CLEANATLANTIC CONFERENCE

Vigo, 21st June

09.00 – 16.30 h
(UTC+2h00, Madrid, Bruselas)

Advances on modelling and mapping marine litter

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Hilda de Pablo, João Sobrinho, Ramiro Neves (IST)

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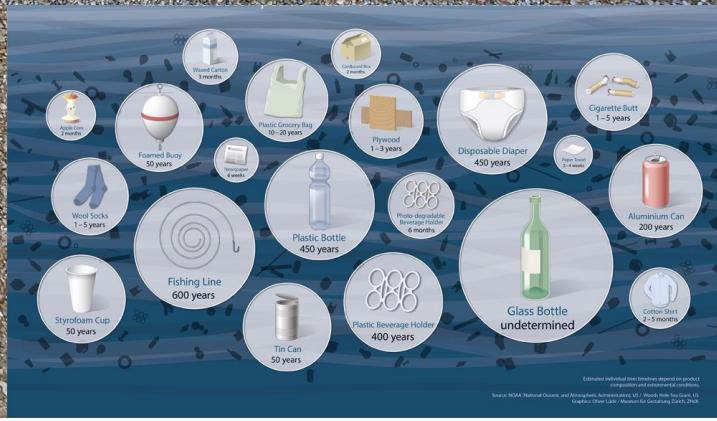
TÉCNICO LISBOA
MARETEC
USC UNIVERSIDADE DE SANTIAGO DE COMPOSTELA
intecmar INSTITUTO TECNOLOXICO PARA O CONTROL DO MEDIO MARIÑO DE GALICIA

Objective:

The aim of this WP is to develop sub regional or regional maps of hotspots of floating litter, based on models mapping of circulation of floating masses of marine litter, and identification of hotspots of accumulation on coastal areas and the role of prevailing currents and winds.

The problem



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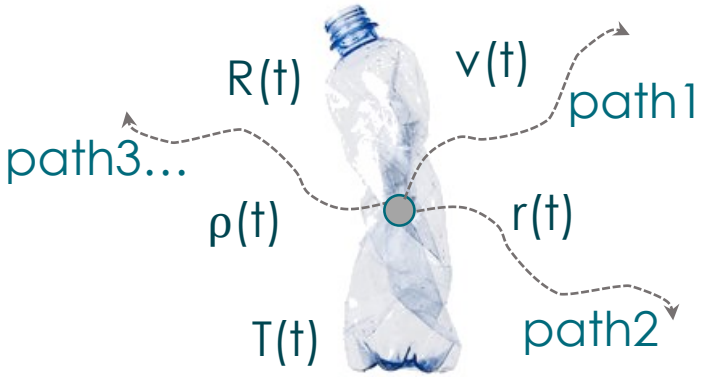
1- Conceptual model



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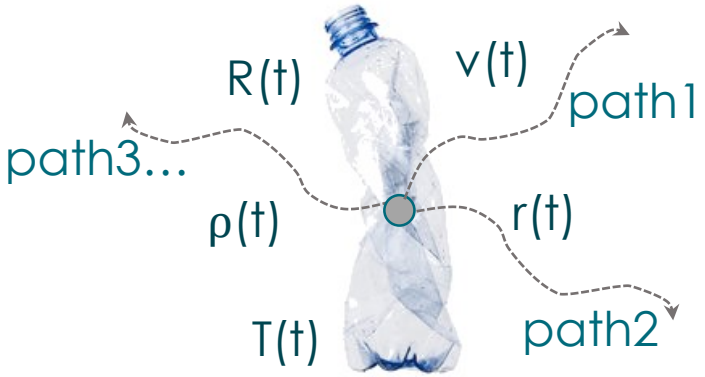
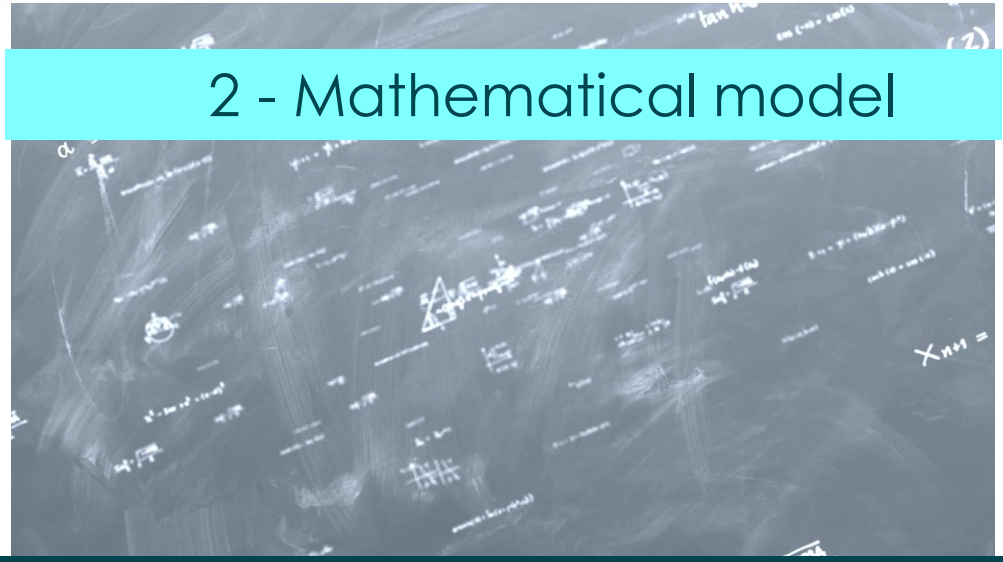
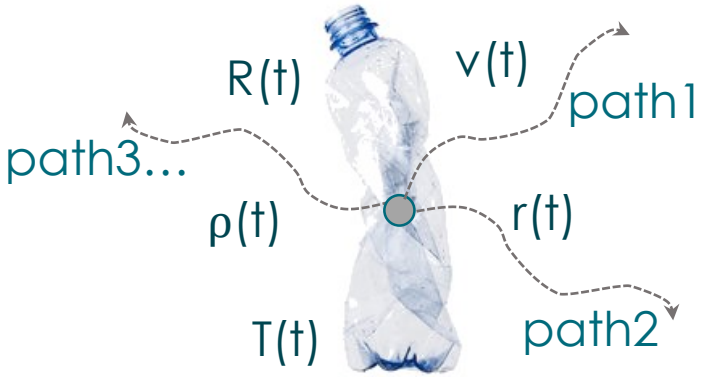


