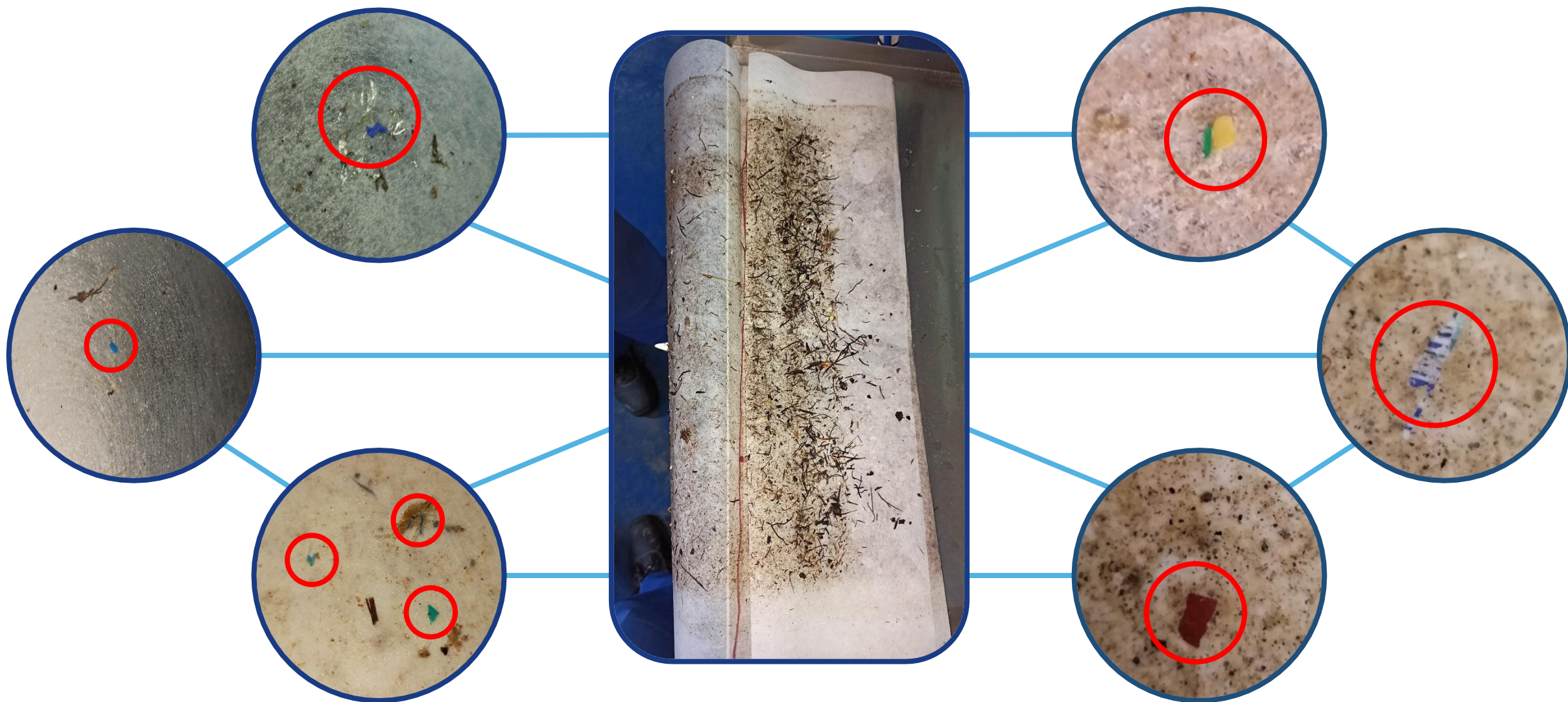
*Filter sample weight: 158 [g];
N° particles collected: 2235;
Particles Weight: 54 [mg];*

*Average size: 18,5 [μm];
Pellets, Flakes, Fragments, Fibers;*

*Particles collected: 76 [particles/ m^3];
Particles estimated per route: 64.800 particles;*



PARTICLES COLLECTED



LAB ANALYSIS



Dirty

Filter sample before and after the treatment with hydrogen peroxide: the filter is completely regenerated.



Clean

Fragments and Macro-particles in petri dish.





razie per l'attenzione