2 - Mathematical model



1- Conceptual model



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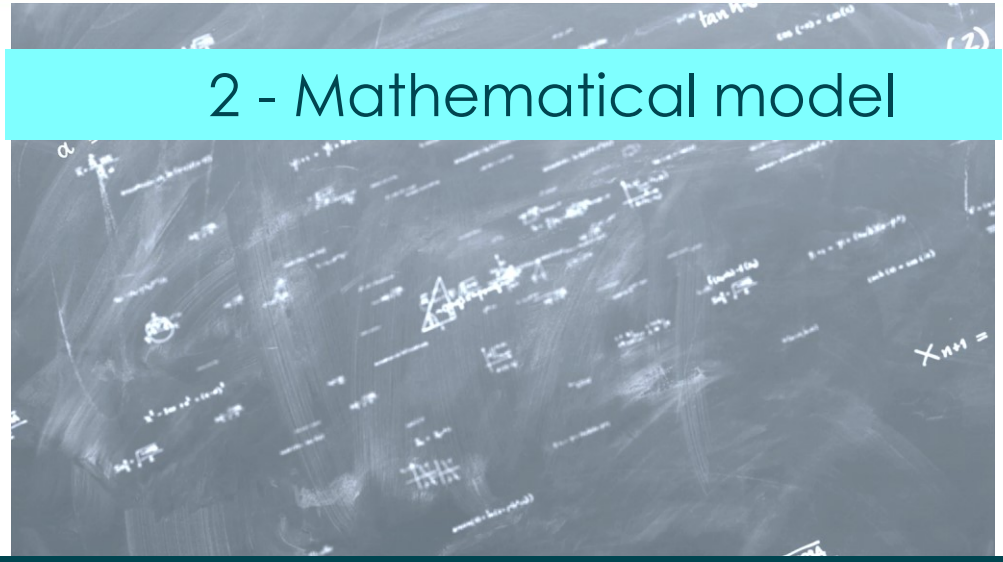
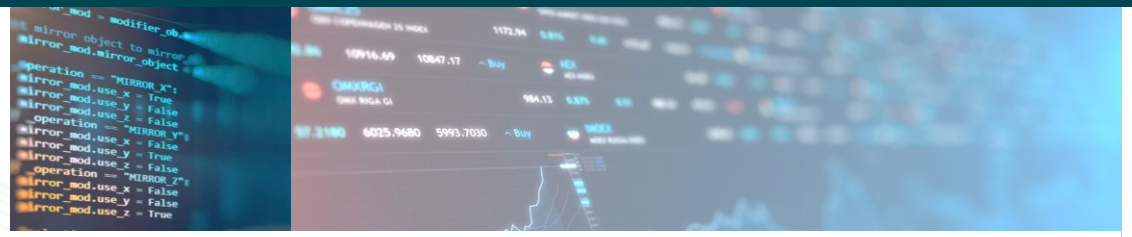
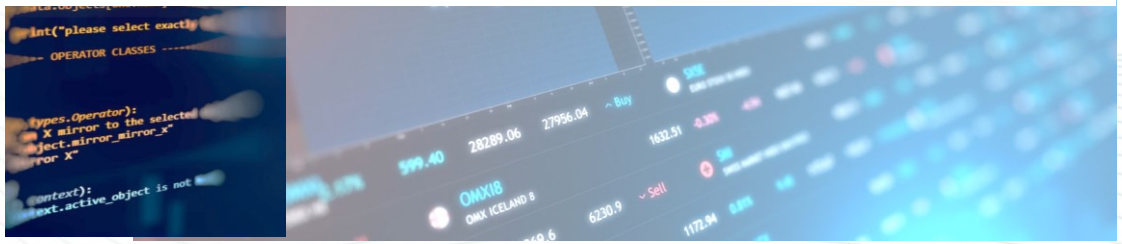




3 - Computational model



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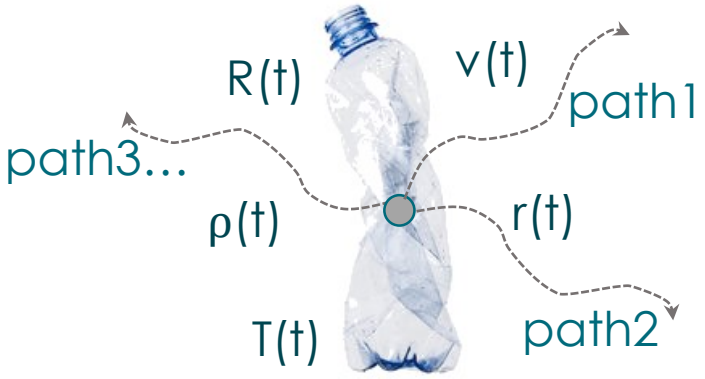

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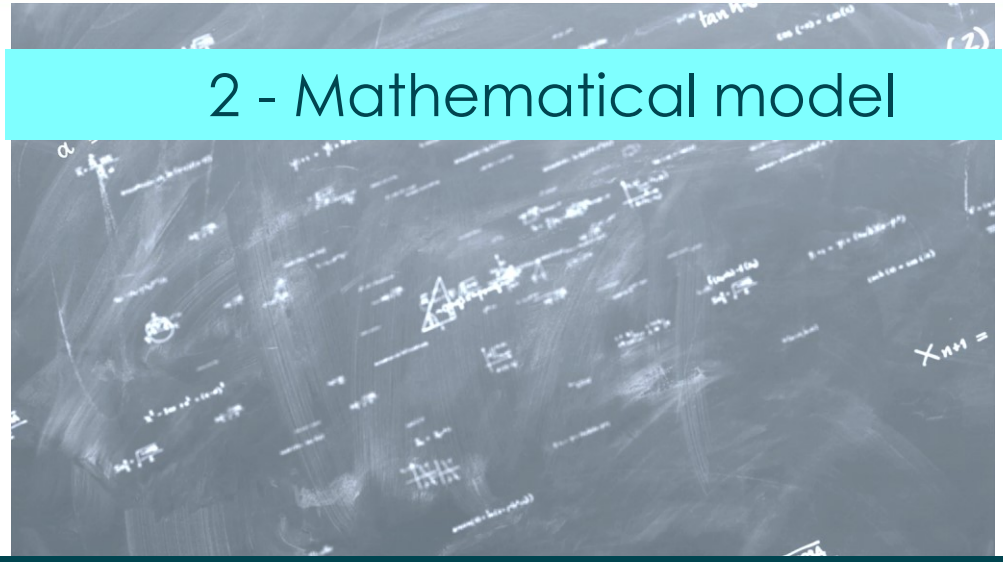

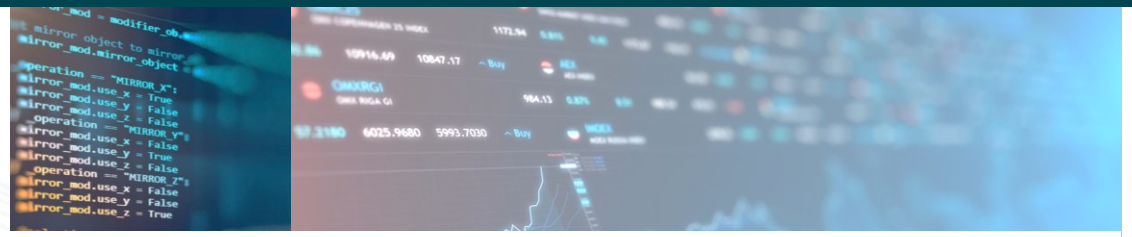

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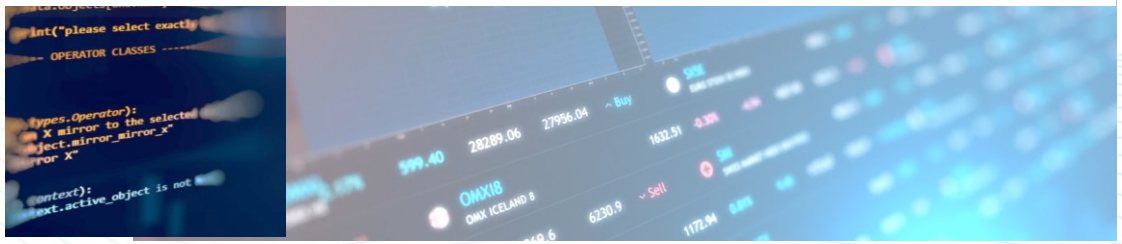
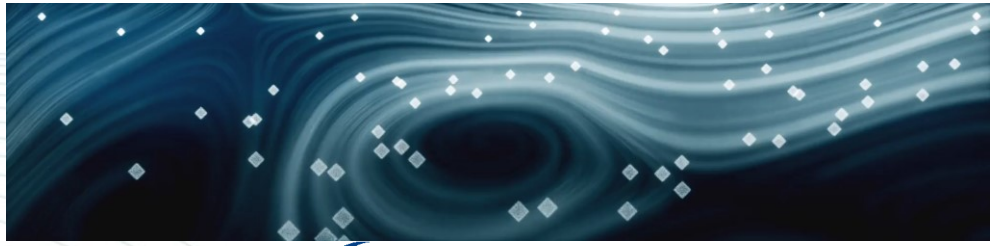


4 – Results



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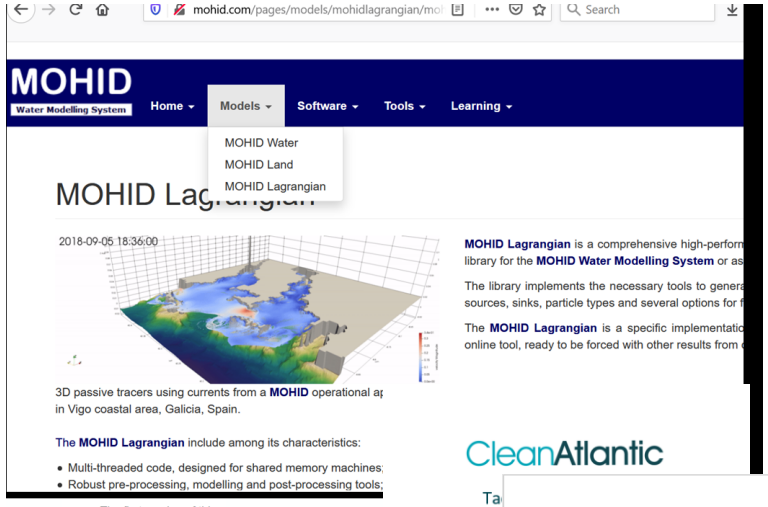
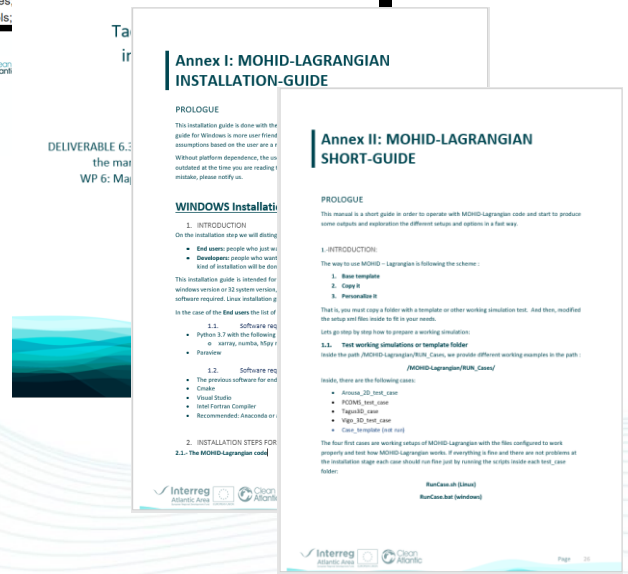
Modeling Tool

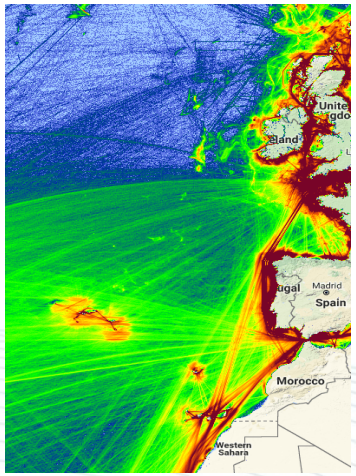




Sources

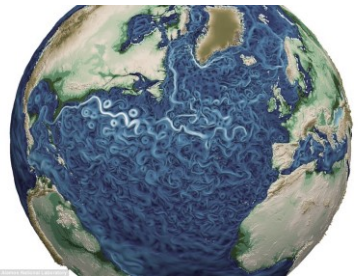
Land-based

Ocean-based



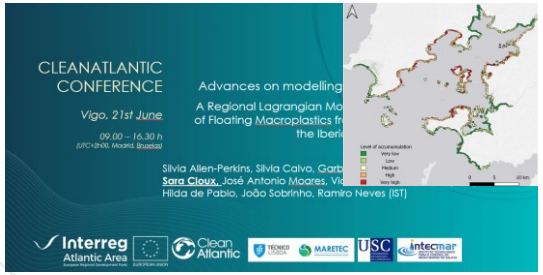
Domains

Global domain



Regional domain

Local domain



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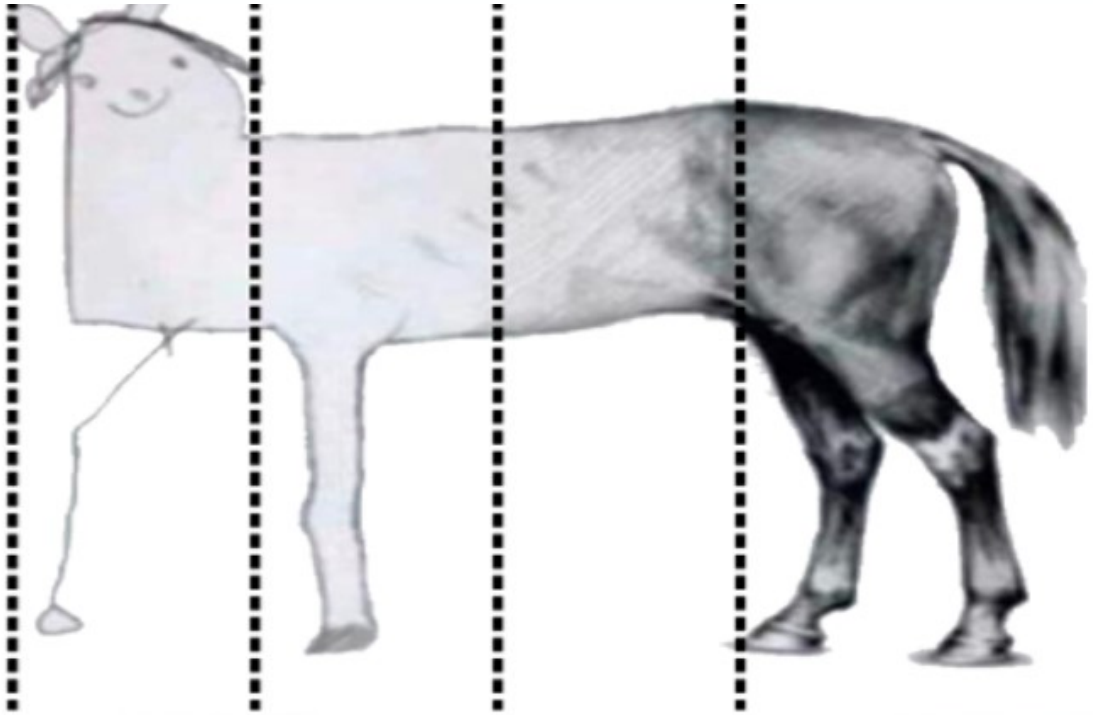
MODEL → REALITY



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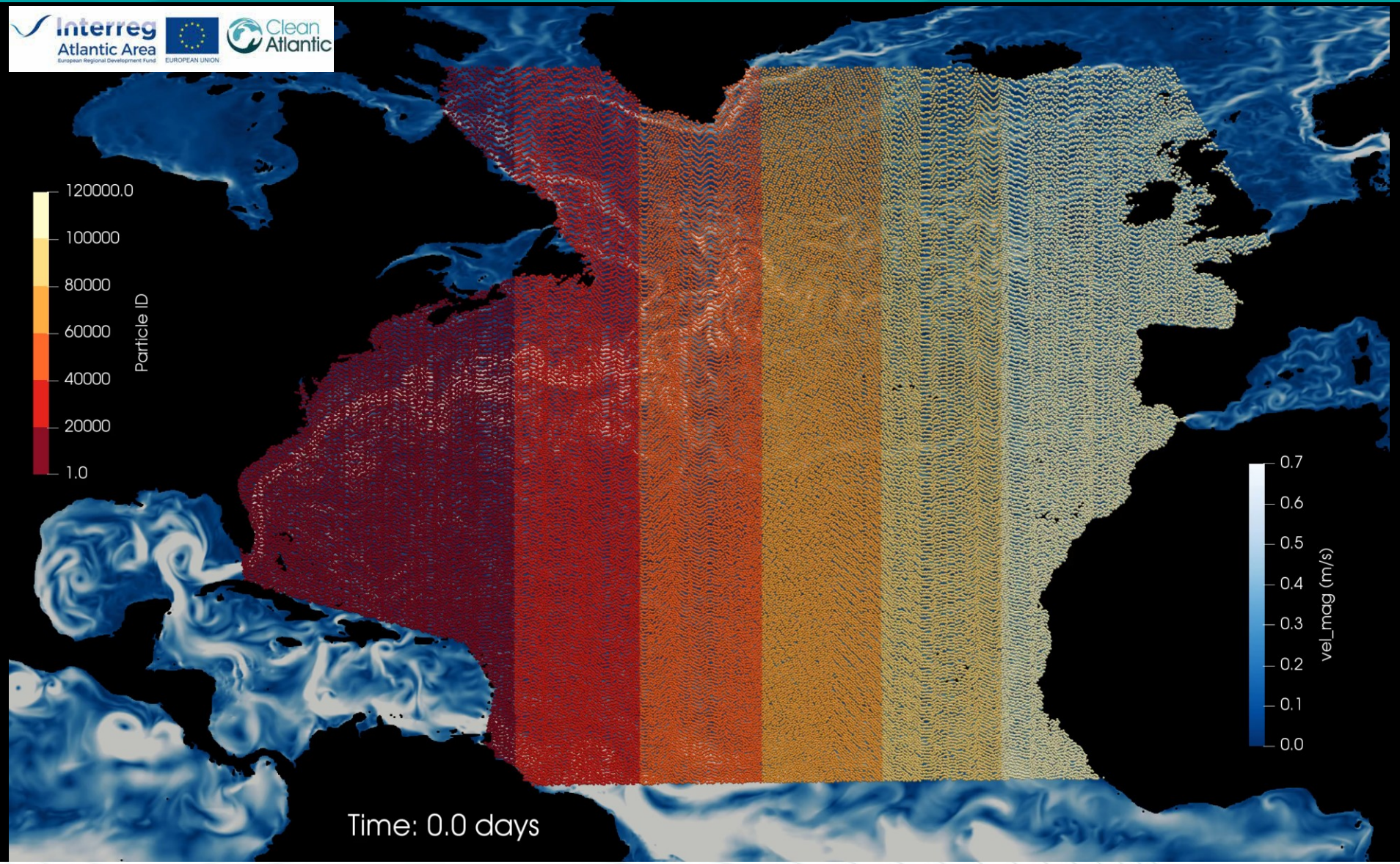

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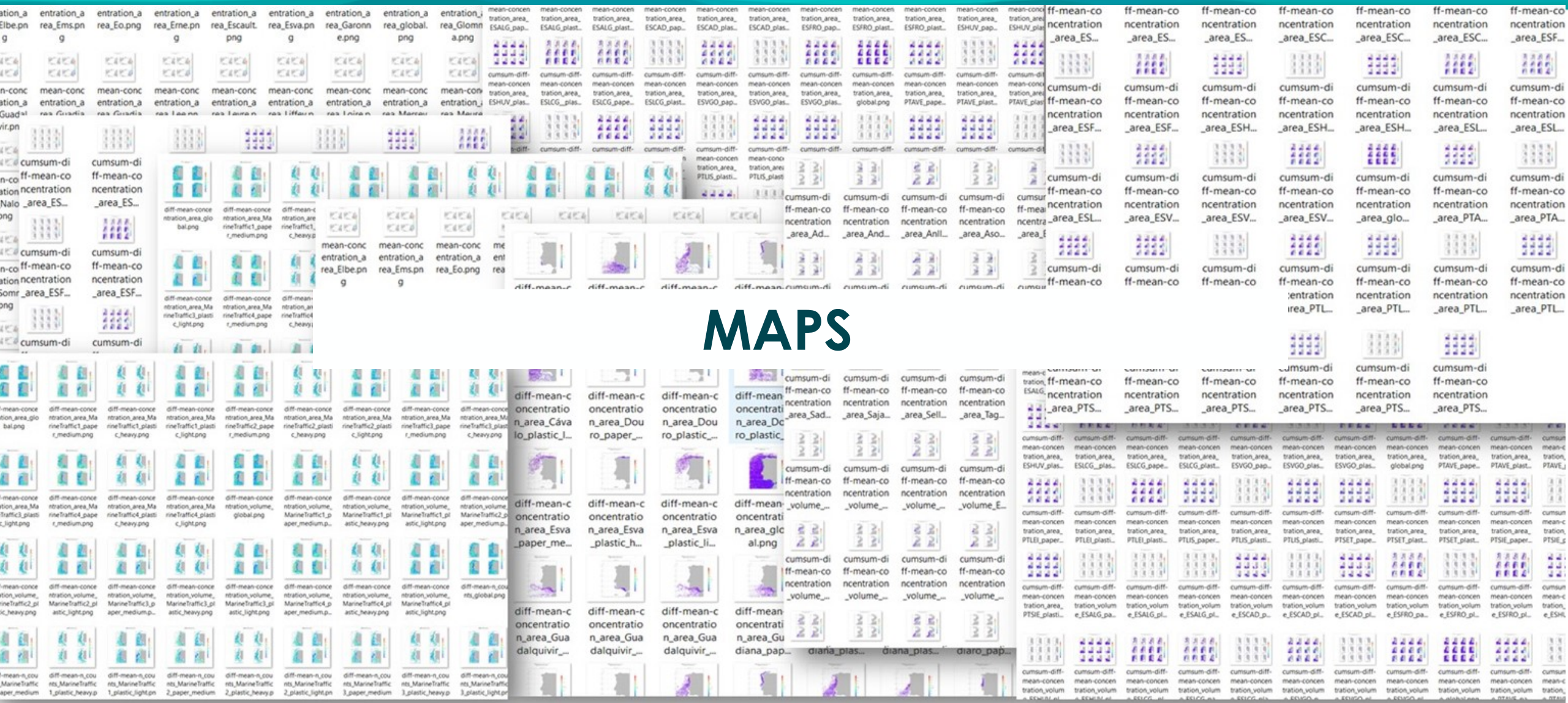
64 EUROPEAN RIVERS

Simulation: 3 years



MAPS

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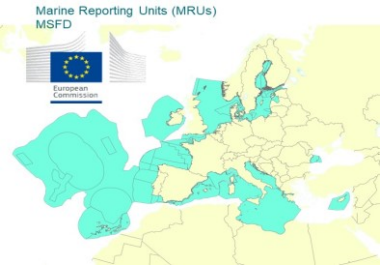
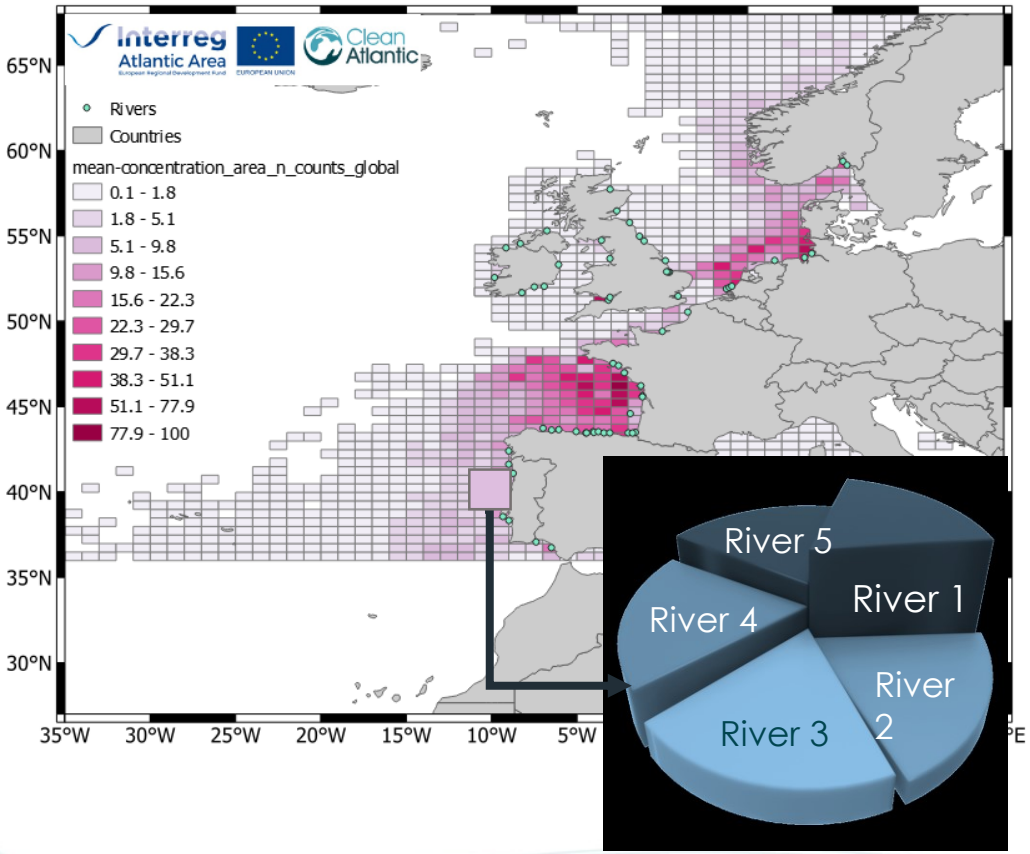
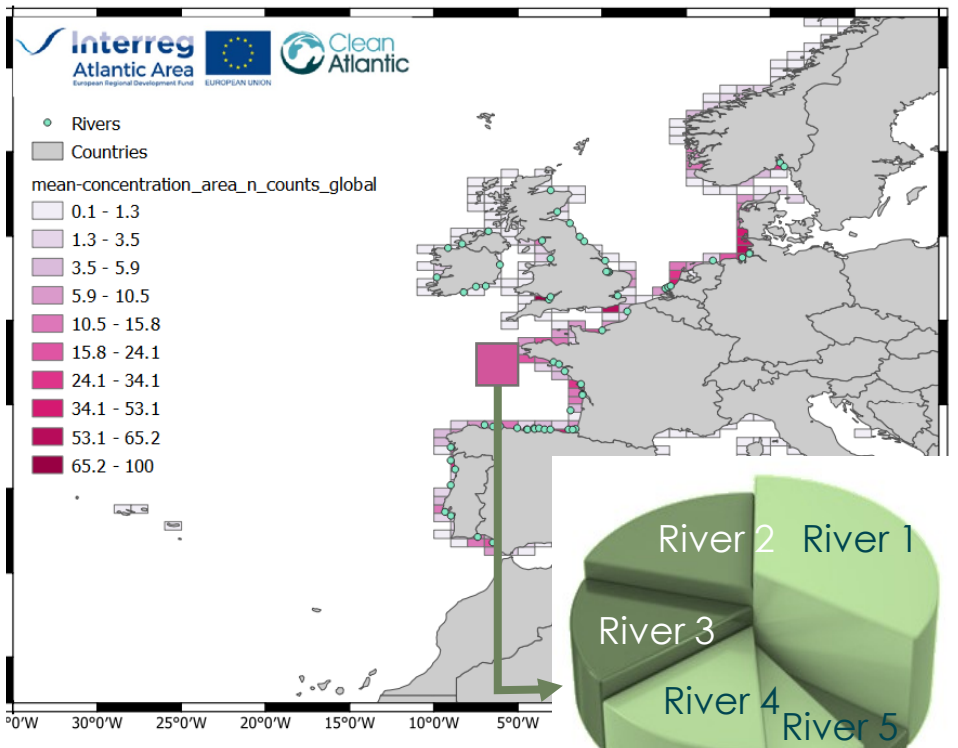
Maps:







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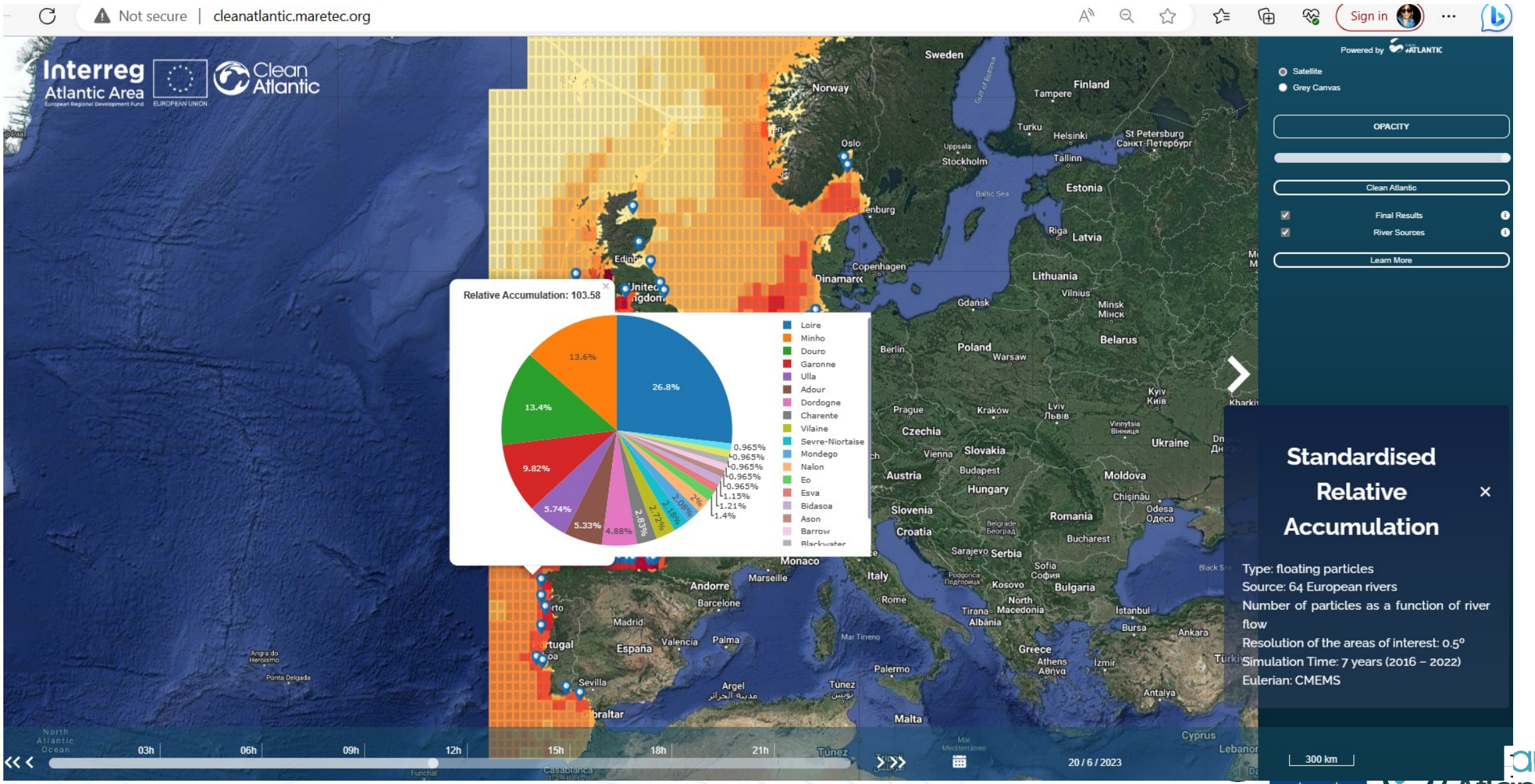
http://cleanatlantic.maretec.org/



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In summary

- With this results, not only the areas most likely to accumulate particles were detected, but also knowing the origin (source) of each of these particles.

robust tools to support environmental management

- Marine litter is transporting by currents. They determine the trajectory and fate of marine litter.

the ocean, this does not obey human borders, it simply carries what is deposited in it.